

IFB # 17-05

SOLICITATION FOR:

Waterproofing and Repairs Associated Work Project at Somerville School Administration Building



CITY OF SOMERVILLE, MASSACHUSETTS

Joseph A. Curtatone, Mayor

Purchasing Department

Angela M. Allen, Purchasing Director

RELEASE DATE: 7/20/2016

OPTIONAL PRE-BID MEETING DATE AND TIME: 8/2/2016 at 11AM EST

QUESTIONS DUE: 8/4/2016 by 12PM EST

FILED SUBBIDS DUE DATE AND TIME: 8/10/2016 by 11AM EST

DUE DATE AND TIME: 8/18/2016 by 11AM EST

DELIVER TO:

City of Somerville

Purchasing Department

Attn: Michael Richards

Procurement Analyst

mrichards@somervillema.gov

93 Highland Avenue

Somerville, MA 02143

IFB # 17-05

Waterproofing and Repairs Associated Work Project at Somerville School Administration Building

Key Project Information

Project Address	42 Cross St., Somerville, MA
Estimated Construction Cost	\$131,100.00
Anticipated Contract Award	8/25/2016
Date of Substantial Completion	1/27/2017
Date of Final Completion	2/28/2017
Est. Contract Commencement Date	9/21/2016
Est. Contract Completion Date	3/31/2017
Governing Bid Law	MGL C. 149 (Vertical Construction)
Wage Requirements	State Prevailing Wages
Payment Bond Requirements	100% of Contract Value
Performance Bond Requirements	100% of Contract Value
Bid Bond Requirements	5% of Contract Value
Liquidated Damages (\$ per Day)	\$500.00

Managing Department Information

Managing City Department	Capital Projects and Planning
Project Manager	Eddie Nuzzo
Project Manager Email	ENuzzo@somervillema.gov

Designer Information

Designer Name	Russo Barr Associates, Inc.
Designer Address	33 Center St., 2 nd Fl., Burlington, MA 01803
Designer Specialty	Engineering
Designer Contact	Michael J. Flaherty
Designer Contact Email	mflaherty@russobarr.com

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	Reference Form (or equivalent may be attached)
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	Certificate of Signature Authority
	OSHA Form
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Part 1: Invitation for Bid Documents

IFB # 17-05

Waterproofing and Repairs Associated Work Project at Somerville School Administration Building

1.1 General Instructions

Copies of the solicitation may be obtained from the Purchasing Department on and after 7/20/2016 per the below-noted City Hall hours of operation.

Hall Hours of Operation:	
Monday – Wednesday	8:30 a.m. and 4:30 p.m.
Thursday	8:30 a.m. to 7:30 p.m.
Friday	8:30 a.m. to 12:30 p.m.

All Responses Must be Sealed and Delivered To:
Purchasing Department City of Somerville 93 Highland Avenue Somerville, MA 02143
<i>It is the sole responsibility of the Offeror to ensure that the bid arrives on time at the designated place. Late bids will not be considered and will be rejected and returned.</i>
Bid Format:
Submit one, original (1) sealed bid package; it must be marked with the solicitation title and number.
BIDS SUBMITTED MUST BE AN ORIGINAL. The completion of the following forms is necessary for consideration of a potential contract award. When submitting bid documents, please retain the order of documents as provided below: 1) Form for General Bid 2) Bid Form for Alternates (if applicable) 3) Unit Price Form 4) Somerville Living Wage Form 5) Quality Requirements Form 6) Certificate of Non-Collusion & Tax Compliance 7) Certificate of Signature Authority 8) Reference Form 9) 5% Bid Deposit 10) Prevailing / Davis Bacon Wages Statement of Compliance Form 11) OSHA Form 12) Responsible Employer Ordinance
If all required documents are not present, the bid may be deemed non-responsive and may result in disqualification of the bid unless the City determines that such failure(s) constitute(s) a minor informality, as defined in Chapter MGL 30B.
The Offeror's authorized official(s) must sign all required bid forms.

1.2 Bid Schedule

Key dates for this Invitation for Bids:	
IFB Issued	7/20/2016
Optional Site Visit	8/2/2016 at 11AM EST
Deadline for Submitting Questions to IFB	8/4/2016 by 12PM EST
Filed Subbids Due	8/10/2016 by 11AM EST
Bids Due	8/18/2016 by 11AM EST
Anticipated Contract Award	8/25/2016
Est. Contract Commencement Date	9/21/2016
Est. Final Completion	2/28/2017
Est. Contract Completion Date	3/31/2017

Responses must be delivered by 8/18/2016 by 11AM EST to:	City of Somerville Purchasing Department Attn: Michael Richards 93 Highland Avenue Somerville, MA 02143
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1.3 Submission Instructions

Please submit *one sealed bid package* with the following contents and marked in the following manner:

Contents of Sealed Bid Package	Marked As
Envelope 1: Sealed Bid: Shall Include (1) original and one (1) electronic copy. [Electronic copies are to be submitted on CD-ROM or thumb drives and are to be saved in Adobe Acrobat format. ("Read only" files are acceptable.)]	To Be Marked: IFB # 17-05 Waterproofing and Repairs Associated Work Project at Somerville School Administration Building
Please send the complete sealed package to the attention of :	Michael Richards Procurement Analyst Purchasing Department Somerville City Hall 93 Highland Avenue Somerville, MA 02143

Bid Format

Responses shall be prepared on standard 8.5 x 11 inch paper (charts may be landscaped but must be on 8.5 x 11 inch paper) and shall be in a legible font size (12). All pages of each response shall be appropriately numbered (and with consecutive page numbering across tabs). **In an effort to reduce waste, please DO NOT USE 3-RING BINDERS.**

Elaborate format and binding are neither necessary nor desirable.

Qualifications & Experience

The Offeror may include any additional literature and product brochures. The Quality Requirements Form (Section 2), or set of basic business standards, must be submitted with bid.

References

The Offeror shall list at least three relevant references, which the City may contact. The City of Somerville reserves the right to use ourselves as a reference. References shall include the following information:

●The name, address, telephone number, and email address of each client listed above.	
●A description of the work performed under each contract.	●The amount of the contract.
●A description of the nature of the relationship between Offeror and the customer.	
●The dates of performance.	●The volume of the work performed.

1.4 Questions

Questions are due: 8/4/2016 by 12PM EST

Questions concerning this solicitation must be delivered in writing to:

Michael Richards
Procurement Analyst
Somerville City Hall
Purchasing Department
93 Highland Avenue
Somerville, MA 02143

Or emailed to:

mrichards@somervillema.gov

Or faxed to:

617-625-1344

Answers will be sent via an addendum to all Offerors who have registered as bid holders. Bidders are encouraged to contact the Purchasing Department to register as a bid document holder to automatically be alerted as to addenda as they are issued. It is the responsibility of the Offeror to also monitor the bid portal on the City's website for any updates, addenda, etc. regarding that specific solicitation. The web address is:

<http://www.somervillema.gov/departments/finance/purchasing/bids>.

Any bidders that contact City personnel outside of the Purchasing Department regarding this bid may be disqualified.

1.5 General Terms

Estimated Quantities

The City of Somerville has provided estimated quantities, which will be ordered/purchased over the course of the contract period. These estimates are estimates only and not guaranteed.

Bid Signature

A response must be signed as follows: 1) if the Offeror is an individual, by her/him personally; 2) if the Offeror is a partnership, by the name of the partnership, followed by the signature of each general partner; and 3) if the Offeror is a

corporation, by the authorized officer, whose signature must be attested to by the clerk/secretary of the corporation (& with corporate seal).

Time for Bid Acceptance and City Contract Requirements

The contract will be awarded within 90 days after the bid opening. The time for award may be extended for up to 45 additional days by mutual agreement between the City of Somerville and the Offeror that is most advantageous and responsible. The Offeror's submission will remain in effect for a period of 90 days from the response deadline or until it is formally withdrawn, a contract is executed, or this solicitation is canceled, whichever occurs first. The Offeror will be required to sign a standard City contract per the City's general terms included herein as Appendix A.

Holidays are as follows:

New Year's Day	Martin Luther King Day	Presidents' Day	Patriots' Day
Memorial Day	Bunker Hill Day	Independence Day	Labor Day
Columbus Day	Veterans' Day	Thanksgiving Day	Thanksgiving Friday
Christmas Eve (half day)	Christmas Day		

Please visit <http://www.somervillema.gov/> for the City's most recent calendar. *Under State Law, all holidays falling on Sunday must be observed on Monday.

If the awarded Offeror for their convenience desires to perform work during other than normal working hours or on other than normal work days, or if the Offeror is required to perform work at such times, the Offeror shall reimburse the City for any additional expense occasioned the City, thereby, such as, but not limited to, overtime pay for City employees, utilities service, etc. UNLESS otherwise specified in these provisions, services will be performed during normal work hours. When required services occur on holidays, work will be performed on either the previous or following work day, unless specified otherwise.

Unforeseen Office Closure

If, at the time of the scheduled bid opening, the Purchasing Department is closed due to uncontrolled events such as fire, snow, ice, wind, or building evacuation, the bid due date will be postponed until 2:00 p.m. on the next normal business day. Bids will be accepted until that date and time. In the event of inclement weather, the Offeror is responsible for listening to the media to determine if the City has been closed due to weather.

Changes & Addenda

If any changes are made to this solicitation, an addendum will be issued. All proposers on record as having picked up the solicitation will be alerted via email as to the posting of all addenda. The City will also post addenda on its website (<http://www.somervillema.gov/departments/finance/purchasing/bids>). No changes may be made to the solicitation documents by the Offerors without written authorization and/or an addendum from the Purchasing Department.

Modification or Withdrawal of Bids, Mistakes, and Minor Informalities

An Offeror may correct, modify, or withdraw a bid by written notice received by the City of Somerville prior to the time and date set for the bid opening. Bid modifications must be submitted in a sealed envelope clearly labeled "Modification No.____" to the address listed in Section 1. Each modification must be numbered in sequence and must reference the original solicitation. After the bid opening, an Offeror may not change any provision of the bid in a manner prejudicial to the interests of the City or fair competition. Minor informalities will be waived or the proposer will be allowed to correct them. If a mistake and the intended bid are clearly evident on the face of the bid document, the mistake will be corrected to reflect the intended correct bid, and the proposer will be notified in writing; the proposer may not withdraw the bid. A proposer may withdraw a bid if a mistake is clearly evident on the face of the bid document, but the intended correct bid is not similarly evident.

Right to Cancel/Reject Bids

The City of Somerville may cancel this solicitation, or reject in whole or in part any and all bids, if the City determines that cancellation or rejection serves the best interests of the City.

Unbalanced Bids

The City reserves the right to reject unbalanced, front-loaded, and conditional bids.

Brand Name “or Equal”

Any references to any brand name or proprietary product in the specifications shall require the acceptance of an equal or better brand. The City has the right to make the final determination as to whether an alternate brand is equal to the brand specified.

Electronic Funds Transfer (EFT)

For EFT payment, the following shall be included with invoices to the point of contact:

- Contract/Order number; Contractor’s name & address as stated in the contract;
- The signature (manual or electronic, as appropriate) title, and telephone number of the Offeror’s representative authorized to provide sensitive information;
- Name of financial institution; Financial institution nine (9) digit routing transit number;
- Offeror’s account number; Type of account, i.e., checking or saving.

Project Schedule

Bidders are instructed to note the firmness of the dates of: Substantial Completion, and Final Completion. For the purpose of meeting these deadlines, the City may be prepared to authorize extended work hours beyond those prescribed by City ordinance, to include work on Sundays with the prior permission of the City.

Contractor submission of all paperwork required for the Construction Contract, including but not limited to insurance certificates, performance and payment bonds, a certificate of good standing from the Secretary of Corporations, and signature pages shall be submitted to the Purchasing Director no later than 5 working days from award of the contract.

The successful bidder shall be required to submit a preliminary construction schedule within 10 days of the established date of award of the Contract and a more detailed Gantt-type construction schedule within 15 days of the established award of the contract, which shows the dates of substantial and final completion.

Sales Tax Exemption

Materials, equipment, and supplies for this project are exempt from sales tax in accordance with M.G.L. Chapter 64H, Section 6 (d). The city will furnish the successful bidder with its sales tax exemption number.

Permit Fees (Contractor responsible obtaining permits/City of Somerville permit fees waived)

DPW permits to obstruct or excavate the public streets and/or sidewalks; ISD building code permits; and Traffic and Parking permits; are waived by the City of Somerville. However, license fees are not waived by the City of Somerville. The Contractor shall pay all license fees (e.g., drain layer’s license fee). The City of Somerville Traffic and Parking Department must be contacted directly for all required permits. The vendor must also provide the City of Somerville Traffic and Parking Department with a traffic management plan, prior to the start of all work.

If water usage is required in the commitment of this project, the Contractor needs to contact the DPW Water Dept., and make arrangements for a water meter. There will be a charge for the water meter and the water usage.

The Contractor is responsible for obtaining EVERSOURCE work orders and for all costs and fees associated with EVERSOURCE.

Permits to excavate the public way cannot be issued until the applicant has notified the appropriate utility companies, as required by Massachusetts General Laws, Chapter 370 of the Acts of 1963. The applicant must either: 1) obtain written receipts from the affected utilities, and provide copies of same to the owner; or 2) utilize the Dig-Safe System for the required notifications, and also submit written notifications for those utilities not participating in the Dig-Safe System. Written notifications must state that utility companies have been notified and the contractor cleared to begin work.

<i>The following utility companies must be notified in writing:</i>		
M.B.T.A. Engineering and Maintenance Division 617-722-5454 Attn: Chief Engineer 500 Arborway Jamaica Plain, MA 02130	M.W.R.A. Sewer Division 617-242-6000 100 First Avenue Charlestown Navy Yard Boston, MA 02129	M.W.R.A. Water Division 617-242-6000 100 First Avenue Charlestown Navy Yard Boston, MA 02129
<i>The following utility companies must be notified in writing or through Dig-Safe:</i>		
Algonquin Gas Transmission Corp. 617-254-4050 Manager of Land and Public Relations 1284 Soldiers Field Road Brighton, MA 02135	Verizon 781-290-5154 460 Totten Pond Road Waltham, MA 02154	Boston Edison 617-541-5730 Right of Way 1165 Massachusetts Avenue Dorchester, MA 02125
Boston Gas Company 617-323-9210 201 Rivermoor Street West Roxbury, MA 02132	EVERSOURCE 617-497-1236, x4195 46 Blackstone Street Somerville, MA 02139	EVERSOURCE Steam 617-225-4568 Attn: Supervisor of Maintenance 265 First Street Somerville, MA 02142
EVERSOURCE Gas 617-369-5591 303 Third Street Somerville, MA 02142	A T & T Broadband 981-658-0400 760 Main Street Malden, MA 01887	Somerville Public Works Dept. 617-625-6600, x5200 One Franey Road Somerville, MA 02145
Somerville Fire Department 617-625-6600, x8100 266 Broadway Somerville, MA 02143	Dig-Safe 1-800-322-4844	

The contractor shall have all utilities marked out along the course of this work by such means as the Engineer shall approve and shall preserve such marked locations until the work has progressed to the point where the encountered utility is fully exposed and protected as required. It shall be the contractor's responsibility to notify utilities at least 48 hours prior to the start of any excavation.

The contractor is responsible for contacting any other utilities that are not listed herein.

Schedule of Values

Bidders do NOT need to include a Schedule of Values with their bid package. The successful bidder will be required to submit a refined and detailed schedule of values for review and approval by the design professional prior to signing the construction contract.

5% Bid Guaranty

All bids shall be accompanied by a bid bond or bank certified check or bank treasurer's check in the amount of 5% of the bid price, which shall become the property of the City of Somerville if the bid is accepted and the bidder neglects or refuses to comply with the terms of the bid.

Prevailing Wage Rate Requirements

The contractor shall pay Mass. Prevailing Wage Rates. The applicable prevailing wage rates are attached as part of this bid package and will be included in the resulting contract. Notwithstanding anything to the contrary, the City may, in its sole discretion withhold payment unless the City has in its possession payroll records that are complete, accurate, and current as of the date of said application for payment. A signed Compliance Form must be included with the bid package (form included).

a) The Contractor shall:

- Pay wages at least once a week;
- Submit payroll information on a weekly basis in a format approved by the City, numbered in numerical sequence and signed by the Contractor (including forms for weeks when the Contractor is not on the Project Site, in which case there shall be a notation to the effect "no work this payroll period" and a date anticipated for resuming work).

b) The Contractor shall submit to the City within the first week of construction:

- A list of apprenticeship programs with which the Contractor is affiliated;
- The number of apprentices that will be employed by the Contractor on the Project;
- A list of the Contractor's employee fringe benefits;
- A copy of each project schedule, including the anticipated commencement date for each Subcontractor; and
- A list of each Subcontractor's suppliers and material men.

c) The Contractor shall include language similar to the above in all subcontracts.

Reservation of Rights

The City reserves the right to extend the deadline for submission of bids, to waive minor informalities, and to reject any and all bids, if in its sole judgment, the best interests of the City of Somerville would be served by doing so.

Maintenance Manual and As-Built Drawing Requirements

Upon Final Completion of all park construction, the contractor shall submit: two complete copies of a park maintenance manual, and two copies of an as-built drawing set, with two compact disc (CD) copies of the as-built drawings. The City will not issue the final check for park retainage until the submittal and approval of the maintenance manual and as-built drawings.

- 1) The Maintenance Manual shall be in the form of a three ring binder, organized and tabbed into appropriate sections, and shall include the following items:
 - A complete maintenance plan with recommended maintenance schedules and procedures for all systems including: HVAC, security (card access/cameras), fire suppression, irrigation, fertilization, and water systems shut-down procedures, etc., and all other applicable systems and procedures;
 - A letter from the contractor stating the period of warranty for all parts, materials, and workmanship, from the date of Final Completion;
 - A letter from the contractor stating the period of warranty for all systems (HVAC, irrigation, fire suppression, etc.);
 - All product information, product directions, and warranties;
 - List of all materials (plants, etc.), sizes of plant containers, etc.;
 - Copies of City permits with signatures of inspectors;
 - Contact information for all subcontractors including email addresses; and,

- A record of all submittals and dates of approvals.

2) As-Built drawings shall be a complete and accurate record that incorporates any and all changes to the construction plan set issued at the time of contract initiation. As-built drawings shall be clearly marked and annotated and shall include but not be limited to: all field changes, change orders, and supplemental drawing provided by the landscape architect.

3) The Compact Discs shall include an electronic copy of all as-built drawings.

Police Details

Unless otherwise noted in the specifications, the Contractor will be responsible for requesting and paying for all necessary police details. These costs should be incorporated into the base bid amount.

Period of Performance

The period of performance for this contract begins on or about 9/21/2016 and ends on or about 3/31/2017. If applicable, optional renewal years may be exercised by the sole discretion of the City (see cover page for anticipated contract term).

Place of Performance

All services, delivery, and other required support shall be conducted in Somerville and other locations designated by the Department point of contact. Meetings between the Vendor and City personnel shall be held at the City of Somerville, Massachusetts, unless otherwise specified.

Vendor Conduct

The Vendor's employees shall comply with all City regulations, policies, and procedures. The Vendor shall ensure that their employees present professional work attire at all times. The authorized contracting body of the City may, at his/her sole discretion, direct the Vendor to remove any Vendor employee from City facilities for misconduct or safety reasons. Such rule does not relieve the Vendor of their responsibility to provide sufficient and timely service. The City will provide the Vendor with immediate written notice for the removal of the employee. Vendors must be knowledgeable of the conflict of interest law found on the Commonwealth's website <http://www.mass.gov/ethics/laws-and-regulations-/conflict-of-interest-information/conflict-of-interest-law.html>. Vendors may be required to take the Conflict of Interest exam.

Vendor Personnel

The Vendor shall clearly state the name of the proposed project manager. All proposed staff must demonstrate the ability to carry out the specified requirements.

Confidentiality

The Vendor agrees that it will ensure that its employees and others performing services under this contract will not use or disclose any non-public information unless authorized by the City. That includes confidential reports, information, discussions, procedures, and any other data that are collected, generated or resulting from the performance of this scope of work. All documents, photocopies, computer data, and any other information of any kind collected or received by the Vendor in connection with the contract work shall be provided to the City upon request at the termination of the contract (i.e., the date on which final payment is made on the contract or at such other time as may be requested by the City or as otherwise agreed by City and the Vendor). The Vendor may not discuss the contract work in progress with any outside party, including responding to media and press inquiries, without the prior written permission of the City. In addition, the Vendor may not issue news releases or similar items regarding contract award, any subsequent contract modifications, or any other contract-related matter without the prior written approval of the City. Requests to make such disclosures should be addressed in writing to the Vendor's point of contact.

IFB # 17-05
SECTION 2.0
RULE FOR AWARD /
PROJECT INFORMATION

2.1 Rule For Award

The contract shall be awarded to the responsible and responsive Bidder submitting the lowest total price. The contract will be awarded within ninety (90) days after the bid opening. The time for award may be extended for up to 45 additional days by mutual agreement between the City and the apparent lowest responsive and responsible bidder.

2.2 Background

Project Information	
Managing City Department:	Capital Projects and Planning
Project Manager:	Eddie Nuzzo
Project Manager Email:	ENuzzo@somervillema.gov
Designer:	Russo Barr Associates, Inc.
Designer Contact:	Michael J. Flaherty
Project Address:	42 Cross St., Somerville, MA
Brief Project Description:	<p>The project scope consists of waterproofing repairs and associated work at the Somerville School Administration Building. General Bidders are to be DCAMM certified in General Construction. Work shall include but is not limited to:</p> <ol style="list-style-type: none">1. Demolition, including removal of ivy and other plant growth2. Repairs to CMU masonry walls3. Application of sheet waterproofing and sheet metal flashing4. Removal and replacement (and in certain locations, relocation) of windows5. Application of waterproofing to prepared CMU wall surfaces6. Removal and relocation or reinstallation of exterior electrical equipment7. Preparation and application of fill materials8. Installation of three catch basins and related below grade piping and Connection to an Owner provided manhole9. Installation of asphalt paving10. Installation of 2 solid sections of fence and one double set of swing gates
Estimated Project Cost:	\$131,100.00

Project Schedule	
Estimated Award Date:	8/25/2016
Estimated Start Date:	9/21/2016
Date of Substantial Completion:	1/27/2017
Date of Final Completion:	2/28/2017

2.3 Minimum Quality Requirements

Quality requirements, or basic business requirements, are the minimum set of standards that an entity must meet and certify to be considered responsible and responsive. **Please complete the Quality Requirements form, below, and submit it with your completed bid.** The City of Somerville will disqualify any response that does not meet the minimum quality requirements. A "No Response" to items 1 through 5 or a failure to respond to any of the following minimum standards may result in disqualification of your bid.

QUALITY REQUIREMENTS		YES	NO
1.	The Contractor has been established in the commercial contracting business for at least 5 years		
2.	The Contractor is able to provide all equipment necessary to perform the required renovations and remodeling		
3.	The contractor maintains and participates in a bona fide apprentice training program as defined by G. L. c. 23, §§ 11H & 11I for each apprenticeable trade or occupation represented in its workforce		
4.	The vendor can certify that all employees to be provided, have successfully completed at least ten (10) hours of OSHA approved training in Construction Safety and Health		
5.	The vendor meets the DCAMM certification requirements for this project		
6.	Optional: Are you a Mass. Supplier Diversity Office MBE/WBE certified minority or woman owned business? Additional minority designations may be submitted by attaching supporting documentation.		

IFB # 17-05

SECTION 3.0

Waterproofing and Repairs Associated Work Project at Somerville School Administration Building
**REQUIRE BID FORMS /
BIDDERS' CHECKLIST**

Please ensure all documents listed on this checklist are included with your bid. Failure to do so may subject the proposer to disqualification.

Required with Sealed Bids

	Form for General Bid
	Bid Form for Alternates (if applicable)
	Unit Price Form (if applicable)
	Somerville Living Wage Form
	Quality Requirements Form (Section 2.0)
	Certificate of Non-Collusion & Tax Compliance
	Certificate of Signature Authority
	Reference Form (or equivalent may be attached)
	5% Bid Deposit
	Prevailing / Davis Bacon Wages Statement of Compliance Form
	OSHA Form
	Responsible Employer Ordinance
	Acknowledgement of Addenda (if applicable)
	Signed W9

Required with Contract, *Post Award*

	Certificate of Good Standing (will be required of awarded Vendor; please furnish with bid if available)
	Insurance Specifications (will be required of awarded Vendor; furnish sample certificate with bid, if possible)
	Statement of Management
	Performance Bond (see specification for details)
	Payment Bond (if applicable, see specification for details)

Name of General Bidder: _____

**CITY OF SOMERVILLE
IFB 17-05
WATERPROOFING REPAIRS AND ASSOCIATED WORK PROJECT
SOMERVILLE SCHOOL ADMINISTRATION BUILDING
SOMERVILLE, MASSACHUSETTS**

FORM FOR GENERAL BID

DUE: August 18th, 2016 – 11:am EST

This bid must be accompanied by a bid deposit in the form of cash, or a bid bond, or a certified check, treasurer's check, or cashier's check, payable to the City of Somerville (hereinafter referred to as the "Owner", or the "Awarding Authority") in the amount of five percent (5%) of the value of the bid. No other form of bid security will be accepted.

By submitting this bid the undersigned represents to the Owner that it has examined and understands the Advertisement for Bids, Instructions to Bidders, Contract Forms, Conditions of the Contract (General and Supplementary), Drawings, Specifications and all other Contract Documents and has examined the site, as defined therein, and that this bid is made with distinct reference and relation to all said Contract Documents; but the undersigned declares that in regard to the conditions affecting the work to be done and the labor and materials needed, this bid is based solely on its own investigation and research and not in reliance upon any drawings, surveys, measurements, dimensions, calculations, estimates, borings, pile tests or other tests or representations of any employee, officer, agent or consultant of the Owner. By submitting this bid, the undersigned agrees that it shall be subject to the jurisdiction of the courts of the Commonwealth of Massachusetts with respect to any actions arising out of or related to this bid or any contract that may be entered into based upon this bid, and that any such actions commenced by the undersigned shall be commenced in the courts of the Commonwealth of Massachusetts.

A bidder wishing to amend this bid after transmittal to the Owner may do so only by withdrawing this bid and resubmitting another bid prior to the time for opening bids.

TO: CITY OF SOMERVILLE

- A. The Undersigned proposes to furnish all labor and materials and equipment required for the Waterproofing Repairs and associated work at the Somerville School Administration Building in Somerville, Massachusetts, in accordance with the accompanying Project Manual and Drawings prepared by Russo Barr Associates, Inc., dated June 10, 2016 for the contract price specified below, subject to additions and deductions according to the terms of the Project Manual and Drawings.
- B. This Bid includes Addenda numbered _____
- C. The proposed Base Bid Price is:

_____ dollars
\$ _____

Item 2. Sub-bids as follows:

Sub-Trade	Name of Sub-Bidder	Amount	Bonds required, indicated by "Yes" or "No"
Section 08 50 00, Aluminum Windows	_____	\$ _____	_____
Total of Item 2		\$ _____	

D. UNIT PRICES

1. Should unit price work be required or should the quantities of certain classes be increased or decreased from those on which the Contract Price is based, not by the undersigned's request but by the order of approval of the Owner or Owner's representative, the undersigned agrees the following unit prices will be the basis of payment or credit for such addition, increase or decrease in the work. Unit Prices given shall represent the exact net amount per unit to be added to the Price inclusive of General Conditions (in the case of additions or increases) or to be refunded to the Owner (in the case of decreases). The Owner shall have the right to reject any or all proposed Unit prices at any time prior to signing the agreement for performance of the work.

a. Random removal and repointing of existing deteriorated concrete masonry unit mortar joints. Quantities shall be determined by calculation of actual amount performed with no allowance for waste. The Contractor shall include 25 linear feet (LF) beyond the quantity shown on the building elevations as the Base Bid quantity. Reference Section 04 50 00.

ADD: \$ _____/LF DEDUCT: \$ _____/LF

c. Random removal and replacement of existing deteriorated concrete masonry units. Quantities shall be determined by calculation of actual amount performed with no allowance for waste. The Contractor shall include 10 units beyond the quantity shown on the building elevations as the Base Bid quantity. Reference Section 04 50 00.

ADD: \$ _____/Unit DEDUCT: \$ _____/Unit

E. Bidders are advised to examine the work area before submitting a bid. By submitting a bid, the Bidder covenants and agrees that he has carefully examined the drawings, specifications, associated bid documents, and addenda and/or bulletins, if any, and visited the site, that he relies on no hearsay, and that from his own investigation he has satisfied himself as to the nature and location of the work, the general and local conditions, and all matters which may in any way affect the work or its performance, and that as a result of such examination and investigation, he fully understands the intent and purpose of the documents and conditions of bidding and that he will not make any

claim for, and waives any right to, damages because of any misinterpretations or misunderstanding of the bid documents and the conditions of bidding.

F. MANUFACTURERS:

If awarded the Contract for this work, we shall use the following Window System Manufacturer.

G. CONSTRUCTION SCHEDULE:

The construction phase is expected to occur during 2016. The Contractor will be allowed to commence the construction work on or about September 21, 2016 and final completion shall occur on or before February 28, 2016. In case the Work embraced in this Contract shall not have been completed due to failure of the Contractor to complete the work or any part of the work within the time specified, the Awarding Authority may recover as liquidated damages **\$500** per day for every day beyond the final completion date or revised completion date as extended in accordance with any change orders. The work hours shall be as follows: Monday through Friday 7:00 am to 3:00 pm. The Contractor shall start the work under this Contract on written notice from and on the date set by the Awarding Authority and continue to completion with all practical dispatch and regularity so that the entire project shall be completed in a timely fashion.

H. The undersigned agrees that, if he is selected as General Contractor, he will within five 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 of Massachusetts 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 General 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; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that it will comply fully with all laws and regulations applicable to awards made subject to Section 44A of Chapter 149 of the Massachusetts General Laws.

The undersigned further certifies under penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this 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

document provisions of any other Chapters of the General Laws or any other rule or regulation promulgated thereunder.

Date _____

(Print Name of General Bidder)

By:

(Name of Person Signing Bid and Title)

(Business Address)

City: _____ State: _____ Zip: _____

Telephone (____) _____ - _____

Social Security Number
or Federal Identification Number: _____

NOTE: If the bidder is a corporation, indicate state of incorporation; if a Partnership, give full names and addresses of all partners; and if an individual, give residential address if different from business address.

1. If a Corporation:

Incorporated in what state: _____

President: _____

Treasurer: _____

Secretary: _____

2. If a Partnership:

Name of Partner: _____

Residence: _____

Name of Partner: _____

Residence: _____

Name of Partner: _____

Residence: _____

3. If an Individual:

Name of Partner: _____

Residence: _____

4. If an Individual doing business under a firm name:

Name of Firm: _____

Name of Individual: _____

Business Address: _____

Residence: _____

5. Other form of business organization:

6. Provide the name, address, and phone number of the surety company that will be providing the bonds for this project:

**CITY OF SOMERVILLE
IFB 17-05
WATERPROOFING REPAIRS AND ASSOCIATED WORK PROJECT
SOMERVILLE SCHOOL ADMINISTRATION BUILDING
SOMERVILLE, MASSACHUSETTS
FORM FOR FILED SUB-BID
METAL WINDOWS**

FORM FOR FILED SUB-BID - DUE : August 10th, 2016 – 11:00am EST

- A. Pursuant to and in compliance with your Invitation to Bid relating thereto, the undersigned, _____
having visited the site, familiarized himself with the conditions present, and carefully examined the Contract Documents, together with all Addenda issued and received prior to closing time for receipt of Bids as prepared by the Architect,

Russo Barr Associates, Inc.
33 Center Street, 2nd Floor
Burlington, MA 01803

hereby offers and agrees to provide all labor and materials required for construction of

Section 08 50 00; Aluminum Windows
Waterproofing Repairs and Associated Work
Somerville School Administration Building
Somerville, MA

to the satisfaction of the Owner and the Architect and in accordance with the accompanying Contract Documents with all addenda, for the Contract Price specified below, subject to additions and deductions according to the terms of the Contract Documents.

- B. This Bid includes Addenda numbered _____.

- C. The proposed Contract Price is:

_____ Dollars

(\$ _____).

D. This sub-bid

☐ may be used by any General Bidder except:

☐ may only be used by the following General Bidders:

(To exclude general bidders, insert "X" in one box only and fill in blank following that box. Do not answer D. if no general bidders are excluded)

E. The undersigned agrees that, if he is selected as a sub-bidder, he will, within five days, Saturdays, Sundays, and legal holidays excluded, after presentation of a subcontract by the general bidder selected as the general contractor, execute with such general bidder a subcontract in accordance with the terms of this sub-bid, and contingent upon the execution of the general contract, and, if requested so to do in the general bid by such general bidder, who shall pay the premiums therefore, furnish a performance and payment bond of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the awarding authority, in the full sum of the subcontract price.

F. The names of all persons, firms and corporations furnishing to the undersigned labor or labor and materials for the class or classes or part thereof of work for which the provisions of the section of the specifications for this sub-trade require a listing in this paragraph, including the undersigned if customarily furnished by persons on his own payroll and in the absence of a contrary provision in the specifications, the name of each such class of work or part thereto and the bid price for such class of work or part thereof are:

Name	Class of Work	Bid Price
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

[Do not give bid price for any class or part thereof furnished by undersigned.]

G. The undersigned agrees that the above list of bids to the undersigned represents bona fide bids based on the herein before described plans, specifications and addenda and that, if the undersigned is awarded the contract, they will be used for the work indicated at the amounts stated, if satisfactory to the awarding authority.

H. The undersigned further agrees to be bound to the general contractor by the terms of the hereinbefore described plans, specifications, including all general conditions stated therein, and addenda, and to assume toward him all the obligations and responsibilities that he, by those documents, assumes toward the owner.

I. The undersigned offers the following information as evidence of his qualifications to perform the work as bid upon according to all the requirements of the plans and specification:

1. Have been in business under present business name _____ years.
2. Ever failed to complete any work awarded? _____
3. List one or more recent buildings with names of the general contractor and architect on which you served as a subcontractor for work of similar character as required for the above named building.

Building	Architect	General Contractor	Amount of Contract
----------	-----------	--------------------	--------------------

(a)

(b)

(c)

4. Bank Reference _____

J. 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; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that it will comply fully with all laws and regulations applicable to awards made subject to Section 44A of Chapter 149 of the Massachusetts General Laws.

K. The undersigned further certifies under penalties of perjury that this sub-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.

L. 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 General Law or any rule or regulation promulgated thereunder.

M. CONSTRUCTION SCHEDULE:

The construction schedule shall be as listed in the Summary of Work.

The work hours shall be as follows: Monday through Friday 7:00am to 4:00pm.

In case the work embraced in this contract shall not have been completed due to failure of the Contractor to complete the work or any part of the work within the time specified, the Owner shall recover as liquidated damages **\$500** per day for every day beyond the final completion dates or revised completion dates as extended in accordance with any change orders.

The Contractor shall start the work under this Contract on written notice from and on the date set by the Awarding Authority and continue to completion with all practical dispatch and regularity so that the entire project shall be completed in a timely fashion.

Date: _____

(Name of Sub-Bidder)

Signed: _____

By: _____
(Name and Title of Person Signing Bid and Title)

(Business Address)

(City and State)

END OF DOCUMENT



SOMERVILLE LIVING WAGE ORDINANCE CERTIFICATION FORM
CITY OF SOMERVILLE CODE OF ORDINANCES SECTION 2-397 et seq.*

Instructions: This form shall be included in all Invitations for Bids and Requests for Proposals which involve the furnishing of labor, time or effort (with no end product other than reports) by vendors contracting or subcontracting with the City of Somerville, where the contract price meets or exceeds the following dollar threshold: \$10,000. If the undersigned is selected, this form will be attached to the contract or subcontract and the certifications made herein shall be incorporated as part of such contract or subcontract. **Complete this form and sign and date where indicated below on page 2.**

Purpose: The purpose of this form is to ensure that such vendors pay a “Living Wage” (defined below) to all covered employees (i.e., all employees except individuals in a city, state or federally funded youth program). In the case of bids, the City will award the contract to the lowest responsive and responsible bidder paying a Living Wage. In the case of RFP’s, the City will select the most advantageous proposal from a responsive and responsible offeror paying a Living Wage. In neither case, however, shall the City be under any obligation to select a bid or proposal that exceeds the funds available for the contract.

Definition of “Living Wage”: For this contract or subcontract, as of 7/1/2016 “Living Wage” shall be deemed to be an hourly wage of no less than \$12.31 per hour. From time to time, the Living Wage may be upwardly adjusted and amendments, if any, to the contract or subcontract may require the payment of a higher hourly rate if a higher rate is then in effect.

CERTIFICATIONS

1. The undersigned shall pay no less than the Living Wage to all covered employees who directly expend their time on the contract or subcontract with the City of Somerville.
2. The undersigned shall post a notice, (copy enclosed), to be furnished by the contracting City Department, informing covered employees of the protections and obligations provided for in the Somerville Living Wage Ordinance, and that for assistance and information, including copies of the Ordinance, employees should contact the contracting City Department. Such notice shall be posted in each location where services are performed by covered employees, in a conspicuous place where notices to employees are customarily posted.
3. The undersigned shall maintain payrolls for all covered employees and basic records relating hereto and shall preserve them for a period of three years. The records shall contain the name and address of each employee, the number of hours worked, the gross wages, a copy of the social

* Copies of the Ordinance are available upon request to the Purchasing Department.

Form:_____
Contract Number:_____

CITY OF SOMERVILLE

Rev. 05/03/16

security returns, and evidence of payment thereof and such other data as may be required by the contracting City Department from time to time.

4. The undersigned shall submit payroll records to the City upon request and, if the City receives information of possible noncompliance with the provisions the Somerville Living Wage Ordinance, the undersigned shall permit City representatives to observe work being performed at the work site, to interview employees, and to examine the books and records relating to the payrolls being investigated to determine payment of wages.

5. The undersigned shall not fund wage increases required by the Somerville Living Wage Ordinance by reducing the health insurance benefits of any of its employees.

6. The undersigned agrees that the penalties and relief set forth in the Somerville Living Wage Ordinance shall be in addition to the rights and remedies set forth in the contract and/or subcontract.

CERTIFIED BY:

Signature: _____
(Duly Authorized Representative of Vendor)

Title: _____

Name of Vendor: _____

Date: _____

INSTRUCTIONS: PLEASE POST

**NOTICE TO ALL EMPLOYEES
REGARDING PAYMENT OF LIVING WAGE**

Under the Somerville, Massachusetts' Living Wage Ordinance (Ordinance No. 1999-1), any person or entity who has entered into a contract with the City of Somerville is required to pay its employees who are involved in providing services to the City of Somerville no less than a "Living Wage".

The Living Wage as of 7/1/2016 is **\$12.31** per hour. The only employees who are not covered by the Living Wage Ordinance are individuals in a Youth Program. "Youth Program" as defined in the Ordinance, "means any city, state or federally funded program which employs youth, as defined by city, state or federal guidelines, during the summer, or as part of a school to work program, or in any other related seasonal or part-time program."

For assistance and information regarding the protections and obligations provided for in the Living Wage Ordinance and/or a copy of the Living Wage Ordinance, all employees should contact the City of Somerville's Purchasing Department directly.

Form:_____
Contract Number:_____

CITY OF SOMERVILLE

Rev. 08/01/12



Non-Collusion Form and Tax Compliance Certification

Instructions: Complete each part of this two-part form and sign and date where indicated below.

A. NON-COLLUSION FORM

I, the undersigned, hereby certify under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person.

As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

Signature: _____
(Individual Submitted Bid or Proposal)
Duly Authorized

Name of Business or Entity: _____

Date: _____

B. TAX COMPLIANCE CERTIFICATION

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support, as well as paid all contributions and payments in lieu of contributions pursuant to MGL 151A, §19A(b).

Signature: _____
(Duly Authorized Representative of Vendor)

Name of Business or Entity: _____

Social Security Number or Federal Tax ID#: _____

Date: _____



Certificate of Authority (Limited Liability Companies Only)

Instructions: Complete this form and sign and date where indicated below.

1. I, the undersigned, being a member or manager of

_____,
(Complete Name of Limited Liability Company)

a limited liability company (LLC) hereby certify as to the contents of this form for the purpose of contracting with the City of Somerville.

2. The LLC is organized under the laws of the state of: _____.
3. The LLC is managed by (**check one**) a Manager or by its Members.
4. I hereby certify that each of the following individual(s) is:
- a member/manager of the LLC;
 - duly authorized to execute and deliver this contract, agreement, and/or other legally binding documents relating to any contract and/or agreement on behalf of the LLC;
 - duly authorized to do and perform all acts and things necessary or appropriate to carry out the terms of this contract or agreement on behalf of the LLC; and
 - that no resolution, vote, or other document or action is necessary to establish such authority.

<u>Name</u>	<u>Title</u>

5. **Signature:**_____

Printed Name: _____

Printed Title:_____

Date: _____



Certificate of Authority (Corporations Only)

Instructions: Complete this form and sign and date where indicated below.

1. I hereby certify that I, the undersigned, am the duly elected Clerk/Secretary of

(Insert Full Name of Corporation)

2. I hereby certify that the following individual _____
(Insert the Name of Officer who Signed the Contract and Bonds)

is the duly elected _____ of said Corporation.
(Insert the Title of the Officer in Line 2)

3. I hereby certify that on _____
(Insert Date: Must be on or before Date Officer Signed Contract/Bonds)

at a duly authorized meeting of the Board of Directors of said corporation, at which a quorum was present, it was voted that

(Insert Name of Officer from Line 2) (Insert Title of Officer from Line 2)

of this corporation be and hereby is authorized to make, enter into, execute, and deliver contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation's name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

4. **ATTEST:**

Signature: _____
(Clerk or Secretary)

AFFIX CORPORATE SEAL HERE

Printed Name: _____

Printed Title: _____

Date: _____
(Date Must Be on or after Date Officer Signed Contract/Bonds)

REFERENCE FORM

Bidder: _____

IFB Title: _____

Bidder must provide references for: Three other similar sized Municipalities provided the same services

Reference:_____ Contact:_____

Address:_____ Phone:_____

_____ Email:_____

Description and date(s) of supplies or services provided:_____

Reference:_____ Contact:_____

Address:_____ Phone:_____

_____ Email:_____

Description and date(s) of supplies or services provided:_____

Reference:_____ Contact:_____

Address:_____ Phone:_____

_____ Email:_____

Description and date(s) of supplies or services provided:_____

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 project for which the enclosed rates have been provided. A Payroll Form is available from the Department of Labor Standards (DLS) at www.mass.gov/dols/pw and 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 contract.

On a weekly basis, every contractor and subcontractor is required to submit a certified copy of their weekly payroll records to the awarding authority; this includes the payroll forms and the Statement of Compliance form. The certified payroll records must be submitted either by regular mail or by e-mail to the awarding authority. Once collected, the awarding authority is required to preserve those records for three years from the date of completion of the project.

Each such contractor and subcontractor shall furnish weekly **and** within 15 days after completion of its portion of the work, to the awarding authority directly by first-class mail or e-mail, a statement, executed by the contractor, subcontractor or by any authorized officer thereof who supervised the payment of wages, this form, accompanied by their payroll:

STATEMENT OF COMPLIANCE

_____, 20____

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 _____

Form:_____
Contract Number:_____

CITY OF SOMERVILLE

Rev. 11/14/2014



OSHA GENERAL CONTRACTOR CERTIFICATION FORM

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

GENERAL CONTRACTOR'S CERTIFICATION – BID FORM

I, the undersigned, hereby certify under penalties of perjury that I, and all subcontractors who are not filed sub-bidders, shall:

(1) that I am able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

Signature: _____
(Individual Submitting Bid)
Duly Authorized

Name of Business or Entity: _____

Date: _____

RETURN THIS FORM WITH YOUR BID

Form:_____
Contract Number:_____

CITY OF SOMERVILLE

Rev. 11/14/2014



OSHA FILED SUB-BIDDER CERTIFICATION FORM

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

FILED SUB-BIDDER CERTIFICATION – BID FORM

I, the undersigned, hereby certify under penalties of perjury that:

(1) that I am able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

Signature: _____
(Individual Submitting Filed Sub-Bid)
Duly Authorized

Name of Business or Entity: _____

Bid Number and Title: _____

Date: _____

RETURN THIS FORM WITH YOUR BID

CITY OF SOMERVILLE
ORDINANCE NO. 2008-08
IN THE BOARD OF ALDERMEN: June 12, 2008

Be it ordained by the Board of Aldermen, in session assembled, that the Code of Ordinances of the City of Somerville, is hereby amended by adding a new Section 2-355 as follows:

Sec. 2-355. Responsible Employer Ordinance.

(a) The Board of Aldermen hereby finds and determines that the failure of certain construction firms awarded contracts funded by the City to include and enforce provisions requiring compliance with state laws governing the payment of prevailing wages, the provision of workers compensation coverage, and the proper classification of individuals as employees and not as independent contractors, as well as provisions concerning health insurance coverage and state-certified apprenticeship programs, is injurious to the life, health and happiness of individuals employed by such firms and is deleterious to the quality of life in the City where most of such individuals reside.

(b) Every contract awarded by the City under G. L. c. 149, § 44A (2) where the amount of the contract is more than one-hundred thousand dollars, and any subcontract awarded in connection with any such general contract where the amount of such subcontract is more than twenty-five thousand dollars, shall be deemed to incorporate by reference the provisions of sub-parts (1) through (5) of this subsection together with the provisions of subsections (c), (d) and (e) of this section.

1. The bidder and all subcontractors under the bidder shall comply with the requirements of G. L. c. 149 concerning the payment of prevailing wage rates to their employees;
2. The bidder and all subcontractors under the bidder must maintain and participate in a bona fide apprentice training program as defined by G. L. c. 23, §§ 11H & 11I for each apprenticeable trade or occupation represented in its workforce that is approved by the division of apprentice training of the department of labor and workforce development of the Commonwealth and must abide by the apprentice to journeymen ratio for each trade prescribed therein in the performance of the contract;
3. The bidder and all subcontractors under the bidder must offer, at its expense, hospitalization and medical benefits for all individuals employed on the project or coverage which is comparable to the hospitalization and medical benefits provided by the health and welfare plans in the applicable craft recognized by G. L. c. 149, § 26, in establishing minimum wage rates. All such plans shall meet or exceed state requirements for such plans.
4. The bidder and all subcontractors under the bidder must maintain appropriate industrial accident insurance coverage in accordance with G. L. c. 152 for all individuals employed on the project;
5. The bidder and all subcontractors under the bidder must properly classify individuals employed on the project as employees rather than independent contractors and comply with all laws concerning workers' compensation insurance coverage, unemployment taxes, social security taxes and income taxes as respects all such employees.

(c) All bidders and all subcontractors under such bidders who are awarded, or otherwise obtain, contracts from the city on projects governed by G. L. c. 149, § 44A (2), shall comply with the obligations described in sub-parts (1) through (5) of subsection (b) of this section for the entire duration of their work on the project, and an officer of each such bidder or subcontractor under the

bidder shall certify under oath and in writing on a weekly basis that they are in compliance with these obligations.

(d) Any bidder or subcontractor under the bidder who fails to comply with any of the obligations described in sub-parts (1) through (5) of subsection (b) of this section for any period of time, or fails to comply with the weekly certification obligations described in subsection (c) of this subsection shall be subject to any or all of the following sanctions:

1. temporary suspension of work on the project until compliance is obtained; or,
2. withholding by the City of payment due under the contract until compliance is obtained; or,
3. permanent removal from any further work on the project; or,
4. recovery by the city from the general contractor of 1/10 of 1% of the general contract or \$ 1,000.00, whichever sum is greater, in the nature of liquidated damages assessed for each week that the general contractor is in non-compliance or, if a subcontractor is in non-compliance, the recovery by the city from the general contractor as a back charge against the subcontractor of 1/10 of 1% of the subcontract price, or \$ 400.00, whichever sum is greater, in the nature of liquidated damages assessed for each week that the subcontractor is in non-compliance.

(e) In addition to these sanctions a general bidder or contractor shall be equally liable for any violation of the obligations described in sub-parts (1) through (5) of subsection (b) of this section committed by any of its subcontractors or sub bidders, excepting only those violations which arise from work performed by subcontractors with subcontracts governed by G. L. c. 149, § 44F. Any contractor or subcontractor who has been determined to have violated any of the provisions of subsections (b) or (c) of this section shall be barred from performing any work on any future contracts awarded by the City for six months for the first violation, three years for the second violation, and permanently for a third violation.

(f) The provisions of this section shall not apply to construction projects for which the low general bid was less than one-hundred thousand dollars, or to work performed pursuant to subcontracts governed by G. L. 149, § 44F where the bid for such subcontract was less than twenty-five thousand dollars.

Receipt Acknowledged _____ day of _____, _____.

Name of Vendor

By: _____
Name

Its: _____
Title

Signature

CITY OF SOMERVILLE
Responsible Employer Ordinance

WEEKLY COMPLIANCE FORM

In accordance with the Code of Ordinances of the City of Somerville, Section 2-355, all general contractors and all subcontractors under such general contractors who are awarded, or otherwise obtain, contracts from the city on projects governed by G. L. c. 149, § 44A (2), shall comply with the obligations described in sub-parts (1) through (5) of subsection (b) of this section for the entire duration of their work on the project, and an officer of each such general contractor or subcontractor under the general contractor where the amount of such subcontract is more than \$25,000.00, shall certify under oath and in writing on a weekly basis that they are in compliance with these obligations.

STATEMENT OF COMPLIANCE

Date _____

Period _____

I, _____, _____
(Print Name) (Title)

Do hereby state that _____ is in compliance with all
(Contractor or Subcontractor)

requirements of the City of Somerville's Responsible Employer Ordinance, City Ordinance Section 2-355, for the duration of all work performed on the

_____ by this general contractor or
(Building or Project)

subcontractor.

(Signature)
Signed under the pains and penalties of perjury

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

Print or type See Specific Instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	6 City, state, and ZIP code	
7 List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number									
				-				-	
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note. ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.ssa.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/businesses and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor ²
4. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee ¹ The actual owner ¹
5. Sole proprietorship or disregarded entity owned by an individual	The owner ³
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor ⁴
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity ⁴
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

***Note.** Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

IFB # 17-04

SECTION 4.0

PREVAILING WAGES

MASSACHUSETTS WEEKLY CERTIFIED PAYROLL REPORT FORM



Company's Name:		Address:				Phone No.:				Payroll No.:									
Employer's Signature:		Title:				Contract No:		Tax Payer ID Number		Work Week Ending:									
Awarding Authority's Name:		Public Works Project Name:				Public Works Project Location:				Min. Wage Rate Sheet Number									
General / Prime Contractor's Name:		Subcontractor's Name:						"Employer" Hourly Fringe Benefit Contributions											
												(B+C+D+E)		(A x F)					
Employee Name & Complete Address	Work Classification:	Employee is OSHA 10 certified (?)	Appr. Rate (%)	Hours Worked								Project Hours (A) All Other Hours	Hourly Base Wage (B)	Health & Welfare Insurance (C)	ERISA Pension Plan (D)	Supp. Unemp. (E)	Total Hourly Prev. Wage (F)	Project Gross Wages	Check No. (H)
				Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.									

Are all apprentice employees identified above currently registered with the MA DLS's Division of Apprentices Standards? YES ☐ NO ☐

For all apprentices performing work during the reporting period, attach a copy of the apprentice identification card issued by the Massachusetts Department of Labor Standards / Division of Apprentices Standards. No apprentices are identified above ☐

NOTE: Pursuant to MGL c. 149, s. 27B, every contractor and subcontractor is required to submit a true and accurate copy of their certified weekly payroll records to the awarding authority by first-class mail or e-mail. In addition, each weekly payroll must be accompanied by a statement of compliance signed by the employer. Failure to comply may result in the commencement of a criminal action or the issuance of a civil citation.



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DEPARTMENT OF LABOR STANDARDS

Prevailing Wage Rates

As determined by the Director under the provisions of the
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

RONALD L. WALKER, II
Secretary

WILLIAM D MCKINNEY
Director

Awarding Authority: City of Somerville
Contract Number: **City/Town:** SOMERVILLE
Description of Work: The project scope consists of waterproofing repairs and associated work at the Somerville School Administration Building.
Job Location: 42 Cross St. Somerville, MA 02143

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule from the Department of Labor Standards ("DLS") if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Department of Labor Standards, Division of Apprentice Standards (DLS/DAS). Apprentice must keep his/her apprentice identification card on his/her person during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DLS/DAS regardless of whether or not they are registered with any other federal, state, local, or private agency must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. For multi-year CM AT RISK projects, awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F "rental of equipment" contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2016	\$33.25	\$10.41	\$10.08	\$0.00	\$53.74
	08/01/2016	\$33.25	\$10.91	\$10.08	\$0.00	\$54.24
	12/01/2016	\$33.25	\$10.91	\$10.89	\$0.00	\$55.05
(3 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2016	\$33.32	\$10.41	\$10.08	\$0.00	\$53.81
	08/01/2016	\$33.32	\$10.91	\$10.08	\$0.00	\$54.31
	12/01/2016	\$33.32	\$10.91	\$10.89	\$0.00	\$55.12
(4 & 5 AXLE) DRIVER - EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2016	\$33.44	\$10.41	\$10.08	\$0.00	\$53.93
	08/01/2016	\$33.44	\$10.91	\$10.08	\$0.00	\$54.43
	12/01/2016	\$33.44	\$10.91	\$10.89	\$0.00	\$55.24
ADS/SUBMERSIBLE PILOT <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2015	\$88.29	\$9.80	\$19.23	\$0.00	\$117.32
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.60	\$7.45	\$13.80	\$0.00	\$57.85
	12/01/2016	\$37.60	\$7.45	\$13.80	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	12/01/2015	\$34.38	\$10.40	\$5.95	\$0.00	\$50.73
ASPHALT RAKER <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$44.23	\$10.00	\$15.15	\$0.00	\$69.38
	12/01/2016	\$45.48	\$10.00	\$15.15	\$0.00	\$70.63
	06/01/2017	\$46.48	\$10.00	\$15.15	\$0.00	\$71.63
	12/01/2017	\$47.48	\$10.00	\$15.15	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$44.23	\$10.00	\$15.15	\$0.00	\$69.38
	12/01/2016	\$45.48	\$10.00	\$15.15	\$0.00	\$70.63
	06/01/2017	\$46.48	\$10.00	\$15.15	\$0.00	\$71.63
	12/01/2017	\$47.48	\$10.00	\$15.15	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.60	\$7.45	\$13.80	\$0.00	\$57.85
	12/01/2016	\$37.60	\$7.45	\$13.80	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2016	\$41.62	\$6.97	\$16.21	\$0.00	\$64.80
	01/01/2017	\$42.92	\$6.97	\$16.21	\$0.00	\$66.10

Apprentice - BOILERMAKER - Local 29**Effective Date - 01/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$27.05	\$6.97	\$10.54	\$0.00	\$44.56
2	65	\$27.05	\$6.97	\$10.54	\$0.00	\$44.56
3	70	\$29.13	\$6.97	\$11.35	\$0.00	\$47.45
4	75	\$31.22	\$6.97	\$12.16	\$0.00	\$50.35
5	80	\$33.30	\$6.97	\$12.97	\$0.00	\$53.24
6	85	\$35.38	\$6.97	\$13.78	\$0.00	\$56.13
7	90	\$37.46	\$6.97	\$14.59	\$0.00	\$59.02
8	95	\$39.54	\$6.97	\$15.40	\$0.00	\$61.91

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
2	65	\$27.90	\$6.97	\$10.54	\$0.00	\$45.41
3	70	\$30.04	\$6.97	\$11.35	\$0.00	\$48.36
4	75	\$32.19	\$6.97	\$12.16	\$0.00	\$51.32
5	80	\$34.34	\$6.97	\$12.97	\$0.00	\$54.28
6	85	\$36.48	\$6.97	\$13.78	\$0.00	\$57.23
7	90	\$38.63	\$6.97	\$14.59	\$0.00	\$60.19
8	95	\$40.77	\$6.97	\$15.40	\$0.00	\$63.14

Notes:**Apprentice to Journeyworker Ratio:1:5**

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	02/01/2016	\$49.86	\$10.18	\$19.14	\$0.00	\$79.18
BRICKLAYERS LOCAL 3 (BOSTON)	08/01/2016	\$50.76	\$10.18	\$19.22	\$0.00	\$80.16
	02/01/2017	\$51.33	\$10.18	\$19.22	\$0.00	\$80.73

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Boston

Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.93	\$10.18	\$19.14	\$0.00	\$54.25
2	60	\$29.92	\$10.18	\$19.14	\$0.00	\$59.24
3	70	\$34.90	\$10.18	\$19.14	\$0.00	\$64.22
4	80	\$39.89	\$10.18	\$19.14	\$0.00	\$69.21
5	90	\$44.87	\$10.18	\$19.14	\$0.00	\$74.19

Effective Date - 08/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.38	\$10.18	\$19.22	\$0.00	\$54.78
2	60	\$30.46	\$10.18	\$19.22	\$0.00	\$59.86
3	70	\$35.53	\$10.18	\$19.22	\$0.00	\$64.93
4	80	\$40.61	\$10.18	\$19.22	\$0.00	\$70.01
5	90	\$45.68	\$10.18	\$19.22	\$0.00	\$75.08

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2016	\$36.95	\$7.45	\$14.00	\$0.00	\$58.40
	12/01/2016	\$37.95	\$7.45	\$14.00	\$0.00	\$59.40
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2016	\$35.80	\$7.45	\$14.00	\$0.00	\$57.25
	12/01/2016	\$36.80	\$7.45	\$14.00	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2016	\$35.80	\$7.45	\$14.00	\$0.00	\$57.25
	12/01/2016	\$36.80	\$7.45	\$14.00	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 1 (Metro Boston)</i>	03/01/2016	\$43.92	\$9.80	\$16.82	\$0.00	\$70.54
	09/01/2016	\$45.01	\$9.80	\$16.82	\$0.00	\$71.63
	03/01/2017	\$46.09	\$9.80	\$16.82	\$0.00	\$72.71
	09/01/2017	\$47.21	\$9.80	\$16.82	\$0.00	\$73.83
	03/01/2018	\$48.32	\$9.80	\$16.82	\$0.00	\$74.94
	09/01/2018	\$49.47	\$9.80	\$16.82	\$0.00	\$76.09
	03/01/2019	\$50.62	\$9.80	\$16.82	\$0.00	\$77.24

Apprentice - CARPENTER - Zone 1 Metro Boston**Effective Date - 03/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.96	\$9.80	\$1.63	\$0.00	\$33.39
2	60	\$26.35	\$9.80	\$1.63	\$0.00	\$37.78
3	70	\$30.74	\$9.80	\$11.93	\$0.00	\$52.47
4	75	\$32.94	\$9.80	\$11.93	\$0.00	\$54.67
5	80	\$35.14	\$9.80	\$13.56	\$0.00	\$58.50
6	80	\$35.14	\$9.80	\$13.56	\$0.00	\$58.50
7	90	\$39.53	\$9.80	\$15.19	\$0.00	\$64.52
8	90	\$39.53	\$9.80	\$15.19	\$0.00	\$64.52

Effective Date - 09/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.51	\$9.80	\$1.63	\$0.00	\$33.94
2	60	\$27.01	\$9.80	\$1.63	\$0.00	\$38.44
3	70	\$31.51	\$9.80	\$11.93	\$0.00	\$53.24
4	75	\$33.76	\$9.80	\$11.93	\$0.00	\$55.49
5	80	\$36.01	\$9.80	\$13.56	\$0.00	\$59.37
6	80	\$36.01	\$9.80	\$13.56	\$0.00	\$59.37
7	90	\$40.51	\$9.80	\$15.19	\$0.00	\$65.50
8	90	\$40.51	\$9.80	\$15.19	\$0.00	\$65.50

Notes:**Apprentice to Journeyworker Ratio:1:5****CEMENT MASONRY/PLASTERING***BRICKLAYERS LOCAL 3 (BOSTON)*

01/01/2016

\$46.44

\$10.90

\$18.71

\$1.30

\$77.35

Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Boston)**Effective Date - 01/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.22	\$10.90	\$12.21	\$0.00	\$46.33
2	60	\$27.86	\$10.90	\$13.71	\$1.30	\$53.77
3	65	\$30.19	\$10.90	\$14.71	\$1.30	\$57.10
4	70	\$32.51	\$10.90	\$15.71	\$1.30	\$60.42
5	75	\$34.83	\$10.90	\$16.71	\$1.30	\$63.74
6	80	\$37.15	\$10.90	\$17.71	\$1.30	\$67.06
7	90	\$41.80	\$10.90	\$18.71	\$1.30	\$72.71

Notes:

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$45.23	\$10.00	\$15.15	\$0.00	\$70.38
	12/01/2016	\$46.48	\$10.00	\$15.15	\$0.00	\$71.63
	06/01/2017	\$47.48	\$10.00	\$15.15	\$0.00	\$72.63
	12/01/2017	\$48.48	\$10.00	\$15.15	\$0.00	\$73.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$30.40	\$10.00	\$15.15	\$0.00	\$55.55
	12/01/2016	\$31.27	\$10.00	\$15.15	\$0.00	\$56.42
	06/01/2017	\$31.96	\$10.00	\$15.15	\$0.00	\$57.11
	12/01/2017	\$32.65	\$10.00	\$15.15	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) <i>PAINTERS LOCAL 35 - ZONE 1</i>	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 07/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.23	\$7.85	\$0.00	\$0.00	\$33.08
2	55	\$27.75	\$7.85	\$3.66	\$0.00	\$39.26
3	60	\$30.28	\$7.85	\$3.99	\$0.00	\$42.12
4	65	\$32.80	\$7.85	\$4.32	\$0.00	\$44.97
5	70	\$35.32	\$7.85	\$14.11	\$0.00	\$57.28
6	75	\$37.85	\$7.85	\$14.44	\$0.00	\$60.14
7	80	\$40.37	\$7.85	\$14.77	\$0.00	\$62.99
8	90	\$45.41	\$7.85	\$15.44	\$0.00	\$68.70

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN <i>LABORERS - ZONE 1</i>	12/01/2015	\$35.50	\$7.45	\$13.55	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: BACKHOE/LOADER/HAMMER OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2015	\$36.50	\$7.45	\$13.55	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS <i>LABORERS - ZONE 1</i>	12/01/2015	\$36.25	\$7.45	\$13.55	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 1</i>	12/01/2015	\$36.50	\$7.45	\$13.55	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2015	\$36.25	\$7.45	\$13.55	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 1</i>	12/01/2015	\$35.50	\$7.45	\$13.55	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2015	\$58.86	\$9.80	\$19.23	\$0.00	\$87.89
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2015	\$42.04	\$9.80	\$19.23	\$0.00	\$71.07
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2015	\$63.06	\$9.80	\$19.23	\$0.00	\$92.09
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2015	\$88.23	\$9.80	\$19.23	\$0.00	\$117.26
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) <i>ELECTRICIANS LOCAL 103</i>	03/01/2016	\$46.17	\$13.00	\$16.39	\$0.00	\$75.56
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2016	\$46.17	\$13.00	\$16.39	\$0.00	\$75.56

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - ELECTRICIAN - Local 103
Effective Date - 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.47	\$13.00	\$0.55	\$0.00	\$32.02
2	40	\$18.47	\$13.00	\$0.55	\$0.00	\$32.02
3	45	\$20.78	\$13.00	\$12.34	\$0.00	\$46.12
4	45	\$20.78	\$13.00	\$12.34	\$0.00	\$46.12
5	50	\$23.09	\$13.00	\$12.71	\$0.00	\$48.80
6	55	\$25.39	\$13.00	\$13.07	\$0.00	\$51.46
7	60	\$27.70	\$13.00	\$13.44	\$0.00	\$54.14
8	65	\$30.01	\$13.00	\$13.81	\$0.00	\$56.82
9	70	\$32.32	\$13.00	\$14.18	\$0.00	\$59.50
10	75	\$34.63	\$13.00	\$14.55	\$0.00	\$62.18

Notes:

App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR
ELEVATOR CONSTRUCTORS LOCAL 4

01/01/2016	\$54.53	\$14.43	\$14.96	\$0.00	\$83.92
01/01/2017	\$55.86	\$15.28	\$15.71	\$0.00	\$86.85

Apprentice - ELEVATOR CONSTRUCTOR - Local 4
Effective Date - 01/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.27	\$14.43	\$0.00	\$0.00	\$41.70
2	55	\$29.99	\$14.43	\$14.96	\$0.00	\$59.38
3	65	\$35.44	\$14.43	\$14.96	\$0.00	\$64.83
4	70	\$38.17	\$14.43	\$14.96	\$0.00	\$67.56
5	80	\$43.62	\$14.43	\$14.96	\$0.00	\$73.01

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$27.93	\$15.28	\$0.00	\$0.00	\$43.21
2	55	\$30.72	\$15.28	\$15.71	\$0.00	\$61.71
3	65	\$36.31	\$15.28	\$15.71	\$0.00	\$67.30
4	70	\$39.10	\$15.28	\$15.71	\$0.00	\$70.09
5	80	\$44.69	\$15.28	\$15.71	\$0.00	\$75.68

Notes:

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER
ELEVATOR CONSTRUCTORS LOCAL 4

01/01/2016	\$38.17	\$14.43	\$14.96	\$0.00	\$67.56
01/01/2017	\$39.10	\$15.28	\$15.71	\$0.00	\$70.09

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FENCE & GUARD RAIL ERECTOR	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
LABORERS - ZONE 1	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY	05/01/2016	\$41.03	\$10.00	\$14.90	\$0.00	\$65.93
OPERATING ENGINEERS LOCAL 4	11/01/2016	\$41.62	\$10.00	\$14.90	\$0.00	\$66.52
	05/01/2017	\$42.50	\$10.00	\$14.90	\$0.00	\$67.40
	11/01/2017	\$43.23	\$10.00	\$14.90	\$0.00	\$68.13
	05/01/2018	\$43.94	\$10.00	\$14.90	\$0.00	\$68.84
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY	05/01/2016	\$42.47	\$10.00	\$14.90	\$0.00	\$67.37
OPERATING ENGINEERS LOCAL 4	11/01/2016	\$43.07	\$10.00	\$14.90	\$0.00	\$67.97
	05/01/2017	\$43.96	\$10.00	\$14.90	\$0.00	\$68.86
	11/01/2017	\$44.69	\$10.00	\$14.90	\$0.00	\$69.59
	05/01/2018	\$45.41	\$10.00	\$14.90	\$0.00	\$70.31
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY	05/01/2016	\$21.88	\$10.00	\$14.90	\$0.00	\$46.78
OPERATING ENGINEERS LOCAL 4	11/01/2016	\$22.23	\$10.00	\$14.90	\$0.00	\$47.13
	05/01/2017	\$22.76	\$10.00	\$14.90	\$0.00	\$47.66
	11/01/2017	\$23.18	\$10.00	\$14.90	\$0.00	\$48.08
	05/01/2018	\$23.61	\$10.00	\$14.90	\$0.00	\$48.51
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER	03/01/2016	\$46.17	\$13.00	\$16.39	\$0.00	\$75.56
ELECTRICIANS LOCAL 103						
For apprentice rates see "Apprentice- ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE	03/01/2016	\$34.63	\$13.00	\$14.55	\$0.00	\$62.18
/ COMMISSIONINGELECTRICIANS						
LOCAL 103						
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER)	06/01/2016	\$36.71	\$10.00	\$15.15	\$0.00	\$61.86
OPERATING ENGINEERS LOCAL 4	12/01/2016	\$37.75	\$10.00	\$15.15	\$0.00	\$62.90
	06/01/2017	\$38.59	\$10.00	\$15.15	\$0.00	\$63.74
	12/01/2017	\$39.42	\$10.00	\$15.15	\$0.00	\$64.57
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER	06/01/2016	\$20.50	\$7.45	\$13.80	\$0.00	\$41.75
LABORERS - ZONE 1	12/01/2016	\$20.50	\$7.45	\$13.80	\$0.00	\$41.75
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER	03/01/2016	\$42.13	\$9.80	\$17.62	\$0.00	\$69.55
FLOORCOVERERS LOCAL 2168 ZONE 1						

Apprentice - FLOORCOVERER - Local 2168 Zone I

Effective Date - 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.07	\$9.80	\$1.79	\$0.00	\$32.66
2	55	\$23.17	\$9.80	\$1.79	\$0.00	\$34.76
3	60	\$25.28	\$9.80	\$12.25	\$0.00	\$47.33
4	65	\$27.38	\$9.80	\$12.25	\$0.00	\$49.43
5	70	\$29.49	\$9.80	\$14.04	\$0.00	\$53.33
6	75	\$31.60	\$9.80	\$14.04	\$0.00	\$55.44
7	80	\$33.70	\$9.80	\$15.83	\$0.00	\$59.33
8	85	\$35.81	\$9.80	\$15.83	\$0.00	\$61.44

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER	06/01/2016	\$44.23	\$10.00	\$15.15	\$0.00	\$69.38
OPERATING ENGINEERS LOCAL 4	12/01/2016	\$45.48	\$10.00	\$15.15	\$0.00	\$70.63
	06/01/2017	\$46.48	\$10.00	\$15.15	\$0.00	\$71.63
	12/01/2017	\$47.48	\$10.00	\$15.15	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS	06/01/2016	\$30.40	\$10.00	\$15.15	\$0.00	\$55.55
OPERATING ENGINEERS LOCAL 4	12/01/2016	\$31.27	\$10.00	\$15.15	\$0.00	\$56.42
	06/01/2017	\$31.96	\$10.00	\$15.15	\$0.00	\$57.11
	12/01/2017	\$32.65	\$10.00	\$15.15	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	07/01/2016	\$45.75	\$7.85	\$16.10	\$0.00	\$69.70
GLAZIERS LOCAL 35 (ZONE 1)	01/01/2017	\$46.70	\$7.85	\$16.10	\$0.00	\$70.65

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - GLAZIER - Local 35 Zone 1
Effective Date - 07/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.88	\$7.85	\$0.00	\$0.00	\$30.73
2	55	\$25.16	\$7.85	\$3.66	\$0.00	\$36.67
3	60	\$27.45	\$7.85	\$3.99	\$0.00	\$39.29
4	65	\$29.74	\$7.85	\$4.32	\$0.00	\$41.91
5	70	\$32.03	\$7.85	\$14.11	\$0.00	\$53.99
6	75	\$34.31	\$7.85	\$14.44	\$0.00	\$56.60
7	80	\$36.60	\$7.85	\$14.77	\$0.00	\$59.22
8	90	\$41.18	\$7.85	\$15.44	\$0.00	\$64.47

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.35	\$7.85	\$0.00	\$0.00	\$31.20
2	55	\$25.69	\$7.85	\$3.66	\$0.00	\$37.20
3	60	\$28.02	\$7.85	\$3.99	\$0.00	\$39.86
4	65	\$30.36	\$7.85	\$4.32	\$0.00	\$42.53
5	70	\$32.69	\$7.85	\$14.11	\$0.00	\$54.65
6	75	\$35.03	\$7.85	\$14.44	\$0.00	\$57.32
7	80	\$37.36	\$7.85	\$14.77	\$0.00	\$59.98
8	90	\$42.03	\$7.85	\$15.44	\$0.00	\$65.32

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS

OPERATING ENGINEERS LOCAL 4

06/01/2016

\$44.23

\$10.00

\$15.15

\$0.00

\$69.38

12/01/2016

\$45.48

\$10.00

\$15.15

\$0.00

\$70.63

06/01/2017

\$46.48

\$10.00

\$15.15

\$0.00

\$71.63

12/01/2017

\$47.48

\$10.00

\$15.15

\$0.00

\$72.63

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - OPERATING ENGINEERS - Local 4
Effective Date - 06/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$24.33	\$10.00	\$0.00	\$0.00	\$34.33
2	60	\$26.54	\$10.00	\$15.15	\$0.00	\$51.69
3	65	\$28.75	\$10.00	\$15.15	\$0.00	\$53.90
4	70	\$30.96	\$10.00	\$15.15	\$0.00	\$56.11
5	75	\$33.17	\$10.00	\$15.15	\$0.00	\$58.32
6	80	\$35.38	\$10.00	\$15.15	\$0.00	\$60.53
7	85	\$37.60	\$10.00	\$15.15	\$0.00	\$62.75
8	90	\$39.81	\$10.00	\$15.15	\$0.00	\$64.96

Effective Date - 12/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$25.01	\$10.00	\$0.00	\$0.00	\$35.01
2	60	\$27.29	\$10.00	\$15.15	\$0.00	\$52.44
3	65	\$29.56	\$10.00	\$15.15	\$0.00	\$54.71
4	70	\$31.84	\$10.00	\$15.15	\$0.00	\$56.99
5	75	\$34.11	\$10.00	\$15.15	\$0.00	\$59.26
6	80	\$36.38	\$10.00	\$15.15	\$0.00	\$61.53
7	85	\$38.66	\$10.00	\$15.15	\$0.00	\$63.81
8	90	\$40.93	\$10.00	\$15.15	\$0.00	\$66.08

Notes:
Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2016	\$43.31	\$10.70	\$21.95	\$2.28	\$78.24
	08/01/2016	\$44.46	\$10.70	\$21.95	\$2.28	\$79.39
	02/01/2017	\$45.56	\$10.70	\$21.95	\$2.28	\$80.49
	08/01/2017	\$46.66	\$10.70	\$21.95	\$2.28	\$81.59
	02/01/2018	\$47.81	\$10.70	\$21.95	\$2.28	\$82.74
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) <i>ELECTRICIANS LOCAL 103</i>	03/01/2016	\$46.17	\$13.00	\$16.39	\$0.00	\$75.56
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2016	\$43.31	\$10.70	\$21.95	\$2.28	\$78.24
	08/01/2016	\$44.46	\$10.70	\$21.95	\$2.28	\$79.39
	02/01/2017	\$45.56	\$10.70	\$21.95	\$2.28	\$80.49
	08/01/2017	\$46.66	\$10.70	\$21.95	\$2.28	\$81.59
	02/01/2018	\$47.81	\$10.70	\$21.95	\$2.28	\$82.74
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING - WATER) <i>PIPEFITTERS LOCAL 537</i>	03/01/2016	\$49.19	\$9.70	\$18.14	\$0.00	\$77.03
	09/01/2016	\$50.19	\$9.70	\$18.14	\$0.00	\$78.03
	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC MECHANIC <i>PIPEFITTERS LOCAL 537</i>	03/01/2016	\$49.19	\$9.70	\$18.14	\$0.00	\$77.03
	09/01/2016	\$50.19	\$9.70	\$18.14	\$0.00	\$78.03
	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.60	\$7.45	\$13.80	\$0.00	\$57.85
	12/01/2016	\$37.60	\$7.45	\$13.80	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) <i>HEAT & FROST INSULATORS LOCAL 6 (BOSTON)</i>	09/01/2015	\$43.81	\$11.50	\$13.80	\$0.00	\$69.11
	09/01/2016	\$45.81	\$11.50	\$13.80	\$0.00	\$71.11
	09/01/2017	\$47.81	\$11.50	\$13.80	\$0.00	\$73.11
	09/01/2018	\$50.06	\$11.50	\$13.80	\$0.00	\$75.36
	09/01/2019	\$52.56	\$11.50	\$13.80	\$0.00	\$77.86

Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston

Effective Date - 09/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.91	\$11.50	\$10.05	\$0.00	\$43.46
2	60	\$26.29	\$11.50	\$10.80	\$0.00	\$48.59
3	70	\$30.67	\$11.50	\$11.55	\$0.00	\$53.72
4	80	\$35.05	\$11.50	\$12.30	\$0.00	\$58.85

Effective Date - 09/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.91	\$11.50	\$10.05	\$0.00	\$44.46
2	60	\$27.49	\$11.50	\$10.80	\$0.00	\$49.79
3	70	\$32.07	\$11.50	\$11.55	\$0.00	\$55.12
4	80	\$36.65	\$11.50	\$12.30	\$0.00	\$60.45

Notes:

Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER <i>IRONWORKERS LOCAL 7 (BOSTON AREA)</i>	03/16/2016	\$43.40	\$7.80	\$20.85	\$0.00	\$72.05
	09/16/2016	\$44.05	\$7.80	\$20.85	\$0.00	\$72.70
	03/16/2017	\$44.65	\$7.80	\$20.85	\$0.00	\$73.30

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - IRONWORKER - Local 7 Boston
Effective Date - 03/16/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$26.04	\$7.80	\$20.85	\$0.00	\$54.69
2	70	\$30.38	\$7.80	\$20.85	\$0.00	\$59.03
3	75	\$32.55	\$7.80	\$20.85	\$0.00	\$61.20
4	80	\$34.72	\$7.80	\$20.85	\$0.00	\$63.37
5	85	\$36.89	\$7.80	\$20.85	\$0.00	\$65.54
6	90	\$39.06	\$7.80	\$20.85	\$0.00	\$67.71

Effective Date - 09/16/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$26.43	\$7.80	\$20.85	\$0.00	\$55.08
2	70	\$30.84	\$7.80	\$20.85	\$0.00	\$59.49
3	75	\$33.04	\$7.80	\$20.85	\$0.00	\$61.69
4	80	\$35.24	\$7.80	\$20.85	\$0.00	\$63.89
5	85	\$37.44	\$7.80	\$20.85	\$0.00	\$66.09
6	90	\$39.65	\$7.80	\$20.85	\$0.00	\$68.30

Notes:

** Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:**

JACKHAMMER & PAVING BREAKER OPERATOR	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
LABORERS - ZONE 1	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
LABORER	06/01/2016	\$35.85	\$7.45	\$13.80	\$0.00	\$57.10
LABORERS - ZONE 1	12/01/2016	\$36.85	\$7.45	\$13.80	\$0.00	\$58.10

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Apprentice - LABORER - Zone 1						
Effective Date - 06/01/2016						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$21.51	\$7.45	\$13.80	\$0.00	\$42.76
2	70	\$25.10	\$7.45	\$13.80	\$0.00	\$46.35
3	80	\$28.68	\$7.45	\$13.80	\$0.00	\$49.93
4	90	\$32.27	\$7.45	\$13.80	\$0.00	\$53.52
Effective Date - 12/01/2016						
Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$22.11	\$7.45	\$13.80	\$0.00	\$43.36
2	70	\$25.80	\$7.45	\$13.80	\$0.00	\$47.05
3	80	\$29.48	\$7.45	\$13.80	\$0.00	\$50.73
4	90	\$33.17	\$7.45	\$13.80	\$0.00	\$54.42
Notes:						
Apprentice to Journeyworker Ratio:1:5						
LABORER: CARPENTER TENDER	06/01/2016	\$35.85	\$7.45	\$13.80	\$0.00	\$57.10
LABORERS - ZONE 1	12/01/2016	\$36.85	\$7.45	\$13.80	\$0.00	\$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: CEMENT FINISHER TENDER	06/01/2016	\$35.85	\$7.45	\$13.80	\$0.00	\$57.10
LABORERS - ZONE 1	12/01/2016	\$36.85	\$7.45	\$13.80	\$0.00	\$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	12/01/2015	\$35.50	\$7.45	\$13.55	\$0.00	\$56.50
LABORERS - ZONE 1						
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
LABORERS - ZONE 1	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER	06/01/2016	\$35.85	\$7.45	\$13.80	\$0.00	\$57.10
LABORERS - ZONE 1	12/01/2016	\$36.85	\$7.45	\$13.80	\$0.00	\$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER	06/01/2016	\$35.85	\$7.45	\$13.80	\$0.00	\$57.10
LABORERS - ZONE 1	12/01/2016	\$36.85	\$7.45	\$13.80	\$0.00	\$58.10
This classification applies to all tree work associated with the removal of standing trees, and trimming and removal of branches and limbs when the work is not done for a utility company for the purpose of operation, maintenance or repair of utility company equipment. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
LABORERS - ZONE 1	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS	02/01/2016	\$38.08	\$10.18	\$17.70	\$0.00	\$65.96
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2016	\$38.78	\$10.18	\$17.78	\$0.00	\$66.74
	02/01/2017	\$39.24	\$10.18	\$17.78	\$0.00	\$67.20

Classification

**Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate**

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.04	\$10.18	\$17.70	\$0.00	\$46.92
2	60	\$22.85	\$10.18	\$17.70	\$0.00	\$50.73
3	70	\$26.66	\$10.18	\$17.70	\$0.00	\$54.54
4	80	\$30.46	\$10.18	\$17.70	\$0.00	\$58.34
5	90	\$34.27	\$10.18	\$17.70	\$0.00	\$62.15

Effective Date - 08/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.39	\$10.18	\$17.78	\$0.00	\$47.35
2	60	\$23.27	\$10.18	\$17.78	\$0.00	\$51.23
3	70	\$27.15	\$10.18	\$17.78	\$0.00	\$55.11
4	80	\$31.02	\$10.18	\$17.78	\$0.00	\$58.98
5	90	\$34.90	\$10.18	\$17.78	\$0.00	\$62.86

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS,TILELAYERS & TERRAZZO MECH	02/01/2016	\$49.90	\$10.18	\$19.14	\$0.00	\$79.22
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2016	\$50.80	\$10.18	\$19.22	\$0.00	\$80.20
	02/01/2017	\$51.37	\$10.18	\$19.22	\$0.00	\$80.77

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile
Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.95	\$10.18	\$19.14	\$0.00	\$54.27
2	60	\$29.94	\$10.18	\$19.14	\$0.00	\$59.26
3	70	\$34.93	\$10.18	\$19.14	\$0.00	\$64.25
4	80	\$39.92	\$10.18	\$19.14	\$0.00	\$69.24
5	90	\$44.91	\$10.18	\$19.14	\$0.00	\$74.23

Effective Date - 08/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.40	\$10.18	\$19.22	\$0.00	\$54.80
2	60	\$30.48	\$10.18	\$19.22	\$0.00	\$59.88
3	70	\$35.56	\$10.18	\$19.22	\$0.00	\$64.96
4	80	\$40.64	\$10.18	\$19.22	\$0.00	\$70.04
5	90	\$45.72	\$10.18	\$19.22	\$0.00	\$75.12

Notes:
Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES)	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
OPERATING ENGINEERS LOCAL 4	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MECHANICS MAINTENANCE	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
OPERATING ENGINEERS LOCAL 4	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

MILLWRIGHT (Zone 1)	04/01/2015	\$37.64	\$9.80	\$16.21	\$0.00	\$63.65
MILLWRIGHTS LOCAL 1121 - Zone 1						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Apprentice - MILLWRIGHT - Local 1121 Zone 1

Effective Date - 04/01/2015

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$20.70	\$9.80	\$4.48	\$0.00	\$34.98
2	65	\$24.47	\$9.80	\$13.36	\$0.00	\$47.63
3	75	\$28.23	\$9.80	\$14.18	\$0.00	\$52.21
4	85	\$31.99	\$9.80	\$14.99	\$0.00	\$56.78

Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER LABORERS - ZONE 1	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
OILER (OTHER THAN TRUCK CRANES,GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2016	\$22.41	\$10.00	\$15.15	\$0.00	\$47.56
	12/01/2016	\$23.06	\$10.00	\$15.15	\$0.00	\$48.21
	06/01/2017	\$23.57	\$10.00	\$15.15	\$0.00	\$48.72
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2017	\$24.09	\$10.00	\$15.15	\$0.00	\$49.24
OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	06/01/2016	\$26.29	\$10.00	\$15.15	\$0.00	\$51.44
	12/01/2016	\$27.04	\$10.00	\$15.15	\$0.00	\$52.19
	06/01/2017	\$27.64	\$10.00	\$15.15	\$0.00	\$52.79
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2017	\$28.25	\$10.00	\$15.15	\$0.00	\$53.40
OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 - ZONE 1	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

Apprentice - PAINTER Local 35 - BRIDGES/TANKS**Effective Date - 07/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.23	\$7.85	\$0.00	\$0.00	\$33.08
2	55	\$27.75	\$7.85	\$3.66	\$0.00	\$39.26
3	60	\$30.28	\$7.85	\$3.99	\$0.00	\$42.12
4	65	\$32.80	\$7.85	\$4.32	\$0.00	\$44.97
5	70	\$35.32	\$7.85	\$14.11	\$0.00	\$57.28
6	75	\$37.85	\$7.85	\$14.44	\$0.00	\$60.14
7	80	\$40.37	\$7.85	\$14.77	\$0.00	\$62.99
8	90	\$45.41	\$7.85	\$15.44	\$0.00	\$68.70

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$25.71	\$7.85	\$0.00	\$0.00	\$33.56
2	55	\$28.28	\$7.85	\$3.66	\$0.00	\$39.79
3	60	\$30.85	\$7.85	\$3.99	\$0.00	\$42.69
4	65	\$33.42	\$7.85	\$4.32	\$0.00	\$45.59
5	70	\$35.99	\$7.85	\$14.11	\$0.00	\$57.95
6	75	\$38.56	\$7.85	\$14.44	\$0.00	\$60.85
7	80	\$41.13	\$7.85	\$14.77	\$0.00	\$63.75
8	90	\$46.27	\$7.85	\$15.44	\$0.00	\$69.56

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *

07/01/2016

\$47.15

\$7.85

\$16.10

\$0.00

\$71.10

* If 30% or more of surfaces to be painted are new construction,

01/01/2017

\$48.10

\$7.85

\$16.10

\$0.00

\$72.05

NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE I

Apprentice - PAINTER Local 35 Zone 1 - Spray/Sandblast - New**Effective Date - 07/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.58	\$7.85	\$0.00	\$0.00	\$31.43
2	55	\$25.93	\$7.85	\$3.66	\$0.00	\$37.44
3	60	\$28.29	\$7.85	\$3.99	\$0.00	\$40.13
4	65	\$30.65	\$7.85	\$4.32	\$0.00	\$42.82
5	70	\$33.01	\$7.85	\$14.11	\$0.00	\$54.97
6	75	\$35.36	\$7.85	\$14.44	\$0.00	\$57.65
7	80	\$37.72	\$7.85	\$14.77	\$0.00	\$60.34
8	90	\$42.44	\$7.85	\$15.44	\$0.00	\$65.73

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.05	\$7.85	\$0.00	\$0.00	\$31.90
2	55	\$26.46	\$7.85	\$3.66	\$0.00	\$37.97
3	60	\$28.86	\$7.85	\$3.99	\$0.00	\$40.70
4	65	\$31.27	\$7.85	\$4.32	\$0.00	\$43.44
5	70	\$33.67	\$7.85	\$14.11	\$0.00	\$55.63
6	75	\$36.08	\$7.85	\$14.44	\$0.00	\$58.37
7	80	\$38.48	\$7.85	\$14.77	\$0.00	\$61.10
8	90	\$43.29	\$7.85	\$15.44	\$0.00	\$66.58

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)

07/01/2016

\$45.21

\$7.85

\$16.10

\$0.00

\$69.16

PAINTERS LOCAL 35 - ZONE 1

01/01/2017

\$46.16

\$7.85

\$16.10

\$0.00

\$70.11

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - PAINTER Local 35 Zone 1 - Spray/Sandblast - Repaint
Effective Date - 07/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.61	\$7.85	\$0.00	\$0.00	\$30.46
2	55	\$24.87	\$7.85	\$3.66	\$0.00	\$36.38
3	60	\$27.13	\$7.85	\$3.99	\$0.00	\$38.97
4	65	\$29.39	\$7.85	\$4.32	\$0.00	\$41.56
5	70	\$31.65	\$7.85	\$14.11	\$0.00	\$53.61
6	75	\$33.91	\$7.85	\$14.44	\$0.00	\$56.20
7	80	\$36.17	\$7.85	\$14.77	\$0.00	\$58.79
8	90	\$40.69	\$7.85	\$15.44	\$0.00	\$63.98

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.08	\$7.85	\$0.00	\$0.00	\$30.93
2	55	\$25.39	\$7.85	\$3.66	\$0.00	\$36.90
3	60	\$27.70	\$7.85	\$3.99	\$0.00	\$39.54
4	65	\$30.00	\$7.85	\$4.32	\$0.00	\$42.17
5	70	\$32.31	\$7.85	\$14.11	\$0.00	\$54.27
6	75	\$34.62	\$7.85	\$14.44	\$0.00	\$56.91
7	80	\$36.93	\$7.85	\$14.77	\$0.00	\$59.55
8	90	\$41.54	\$7.85	\$15.44	\$0.00	\$64.83

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (TRAFFIC MARKINGS)	06/01/2016	\$35.85	\$7.45	\$13.80	\$0.00	\$57.10
LABORERS - ZONE 1	12/01/2016	\$36.85	\$7.45	\$13.80	\$0.00	\$58.10
For Apprentice rates see "Apprentice- LABORER"						
PAINTER / TAPER (BRUSH, NEW) *	07/01/2016	\$45.75	\$7.85	\$16.10	\$0.00	\$69.70
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 1	01/01/2017	\$46.70	\$7.85	\$16.10	\$0.00	\$70.65

Apprentice - PAINTER - Local 35 Zone 1 - BRUSH NEW**Effective Date - 07/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.88	\$7.85	\$0.00	\$0.00	\$30.73
2	55	\$25.16	\$7.85	\$3.66	\$0.00	\$36.67
3	60	\$27.45	\$7.85	\$3.99	\$0.00	\$39.29
4	65	\$29.74	\$7.85	\$4.32	\$0.00	\$41.91
5	70	\$32.03	\$7.85	\$14.11	\$0.00	\$53.99
6	75	\$34.31	\$7.85	\$14.44	\$0.00	\$56.60
7	80	\$36.60	\$7.85	\$14.77	\$0.00	\$59.22
8	90	\$41.18	\$7.85	\$15.44	\$0.00	\$64.47

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.35	\$7.85	\$0.00	\$0.00	\$31.20
2	55	\$25.69	\$7.85	\$3.66	\$0.00	\$37.20
3	60	\$28.02	\$7.85	\$3.99	\$0.00	\$39.86
4	65	\$30.36	\$7.85	\$4.32	\$0.00	\$42.53
5	70	\$32.69	\$7.85	\$14.11	\$0.00	\$54.65
6	75	\$35.03	\$7.85	\$14.44	\$0.00	\$57.32
7	80	\$37.36	\$7.85	\$14.77	\$0.00	\$59.98
8	90	\$42.03	\$7.85	\$15.44	\$0.00	\$65.32

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)

07/01/2016

\$43.81

\$7.85

\$16.10

\$0.00

\$67.76

PAINTERS LOCAL 35 - ZONE 1

01/01/2017

\$44.76

\$7.85

\$16.10

\$0.00

\$68.71

Apprentice - PAINTER Local 35 Zone 1 - BRUSH REPAINT**Effective Date -** 07/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.91	\$7.85	\$0.00	\$0.00	\$29.76
2	55	\$24.10	\$7.85	\$3.66	\$0.00	\$35.61
3	60	\$26.29	\$7.85	\$3.99	\$0.00	\$38.13
4	65	\$28.48	\$7.85	\$4.32	\$0.00	\$40.65
5	70	\$30.67	\$7.85	\$14.11	\$0.00	\$52.63
6	75	\$32.86	\$7.85	\$14.44	\$0.00	\$55.15
7	80	\$35.05	\$7.85	\$14.77	\$0.00	\$57.67
8	90	\$39.43	\$7.85	\$15.44	\$0.00	\$62.72

Effective Date - 01/01/2017

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.38	\$7.85	\$0.00	\$0.00	\$30.23
2	55	\$24.62	\$7.85	\$3.66	\$0.00	\$36.13
3	60	\$26.86	\$7.85	\$3.99	\$0.00	\$38.70
4	65	\$29.09	\$7.85	\$4.32	\$0.00	\$41.26
5	70	\$31.33	\$7.85	\$14.11	\$0.00	\$53.29
6	75	\$33.57	\$7.85	\$14.44	\$0.00	\$55.86
7	80	\$35.81	\$7.85	\$14.77	\$0.00	\$58.43
8	90	\$40.28	\$7.85	\$15.44	\$0.00	\$63.57

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PANEL & PICKUP TRUCKS DRIVER	06/01/2016	\$33.08	\$10.41	\$10.08	\$0.00	\$53.57
TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	08/01/2016	\$33.08	\$10.91	\$10.08	\$0.00	\$54.07
	12/01/2016	\$33.08	\$10.91	\$10.89	\$0.00	\$54.88
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2015	\$42.04	\$9.80	\$19.23	\$0.00	\$71.07
PILE DRIVER LOCAL 56 (ZONE 1)						
For apprentice rates see "Apprentice- PILE DRIVER"						
PILE DRIVER	08/01/2015	\$42.04	\$9.80	\$19.23	\$0.00	\$71.07
PILE DRIVER LOCAL 56 (ZONE 1)						

Classification

Effective Date

Base Wage

Health

Pension

Supplemental
Unemployment

Total Rate

Apprentice - PILE DRIVER - Local 56 Zone 1**Effective Date - 08/01/2015**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.02	\$9.80	\$19.23	\$0.00	\$50.05
2	60	\$25.22	\$9.80	\$19.23	\$0.00	\$54.25
3	70	\$29.43	\$9.80	\$19.23	\$0.00	\$58.46
4	75	\$31.53	\$9.80	\$19.23	\$0.00	\$60.56
5	80	\$33.63	\$9.80	\$19.23	\$0.00	\$62.66
6	80	\$33.63	\$9.80	\$19.23	\$0.00	\$62.66
7	90	\$37.84	\$9.80	\$19.23	\$0.00	\$66.87
8	90	\$37.84	\$9.80	\$19.23	\$0.00	\$66.87

Notes:**Apprentice to Journeyworker Ratio:1:3****PIPEFITTER & STEAMFITTER***PIPEFITTERS LOCAL 537*

03/01/2016	\$49.19	\$9.70	\$18.14	\$0.00	\$77.03
09/01/2016	\$50.19	\$9.70	\$18.14	\$0.00	\$78.03
03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03

Apprentice - PIPEFITTER - Local 537**Effective Date - 03/01/2016**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.68	\$9.70	\$7.50	\$0.00	\$36.88
2	45	\$22.14	\$9.70	\$18.14	\$0.00	\$49.98
3	60	\$29.51	\$9.70	\$18.14	\$0.00	\$57.35
4	70	\$34.43	\$9.70	\$18.14	\$0.00	\$62.27
5	80	\$39.35	\$9.70	\$18.14	\$0.00	\$67.19

Effective Date - 09/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$20.08	\$9.70	\$7.50	\$0.00	\$37.28
2	45	\$22.59	\$9.70	\$18.14	\$0.00	\$50.43
3	60	\$30.11	\$9.70	\$18.14	\$0.00	\$57.95
4	70	\$35.13	\$9.70	\$18.14	\$0.00	\$62.97
5	80	\$40.15	\$9.70	\$18.14	\$0.00	\$67.99

Notes:

** 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.

Refrig/AC Mechanic **1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

Apprentice to Journeyworker Ratio:****PIPELAYER***LABORERS - ZONE 1*

06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PLUMBERS & GASFITTERS	03/01/2016	\$51.36	\$11.07	\$15.14	\$0.00	\$77.57
<i>PLUMBERS & GASFITTERS LOCAL 12</i>	09/01/2016	\$52.41	\$11.07	\$15.14	\$0.00	\$78.62
	03/01/2017	\$53.41	\$11.07	\$15.14	\$0.00	\$79.62

Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$17.98	\$11.07	\$5.63	\$0.00	\$34.68
2	40	\$20.54	\$11.07	\$6.37	\$0.00	\$37.98
3	55	\$28.25	\$11.07	\$8.56	\$0.00	\$47.88
4	65	\$33.38	\$11.07	\$10.03	\$0.00	\$54.48
5	75	\$38.52	\$11.07	\$11.48	\$0.00	\$61.07

Effective Date - 09/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$18.34	\$11.07	\$5.63	\$0.00	\$35.04
2	40	\$20.96	\$11.07	\$6.36	\$0.00	\$38.39
3	55	\$28.83	\$11.07	\$8.55	\$0.00	\$48.45
4	65	\$34.07	\$11.07	\$10.02	\$0.00	\$55.16
5	75	\$39.31	\$11.07	\$11.48	\$0.00	\$61.86

Notes:

** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic\$57.78 Step5 with lic\$64.37

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.)	03/01/2016	\$49.19	\$9.70	\$18.14	\$0.00	\$77.03
<i>PIPEFITTERS LOCAL 537</i>	09/01/2016	\$50.19	\$9.70	\$18.14	\$0.00	\$78.03
	03/01/2017	\$51.19	\$9.70	\$18.14	\$0.00	\$79.03
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
PNEUMATIC DRILL/TOOL OPERATOR	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
<i>LABORERS - ZONE 1</i>	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER	06/01/2016	\$36.85	\$7.45	\$13.80	\$0.00	\$58.10
<i>LABORERS - ZONE 1</i>	12/01/2016	\$37.85	\$7.45	\$13.80	\$0.00	\$59.10
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE	06/01/2016	\$44.23	\$10.00	\$15.15	\$0.00	\$69.38
<i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2016	\$45.48	\$10.00	\$15.15	\$0.00	\$70.63
	06/01/2017	\$46.48	\$10.00	\$15.15	\$0.00	\$71.63
	12/01/2017	\$47.48	\$10.00	\$15.15	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE)	06/01/2016	\$44.23	\$10.00	\$15.15	\$0.00	\$69.38
<i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2016	\$45.48	\$10.00	\$15.15	\$0.00	\$70.63
	06/01/2017	\$46.48	\$10.00	\$15.15	\$0.00	\$71.63
	12/01/2017	\$47.48	\$10.00	\$15.15	\$0.00	\$72.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$30.40	\$10.00	\$15.15	\$0.00	\$55.55
	12/01/2016	\$31.27	\$10.00	\$15.15	\$0.00	\$56.42
	06/01/2017	\$31.96	\$10.00	\$15.15	\$0.00	\$57.11
	12/01/2017	\$32.65	\$10.00	\$15.15	\$0.00	\$57.80
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY MIX CONCRETE DRIVERS after 4/30/10 (Drivers Hired After 4/30/2010) <i>TEAMSTERS LOCAL 25a</i>	07/01/2016	\$28.03	\$8.23	\$9.31	\$0.00	\$45.57
	05/01/2017	\$28.18	\$8.23	\$9.72	\$0.00	\$46.13
	07/01/2017	\$28.18	\$8.48	\$9.72	\$0.00	\$46.38
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 25a</i>	07/01/2016	\$31.29	\$8.23	\$9.31	\$0.00	\$48.83
	05/01/2017	\$31.44	\$8.23	\$9.72	\$0.00	\$49.39
	07/01/2017	\$31.44	\$8.48	\$9.72	\$0.00	\$49.64
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 1 (Residential Wood)</i>	04/01/2011	\$37.25	\$8.67	\$15.51	\$0.00	\$61.43
RESIDENTIAL WOOD FRAME CARPENTER **	05/01/2011	\$27.49	\$6.34	\$6.23	\$0.00	\$40.06
** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. <i>CARPENTERS -ZONE 1 (Residential Wood)</i> As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.						

Apprentice - CARPENTER (Residential Wood Frame) - Zone 1

Effective Date - 05/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$16.49	\$6.34	\$0.00	\$0.00	\$22.83
2	60	\$16.49	\$6.34	\$6.23	\$0.00	\$29.06
3	65	\$17.87	\$6.34	\$6.23	\$0.00	\$30.44
4	70	\$19.24	\$6.34	\$6.23	\$0.00	\$31.81
5	75	\$20.62	\$6.34	\$6.23	\$0.00	\$33.19
6	80	\$21.99	\$6.34	\$6.23	\$0.00	\$34.56
7	85	\$23.37	\$6.34	\$6.23	\$0.00	\$35.94
8	90	\$24.74	\$6.34	\$6.23	\$0.00	\$37.31

Notes:

Apprentice to Journeyworker Ratio:1:5

RIDE-ON MOTORIZED BUGGY OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ROLLER/SPREADER/MULCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofing Waterproofing &Roofing Damproofg) <i>ROOFERS LOCAL 33</i>	02/01/2016	\$40.11	\$11.00	\$12.90	\$0.00	\$64.01

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.06	\$11.00	\$3.39	\$0.00	\$34.45
2	60	\$24.07	\$11.00	\$12.90	\$0.00	\$47.97
3	65	\$26.07	\$11.00	\$12.90	\$0.00	\$49.97
4	75	\$30.08	\$11.00	\$12.90	\$0.00	\$53.98
5	85	\$34.09	\$11.00	\$12.90	\$0.00	\$57.99

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE <i>ROOFERS LOCAL 33</i>	02/01/2016	\$40.36	\$11.00	\$12.90	\$0.00	\$64.26
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER <i>SHEETMETAL WORKERS LOCAL 17 - A</i>	02/01/2016	\$43.31	\$10.70	\$21.95	\$2.28	\$78.24
	08/01/2016	\$44.46	\$10.70	\$21.95	\$2.28	\$79.39
	02/01/2017	\$45.56	\$10.70	\$21.95	\$2.28	\$80.49
	08/01/2017	\$46.66	\$10.70	\$21.95	\$2.28	\$81.59
	02/01/2018	\$47.81	\$10.70	\$21.95	\$2.28	\$82.74

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - SHEET METAL WORKER - Local 17-A
Effective Date - 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.32	\$10.70	\$4.90	\$0.00	\$32.92
2	40	\$17.32	\$10.70	\$4.90	\$0.00	\$32.92
3	45	\$19.49	\$10.70	\$9.79	\$1.20	\$41.18
4	45	\$19.49	\$10.70	\$9.79	\$1.20	\$41.18
5	50	\$21.66	\$10.70	\$10.65	\$1.29	\$44.30
6	50	\$21.66	\$10.70	\$10.90	\$1.30	\$44.56
7	60	\$25.99	\$10.70	\$12.37	\$1.47	\$50.53
8	65	\$28.15	\$10.70	\$13.24	\$1.56	\$53.65
9	75	\$32.48	\$10.70	\$14.97	\$1.74	\$59.89
10	85	\$36.81	\$10.70	\$16.18	\$1.91	\$65.60

Effective Date - 08/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.78	\$10.70	\$4.90	\$0.00	\$33.38
2	40	\$17.78	\$10.70	\$4.90	\$0.00	\$33.38
3	45	\$20.01	\$10.70	\$9.79	\$1.22	\$41.72
4	45	\$20.01	\$10.70	\$9.79	\$1.22	\$41.72
5	50	\$22.23	\$10.70	\$10.65	\$1.31	\$44.89
6	50	\$22.23	\$10.70	\$10.90	\$1.31	\$45.14
7	60	\$26.68	\$10.70	\$12.37	\$1.49	\$51.24
8	65	\$28.90	\$10.70	\$13.24	\$1.59	\$54.43
9	75	\$33.35	\$10.70	\$14.97	\$1.77	\$60.79
10	85	\$37.79	\$10.70	\$16.18	\$1.94	\$66.61

Notes:

Steps are 6 mos.

Apprentice to Journeyworker Ratio:1:4

SIGN ERECTOR

PAINTERS LOCAL 35 - ZONE 1

06/01/2013

\$25.81

\$7.07

\$7.05

\$0.00

\$39.93

Classification

Effective Date Base Wage Health Pension Supplemental
Unemployment Total Rate

Apprentice - SIGN ERECTOR - Local 35 Zone 1
Effective Date - 06/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

Notes:

Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

SPECIALIZED EARTH MOVING EQUIP < 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2016	\$33.54	\$10.41	\$10.08	\$0.00	\$54.03
	08/01/2016	\$33.54	\$10.91	\$10.08	\$0.00	\$54.53
	12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34
SPECIALIZED EARTH MOVING EQUIP > 35 TONS <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2016	\$33.83	\$10.41	\$10.08	\$0.00	\$54.32
	08/01/2016	\$33.83	\$10.91	\$10.08	\$0.00	\$54.82
	12/01/2016	\$33.83	\$10.91	\$10.89	\$0.00	\$55.63
SPRINKLER FITTER <i>SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1</i>	03/01/2016	\$54.43	\$8.67	\$16.80	\$0.00	\$79.90
	10/01/2016	\$55.53	\$8.67	\$16.80	\$0.00	\$81.00
	03/01/2017	\$56.53	\$8.67	\$16.80	\$0.00	\$82.00

Classification
Effective Date
Base Wage
Health
Pension
**Supplemental
Unemployment**
Total Rate
Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1
Effective Date - 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.05	\$8.67	\$8.55	\$0.00	\$36.27
2	40	\$21.77	\$8.67	\$8.55	\$0.00	\$38.99
3	45	\$24.49	\$8.67	\$8.55	\$0.00	\$41.71
4	50	\$27.22	\$8.67	\$8.55	\$0.00	\$44.44
5	55	\$29.94	\$8.67	\$8.55	\$0.00	\$47.16
6	60	\$32.66	\$8.67	\$8.55	\$0.00	\$49.88
7	65	\$35.38	\$8.67	\$8.55	\$0.00	\$52.60
8	70	\$38.10	\$8.67	\$8.55	\$0.00	\$55.32
9	75	\$40.82	\$8.67	\$8.55	\$0.00	\$58.04
10	80	\$43.54	\$8.67	\$8.55	\$0.00	\$60.76

Effective Date - 10/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.44	\$8.67	\$8.55	\$0.00	\$36.66
2	40	\$22.21	\$8.67	\$8.55	\$0.00	\$39.43
3	45	\$24.99	\$8.67	\$8.55	\$0.00	\$42.21
4	50	\$27.77	\$8.67	\$8.55	\$0.00	\$44.99
5	55	\$30.54	\$8.67	\$8.55	\$0.00	\$47.76
6	60	\$33.32	\$8.67	\$8.55	\$0.00	\$50.54
7	65	\$36.09	\$8.67	\$8.55	\$0.00	\$53.31
8	70	\$38.87	\$8.67	\$8.55	\$0.00	\$56.09
9	75	\$41.65	\$8.67	\$8.55	\$0.00	\$58.87
10	80	\$44.42	\$8.67	\$8.55	\$0.00	\$61.64

Notes: Apprentice entered prior 9/30/10:
40/45/50/55/60/65/70/75/80/85
Steps are 850 hours

Apprentice to Journeyworker Ratio:1:3

STEAM BOILER OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2016	\$34.63	\$13.00	\$14.55	\$0.00	\$62.18

Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103**Effective Date -** 03/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$13.85	\$13.00	\$0.42	\$0.00	\$27.27
2	40	\$13.85	\$13.00	\$0.42	\$0.00	\$27.27
3	45	\$15.58	\$13.00	\$11.52	\$0.00	\$40.10
4	45	\$15.58	\$13.00	\$11.52	\$0.00	\$40.10
5	50	\$17.32	\$13.00	\$11.79	\$0.00	\$42.11
6	55	\$19.05	\$13.00	\$12.06	\$0.00	\$44.11
7	60	\$20.78	\$13.00	\$12.34	\$0.00	\$46.12
8	65	\$22.51	\$13.00	\$12.62	\$0.00	\$48.13
9	70	\$24.24	\$13.00	\$12.90	\$0.00	\$50.14
10	75	\$25.97	\$13.00	\$13.17	\$0.00	\$52.14

Notes:**Apprentice to Journeyworker Ratio:1:1**

TERRAZZO FINISHERS	02/01/2016	\$48.80	\$10.18	\$19.14	\$0.00	\$78.12
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2016	\$49.70	\$10.18	\$19.22	\$0.00	\$79.10
	02/01/2017	\$50.27	\$10.18	\$19.22	\$0.00	\$79.67

Apprentice - TERRAZZO FINISHER - Local 3 Marble & Tile**Effective Date -** 02/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.40	\$10.18	\$19.14	\$0.00	\$53.72
2	60	\$29.28	\$10.18	\$19.14	\$0.00	\$58.60
3	70	\$34.16	\$10.18	\$19.14	\$0.00	\$63.48
4	80	\$39.04	\$10.18	\$19.14	\$0.00	\$68.36
5	90	\$43.92	\$10.18	\$19.14	\$0.00	\$73.24

Effective Date - 08/01/2016

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.85	\$10.18	\$19.22	\$0.00	\$54.25
2	60	\$29.82	\$10.18	\$19.22	\$0.00	\$59.22
3	70	\$34.79	\$10.18	\$19.22	\$0.00	\$64.19
4	80	\$39.76	\$10.18	\$19.22	\$0.00	\$69.16
5	90	\$44.73	\$10.18	\$19.22	\$0.00	\$74.13

Notes:**Apprentice to Journeyworker Ratio:1:3**

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING DRILLER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2016	\$37.20	\$7.45	\$14.00	\$0.00	\$58.65
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$38.20	\$7.45	\$14.00	\$0.00	\$59.65
TEST BORING DRILLER HELPER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2016	\$35.92	\$7.45	\$14.00	\$0.00	\$57.37
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$36.92	\$7.45	\$14.00	\$0.00	\$58.37
TEST BORING LABORER <i>LABORERS - FOUNDATION AND MARINE</i>	06/01/2016	\$35.80	\$7.45	\$14.00	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$36.80	\$7.45	\$14.00	\$0.00	\$58.25
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$43.81	\$10.00	\$15.15	\$0.00	\$68.96
	12/01/2016	\$45.04	\$10.00	\$15.15	\$0.00	\$70.19
	06/01/2017	\$46.03	\$10.00	\$15.15	\$0.00	\$71.18
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2017	\$47.02	\$10.00	\$15.15	\$0.00	\$72.17
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2016	\$34.12	\$10.41	\$10.08	\$0.00	\$54.61
	08/01/2016	\$34.12	\$10.91	\$10.08	\$0.00	\$55.11
	12/01/2016	\$34.12	\$10.91	\$10.89	\$0.00	\$55.92
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	06/01/2016	\$48.08	\$7.45	\$14.40	\$0.00	\$69.93
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$49.08	\$7.45	\$14.40	\$0.00	\$70.93
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	06/01/2016	\$50.08	\$7.45	\$14.40	\$0.00	\$71.93
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$51.08	\$7.45	\$14.40	\$0.00	\$72.93
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2016	\$40.15	\$7.45	\$14.40	\$0.00	\$62.00
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$41.15	\$7.45	\$14.40	\$0.00	\$63.00
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	06/01/2016	\$42.15	\$7.45	\$14.40	\$0.00	\$64.00
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$43.15	\$7.45	\$14.40	\$0.00	\$65.00
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	06/01/2016	\$33.54	\$10.41	\$10.08	\$0.00	\$54.03
	08/01/2016	\$33.54	\$10.91	\$10.08	\$0.00	\$54.53
	12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34
WAGON DRILL OPERATOR <i>LABORERS - ZONE 1</i>	06/01/2016	\$36.10	\$7.45	\$13.80	\$0.00	\$57.35
For apprentice rates see "Apprentice- LABORER"	12/01/2016	\$37.10	\$7.45	\$13.80	\$0.00	\$58.35
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	06/01/2016	\$44.23	\$10.00	\$15.15	\$0.00	\$69.38
	12/01/2016	\$45.48	\$10.00	\$15.15	\$0.00	\$70.63
	06/01/2017	\$46.48	\$10.00	\$15.15	\$0.00	\$71.63
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2017	\$47.48	\$10.00	\$15.15	\$0.00	\$72.63
WATER METER INSTALLER <i>PLUMBERS & GASFITTERS LOCAL 12</i>	03/01/2016	\$51.36	\$11.07	\$15.14	\$0.00	\$77.57
	09/01/2016	\$52.41	\$11.07	\$15.14	\$0.00	\$78.62
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"	03/01/2017	\$53.41	\$11.07	\$15.14	\$0.00	\$79.62

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
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Additional Apprentice Information:

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours.)
Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof, unless otherwise specified.

- ** Multiple ratios are listed in the comment field.
- *** APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.
- **** APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

PART 2: SAMPLE CONSTRUCTION CONTRACT / CITY's GENERAL TERMS AND CONDITIONS

AGREEMENT NAME: @@@@

Project Information

Approved version 7-13-16

Section 1: CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement; the General Conditions; the Notice of Award of the Contract; the Notice to Proceed; the entire Project Manual; Change Orders; Construction Change Directives; the Contractor's Bid and all accompanying documents; Supplementary Conditions; Addenda issued prior to execution of this Contract; Modifications agreed to in writing after the execution of this Contract; and, the Design Professional's written interpretations and clarifications issued on or after the issuance of the Notice to Proceed. Shop Drawing submittals and reports or drawings utilized by the Design Professional in preparing the Contract Documents are not Contract Documents. The following Appendices are hereby incorporated by reference as part of this Agreement.

Appendix Location	Appendix Description	X if Applicable; If No X Not Applicable
Appendix A	Scope of Work – Includes Plans, Technical Specifications, and Addenda Issued During the Bid Process (Incorporated by reference)	X
Appendix B	Contractor's Bid Price; Form for General Bid	X
Appendix C	Certificate of Authority	
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Section 2: THE WORK

The Contractor shall execute all work described in the Contract Documents, except to the extent that such work is specifically indicated in the Contract Documents to be the responsibility of others. In accordance with Chapter 30, section 39I of the General Laws, the contractor shall perform all of work in conformity with the plans and specifications included herein as Appendix A. No willful or substantial deviation from such plans and specifications shall be made unless authorized in writing by the Commissioner of Public Works, which authorization shall be confirmed by written change order within thirty days.

Section 3: PROJECT DATES**(a) Contract Period:**

The Contract shall begin on the first date of the Contract Period as stated on the first page of this contract.

(b) Progress Schedule:

The Contractor shall submit a Progress Schedule along with a draw down schedule, which shall be subject to the approval of the City, no later than 10 days after contract execution and shall adhere to the Progress Schedule throughout execution of the Work.

(c) Date of Commencement of Work:

The Date of Commencement of the Work shall be stipulated by a written Notice to Proceed given by the City to the Contractor.

(d) Substantial Completion/Final Completion:

The Contractor shall achieve Substantial Completion of the Work on or before the Date of Substantial Completion as stated on first page of this Agreement, time being of the essence. Substantial Completion means that the Work has been completed and the site or the facility is opened for full and intended public use, except for minor incomplete or unsatisfactory items that do not materially impair the usefulness of the Work. The Design Professional shall decide what constitutes "minor," "incomplete," "unsatisfactory," and "materially" and the Design Professional's decision shall be final. The Date of Final Completion of the Work shall be the Date of Final Completion as stated on first page this Agreement.

(e) Liquidated Damages. The Contractor and the Contractor's surety shall be liable for and shall pay the City the sum, per calendar day, as stated on the first page of the Agreement, as Liquidated Damages, for each calendar day of delay until the work is substantially completed or, in the case of the portion of the work, for each calendar day of delay until the portion of the work is substantially completed.

- (1) any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, National Defense, or any other national emergency;
- (2) delays which are caused by the City and which are not occasioned by the Contractor's failure to supply DPW or its design professional with progress schedules, documents, samples, and the like, in a timely manner;
- (3) causes not reasonably foreseeable by the parties to this Contract, which are beyond the reasonable control of the Contractor, such as blizzards, floods, hurricanes, tornadoes, and strikes;
- (4) any delay of any subcontractor resulting from paragraphs (1), (2), or (3);

Section 4. CONTRACT SUM

The contract sum shall be as stated on the first page of this Agreement. The contract sum may be increased or decreased by change order, as quantities which have been estimated in the bid documents become known, or as other additions or deletions to the work are made, or if the work is interrupted or suspended by the City, all as set forth here in.

Section 5. PREVAILING WAGE REQUIREMENTS

(a) The Contractor shall pay wages at no less than the wage rates as stated on the first page of this Agreement and as set forth in Appendix C, incorporated as part of this Agreement. Notwithstanding anything to the contrary in Articles of the General Conditions included herein, the City may, in its sole discretion withhold payment from the General Contractor with respect to a given application for payment unless the City has in its possession payroll records that are complete, accurate, and current as of the date of said application for payment. Payment by the City on one or more occasions in the absence of the General Contractor's compliance with this section shall not constitute a waiver of the City's right to withhold payment for noncompliance on other occasions.

If a labor classification is not listed, the Contractor shall notify the City and request instructions. In addition, the Contractor shall:

(1) pay wages at least once a week; and
 (2) The General Contractor shall submit payroll information on a weekly basis in a format approved by City (form attached), numbered in numerical sequence and signed by the Contractor (including forms for weeks when the Contractor is not on the site, in which case there shall be a notation to the effect "no work this payroll period" and a date anticipated for resuming work). The General Contractor shall submit these forms to the Project Manager noted on the cover page of this contract.

(b) The Contractor shall submit the following to the City within the first week of construction:

(1) a list of apprenticeship programs with which the Contractor is affiliated;
 (2) the number of apprentices on the Project employed by the Contractor;
 (3) a list of the Contractor's employee fringe benefits;
 (4) a copy of each project schedule, including the anticipated commencement date for each Subcontractor; and
 (5) a list of each Subcontractor's suppliers and materialmen.

(c) The Contractor shall include language similar to the above in all subcontracts.

(d) Notwithstanding anything to the contrary in Articles 5 and 13 of the General Conditions included herein as Appendix C, the City may, in its sole discretion withhold payment from the Contractor with respect to a given application for payment unless the City has in its possession payroll records that are complete, accurate, and current as of the date of said application for payment. Payment by the City on one or more occasions in the absence of the Contractor's compliance with this section shall not constitute a waiver of the City's right to withhold payment for noncompliance on other occasions.

Section 6. CONTRACTOR'S CERTIFICATIONS

(a) That if this Contract is in excess of \$100,000 and is federally funded, the Contractor will abide by the Byrd Anti-Lobbying Amendment (31 U.S.C.1352), and more specifically:

(1) That no federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, in connection with the awarding of this Federal contract and the extension, continuation, renewal, amendment, or modification of this Federal contract; and

(2) That if any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, the Contractor will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions; and

(3) That the Contractor will include the language of this certification in all subcontracts, and that all subcontractors shall certify and disclose accordingly.

THIS CERTIFICATION IS A MATERIAL REPRESENTATION OF FACT UPON WHICH RELIANCE WAS PLACED WHEN THIS THE AWARD OF THIS CONTRACT WAS MADE. ANY PERSON WHO FAILS TO FILE THE REQUIRED CERTIFICATION SHALL BE SUBJECT TO A CIVIL PENALTY OF NOT LESS THAN \$10,000 AND NOT MORE THAN \$100,000 FOR EACH FAILURE.

(b) Drug-Free Workplace Act of 1988 (42 U.S.C. 701):

That, if this Contract is federally funded, the Contractor will provide a drug-free workplace and comply with the HUD rules contained in 24 CFR part 24M, including notification to employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited; that action will be taken against employees violating the prohibition; and that an employee who is convicted of manufacturing, distributing, dispensing, possession, or use of a controlled substance may be terminated or required to participate in a drug abuse assistance or rehabilitation program approved for such purpose by a Federal, State, or local health, law enforcement, or other appropriate agency.

(c) Debarment and Suspension: That the Contractor is a duly licensed general contractor, and

(1) That neither the Contractor nor any of its principal employees are on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs [E.O. 12549 and E.O. 12689 at 24 CFR part 24, applicable to contracts exceeding the small purchase threshold of fixed by 41 U.S.C. 403 (11)]; and
 (2) That the Contractor has not been debarred or suspended by any state agency or city or town in the Commonwealth of Massachusetts.

(e) Noncollusion: That the bid upon which this Contract was based was made without collusion or fraud with any other person and was in all respects bona fide and fair. As used in this paragraph, the word "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

(f) Tax Compliance: That the Contractor is in full compliance with all federal and state laws relating to income taxes, and has paid all real estate and personal property/excise taxes, water charges, fines and other municipal lien charges due to the City of Somerville, and the Contractor's Federal Tax Identification Number is as noted on the first page of this agreement .

Section 7 NON-APPLICABILITY OF FEDERAL REQUIREMENTS

If the funding source, as noted on the first page of the Agreement, does not note any federal funding (partial or full), it means that this Agreement has not been funded with federal funds and the obligations and requirements under federal law which are set forth in this Agreement do not apply.

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SAMPLE CONTRACT

IN WITNESS WHEREOF, the City and the Contractor have executed this Contract as a sealed instrument on			
	Pick D.	January,	Pick Year
this, the	day of		

Pick Year

CONTRACTOR

x

Contractor Signature (Duly Authorized):

Print Name: _____

CITY


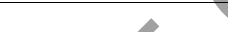




City Auditor's Encumbrance Statement

I hereby certify that the total contract amount is \$_____ and that an unencumbered balance of \$_____ is available for the current fiscal year of this contract. I further certify that a sum of \$_____ is hereby encumbered against the appropriate account for the purposes of this contract and as funds become available, I will encumber additional sums as are required under this contract.

\$_____ is hereby encumbered against the appropriate account for the purposes of this contract and as funds become available, I will encumber additional sums as are required under this contract.

x

ONLINE

Edward Bean, City Auditor
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Joseph A. Curtatone, Mayor

Angela M. Allen, Purchasing Director
x

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SAMPLE CONTRACT

Appendix A
Plans, Technical Specifications, and Addenda
(Incorporated by Reference)

SAMPLE CONTRACT

Appendix B
CONTRACTOR'S BID PRICE
Form for General Bid
Bid Form For Alternates (if applicable)
Unit Price Form (if applicable)
Schedule of Values (if applicable)

The Contractor shall periodically submit invoices to the City, for which compensation is due under this Contract and requesting payment for goods received or services rendered by the Contractor during the period covered by the invoice. The invoice must agree to the rates/payment schedule as indicated in this contract and must include the applicable Purchase Order number. The invoice shall include the following information: Contractor name, Contractor remit address, invoice date, invoice number, itemized listing of goods, services, labor, and expenses and indicating the total amount due.

SAMPLE CONTRACT

Appendix C
Forms

SAMPLE CONTRACT

Appendix D
General Conditions

SAMPLE CONTRACT

APPENDIX D
General Conditions

**GENERAL TERMS AND CONDITIONS OF THE CONTRACT
FOR CONSTRUCTION, RECONSTRUCTION, ALTERATIONS,
REMODELING, OR REPAIR OF ANY PUBLIC BUILDING OR PUBLIC WORKS
IN THE CITY OF SOMERVILLE**

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ARTICLE 1 DEFINITIONS

1.1. In General.

1.1.1. Well-known meanings. When words or phrases that have a well-known technical, or construction industry, or trade meaning are used in the Contract Documents, such words or phrases shall be interpreted in accordance with that meaning, unless otherwise stated.

1.1.2. Capitalization. The words and terms defined in this Article are capitalized in these General Terms and Conditions of the Contract. Other capitalized words may refer to a specific document found in the Contract Documents.

1.1.3. Persons. Whenever the word person or persons is used, it includes, unless otherwise stated, entity or entities, respectively, including, but not limited to, corporations, partnerships, and joint venturers.

1.1.4. Singular and Plural. The following terms have the meanings indicated which are applicable to both the singular and the plural thereof.

1.2. Definitions.

1.2.1. Agreement. The Agreement is the written document between the **City** and the **Contractor** which is titled: Agreement between the City of Somerville and the Contractor, which is the executed portion of the Contract, and which forms a part of the Contract. The Agreement also includes all documents required to be attached thereto, including, but not limited to, the performance bond, the labor and materials or payment bonds, certificates of insurance, and all Modifications of the Agreement.

1.2.2. Change Order. A Change Order is a document which is signed by the **Contractor**, the **Design Professional**, and the **City**; which is directed to the **Contractor**; which authorizes the **Contractor** to make an addition to, a deletion from or a revision in the Work, or an adjustment in the Contract Sum or in the Contract Time; and which is issued on or after the date of the Agreement between the **Contractor** and the **City**.

1.2.3. City. The **City** refers to the City of Somerville, which is the owner of the Project and is the public awarding authority with whom the **Contractor** has entered into the Contract and for whom the Work is to be provided.

1.2.4. Claim. A Claim is a dispute, demand, or assertion by one of the parties arising out of or relating to the Contract for which such party is seeking relief.

1.2.5. Contract. The Contract consists of all the Contract Documents. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification to the Contract signed by both parties.

1.2.6. Contract Documents. The Contract Documents consist of the Agreement; the notice of award of the Contract; the Notice to Proceed; the entire Project Manual; Change Orders; Construction Change Directives; the **Contractor's** Bid and all accompanying documents; and the **Design Professional's** written interpretations and clarifications issued on or after the issuance of the Notice to Proceed. Shop Drawing submittals and reports or drawings utilized by the **Design Professional** in preparing the Contract Documents are not Contract Documents.

1.2.7. Contractor. The **Contractor** is the person who is awarded the Contract for the Project herein pursuant to M.G.L. c. 149, §44A or M.G.L. c. 39, §39M; and is identified in the Agreement as such. The term "**Contractor**" is intended to include the **Contractor** as well as its authorized representative(s).

1.2.8. Contract Sum. The Contract Sum is the total amount stated in the Agreement payable by the **City** to the **Contractor** for the completion of the Work in accordance with the Contract Documents.

1.2.9. Contract Time. Unless otherwise provided, the Contract Time is the number of days allotted in the Contract Documents or the dates stated in the Agreement, including authorized adjustments, for Substantial Completion. We usually put a contract end date that is beyond the date of substantial completion.

1.2.10. Coordination Drawings. Coordination Drawings are those drawings, which are prepared by the **Contractor** or a Subcontractor that show the exact alignment, physical locations, and configuration of the mechanical, electrical, and fire protection installations.

1.2.11. Day. The term "day" shall mean calendar day unless otherwise stated.

1.2.12. Design Professional. The **Design Professional** is the person lawfully licensed to practice architecture, engineering, or landscape architecture and has been selected by the **City** to administer the Contract. The term "**Design Professional**," while referred to in the singular, means the **Design Professional** and/or the **Design Professional's** representative. For the purposes of this project, **Design Professional** shall mean the firm of Weston & Sampson and appropriate consultants.

1.2.13. Field Order. A Field Order is a written order issued by the **Design Professional** which orders minor changes in the Work, but which does not involve a change in the Contract Sum or the Contract Time.

1.2.14. Final Completion. Final Completion is the point in time when the Design Professional finds that the Work

has been fully completed in accordance with the Contract Documents. Final Completion shall be no later than thirty (30) days after Substantial Completion.

1.2.15. General Requirements. General Requirements refer to Sections of Division 1 of the Specifications.

1.2.16. Modification. A Modification is a written instrument that amends the Contract after execution of the Agreement.

1.2.17. Notice to Proceed. A Notice to Proceed is a written notice given by the **City**, or the **Design Professional**, to the **Contractor** fixing the date on which the Contract Time will begin to run and on which the **Contractor** shall start to perform its obligations under the Contract Documents.

1.2.18. Plans. The Plans are the drawings which are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location, dimensions, scope, extent, and character of the Work to be furnished and performed by the **Contractor** and which have been prepared or approved by the **Design Professional**.

1.2.19. Product Data. Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the **Contractor** to illustrate materials or equipment for some portion of the Work. Product Data are not considered part of the Contract Documents.

1.2.20. Project. The Project is the total Work to be provided under the Contract Documents and may be the whole or a part as indicated elsewhere in the Contract Documents and may include construction by the **City** or by separate contractors. The Project is the Work described in the invitation to bid (advertisement) and Specifications and illustrated by the Plans, including any Modifications.

1.2.21. Project Manual. The Project Manual is the entire set of bidding documents which includes, but is not limited to, the invitation to bid (advertisement), the instructions to bidders, all of the forms, the wage rates, all City and state requirements, the General Terms and Conditions of the Contract, any supplementary conditions thereto, the Plans, the Specifications, and all addenda.

1.2.22. Proposed Change Order. A Proposed Change Order is a Change Order that has been submitted by the **Contractor** to the **Design Professional**, is under review, and has not been approved by the **City**.

1.2.23. Samples. Samples are physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged. Samples are not considered part of the Contract Documents.

1.2.24. Shop Drawings. Shop Drawings are all drawings, diagrams, illustrations, schedules, and other information that are specifically prepared or assembled by or for the **Contractor** and submitted by the **Contractor** to illustrate some portion of the Work. Shop Drawings are not considered part of the Contract Documents.

1.2.25. Site. The Site is the location of the Project and of the Work.

1.2.26. Specifications. Specifications are those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

1.2.27. Subcontractor. A Subcontractor is a person who contracts directly with the **Contractor**, unless otherwise stated.

1.2.28. Submittals. Submittals are those Shop Drawings, Product Data, Samples, or any other required document that are provided to the Design Professional for review and approval.

1.2.29. Substantial Completion. Substantial Completion means that the Work has been completed and the Site or the facility is opened for full and intended public use, except for minor incomplete or unsatisfactory items that do not materially impair the usefulness of the Work. The **Design Professional** shall decide what constitutes "minor," "incomplete," "unsatisfactory," and "materially" and the **Design Professional's** decision shall be final.

1.2.30. Sub-subcontractor. A Sub-subcontractor is a person who has contracted directly with a Subcontractor.

1.2.31. Supplier. A Supplier is a manufacturer, fabricator, distributor, material person, or vendor having a direct contract with the Contractor or with any Subcontractor to furnish materials or equipment to be incorporated into the Work by the Contractor or any Subcontractor.

1.2.32. Work. Work refers to the services and the entire completed construction or the various separately identifiable parts thereof required by the Contract Documents, including all labor, materials, and equipment furnished, furnished and incorporated into the Project, or to be provided by the **Contractor** to fulfill the **Contractor's** obligations. The Work may constitute the whole or a part of the Project.

1.2.33. Construction Change Directive. A Construction Change Directive is a written directive to the **Contractor** ordering an addition to, a deletion from, or a revision to the Work issued on or after the date of the Agreement, signed by the **City**, and recommended by the **Design Professional**.

ARTICLE 2 ABOUT THE CONTRACT DOCUMENTS

2.1. **Priority;/Conflict.**

2.1.1. Priority Among Contract Documents. In the event of conflict among the Contract Documents, the Contract Documents shall be construed according to the following priorities:

- Highest Priority: Modifications
- Second Priority: Agreement
- Third Priority: Addenda-later date to take precedence
- Fourth Priority: Supplementary General Conditions
- Fifth Priority: General Conditions
- Sixth Priority: Plans and Specifications

2.1.1.1. If there is a conflict between the Plans and Specifications, the figured dimensions shall govern over the scaled dimensions. Detailed Plans shall govern over the general Plans. Larger scale Plans shall take precedence over smaller scale Plans. Plans shall govern over Shop Drawings. Whenever notes, specifications, dimensions, details, or schedules in the Specifications or in the Plans, or between the Specifications and the Plans, or in all other instances not specifically noted above, the **Contractor** shall provide, unless otherwise directed by a Modification of the Contract, the better quality or greater quantity of Work at no increase in the Contract Sum or in the Contract Time.

2.1.1.2. Compliance with these priority conditions shall not justify any changes in the Work or any increase in the Contract Sum or Contract Time, unless any such compliance results in Work that may not be reasonably inferred from the Contract Documents as being required to produce the intended result as determined by the **Design Professional**.

2.1.2. Review of the Contract Documents and Field Conditions and Discovery of Conflict, Error, Ambiguity, or Discrepancy. Before starting the Work, and during the progress thereof, the **Contractor** shall carefully study and compare the Contract Documents with each other and with the information furnished by the **City** pursuant to Article 3 and shall at once report to the **Design Professional** any error, inconsistency, or omission the **Contractor** may discover. Any necessary change shall be ordered as provided in Article 11, subject to the requirements of any other provisions of the Contract Documents. The **Contractor** shall not proceed with the Work affected thereby (except in an emergency) until a Modification has been issued. If the **Contractor** proceeds with the Work having discovered such errors, inconsistencies, or omissions contrary to the provisions contained herein, or if by reasonable study of the Contract Documents the **Contractor** could have discovered such, the **Contractor** shall bear all costs arising therefrom. The **Contractor** shall be liable to the **City** for failure to report any conflict, error, ambiguity, or discrepancy of which it knew or should have known.

2.1.3. Field Measurements. 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 before commencing activities. Errors, inconsistencies, or omissions discovered shall be reported to the **Design Professional** at once.

2.1.4. Statutory Provisions. The **City** and the **Contractor** recognize that other rights duties and obligations with respect to public construction contracts are provided for by statute, notwithstanding the fact that they may not be provided for in the Contract Documents. In case of conflict between the statutory provisions and other provisions of the Contract Documents and the provisions of any applicable statute, the statutory provisions shall govern.

2.1.5. Voided or Unlawful Provisions. In the event any provision in the Contract is voided or deemed unlawful, such provision shall be deleted without affecting the remainder of the Contract.

2.2. **Execution.**

2.2.1. Execution of the Agreement by the **Contractor** is a representation that the **Contractor** has visited the Site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

2.3. **Intent.**

2.3.1. Entire Agreement. The Contract Documents comprise the entire agreement between the **City** and the **Contractor** concerning the Work. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the **Contractor**. The Contract Documents are complementary; what is required by one shall be as binding as if required by all. Performance by the **Contractor** shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results. All Work mentioned or indicated in the Contract Documents shall be performed by the **Contractor** as part of this Contract unless it is specifically indicated in the Contract Documents that such Work is to be done by others.

2.3.2. Statutory Provisions. Each and every provision of law, code, and regulation, required by law to be inserted in these Contract Documents shall be deemed to be inserted herein, and they shall be read and enforced as though it were included herein, and if through mistake or otherwise, any such provision is not inserted, or if not correctly inserted, then upon the application of either party, the Contract Documents shall forthwith be physically amended to make such insertion.

2.3.3. Functionally Complete Project. It is the intent of the Contract Documents to describe a functionally complete Project. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the **Contractor**. Any Work, materials, or equipment that may be reasonably inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed by the **Contractor** whether or not specifically called for in the Contract Documents.

2.3.4. Indications or Notations. All indications or notations which apply to one of a number of similar situations, materials, or processes shall be deemed to apply to all such situations, materials, or processes wherever they appear in the Work, except where a contrary result is clearly indicated by the Contract Documents.

2.3.5. Standards or Quality of Materials or Workmanship. Where no explicit quality or standards for materials or workmanship are established for Work, such Work is to be of good quality for the intended use and consistent with the quality of the surrounding Work and of the construction of the Project generally.

2.3.6. Manufactured Products. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the manufacturer's written or printed directions and instructions unless otherwise indicated in the Contract Documents.

2.3.7. Mechanical, Electrical, and Fire Protection Plans. The mechanical, electrical, and fire protection Plans are diagrammatic only and are not intended to show the alignment, physical locations, or configurations of such Work. Such Work shall be installed without additional cost to the **City** to clear all obstructions, permit proper clearances for the Work of other trades, and present an orderly appearance where exposed. Prior to beginning such Work, the **Contractor** shall prepare Coordination Drawings and demonstrate to the **Design Professional's** satisfaction that the installations will comply with the preceding sentence. The **Contractor** shall be solely liable and responsible for any costs and/or delays resulting from the **Contractor's** failure to prepare such Coordination Drawings.

2.3.8. Locations of Fixtures and Outlets. Exact locations of fixtures and outlets shall be obtained from the **Design Professional** as provided in Article 5 before the Work is roughed in. Work installed without such information from the **Design Professional** shall be relocated at the **Contractor's** expense.

2.3.9. Tests. When test boring or soil test information are included with the Contract Documents or otherwise made available to the **Contractor** and such test boring or soil test information was obtained by the **City** for use by the **Design Professional** in the design of the Project or Work, the **City** does not hold out such information to the **Contractor** as an accurate or approximate indication of subsurface conditions, and no claim for extra cost of extension of time resulting from a reliance by the **Contractor** on such information shall be allowed except as otherwise provided herein. Any such reports are not part of the Contract Documents.

2.3.10. Joining Work. Where the Work is to fit with existing conditions or work to be performed by others, the **Contractor** shall fully and completely join the Work with such conditions or work, unless otherwise specified.

2.4. Organization.

2.4.1. Except as provided in M.G.L. c. 149, §44F, the organization of the Specifications into divisions, sections, and articles, and the arrangement of Plans shall not control the **Contractor** in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

2.5. References.

2.5.1. Where codes, manuals, specifications, standards, requirements and publications of public and private bodies are referred to in the Contract Documents whether specifically or by implication, references shall be understood to be to the latest revision prior to the date of receiving bids, except where otherwise indicated. Where statutes are referred to in the Contract Documents whether specifically or by implication, references shall be understood to be to the latest revision.

2.5.2. References herein to particular paragraphs or Articles are solely to facilitate finding additional information with regard to the specific matters and are not to be construed in any way as limiting the possible paragraphs and Articles in which such matters may be found elsewhere in this document.

2.6. Reuse of Design Professional's Written Instruments.

2.6.1. Neither the **Contractor** nor any Subcontractor or Supplier shall have or acquire any title to or ownership rights in any of the Plans, Specifications, or other documents prepared by the **Design Professional** and shall not reuse any of such Plans, Specifications, or other documents without prior written consent of the **City** and the **Design Professional**.

2.7. Written Material of the Contractor.

2.7.1. All written material prepared or collected by the **Contractor** in the course of completing the Work shall be the exclusive property of the **City** and shall not be used by the **Contractor** for any purpose other than the purpose of this Contract.

2.8. Modifying Words.

2.8.1. In the interest of simplicity, modifying words such as “all” and “any” may be omitted, but the fact that such words may be absent from one sentence and appear in another is not intended to affect the interpretation of either statement.

2.9. Use of Certain Words and Terms.

2.9.1. Whenever in the Contract Documents the terms “as ordered,” “as directed,” “as required,” “as allowed,” “as approved,” or terms of like effect or import are used, or the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe a requirement, direction, review, or judgment of the **City** or of the **Design Professional** as to the Work, it is intended that such requirement, direction, review, or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise).

2.9.2. The use of any such term or adjective shall not be effective to change the duties and responsibilities of the **City** or the **Design Professional** from those assigned in the Contract Documents or to assign any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of the Contract Documents.

2.9.3. When the words “Contractor,” “Subcontractor,” “Sub-subcontractor,” and “Supplier” are used, they are intended to include their employees and agents, unless otherwise specified.

2.10. Modification of the Contract Documents.

2.10.1. Major Modifications. Major Modifications may affect the Contract Sum or the Contract Time. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways, all of which must contain a written endorsement by the **City**:

- 2.10.1.1.** a formal written amendment;
- 2.10.1.2.** a Change Order;
- 2.10.1.3.** a **Construction Change Directive**; or
- 2.10.1.4.** the **Design Professional's** written interpretation, clarification, or decision.

2.10.2. Minor Modifications. Minor modifications do not affect the Contract Sum or the Contract Time. The requirements of the Contract Documents may be supplemented and minor variations and deviations of the Work may be authorized in one or more of the following ways:

- 2.10.2.1.** a Field Order; or
- 2.10.2.2.** the **Design Professional's** approval of a Shop Drawing or Sample.

**ARTICLE 3
THE CITY**

3.1. Signatory.

3.1.1. All documents which require a signature or an endorsement by the **City** must be signed by the Mayor in order to be deemed ratified by the **City**.

3.2. Requirements to Provide Documents.

3.2.1. To the extent they are available, the **City** shall furnish surveys describing physical characteristics, legal limitations, and utility locations for the site of the Project, and a legal description of the Site.

3.2.2. The **City** shall obtain and pay for necessary approvals, easements, assessments, and charges that are customarily secured prior to the execution of the Contract.

3.2.3. The **City** shall furnish information or services required of the **City** hereunder with reasonable promptness after receipt from the **Contractor** of a written request for such information or services.

3.2.4. The **City** shall provide the **Contractor**, at no charge, such copies of the Project Manual as are reasonably necessary for the execution of the Work.

3.3. Clerk of the Works.

3.3.1. The **City** may engage a Clerk of the Works for this Project, in which case the **City** shall, upon request of the **Contractor**, provide the **Contractor** with a written statement of the duties, responsibilities, and limitations of authority of such Clerk of the Works. Except as expressly set forth in such written statement, the Clerk of the Works shall have no authority to approve Work, to approve Change Orders, or to exercise any of the power and authority of the **City** or the **Design Professional**. The Clerk of the Works shall observe the **Contractor's** operations and construction activities for compliance with the Plans and Specifications. The Clerk of the Works shall have access to all areas of the Project at all times. The **Contractor** shall fully cooperate with the Clerk of the Works in the performance of the Clerk's duties.

3.4. City's Right to Perform Construction and to Award Separate Contracts.

3.4.1. The **City** reserves the right to perform construction or operations at the Site with its own forces or others. If the **Contractor** claims that a delay or additional cost is involved because of such action by the **City**, the **Contractor** shall make such Claim as provided elsewhere in the Contract Documents.

3.4.2. When the separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "**Contractor**" in the Contract Documents in each case shall mean the **Contractor** who executes each separate City-Contractor Agreement.

3.4.3. The **City** shall provide for coordination of the activities of the **City's** own forces and of each separate contractor with the Work of the **Contractor**, who shall cooperate with them. The **Contractor** shall afford each other person access to the Site and shall properly coordinate its Work with that of the persons performing other work. The **Contractor** shall participate with other separate contractors and the **City** in reviewing their construction schedules when directed to do so. The **Contractor** shall make any revisions to the construction schedules deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the **Contractor**, separate contractors, and the **City** until subsequently revised.

3.5. Limitations on the City's Responsibilities.

3.5.1. The **City** shall not supervise, direct, or have control or authority over, nor be responsible for the **Contractor's** means, methods, techniques, sequences, or procedures of construction or the safety precautions and programs incident thereto, or for any failure of the **Contractor** to comply with laws, codes and regulations applicable to the furnishing or performance of the Work. The **City** will not be responsible for the **Contractor's** failure to perform or furnish the Work in accordance with the Contract Documents. The **City** is not responsible for the acts or omissions of the **Contractor**, any Subcontractor, Supplier, or anyone for whose acts the **Contractor**, any Subcontractor or Suppliers may be liable.

3.5.2. The **City's** authority to review any of the **Contractor's** progress schedules, or its decision to raise or not to raise any objections about such schedules shall not impose on the **City** any responsibility for the timing, planning, scheduling, or execution of the Work, nor in any way give rise to any duty or responsibility on the part of the **City** to exercise this authority for the benefit of the **Contractor**, any Subcontractor or Supplier or any other party.

3.5.3. The **City's** decision to raise or not to raise objections with regard to any aspects of the **Contractor's** insurance shall in no way give rise to any duty or responsibility on the part of the **City** to or for the benefit of the **Contractor**, any Subcontractor, any Supplier, or any other party.

3.6. Reservation of Rights.

3.6.1. The **City** reserves the right to correct at any time any error in any progress payment that may have been made.

3.6.2. Should defective Work be discovered subsequent to final payment, the **City** reserves the right to make a claim and recover all costs and professional fees associated therewith, including the cost of removing and/or replacing the defective Work.

3.7. Waivers.

3.7.1. All waivers by the **City** are valid only to the extent that they are signed by the **City**. Any such waivers pertain only to the specific matter contained in the waiver and not to any similar, subsequent matters.

ARTICLE 4
THE DESIGN PROFESSIONAL

4.1. City's Representative.

4.1.1. The **Design Professional** is the **City's** representative (1) during construction, (2) until final payment is due, and (3) with the **City's** concurrence, from time to time during the correction period described in Article 10. The **Design Professional** will advise and consult with the **City**. The **Design Professional** will have authority to act on behalf of the **City** only to the extent provided in the Contract Documents, unless otherwise modified by a written instrument in accordance with other provisions of the Contract.

4.1.2. The duties, responsibilities, and the limitations of authority of the **Design Professional** as the **City's** representative during construction are set forth in the Contract Documents and shall not be extended without the written consent of the **City** and the **Design Professional**.

4.2. Administration of the Contract.

4.2.1. The **Design Professional** will provide administration of the Contract as described in the Contract Documents, unless the **City** has engaged a construction manager.

4.3. Visits to the Site.

4.3.1. The **Design Professional** will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the completed Work and to determine in general if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract Documents. However, the **Design Professional** will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of on-site observations as an architect, engineer, or landscape architect, the **Design Professional** will keep the **City** informed of progress of the Work in writing and will endeavor to guard the **City** against defects and deficiencies in the Work.

4.4. Communications Facilitating Contract Administration.

4.4.1. Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the **City** and the **Contractor** shall endeavor to communicate through the **Design Professional**. Communications by and with the **Design Professional's** consultants shall be through the **Design Professional**. Communications by and with Subcontractors and Suppliers shall be through the **Contractor**. Communications by and with **City** employees and separate contractors shall be through the **City**.

4.4.2. When it deems it necessary or expedient, the **City** may communicate directly with the **Contractor**, any Subcontractors, Suppliers, or consultants.

4.5. Certification of Applications for Payment.

4.5.1. Based on the **Design Professional's** observations and evaluations of the **Contractor's** applications for payment, the **Design Professional** will review and certify the amounts due the **Contractor** and will issue certificates for payment in such amounts.

4.6. Rejection of Work.

4.6.1. The **Design Professional** will have authority to reject or disapprove Work (1) that does not conform to the Contract Documents; (2) that the **Design Professional** believes to be defective; and (3) that the **Design Professional** believes will not produce a completed Project conforming to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Whenever the **Design Professional** considers it necessary or advisable for implementation of the intent of the Contract Documents, the **Design Professional** will have authority to require additional inspection or testing of the Work in accordance with Article 9, whether or not such Work is fabricated, installed, or completed. However, neither this authority of the **Design Professional** nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the **Design Professional** to the **Contractor**, Subcontractors, Suppliers, or other persons performing portions of the Work.

4.7. Review of Submittals.

4.7.1. The **Design Professional** will review or take other appropriate action upon the **Contractor's** submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents and only to the extent that the **Design Professional** believes desirable to protect the **City's** interest. The **Design Professional's** action will be taken with reasonable promptness, while allowing sufficient time in the **Design Professional's** professional judgment to permit adequate review, taking into account the

time periods set forth in the latest schedule prepared by the **Contractor** and approved by the **Design Professional**. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the **Contractor** as required by the Contract Documents. The **Design Professional's** review of the **Contractor's** submittals shall not relieve the **Contractor** of the obligations under Article 5. The **Design Professional's** review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The **Design Professional's** approval of a specific item shall not indicate approval of an assembly of which the item is a component. After the rejection of the second resubmittal of any one Submittal, the **Contractor** shall bear the cost of the review of each subsequent resubmittal.

4.8. Preparation of Change Orders and Construction Change Directives.

4.8.1. The **Design Professional** will prepare Change Orders and **Construction Change** Directives and may authorize minor Modifications in the Work as provided in Article 11.

4.9. Inspections.

4.9.1. The **Design Professional** will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; will receive and forward to the **City** for the **City's** review and records written warranties and related documents required by the Contract and assembled by the **Contractor**; and will issue a final certificate for payment upon the **Contractor's** compliance with all of the requirements of the Contract Documents.

4.10. Interpretations, Clarifications, and Decisions.

4.10.1. The **Design Professional** will interpret and decide matters concerning performance under and requirements of the Contract Documents on written request of either the **City** or the **Contractor**. The **Design Professional's** response to such requests will be made with reasonable promptness and within the time set forth in the Agreement between the **City** and the **Design Professional**. Any such written interpretations, clarifications, and decisions shall be binding on the **Contractor**.

4.10.2. Interpretations, clarifications, and decisions of the **Design Professional** will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. The **Design Professional** will not be liable to the **Contractor**, any Subcontractor, or Supplier for results of interpretations, clarifications, or decisions so rendered in good faith.

4.10.3. The **Design Professional** may, as the **Design Professional** judges desirable, issue additional drawings or instructions indicating in greater detail the construction or design of the various parts of the Work; such drawings or instructions may be effected by a Field Order or other notice to the **Contractor**, and provided such drawings or instructions are reasonably consistent with the previously existing Contract Documents, the Work shall be executed in accordance with such additional drawings or instructions without any additional cost or an extension of the Contract Time.

4.10.4. The **Design Professional's** decisions on matters relating to aesthetic effect must be consistent with the **City's** and will be final.

4.11. Limitation on the Design Professional's Responsibilities.

4.11.1. Neither the **Design Professional's** authority to act under the provisions of the Contract Documents nor any decision made by the **Design Professional** in good faith to exercise or not to exercise such authority shall give rise to any duty or responsibility of the **Design Professional** to the **Contractor**, any Subcontractor, any Supplier, any surety for any of them or any other person.

4.11.2. The **Design Professional** will not have control over or charge of and will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the **Contractor's** responsibility as provided in Article 5. The **Design Professional** will not be responsible for the **Contractor's** failure to carry out the Work in accordance with the Contract Documents. The **Design Professional** will not have control over or charge of and will not be responsible for acts or omissions of the **Contractor**, Subcontractors, Suppliers, or of any other persons performing portions of the Work.

ARTICLE 5 THE CONTRACTOR

5.1. Relationship with the City.

5.1.1. The **Contractor** is an independent contractor and not an employee of the **City**. The **Contractor** is engaged by virtue of the Contract to perform only those services contained therein. The **Contractor** is not authorized to contract on behalf of the **City** or to incur any liability on the part of the **City**.

5.2. Code of Conduct.

5.2.1. M.G.L. c. 268A establishes standards of conduct for officials and employees of the **City**. The **Contractor** shall familiarize itself with the statute and act accordingly.

5.3. Quality Assurance.

5.3.1. The **Contractor** shall be responsible for ensuring that it, all Subcontractors, Suppliers, and all persons employed to do the Work under the Contract Documents perform in a professional manner, provide a high quality of service and Work, and perform in accordance with the Contract Documents.

5.4. Supervision.

5.4.1. Competence and Efficiency. The **Contractor** shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills, attention and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

5.4.2. Construction Means, Methods, Techniques, Etc. The **Contractor** shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under the Contract. Where the Contract Documents refer to particular construction means, methods, techniques, sequences, or procedures or indicate or imply that such are to be used in the Work, such mention is intended only to indicate that the operations of the **Contractor** shall be such as to produce at least the quality of Work implied by the operations described. The actual determination of whether or not the described operations may be safely and suitably employed on the Work shall be the responsibility of the **Contractor**, who shall notify the **Design Professional** in writing, prior to implementation, of the actual means, methods, techniques, sequences, or procedures which will be employed on the Work, if these differ from those mentioned in the Contract Documents. All loss, damage, liability or cost of correcting defective work arising from the employment of any construction means, methods, techniques, sequences, or procedures shall be borne by the **Contractor**, notwithstanding that such construction means, methods, techniques, sequences, or procedures are referred to, indicated or implied by the Contract Documents, unless the **Contractor** has given timely notice to the **City** and the **Design Professional** in writing that such means, methods, techniques, sequences, or procedures are not safe or suitable, and the **City** has then instructed the **Contractor** in writing to proceed at the **City's** risk.

5.4.3. Variance between the Contract Documents and Statutes, Ordinances, Codes, Rules, and Regulations. The **Contractor** shall promptly notify the **Design Professional** and the **City** in writing of any variances between the Contract Documents and statutes, ordinances, codes, rules, and regulations. If the **Contractor**, without written notice to the **Design Professional** and the **City**, performs Work knowing that it is contrary to statutes, ordinances, codes, rules, and regulations, the **Contractor** shall assume full responsibility for such Work and shall bear the costs associated therewith, i.e., replacement, repairs, removal, and fines.

5.4.4. Acts and Omissions. The **Contractor** shall be responsible to the **City** for the acts and omissions of all persons performing or supplying the Work.

5.4.5. Inspections. The **Contractor** shall be responsible for inspection of portions of Work already performed under this Contract to determine whether such portions are in proper condition to receive subsequent Work.

5.5. Personnel.

5.5.1. Suitability. The **Contractor** shall provide competent, properly licensed and/or certified, suitably qualified, and reliable personnel to perform the Work required by the Contract Documents. The **Contractor** shall enforce strict discipline and maintain good order at the site at all times. The **Contractor** shall not employ any Subcontractor, Supplier, or other person, whether initially or as a substitute, against whom the **City** may have reasonable objection. Acceptance of any Subcontractor or other person by the **City** shall not constitute a waiver of any right of the **City** to reject defective Work.

5.5.2. Sexual Harassment. Sexual harassment is an unlawful practice under M.G.L. c. 151B. The **Contractor**, Subcontractors, and all other persons responsible for any portion of the Work shall refrain from engaging in sexual harassment. The **Contractor** shall be responsible for any acts of sexual harassment committed by any persons responsible for any portion of the Work. The **Contractor** shall take appropriate action against any such individuals.

5.5.3. Weapons and Illegal Drugs. No weapons or illegal drugs are permitted on the Site. It is the responsibility of the **Contractor** to ensure that no weapons or illegal drugs are brought to the Site.

5.5.4. Maximum Work Day and Work Week. (*Reference: M.G.L. c. 149, §§30 and 34;*). No laborer, worker, mechanic, foreperson or inspector working within this Commonwealth in the employ of the **Contractor**, Subcontractor or other person doing or contracting to do the whole or part of the work contemplated by the Contract, shall be required or permitted to work more than eight (8) hours in any one day or more than forty-eight (48) hours in any one week, or more than six (6) days in any one week, except in cases of emergency.

5.5.5. Lodging. (*Reference: M.G.L. c. 149, §25;*). Every employee under this Contract shall lodge, board and trade where and with whom he or she elects, and neither the **Contractor** nor its 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.

5.5.6. Wage Rates. (*Reference: M.G.L. c. 149, §27*). Mechanics and apprentices, teamsters, chauffeurs and laborers performing Work shall be paid no less than the minimum rate of wages included in the bid documents and the Project Manual and which are made part of the Contract. They shall continue to be the minimum rate of wages for said employees during the life of the Contract. The **Contractor** shall keep a legible copy of the wage rates posted in a conspicuous place at the site during the life of the Contract. These rates of wages shall include payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans as provided in M.G.L. c. 149, §26;, and such payments shall be considered as payments to persons under M.G.L. c. 149, §27 performing work as therein provided. If the **Contractor** 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 the rates of wages, the **Contractor** shall pay the amount of said payments directly to each employee engaged in the Work. If the **Contractor** pays less than the rate of wages, including payments to health and welfare funds and pension funds, or the equivalent payments in wages to any person performing Work within the classifications as determined by the Commissioner of Labor and Industries, and if the **Contractor** takes or receives for its own use or the use of any other person, as a rebate, refund or gratuity, or in any other guise, any part or portion of the wages, including payments to health and welfare funds and pension funds, or the equivalent payment in wages, paid to such person for Work done or service rendered on the Project, the **Contractor** will be subject to the penalties set forth in M.G.L. c. 149, §27. Notwithstanding the foregoing and the requirements of 5.5.7.1 and 5.5.7.2 below, if the Contract is federally funded, federal labor standards apply, including Davis Bacon minimum wage rates and payroll reporting requirements. See the "Federal Requirements" section at the end of these contract documents.

5.5.7. Payroll Records of Employees. (*Reference: M.G.L. c. 149, §27B;*). The **Contractor** and all Subcontractors who are subject to M.G.L. c. 149, §§27 and 27A shall keep a true and accurate record of all mechanics and apprentices, teamsters, chauffeurs, and laborers performing Work showing the name, address and occupational classification of each such employee, the hours worked by and the wages paid to all such employees. The **Contractor** and the Subcontractors shall submit a copy of said record to the **City** on a weekly basis.

5.5.7.1. (*Reference: M.G.L. c. 149, §27B;*). The **Contractor** and all Subcontractors who are subject to M.G.L. c. 149, §§27 and 27A shall preserve their payroll records for a period of three (3) years from the date of completion of the Contract.

5.5.7.2. (*Reference: M.G.L. c. 149, §27B*). The **Contractor** and all Subcontractors who are subject to M.G.L. c. 149, §§27 and 27A shall furnish to the Commissioner of Labor and Industries and the **City** within fifteen (15) days after completion of their portion of the Work a statement executed by the **Contractor** or Subcontractor or by any authorized officer or employee of the **Contractor** or Subcontractor who supervises the payment of wages in the form found in M.G.L. c.149, §27B.

5.6. Superintendence.

5.6.1. Employment of a Superintendent. The **Contractor** shall employ a competent, properly licensed superintendent, reasonably acceptable to the **City**, and necessary assistants who shall be in attendance at the Site full time during the progress of the Work until the date of Substantial Completion and for such additional time thereafter as the **Design Professional** or the **City** may determine to be necessary for the expeditious completion of the Work, including final completion. If continually in the employ of the Contractor, the same Superintendent shall be assigned to this project.

5.6.2. Removal/Replacement of a Superintendent. The **Contractor** shall remove the superintendent if requested to do so in writing by the **City** and shall promptly replace such superintendent with a competent person reasonably acceptable to the **City**. The superintendent shall represent the **Contractor**, and communications given to the superintendent shall be as binding as if given to the **Contractor**. The **Contractor** shall not replace the superintendent without written notice to the **City** and the **Design Professional**.

5.6.3. Registered Professional Engineer or Registered Land Surveyor. The **Contractor** shall retain a competent Registered Professional Engineer or Registered Land Surveyor, acceptable to the **Engineer**, who shall establish the exterior lines and required elevations of all buildings and structures to be erected on the site and shall establish sufficient lines and grades for the construction of associated Work such as, but not limited to, roads, utilities, and site grading. The Engineer or Land Surveyor shall certify as to the actual location of the constructed facilities in relation to property lines, building lines, easements, and other restrictive boundaries.

5.6.4. Building Grades, Lines, Etc.; The **Contractor** shall establish the building grades; lines; levels; and column, wall and partition lines required by the various Subcontractors in laying out their Work.

5.6.5. Coordination and Supervision. The **Contractor** shall coordinate and supervise the Work performed by Subcontractors to the end that the Work is carried out without conflict between trades and so that no trade, at any time, causes delay to the general progress of the Work. The **Contractor** and all Subcontractors shall at all times afford each trade, any separate contractor, or the **City**, every reasonable opportunity for the installation of Work and the storage of materials.

5.6.6. Job Meetings. There shall be job meetings held on a weekly basis, or more often if required by the **City**. The **Contractor** shall arrange for and attend weekly job meetings with the **Design Professional** and such other persons as the **Design Professional** may from time to time wish to have present. The **Contractor** shall be represented by a principal, project manager, general superintendent or other authorized main office representative, as well as by the **Contractor's** own superintendent. An authorized representative of any Subcontractor or Sub-subcontractor shall attend such meetings if the representative's presence is requested by the **Design Professional**. Such representatives shall be empowered to make binding commitments on all matters to be discussed at such meetings, including costs, payments, Change Orders, time schedules and workforce power. Any notices required under the Contract may be served on such representatives.

5.7. Materials, Labor, Equipment, Etc.

5.7.1. Provision of. Unless otherwise provided in the Contract Documents, the **Contractor** shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the Work. The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required by this contract, within the time herein specified, in accordance with the provisions of this contract and said specifications and in accordance with the plans and drawings, and in accordance with the directions of the Design Professional or CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) as given from time to time during the progress of the work. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required. The Contractor shall observe, comply with and be subject to all terms, conditions, requirements and limitations of the contract and specifications, and shall do, carry on and complete the entire work to the satisfaction of the Design Professional and CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT).

5.7.1.1. The Contractor shall furnish, install and/or maintain ample sanitary facilities for the workmen. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the sanitary codes of the State and Local Government. Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health regulations. Nothing in this Section shall be construed as forbidding the use of facilities available in existing buildings on the job site if they meet the above requirements and the use of them will not interfere with the progress of the work.

5.7.2. Quality and Use of. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by the **Design Professional**, the **Contractor** shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

5.7.3. Discrepancies or Defects. If the **Contractor** is unable to perform its Work because of discrepancies or defects in the work of the **City's** own forces or of a separate contractor, the **Contractor** shall immediately notify the **Design Professional** and the **City** in writing of the conditions that render unable to so perform. Failure to notify the **Design Professional** constitutes an acknowledgment and acceptance of the other work as being fit and proper for integration with the **Contractor's** Work except for latent or non-apparent defects and deficiencies in the other work.

5.8. Contractor's Management and Financial Statement Requirements. (Reference: M.G.L. c. 30, §39R)

5.8.1. The words defined herein shall have the meaning stated below whenever they appear in this Paragraph:

5.8.1.1. "Contractor" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to M.G.L. c.149, §44A-H or M.G.L. c. 30, §39M, inclusive.

5.8.1.2. "Contract" means any contract awarded or executed pursuant to M.G.L. c. 149, §44A-H or M.G.L. c. 30, §39M, which is for an amount or estimate amount that exceed the dollar amount set forth in M.G.L. c. 30, §39R.

5.8.1.3. "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.

5.8.1.4. "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his/her residence or principal office and who is

in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof. Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the **City**.

5.8.1.5. "Audit," when used in regard to financial statement, 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.

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

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

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

5.8.2. The Contractor shall make, and keep for at least six (6) years after final payment, books, Records, and accounts that in reasonable detail accurately and fairly reflect the transactions and dispositions of the Contractor.

5.8.2.1 Federal Requirements: The Contractor shall permit the City, HUD and/or any other administering agency named herein, the Comptroller General of the United States, or any of their duly authorized representatives, to have access to any books, documents, papers, and records of the Contractor which are directly pertinent to a specific HUD program for the purpose of making audits, examinations, excerpts, and transcriptions.

5.8.3. Until the expiration of six (6) years after final payment, the Office of the Inspector General, and the Deputy Commissioner of the Division of Capital Asset Management shall have the right to examine any books, documents, papers or Records of the Contractor or of its Subcontractors that directly pertain to, and involve transactions relating to, the Contractor or its Subcontractors.

5.8.4. The Contractor shall describe any change in the method of maintaining Records or recording transactions which materially affect any statements filed with the **City**, including in its description 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.

5.8.5. The Contractor shall file a Statement of Management on internal accounting controls as set forth below prior to the execution of the Contract.

5.8.6. The Contractor shall file prior to the execution of the contract and shall continue to file annually, an Audited Financial Statement for the most recent completed fiscal year as set forth below.

5.8.7. The Contractor shall file with the **City** a Statement of Management as to whether the system of internal accounting controls of the Contractor and its subsidiaries reasonably assures that:

5.8.7.1. transactions are executed in accordance with Management's general and specific authorization;

5.8.7.2. transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles, and to maintain accountability for assets;

5.8.7.3. access to assets is permitted only in accordance with Management's general or specific authorization; and

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

5.8.7.5. The Contractor shall also file with the **City** a statement prepared and signed by an Independent Certified Public Accountant stating that s/he has examined the Statement of Management on internal accounting controls, and expressing an opinion as to:

5.8.7.5.1. whether the representation of Management in response to this paragraph and paragraphs 5.8.2. through 5.8.6 above are consistent with the result of Management's evaluation of the system of internal accounting controls; and

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

5.8.8. The Contractor shall annually file with the Commissioner of the Division of Capital Asset Management 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 **City** upon request.

5.8.9. The City's Contracting Department, its authorized representative and agents and the HUD Representative for the Secretary shall, at all times have access to and be permitted to observe and review all work materials, equipment, payrolls, personnel records, employment conditions, material invoices, and other relevant data and records pertaining to this Contract, provided, however, that all instructions and approval with respect to the work will be given to the Contractor only by **CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT)** through its authorized representatives or agents. Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in G.L. 4, §7 or equivalent federal legislation. They shall not be made available to the public, but shall be available only to the governmental authorities named herein.

5.9. Taxes.

5.9.1 The **Contractor** shall pay all sales, consumer, use, and other similar taxes for the Work or portions thereof which are provided by the **Contractor** which are legally enacted when bids are received, whether or not yet effective or merely scheduled to go into effect. However, the **Contractor** shall not pay, and the **City** shall not reimburse or pay the **Contractor** for, any sales taxes for building supplies or materials for which an exemption is provided in M.G.L. c. 64H, §6(f). The **City's** tax exemption number to be used by the **Contractor** in this regard is E04-600-1414.

5.10. Permits, Licenses, and Fees.

5.10.1 Unless otherwise provided, the **Contractor** shall obtain and pay the fees for all permits, licenses, and inspections that are necessary for the proper execution and completion of the Work and which are customarily secured after execution of the Contract and which are legally required. All fees for permits, licenses, and inspections required by any **City** department shall be waived. Unless otherwise agreed by the Awarding Authority in writing, the Contractor shall, prior to commencement of the work, (i) meet with the City of Somerville Inspectional Services Department to determine what permits are needed for the work; (ii) obtain all such permits; and (iii) provide copies of such permits to the Awarding Authority. Permits shall include, without limitation, demolition, foundation, digsafe, and building permits; permits for removal, sealing up, or installation of utilities, including gas, electrical, water and sewer; and permits for obstructing public streets and sidewalks.

5.11. Notices Required By Statutes, Ordinances, Codes, Rules, Regulations, and Orders of the City.

5.11.1 The **Contractor** shall give notices required by statutes, ordinances, codes, rules, regulations, and orders of the **City** bearing on performance of the Work.

5.12. Additional Information from Design Professional.

5.12.1. The **Contractor** shall perform the Work in accordance with the Contract Documents and submittals approved pursuant to Article 4.

5.12.2. The **Contractor** shall give the **Design Professional** timely notice of any additional Plans, Specifications, or instructions required to define the Work in greater detail, or to permit the proper progress of the Work.

5.12.3. The **Contractor** shall not proceed with any Work not clearly and consistently defined in detail in the Contract Documents, but shall request additional drawings or instructions from the **Design Professional** as provided in the previous Paragraph. If the **Contractor** proceeds with such Work without obtaining further drawings, Specifications, or instructions, the **Contractor** shall correct Work incorrectly done at the **Contractor's** own expense.

5.13. "Or equal."

5.13.1. Requirements for Substitutions. (*Reference:* M.G.L. c. 30, §39M(b).) 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 **Design Professional**:

5.13.1.1. it is at least equal in quality, durability, appearance, strength, and design;

5.13.1.2. it performs at least equally the function imposed by the general design for the Work;

5.13.1.3. it conforms substantially, even with deviations, to the detailed requirements for the items as indicated by the Specifications.

5.13.2. Net Savings. No proposed substitution will be permitted unless the **Contractor** certifies that the proposed substitution will yield a net savings to the **City** and will not extend the Contract Time.

5.13.3. Contractor's Expense. Any structural or mechanical changes made necessary to accommodate substituted

equipment under this paragraph (including but not limited to engineering fees) shall be at the expense of the **Contractor** or **Subcontractor** responsible for the Work item.

5.13.3.1. Any additional cost, or any loss or damage arising from the substitution of any material or any method for those originally specified shall be borne by the **Contractor**, notwithstanding approval or acceptance of such substitution by the **City** or the **Design Professional**, unless such substitution was made at the written request or direction of the **City** or the **Design Professional**.

5.13.3.2. All data to be provided by the **Contractor** in support of any proposed “or equal” or substitute item will be at the **Contractor's** expense.

5.13.4. Meeting Requirements. The **Contractor** shall be responsible for determining that all materials furnished for the Work meet all requirements of the Contract Documents. The **Design Professional** may require the **Contractor** to produce reasonable evidence that a material meets such requirements, such as certified reports of past tests by qualified testing laboratories, reports of studies by qualified experts, or other evidence which, in the opinion of the **Design Professional**, would lead to a reasonable certainty that any material used, or proposed to be used, in the Work meets the requirements of the Contract Documents. All such data shall be furnished at the **Contractor's** expense. This provision shall not require the **Contractor** to pay for periodic testing of different batches of the same material, unless such testing is specifically required by the Contract Documents to be performed at the **Contractor's** expense.

5.13.5. Named Manufacturer's Product. In all cases in which a manufacturer's name, trade name, or other proprietary designation is used in connection with materials or articles to be furnished under this Contract, whether or not the phrase “or equal” is used after such name, the **Contractor** shall furnish the product of the name manufacturer(s) without substitution, unless a written request for a substitute has been submitted by the **Contractor** and approved in writing by the **Design Professional** as provided in the following paragraph.

5.13.6. Deviations. If the **Contractor** proposes to use a material which while suitable for the intended use, deviates in any way from the detailed requirements of the Contract Documents, the **Contractor** shall inform the **Design Professional** in writing of the nature of such deviations at the time the material is submitted for approval and shall request written approval of the deviation from the requirements of the Contract Documents.

5.13.7. Rejection of Deviations. In requesting approval of deviations or substitutions, the **Contractor** shall provide, upon request, evidence leading to a reasonable certainty that the proposed substitution or deviation will provide a quality of result at least equal to that otherwise attainable. If, in the opinion of the **Design Professional**, the evidence presented by the **Contractor** does not provide a sufficient basis for such reasonable certainty, the **Design Professional** may reject such substitution or deviation without further investigation.

5.13.8. Consistent Character and Quality of Design. The Contract Documents are intended to produce a building of consistent character and quality of design. All components of the building including visible items of mechanical and electrical equipment have been selected to have a coordinated design in relation to the overall appearance of the Project. The **Design Professional** shall judge the design and appearance of proposed substitutes on the basis of their suitability in relation to the overall design of the Project, as well as for their intrinsic merits. The **Design Professional** will not approve as equal to materials specified proposed substitutes that, in the **Design Professional's** opinion, would be out of character, obtrusive, or otherwise inconsistent with the character or quality of design of the Project. In order to permit coordinated design of color and finishes the **Contractor** shall, if required by the **Design Professional**, furnish the substituted material in any color, finish, texture, or pattern which would have been available from the manufacturer originally specified, at no additional cost to the **City**.

5.13.9. Warranty. The warranties provided herein shall be in addition to and not in limitation of any other warranty required by the Contract Documents or otherwise prescribed by law.

5.13.10. Design Professional's Approval. The **Design Professional** will be the sole judge of acceptability. No “or equal” or substitute will be ordered, installed, or utilized without the **Design Professional's** prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. The **City** may require the **Contractor** to furnish at the **Contractor's** expense a special performance guarantee or other surety with respect to any “or equal” or substitute. The **Design Professional** will record the time required by the **Design Professional** and its consultants in evaluating substitutes proposed or submitted by the **Contractor** and in making changes in the Contract Documents (or in the provisions of any other direct contract with the **City** for work on the Project) occasioned thereby. Whether or not the **Design Professional** accepts a substitute item so proposed or submitted by the **Contractor**, the **Contractor** shall reimburse the **City** for the charges of the **Design Professional** and its consultants for evaluating each such proposed substitute item.

5.14. Substitute Construction Methods or Procedures.

5.14.1 If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Contract Documents, the **Contractor** may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to the **Design Professional**. The **Contractor** shall submit sufficient information to allow the **Design Professional**, in the **Design Professional's** sole discretion, to determine whether the substitute

proposed is equivalent to that expressly called for by the Contract Documents.

5.15. Contractor's Progress Schedule.

5.15.1. Before Starting Construction. Within ten (10) days after the date of the Notice to Proceed, the **Contractor** shall submit to the **Design Professional** for review:

5.15.1.1. a preliminary progress schedule indicating the times (number of days or dates) for starting and completing the various stages of the Work;

5.15.1.2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and

5.15.1.3. a refined schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Sum and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

5.15.2. Review of Progress Schedule. At least ten (10) days prior to the commencement of construction, the **Design Professional**, the **Contractor**, and any other appropriate persons will meet to review and discuss the acceptability to the **Design Professional** of the progress schedule. The **Contractor** will have an additional ten (10) days to make corrections and adjustments and to complete and resubmit the schedule. No progress payment shall be made to the **Contractor** until the schedule is submitted to and found acceptable by the **Design Professional** as provided below.

5.15.3. Acceptability of Progress Schedule. The progress schedule will be acceptable to the **Design Professional** if, according to the **Design Professional**, it provides an orderly progression of the Work to completion within any specified time frame, but such acceptance will neither impose on the **Design Professional** responsibility for the sequencing, scheduling, or progress of the Work nor interfere with or relieve the **Contractor** from the **Contractor's** full responsibility therefore. The **Contractor's** schedule of Submittals must be acceptable to the **Design Professional** in providing a workable arrangement for reviewing and processing the required Submittals. The **Contractor's** schedule of values must be acceptable to the **Design Professional** as to form and substance.

5.15.4. Sepia and Copies. After the **Design Professional** has approved the schedule, the **Contractor** shall submit to the **Design Professional** one (1) sepia and four (4) copies bearing the **Contractor's** stamp of approval as a representation to the **City** that the **Contractor** has determined or verified all data on that progress schedule and that the **Contractor**, the Subcontractors and Suppliers have reviewed and coordinated the sequences in that progress schedule with the requirements of the Work.

5.15.5. Adjustment of Schedule. The **Contractor** shall adhere to the established progress schedule which may be adjusted from time to time as follows: the **Contractor** shall submit to the **Design Professional** for acceptance proposed adjustments in the progress schedule that will not change the Contract Time. Such adjustments will conform generally to the progress schedule then in effect and will comply with any provisions of the requirements applicable thereto.

5.15.6. During Construction. The **Contractor** shall submit monthly progress schedules to the **Design Professional**. The schedules shall stay current with the **Contractor's** approach to the Work remaining.

5.15.7. Schedule of Submittals. The **Contractor** shall prepare and keep current, for the **Design Professional's** approval, a schedule of Submittals that is coordinated with the **Contractor's** construction schedule and allows the **Design Professional** reasonable time to review Submittals.

5.16. Project Coordination.

5.16.1. In General. The **Contractor** shall be responsible for the proper coordination of the Work of all of the trades.

5.16.2. Coordination with Subcontractors. The **Contractor** shall coordinate the work of each Subcontractor with the Work of every other Subcontractor whose Work affects the other.

5.16.3. Coordination with the City's Own Forces or Separate Contractors. The **Contractor** shall coordinate its operations with those of the **City's** own forces or separate contractors. The **Contractor** shall provide the **City's** own forces and separate contractors a reasonable opportunity for the handling, unloading and storage of their materials and equipment and execution of their work. The **Contractor** shall connect and coordinate its Work with theirs.

5.16.4. Coordination with Utility Companies. The **Contractor** shall coordinate its operations with all the appropriate utility companies to assure that the utilities required on the Project are available and functioning properly pursuant to the requirements of the Contract Documents.

5.17. Project Photographs.

5.17.1. In General. The **Contractor** shall take, at its own expense, interior and exterior photographs at the site, from different vantages as directed by the **Design Professional** or the **City**, before beginning any Work and thereafter, at a minimum, on the first work day of each month until final completion of the Work, including final Site photos. Photos shall be taken of any

Work that will be buried or concealed while the Work is still exposed. The photographs shall be taken by a skilled commercial photographer. The number of photographs required shall be at the discretion of the **City** or the **Design Professional**. One aerial photo shall be required a) prior to commencement of the work and b) at the completion of the work. See Section 01320 – Construction Progress Documentation.

5.17.2. Prints and Digital Media. Within fourteen (14) days after the photographs have been taken, the **Contractor** shall cause prints to be made and delivered to the **City** and the **Design Professional**. All photographs shall be 8" x 10". Each print shall state the date of the photograph, the name of the Project, the description of the view and the name and address of the photographer. The **City** shall receive one glossy print of each photo as well as all prints in digital form on compact disc. The **Design Professional** shall receive one glossy print.

5.17.3. Failure to Comply. Should the **Contractor** fail to adhere to any requirement set forth in the previous two paragraphs, the **City** may have the photographs taken at the **Contractor's** expense or receive a set-off against the **Contractor's** next application for payment.

5.18. Record Documents and Samples at the Site.

5.18.1 The **Contractor** shall maintain in a safe place at the site one record copy of all Plans, Specifications, Modifications, Change Orders, **Construction Change** Directives, Field Orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to the **Design Professional** for reference. Upon completion of the Work, these record documents, Samples and Shop Drawings will be delivered by the **Contractor** to the **Design Professional** for the **City**.

5.19. Submittals.

5.19.1. Purpose. The purpose of Submittals 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.

5.19.2. Submittal Procedure. Within ten (10) days from the Notice to Proceed, the **Contractor** shall submit to the **Design Professional** a completed Submittals schedule. The **Contractor** shall review, approve, and submit to the **Design Professional** 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 **City** or of separate contractors. Submittals made by the **Contractor** that are not required by the Contract Documents may be returned without action. The schedules shall be updated and resubmitted each month. All Submittals will be identified as the **Design Professional** may require and in the number specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show the **Design Professional** the materials and equipment that the **Contractor** proposes to provide and to enable the **Design Professional** to review the information for the limited purposes stated below.

5.19.3. Samples. The **Contractor** shall also submit Samples to the **Design Professional** for review and approval in accordance with said accepted schedule of Submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which it is intended and otherwise as the **Design Professional** may require to enable the **Design Professional** to review the Submittal for the limited purposes stated below. The numbers of each Sample to be submitted will be as specified in the Specifications. Unless otherwise specified in the Specifications, three (3) specimens of each Sample shall be submitted.

5.19.3.1. The Samples shall be of sufficient size to permit proper evaluation of material. Where variations in color or other characteristics are to be expected, samples showing the minimum range of variation shall be submitted. Materials exceeding the range of variation of the approved Samples will not be approved on the Work.

5.19.3.2. All costs associated with delivery of Samples will be paid by the **Contractor**.

5.19.4. Contractor's Verifications. Before submitting each Submittal, the **Contractor** shall have determined and verified:

5.19.4.1. all field measurements, quantities, dimensions specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

5.19.4.2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

5.19.4.3. all information relative to the **Contractor's** sole responsibilities in respect of means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto.

5.19.5. Contractor's Representations. By approving and providing Submittals, the **Contractor** thereby represents that the **Contractor** has determined and verified all dimensions, quantities, field dimensions, relations to existing Work, coordination with Work to be installed later, coordination with information on previously accepted Submittals and verification of

compliance with all the requirements of the Contract Documents. The accuracy of all such information is the responsibility of the **Contractor**. In reviewing Submittals, the **Design Professional** shall be entitled to rely upon the **Contractor's** representation that such information is correct and accurate.

5.19.6. Coordination. The **Contractor** shall also have reviewed and coordinated each Submittal with other Submittals and with the requirements of the Work and the Contract Documents.

5.19.7. Stamp or Specific Written Indication. Each Submittal will bear a stamp or specific written indication that the **Contractor** has satisfied the **Contractor's** obligations under the Contract Documents with respect to the **Contractor's** review and approval of that Submittal.

5.19.8. Written Notice of Variations. At the time of each Submittal, the **Contractor** shall give the **Design Professional** specific written notice of such variations, if any, that the Submittal may have from the requirements of the Contract Documents. Such notice is to be in a written communication separate from the Submittal. Moreover, the **Contractor** shall make a specific notation on each Submittal to the **Design Professional** for review and approval of each such variation.

5.19.9. Review and Approval by the Design Professional. The **Contractor** shall perform no portion of the Work requiring a Submittal until the respective Submittal has been approved by the **Design Professional**. Such Work shall be in accordance with approved Submittals.

5.19.9.1. The **Design Professional** will review and approve Submittals in accordance with the schedule of Submittals accepted by the **Design Professional** as required above. The **Design Professional's** review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. The **Design Professional's** review and approval will not extend to means, method, technique, sequences, or procedures of construction (except where a particular means, method, technique, sequences or procedures of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

5.19.10.Deviations. The **Contractor** shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the **Design Professional's** approval of Submittals unless the **Contractor** has specifically informed the **Design Professional** in writing of such deviation at the time of Submittal and the **Design Professional** has given written approval to the specific deviation. The **Contractor** shall not be relieved of responsibility for errors or omissions in Submittals by the **Design Professional's** approval thereof.

5.19.11.Revisions. The **Contractor** shall make corrections required by the **Design Professional** and shall return the required number of corrected copies of Submittals and submit as required new Submittals for review and approval. The **Contractor** shall direct specific attention, in writing or on resubmitted Submittals, to revisions other than those requested by the **Design Professional** on previous Submittals. Unless such written notice has been given, the **Design Professional's** approval of a resubmitted Submittal shall not constitute approval of any changes not requested on the prior Submittal.

5.19.12.Related Work. Where a Submittal is required by the Contract Documents or the schedule of Submittals accepted by the **Design Professional**, any related Work performed prior to the **Design Professional's** review and approval of the pertinent Submittal will be at the sole expense and responsibility of the **Contractor**.

5.19.13.Informational Submittals. Informational Submittals upon which the **Design Professional** is not expected to take responsive action may be so identified in the Contract Documents.

5.19.14.Certification. When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the **City** shall be entitled to rely upon such certifications, and neither the **City** nor the **Design Professional** shall be expected to make any independent examination with respect thereto.

5.20. Continuing the Work.

5.20.1. The **Contractor** shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with the **City**. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as otherwise provided herein or as the **City** and the **Contractor** may agree in writing.

5.21. Use of Site; Access to Work.

5.21.1. The right of possession of the premises and the improvements made thereon by the **Contractor** shall remain at all times in the **City**. The **Contractor's** right to entry and use thereof arises solely from the permission granted by the **City** under the Contract Documents. The **Contractor** shall confine the **Contractor's** apparatus, the storage of materials, and the operations of the **Contractor's** workers to limits indicated by law, ordinance, the Contract Documents and permits and/or directions of the **Design Professional** and shall not unreasonably encumber the premises with the **Contractor's** materials. The **City** shall not be liable to the **Contractor**, the Subcontractors, Suppliers, or anyone else with respect to the conditions of the premises, except for a condition caused directly and solely by the negligence of the **City**.

5.21.2. At all times, the **City** and the **Design Professional** shall have access to the Work.

5.22. Protection of Persons and Property.

5.22.1. **In General.** The **Contractor** shall be responsible for initiating, maintaining, and supervising all health and safety precautions and programs in connection with the performance of the Contract. The **Contractor** is responsible for the implementation of all Federal, State, and local health and safety requirements. The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance by CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT).

The Contractor shall provide sufficient competent watchmen, both day and night, including Saturdays, Sundays and holidays, as necessary, from the time the work is commenced until final completion and acceptance. Sufficient lighting shall be provided to aid in the prevention of injury to passersby or vandalism to the property or other illegal activities.

The Contractor shall avoid damage as a result of its operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc. and the Contractor shall at its own expense completely repair any damage thereto caused by its operations.

The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structure adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of the improvements embraced in this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of work. The Contractor shall indemnify and save harmless the City of Somerville and/or CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) from any liability for damages on account of settlement or the loss of lateral support of adjoining property resulting from the Contractor's failure to comply with this section.

5.22.1.1. If this contract is in excess of \$100,000 and is federally funded, the Contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.)

5.22.1.2. If this contract is in excess of \$2,000 and is federally funded, the Contractor shall comply with Sections 103 and 107 of the Contract Work Hours Safety Standards Acts (40 U.S.C. 327-333), as supplemented by Department of Labor regulations at 29 CFR part 5. To that end, the Contractor shall compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible, provided that the worker is compensated at a rate of not less than 1-1/2 times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. The Contractor shall ensure that no laborer or mechanic is required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous.

5.22.2. The **Contractor** shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to:

5.22.2.1. employees on the site and other persons who may be affected thereby;

5.22.2.2. the Work, materials, and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the **Contractor**, Subcontractors, or Sub-subcontractors;

5.22.2.3. other property at the site or adjacent or in close proximity thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction; and

5.22.2.4. any other property of the **City**, whether or not forming part of the Work, located at the site or adjacent thereto in areas to which the **Contractor** has access.

5.22.3. **Notices and Compliance.** The **Contractor** shall give notices and comply in all other respects with applicable laws, ordinances, rules, regulations, codes, and lawful orders of public authorities bearing on the safety of persons or property or their protection from damage, injury, or loss. The **Contractor** shall notify owners of adjacent and nearby properties of underground facilities and utility owners when prosecution of the Work may affect them and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

5.22.3.1. Should the Contractor in the execution of his work uncover or discover utility service lines not indicated on the relevant drawings, or that do not show signs of singular service to any existing structures being demolished, the Contractor shall cease work in that area immediately and promptly notify the Public Works Department. Within forty-eight hours, the Public Works Department will inspect the site and issue written instructions to the Contractor. The Contractor shall proceed

with only after such written instructions have been received and shall proceed in full compliance with such instructions. The above mentioned situation or similar circumstances and/or modification if any, shall not relieve the Contractor from his responsibilities in this Contract and also it is without prejudice to any and all rights of CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) covering this said contract and surety or bonds.

5.22.4. Erection and Maintenance of Safeguards. The **Contractor** shall erect and maintain, as required by existing conditions and the terms of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent and nearby sites and utilities.

5.22.5. Hazardous Materials and Equipment. When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the **Contractor** shall exercise utmost care and carry on such activities under the supervision of properly qualified personnel.

5.22.6. Damage to Property. The **Contractor** shall promptly remedy damage and loss to property referred to above. If the damage or loss is due in whole or in part to the **Contractor's** failure to take the precautions required herein, the **Contractor** shall bear the cost, subject to any reimbursement to which the **Contractor** is entitled under property insurance required by the Contract Documents. The **Contractor** shall be fully and solely responsible for all Work and other operations carried out on adjacent properties. The insurance required under Article 8 shall cover such Work or operations, and the **Contractor** shall indemnify and defend the **City**, the **Design Professional**, and the owners of such adjacent or nearby properties from and against all claims, suits, losses, or costs arising out of such Work or operations.

5.22.7. Fire Protection Equipment and Services. The **Contractor** shall provide and maintain in good operating condition suitable and adequate fire protection equipment and services and shall comply with all reasonable recommendations regarding fire protection made by the representatives of the fire insurance company carrying insurance on the Work or by the local fire chief or fire marshal. The area within the site limits shall be kept orderly and clean and all combustible rubbish shall be promptly removed from the site.

5.22.8. Protection of Excavations, Trenches, etc. The **Contractor** shall at all times protect excavations, trenches, buildings and materials from rain water, ground water, backup or leakage of sewers, drains and other piping, and from water of any other origin and shall remove promptly any accumulation of water. The **Contractor** shall provide and operate all pumps, piping, and other equipment necessary to this end.

5.22.9. Snow and Ice Removal. The **Contractor** shall remove snow and ice that might result in damage or delay.

5.22.10. Safety Representative. The **Contractor** shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

5.22.11. Weather Protection. (*Reference: M.G.L. c. 149, §44F(1).*) The **Contractor** shall install weather protection and furnish adequate heat in the protected area from November 1 through March 31. In the event of temporary suspension of work, during inclement weather, the Contractor will carefully protect and will cause his subcontractors to carefully protect all work and materials against damage or injury from the weather. If, in the opinion of the Design Professional or CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT), any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors so to protect the work, such work or materials shall be removed and replaced at the expense of the Contractor. These Specifications are not to be construed as requiring enclosures or heat for operations that are not economically feasible to protect in the judgment of CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT). Included in the preceding category, without limitation, are such items as site work, excavation, pile driving, steel erection, erection of certain "exterior" wall panels, roofing, and similar operation:

(1) "WEATHER PROTECTION" shall mean the temporary protection of that work adversely affected by moisture, wind and cold, by covering, enclosing and/or heating.

This protection shall provide adequate working areas during the months of November through March as determined by the Design Professional and consistent with the approved construction schedule to permit the continuous progress of all work necessary to maintain an orderly and efficient sequence of construction operations. The General Contractor shall furnish and install all "Weather Protection" material and be responsible for all costs, including heating required to maintain a minimum temperature of 40 degrees F, at the working surface. This provision does not supersede any specific requirements for methods of construction, curing of materials or the applicable General Conditions set forth in the Contract Articles with added regard to performance obligations of the Contractor.

(2) Within 30 calendar days after his award of contract, the General Contractor shall submit in writing to CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) for approval, three copies of his proposed methods for "Weather Protection".

(3) Installation of weather protection and heating devices shall comply with all safety regulations including provisions for

adequate ventilation and fire protection devices. Heating devices which may cause damage to finish surfaces shall not be used.

(4) The General Contractor shall furnish and install one accurate Fahrenheit thermometer at each work area as designated by the Designer. However, one additional accurate Fahrenheit thermometer shall be provided for every 2,000 square feet of floor space where the work areas exceed 2,000 square feet.

5.22.12. Security. The **Contractor** shall provide, within the Contract Sum, a sufficient number of security personnel at the Site at all times when the **Contractor's** personnel are not present, from commencement of the Work until Substantial Completion to assure that the Site, the facility, and the Work, and all materials and equipment stored at the Site are fully and completely protected against loss or damage due to vandalism, theft, or malicious mischief. If the **Contractor** elects, in addition, to use guard dogs for this purpose, each dog shall at all times be accompanied by an adult handler. If the **Contractor** fails to comply with the requirements of this paragraph, then the **City** may provide appropriate security and charge the cost thereof to the **Contractor**. The **City's** provision of such security, or failure to do so, shall not relieve the **Contractor** of its responsibility to pay for loss or damage due to vandalism, theft, or malicious mischief at the Site.

5.22.13. Hazard Communication Programs. The **Contractor** shall be responsible for coordinating any exchange of material safety data sheets or other hazard communications information required to be made available to or exchanged between or among employers at the site in accordance with laws, codes and regulations.

5.22.14. Noise Pollution Control. The **Contractor** shall comply with all applicable provisions of Somerville Municipal Code §9-109.

5.23. Cutting and Patching.

5.23.1. In General. Unless otherwise provided in the Contract Documents, the **Contractor** shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly, including the work of the **City** or of separate contractors.

5.23.2. Damage to Work of City or of Separate Contractor. The **Contractor** shall not damage or endanger a portion of the Work or fully or partially completed construction of the **City** or separate contractors by cutting, patching, or otherwise altering such construction, or by excavation. The **Contractor** shall not cut or otherwise alter such construction by the **City** or a separate contractor except with prior written consent of the **City** and of such separate contractor; such consent shall not be unreasonably withheld. The **Contractor** shall not unreasonably withhold from the **City** or a separate contractor the **Contractor's** consent to cutting or otherwise altering the Work.

5.23.3. Damage Caused by Contractor. Should the **Contractor** cause damage to the work or property of any separate contractor at the Site, or should any claim arising out of the **Contractor's** performance of Work at the Site be made by any separate contractor against the **Contractor**, the **City**, the **Design Professional**, or any of the **Design Professional's** consultants, the **Contractor** shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law. The **Contractor** shall, to the fullest extent permitted by laws and regulations, indemnify and hold harmless the **City**, the **Design Professional**, and the **Design Professional's** consultants from and against all claims, damages, losses and expenses (including, but not limited to, fees of the Design Professional, the Design Professional's consultants, attorneys, and other professionals, and court and arbitration or mediation costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against the **City**, the **Design Professional**, or any of the **Design Professional's** consultants, to the extent based on a claim arising out of the **Contractor's** performance of the Work. Should a separate contractor cause damage to the Work or property of the **Contractor** or should the performance of work by any separate contractor at the site give rise to any other claim, the **Contractor** shall not institute any action, legal or equitable, against the **City**, the **Design Professional**, or any of the **Design Professional's** consultants, or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from the **City**, the **Design Professional**, or any of the **Design Professional's** consultants, on account of any such damage or claim. If the **Contractor** delays at any time in performing or furnishing Work by any act or neglect of a separate contractor and the **City** and the **Contractor** are unable to agree as to the extent of any adjustment in the Contract Time attributable thereto, the **Contractor** may make a claim for an extension of time in accordance with Article 16. An extension of the Contract Time shall be the **Contractor's** exclusive remedy with respect to the **City**, the **Design Professional**, and the **Design Professional's** consultants, for any delay, disruption, interference, or hindrance caused by any separate contractor.

5.24. Cleaning Up.

5.24.1. During the progress of the Work, the **Contractor** shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract or other debris. At the completion of the Work, the **Contractor** shall remove from and about the Project all waste materials, rubbish, and debris, and the **Contractor's** tools, construction equipment, machinery, and surplus materials. Surplus materials to be provided to the **City** by specifications shall be stored in a clean, safe and secure area as directed by the **City**. The **Contractor** shall leave the site clean and ready for

occupancy by the **City** at Substantial Completion of the Work. Immediately prior to the **Design Professional's** inspection for Substantial Completion, the **Contractor** shall completely clean the premises. Concrete and ceramic surfaces shall be cleaned and washed. Resilient coverings shall be cleaned, waxed and buffed. Woodwork shall be dusted and cleaned. Sash, fixtures and equipment shall be thoroughly cleaned. Stains, spots, dust, marks and smears shall be removed from all surfaces. Hardware and all metal surfaces shall be cleaned and polished. Glass and plastic surfaces shall be thoroughly cleaned by professional window cleaners. All damaged, broken or scratched glass or plastic shall be replaced by the **Contractor** at the **Contractor's** expense. The **Contractor** shall restore to original condition all property not designated for alteration by the Contract Documents.

5.24.2. If the **Contractor** fails to clean up as provided herein, the **City** may do so and charge the cost thereof to the **Contractor**.

5.25. Royalties and Patents.

5.25.1 The **Contractor** shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. To the fullest extent permitted by law, the **Contractor** shall indemnify and hold harmless the **City** and the **Design Professional** from and against all claims, costs, losses, and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, product, or device not specified in the Contract Documents.

5.26. Contractor's Obligation to Perform.

5.26.1. The **Contractor's** obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of the **Contractor's** obligation to perform the Work in accordance with the Contract Documents:

- 5.26.1.1.** observations by the **Design Professional**;
- 5.26.1.2.** recommendation of any progress or final payment by the **Design Professional**;
- 5.26.1.3.** the issuance of a certificate of Substantial Completion or any payment by the **City** to the **Contractor** under the Contract Documents;
- 5.26.1.4.** use or occupancy of the Work, Project, or Site, or any part thereof, by the **City**;
- 5.26.1.5.** any acceptance by the **City** or any failure to do so;
- 5.26.1.6.** any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptance by the **Design Professional**;
- 5.26.1.7.** any inspection, test, or approval by others; or
- 5.26.1.8.** any correction of defective Work by the **City**.

5.27. Indemnification; and Covenant Not To Sue.

5.27.1. To the fullest extent permitted by law, the **Contractor** shall assume the defense of, indemnify and hold harmless the **City**, the **Design Professional**, the **Design Professional's** consultants, and agents and employees of any of them, from and against claims, suits, causes of action, demands, liabilities, damages, losses, and expenses, including, but not limited, to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, caused in whole or in part by alleged negligent acts or omissions of the **Contractor**, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this paragraph.

5.27.2. In claims against any person or entity indemnified under the foregoing paragraph by an employee of the **Contractor**, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under the foregoing paragraph shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for the **Contractor** or a Subcontractor under Workers' Compensation laws, disability benefit acts or other employee benefit acts.

5.27.3. The obligations of the **Contractor** in this Article shall not extend to the liability of the **Design Professional**, the **Design Professional's** consultants, and agents or employees of any of them arising out of (1) the preparation of maps, Plans, opinions, reports, surveys, Change Orders, designs, or Specifications, or (2) directions or instructions given by the **Design Professional**, the **Design Professional's** consultants and agents or employees of any of them, provided such instructions or directions are the primary cause of the injury or damage.

5.27.4. The **Contractor**, or any successor, assign, or subrogee of the **Contractor** agrees not to bring any civil suit,

action, or other proceeding in law, equity or arbitration against the **Design Professional**, or the officers, employees, agents, or consultants of the **Design Professional**, for the enforcement of any action which the **Contractor** may have arising out of or in any manner connected with the Work. The **Contractor** shall assure that this covenant not to sue is contained in all subcontracts and sub-subcontracts of every tier and shall assure its enforcement. The **Design Professional**, its officers, employees, agents, and consultants are intended third-party beneficiaries of this covenant not to sue, and are entitled to enforce this covenant in law or equity.

5.28. Survival of Obligations.

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

**ARTICLE 6
SUBCONTRACTORS**

6.1 Use of Subcontractors.

The **Contractor** shall use the Subcontractors named in the **Contractor's** Bid. The Contractor shall not award any work to any Subcontractor without prior written approval of the CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT). The Contractor shall not award any work to any subcontractor without prior written approval of CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT), which approval will not be given until the Contractor submits a written approval statement concerning the proposed award to the subcontractor, which statement shall contain such information as CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) may require. All subcontracts subject to Mass. General laws, Chapter 149, Sections 44A-J, shall comply with the filed sub-bid requirements of that statute. The Contractor shall be as fully responsible for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the Terms of the General Conditions and other contract documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) may exercise over the Contractor under any provision of the contract documents. Nothing contained in this contract shall create any contractual relation between any subcontractor and CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT).

6.2 Substitution of Subcontractors.

6.2.1 The **Contractor** shall not substitute another Subcontractor therefor without notice to the **City** and the **City's** prior written consent of such substitution.

6.3 Names of Subcontractors.

6.3.1 Upon execution of the Contract with the **City**, the **Contractor** shall provide in writing to the **City**, through the **Design Professional**, the names, addresses, telephone numbers, and fax numbers of all persons proposed for each principal portion of the Work.

6.4. Objections to Subcontractors.

6.4.1 The **Contractor** shall not use any Subcontractor against whom the **City** has a reasonable objection. The **Contractor** shall not be required to contract with any person or entity against whom it has a reasonable objection.

6.5. Form of the Subcontract.

6.5.1 All Work performed by a Subcontractor shall be through an appropriate subcontract. The form of subcontract shall be submitted to the **City's Law Department** for its approval, which shall not be unreasonably withheld or delayed.

6.6. Content of the Subcontract.

6.6.1. In addition to all statutorily mandated provisions and provisions required elsewhere in the Contract Documents, each subcontract shall expressly provide that:

6.6.1.1. Each subcontract agreement for a portion of the Work is assigned by the **Contractor** to the **City** provided that:

6.6.1.1.1. the assignment is effective only after termination of the Contract by the **City** or the

Contractor and only for those subcontract agreements which the **City** accepts by notifying the Subcontractor in writing; and

6.6.1.1.2. the assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

6.6.1.2. Each Subcontractor is bound by the requirements of the Contract Documents for the express benefit of the **City**.

6.6.1.3. Each Subcontractor shall assume toward the **Contractor** all the obligations that the **Contractor** assumes toward the **City** and the **Design Professional**, unless otherwise provided by law.

ARTICLE 7

PERFORMANCE AND PAYMENT BONDS

7.1. Form of Bonds.

7.1.1 The performance and labor and material or payment bonds shall be in the form required by the **City**, copies of which are included in the Project Manual. The **City** reserves the right to reject any bond that does not conform to the **City's** requirements.

7.2. Furnished by the Contractor. (*Reference: M.G.L. c. 30, §39M(c);, M.G.L. c. 149, §29).*

7.2.1 The **Contractor** shall furnish a performance bond and a labor and materials or payment bond, each with a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the **City** and each in the sum of the Contract Sum, the premiums for which are to be paid by the **Contractor** and are included in the Contract Sum. The bonds shall remain in effect until final payment is made. The sum of the performance bond shall increase each time the Contract Sum is increased as a result of a Change Order.

7.3. Submission to the City.

7.3.1 The **Contractor** must submit the performance and a labor and materials or payment bonds to the **City** upon the **Contractor's** execution of the Agreement.

ARTICLE 8

INSURANCE REQUIREMENTS

8.1 Insurance Certificates.

8.1.1 Prior to starting work on this project, the contractor shall deposit with the **City**, certificates from insurers clearly stating that the required insurance policies have been issued to the **Contractor** and will remain in effect during the time period required to complete this contract. ACCORD forms will not be accepted. The certificates must be in a form satisfactory to the **City**. The insurance shall include all major divisions of coverage, and shall be on a comprehensive general basis including: Premises and Operations (including X-C-U), Owners and Contractors Protective, Products and Completed Operations, Owned, Non-owned or Hired and/or Leased Motor Vehicles. Such insurance shall be written for not less than any limits of liability, required by law or the following limits, whichever are greater.

8.2 Minimum Coverages. The **Contractor** shall possess and maintain throughout the contract period/project, insurance in the kinds and amounts as stated in the Specification included in Appendix C of this Agreement. The **Contractor** may purchase and maintain excess liability insurance in the in the umbrella form in order to satisfy the limits of liability required for the insurance to be purchased and maintained in accordance with the required requirements set forth above (in addition to the umbrella limits required). Evidence of such excess liability shall be delivered to the **City** in the form of a certificate and the certificate indicating the policy numbers and limits of liability of all underlying insurance.

8.3 Additional Insured. The **City** shall be named as an additional insured on each certificate, and the certificate must have the endorsement of the insurance agency.

8.4 Notice. Each certificate shall contain a notation that the insurer will give 30 days notice to the **City** prior to cancellation, change or non-renewal of policy.

8.5 Carrier Rating. Insurance carriers MUST have an A.M. Best rating of "A" or better.

8.6 Material Breach. Failure of the contractor to provide and continue in force such insurance shall be deemed a material breach of contract and shall operate as immediate termination thereof.

ARTICLE 9
TESTS AND INSPECTIONS

9.1. Access.

9.1.1 The **City**, the **Design Professional**, and all other persons designated by the **City** shall have access to the Work at reasonable times for observing, inspecting, and testing. The **Contractor** shall provide them with proper and safe conditions for such access and advise them of the **Contractor's** site safety procedures and programs so that they may comply therewith as applicable.

9.2. Tests and Inspections.

9.2.1. The **Contractor** shall give the **Design Professional** timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

9.2.2. Unless otherwise provided, the **Contractor** shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the **City**, or with the appropriate public authority and shall bear all related costs of tests, inspections, and approvals. If the laws or regulations of any public body having jurisdiction require any Work or part thereof specifically to be inspected, tested, or approved by an employee or other representative of such public body, the **Contractor** shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith and furnish the **Design Professional** with the required certificates of inspection, testing, or approval.

9.2.3. The **Contractor** shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for the **Design Professional's** acceptance of materials or equipment to be incorporated into the Work, or of materials, mix designs, or equipment submitted for approval prior to the **Contractor's** purchase thereof for incorporation into the Work.

9.2.4. If any Work that is to be inspected, tested, or approved is covered by the **Contractor**, Subcontractor, or Sub-subcontractor without the prior written consent of the **Design Professional**, it must be uncovered for observation, inspection, testing, or approval, if requested by the **Design Professional**. The **Contractor** must recover the Work at its own expense.

9.2.5. The **Contractor** shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the **Design Professional** in the **Design Professional's** administration of the Contract or by tests, inspections, or approvals required or performed by persons other than the **Contractor**.

ARTICLE 10 UNCOVERING AND CORRECTING WORK

10.1. Uncovering Work.

10.1.1. If a portion of the Work is covered contrary to the **Design Professional's** request or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the **Design Professional**, be uncovered for the **Design Professional's** observation and be replaced, both at the **Contractor's** expense and without change in the Contract Time.

10.1.2. If a portion of the Work has been covered which the **Design Professional** has not specifically requested to observe prior to its being covered, the **Design Professional** may request to see such Work, and it shall be uncovered by the **Contractor**. If it is found that such Work is in accordance with the Contract Documents, costs of uncovering and replacing shall, by appropriate Change Order, be charged to the **City**. If it is found that such Work is defective or not in accordance with the Contract Documents, the **Contractor** shall pay all claims, costs, losses, and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection, and testing and of satisfactory replacement of reconstruction (including, but not limited to, all costs of repair or replacement of work of others); and the **City** shall be entitled to an appropriate decrease in the Contract Sum. The **City** may take such decrease by reducing the then current application for payment accordingly or subsequent applications, if necessary, until the decrease is paid in full.

10.2. Correcting Work.

10.2.1. The **Contractor** shall promptly correct Work rejected by the **Design Professional** or failing to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. The **Contractor** shall bear all costs of correcting such rejected Work including additional testing and inspections and compensation for the **Design Professional's** services and expenses made necessary thereby and any cost, loss, or damages to the **City** resulting from such failure or defect.

10.2.2. If, within one (1) year after the date of Substantial Completion of the Work or designated portion thereof, or after the date for commencement of warranties established in Article 15, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the **Contractor** shall correct it promptly after receipt of written notice from the **City** to do so, unless the **City** has previously given the **Contractor** a written acceptance of such condition. This period of one (1) year shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work. This obligation to correct under this paragraph shall survive acceptance of the Work under the Contract and termination of the Contract. The **City** shall give such notice promptly after discovery of the condition.

10.2.3. The **Contractor** shall correct, remove, or replace portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the **Contractor** nor accepted by the **City**.

10.2.4. If the **Contractor** fails within a reasonable time to correct nonconforming Work, or to remove and replace rejected Work, or fails to perform the Work in accordance with the Contract Documents, the **City** may correct it in accordance with the provisions herein. If the **Contractor** does not proceed with correction, removal, or replacement of such nonconforming Work within seven (7) days from the date of written notice from the **Design Professional**, the **City** may correct it and store any salvageable materials or equipment at the **Contractor's** expense. If the **Contractor** does not pay costs of any such removal and storage within ten (10) days after written notice, the **City** may upon ten (10) additional days' written notice sell such materials and equipment at auction or at private sale and shall account for the proceeds thereof, after deducting costs and damages that should have been borne by the **Contractor**, including compensation for the **Design Professional's** services and expenses made necessary thereby. If such proceeds of sale do not cover all the costs that the **Contractor** should have born, the Contract Sum shall be reduced by the deficiency. If payments then or thereafter due the **Contractor** are not sufficient to cover such amount, the **Contractor** shall pay the difference to the **City**.

10.2.5. The **Contractor** shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the **City** or separate contractors caused by the **Contractor's** correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

10.2.6. Nothing contained in this paragraph shall be construed to establish a period of limitation with respect to other obligations that the **Contractor** might have under the Contract Documents. Establishment of the time period of one (1) year as described in the above paragraph related only to the specific obligation of the **Contractor** to correct the Work and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced nor to the time within which proceedings may be commenced to establish the **Contractor's** liability with respect to the **Contractor's** obligations other than specifically to correct the Work.

10.3. Acceptance of Nonconforming Work.

10.3.1 If, instead of requiring correction or removal and replacement of defective or nonconforming Work, the **City** prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the **City** may do so instead of requiring its removal and correction, in which case the **Contractor** shall pay all claims, costs, losses, and damages attributable to the **City's** evaluation of and determination to accept such defective or non-conforming Work. The Contract Sum will be reduced as appropriate. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 11 CHANGES IN THE WORK

11.1. In General.

11.1.1. The Contract Sum constitutes the total compensation (subject to authorized adjustments) payable to the **Contractor** for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by the **Contractor** shall be at the **Contractor's** expense without any change in the Contract Sum.

11.1.2. Without invalidating the Contract and without notice to any surety, the **City** may, at any time or from time to time, order additions to, deletions from, or revisions in the Work. Such additions, deletions, or revisions will be authorized by a Change Order, a Modification or a **Construction Change Directive**. Upon receipt of any such document, the **Contractor** shall promptly proceed with the Work involved that will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

11.1.3. The **Contractor** shall not be entitled to an increase in the Contract Sum or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified, or supplemented, except as otherwise provided herein.

11.2. Change Orders.

11.2.1. (*Reference: M.G.L. c. 30, §39I*). The **Contractor** shall perform all the Work required by this Contract in conformity with the Plans and Specifications contained herein. No willful and substantial deviation from said Plans and Specifications shall be made unless authorized in writing by the **City** and the **Design Professional** in charge of the Work who is duly authorized by the **City** to approve such deviations. In order to avoid delays in the prosecution of the Work required by such Contract, such deviation from the Plans or Specifications may be authorized by a written order of the **City** or the **Design Professional** so authorized to approve such deviation. Within thirty (30) days thereafter, such written order shall be confirmed by a certificate of the **City**, using AIA Document G701 (or its equivalent), stating: (1) If such deviation involves any substitution or elimination of materials, fixtures or equipment, the reasons why such materials, fixtures, or equipment were included in the first instance and the reasons for substitution or elimination, and, if the deviation is of any other nature, the reasons for such deviation, giving justification therefor; (2) that the specified deviation does not materially injure the Project as a whole; (3) that either the work substituted for the Work specified is of the same cost and quality, or that an equitable adjustment has been agreed upon between the **City** and the **Contractor** and the amount in dollars of said adjustment; and (4) that the

deviation is in the best interest of the **City**. The Change Order shall also indicate whether or not the date of substantial completion has been extended. The equitable adjustment in price shall be determined by the unit prices, if any, in the General Contractor's bid; otherwise, it shall be a number which is agreed to by both parties as a fair adjustment and which can be itemized and substantiated to the reasonable satisfaction of the Contracting Authority. Where increases and decreases to the Contract Sum are included in one Change Order, the negotiated allowance for overhead and profit shall be calculated on the basis of the net increase, if any.

11.3. Construction Change Directive.

11.3.1. A **Construction Change** Directive shall be used in the absence of total agreement on the terms of a Change Order.

11.3.2. Upon request of the **City** or the **Design Professional**, the **Contractor** shall without cost to the **City** submit to the **Design Professional** in such form as the **Design Professional** may require, an accurate written estimate of the cost of any proposed extra work or change. The estimate shall indicate the quantity and unit cost of each item of materials, and the number of hours of work and hourly rate for each class of labor, as well as the description and amounts of all other costs chargeable under the terms of this Article. Unit labor costs for the installation of each item of materials shall be shown if required by the **Design Professional**. If required by the **Design Professional**, in order to establish the exact cost of new Work added or of previously required Work omitted, the **Contractor** shall obtain and furnish to the **Design Professional** bona fide proposals from recognized Suppliers for furnishing any material included in such Work. Such estimates shall be furnished promptly so as to occasion no delay in the Work, and shall be furnished at the **Contractor's** expense.

11.3.3. The **Contractor** shall state in the estimate any extension of time required for the completion of the Work if the change or extra Work is ordered. The **Contractor** shall document, through a critical path analysis, or some other clearly delineated explanation, how the proposed change affects other aspects of the Work, and why it would require an extension of time. The **Contractor** shall promptly revise and resubmit such estimate if the **Design Professional** determines that it is not in compliance with the requirements of this Article, or that it contains errors of fact or mathematical errors.

11.3.4. If the **Construction Change** Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods, as selected by the **City**, selection of which does not require the consent of the **Contractor**:

11.3.4.1. by unit prices stated in the Contract Documents or otherwise mutually agreed upon; or

11.3.4.2. by Cost and Percentages estimated by the **Contractor** as provided herein and accepted by the **City**, whereupon the **Contractor's** estimate shall become a fixed price which shall not be changed by any variation in the actual cost of executing the Work covered by the change; or

11.3.4.3. by actual Cost determined after the Work covered by the change is completed, plus Percentage; or

11.3.4.4. by submission to arbitration or a court, which shall determine the fair value of the Work covered by the change.

11.3.5. "Cost" shall mean the estimated or actual net increase or decrease in cost to the **Contractor**, Subcontractor, or Sub-subcontractor for performing the Work covered by the change, including actual payments for materials, equipment rentals, expendable items, wages, and associated benefits to the workers and to supervisors employed full time at the Site, insurance, bonds, and other provable direct costs, but not including any administrative, accounting or expediting costs, or other indirect or overhead costs, or any wages or benefits of supervisory personnel not assigned full time to the Site, or any amount for profit or fee to the **Contractor**, Subcontractor, or Sub-subcontractor.

11.3.6. "Percentage" shall mean an allowance to be added to or subtracted from the Cost in lieu of overhead and profit and of any other expense that is not included in the Cost of the Work covered by the change, as defined above. Percentage for a Sub-subcontractor shall be 8% of any net increase or decrease of Cost of any Work performed by the Sub-subcontractor's own forces plus 4% of any net increase or decrease in Cost of any Work performed for the Sub-subcontractor by lower tier Sub-subcontractors. Percentage for a Subcontractor shall be 12% of any net increase or decrease of Cost of any Work performed by the Subcontractor's own forces plus 4% of the Cost of Work performed by Sub-subcontractors. Percentage for the **Contractor** shall be 15% of any net increase or decrease of Cost of any Work performed by the **Contractor's** own forces plus 5% of any net increase or decrease in the Cost for all other Work covered by the change. When the **Contractor** is also performing Work as a Subcontractor or Sub-subcontractor, the **Contractor** shall only be entitled to a total of no more than 15% of any net increase or decrease of Cost of any Work.

11.3.7. When in the reasonable judgment of the **Design Professional** a series of **Construction Change** Directives or Change Orders effect a single change, Percentage shall be calculated on the cumulative net increase or decrease in Cost, if any.

11.3.8. If unit prices are stated in the Contract Documents or are subsequently agreed upon, and if quantities originally contemplated are so changed in a Proposed Change Order or **Construction Change** Directive that the application of such unit prices to quantities of Work proposed will cause substantial inequity to the **City** or the **Contractor**, the applicable unit prices shall be equitably adjusted. Wherever the estimated quantities of work to be done and materials to be furnished under this

contract are shown in any of the documents including the proposal, they are given for use in comparing bids and the right is especially reserved herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) to complete the work contemplated by the contract, nor shall any such increases or diminution shall in no way violate this contract, nor shall any such increase or diminution give cause for claims or liability for damages.

11.3.9. If the **City** elects to determine the Cost of the Work as provided in method (11.3.4.1) using unit prices stated in the Contract Documents or subsequently agreed upon, the unit prices shall be subject to the prior paragraph. Notwithstanding the inclusion of unit prices in the Contract Documents, it shall be the **City's** option to require the Cost of any given change to be determined by one of the other methods stated in 11.3.4. If the **City** elected to determine the Cost of the change by unit prices and the nature of the work is such that its extent cannot readily be measured after the completion of such work or any subsequent Work, the **Contractor** shall keep daily records, available at all times to the **Design Professional** for inspection, of the actual quantities of such Work put in place, and delivery receipts or other adequate evidence, acceptable to the **Design Professional**, indicating the quantities of materials delivered to the Site for use in such unit price Work, and distinguishing such from other similar material delivered for use in Work include in the base Contract Sum. If so required by the **Design Professional**, materials for use in unit price Work shall be stored apart from all other materials on the Project.

11.3.10. If the **City** elects to determine the Cost of the Work as provided in methods 11.3.4.3. or 11.3.4.4. or if the method of determining the Cost has not been established before the Work is begun, the **Contractor** shall keep detailed daily records of labor and material costs applicable to the Work.

11.3.11. Upon receipt of a **Construction Change Directive**, the **Contractor** shall promptly proceed with the change in the Work involved and advise the **Design Professional** in writing of the **Contractor's** agreement or disagreement with the method, if any, provided in the **Construction Change Directive** for determining the proposed adjustment in the Contract Time.

11.3.12. A **Construction Change Directive** signed by the **Contractor** indicates the agreement of the **Contractor** therewith, including adjustment in the Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

11.3.13. If the **Design Professional** and the **Contractor** do not agree with the adjustment in the Contract Time or the method for determining it, the adjustment or the method shall be referred to the **Design Professional** for determination.

11.4. Minor Changes in the Work.

11.4.1. The **Design Professional** has the authority to order minor changes in the Work. "Minor changes" as used in this paragraph mean changes which are so insignificant as to not affect the Contract Sum or the Contract Time and which are not inconsistent with the intent of the Contract Documents. Any minor change shall be committed to a written order which shall be binding on both the **City** and the **Contractor** and which shall be promptly carried out by the **Contractor**.

11.5. Certificate of Appropriations. (*Reference: M.G.L. c. 44, §31C;*). This Contract shall not be deemed to have been made until the **City's** auditor has certified thereon that an appropriation in the amount of this Contract is available therefor and that an officer or agent of the **City** has been authorized to execute said Contract and approve all requisitions and change orders. No order to the **Contractor** for a change in or addition to the Work, whether in the form of a drawing, plan, detail or any other written instruction, unless it is an order which the **Contractor** is willing to perform without any increase to the Contract price, shall be deemed to be given until the auditor has certified thereon that an appropriation in the amount of such order is available therefore; but such certificate shall not be construed as an admission by the **City** of its liability to pay for such work. The certificate of the auditor that an appropriation in the amount of this Contract or in the amount of such order is available shall bar any defense by the **City** on the grounds of insufficient appropriation.

ARTICLE 12 CHANGE IN THE CONTRACT TIME

12.1. Date of Commencement.

12.1.1 The date of commencement of the Work is the date established in the Notice to Proceed. The date shall not be postponed by the failure to act of the **Contractor** or persons or entities for whom the **Contractor** is responsible.

12.2. Progress and Completion.

12.2.1. Time is of the essence; all time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the **Contractor** confirms that the Contract Time is a reasonable period for performing the Work.

12.2.2. The **Contractor** shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

12.2.3. At least ten (10) working days after the Notice to Proceed or twenty (20) working days before the first application for payment, the **Contractor** shall submit to the **Design Professional** a progress schedule showing for each class of

Work included in the schedule of values, the percentage of completion to be obtained and the total dollar value of Work to be completed as of the first of each month until Substantial Completion. All calculations shall be on the basis of Work in place, but may include, at the **Design Professional's** discretion, the value of materials delivered but not in place.

12.2.4. The progress schedule shall be based on an orderly progression of the Work, allowing adequate time for each operation (including adequate time for submission and review of submittals), and leading to a reasonable certainty of Substantial Completion by the date established in the Agreement. The progress schedule will be reviewed by the **Design Professional** for compliance with the requirements of this Article and will be accepted by the **Design Professional** or returned to the **Contractor** for revision and resubmittal. Unless specifically required by law, no payment under this Contract shall be due until the progress schedule has been approved by the **Design Professional**. The **Design Professional's** review of the progress schedule shall not impose any duty on the **Design Professional** or the **City** with respect to the timing, planning, scheduling, or execution of the Work. In particular, if the **Contractor** proposes a progress schedule indicating a date of Substantial Completion which is earlier than the Contract Time, the **Contractor** shall not be entitled to additional payment or compensation of any kind if, for any reason, the full Contract Time is required to achieve Substantial Completion of the Work.

12.2.5. If in any Application for Payment, the total value of the completed Work in place, as certified by the **Design Professional**, is less than 90% of the total value of the Work in place estimated in the progress schedule, the **City** may, at the **City's** option, require the **Contractor** to accelerate the progress of the Work without cost to the **City** by increasing the workforce or hours or Work or by other reasonable means approved by the **Design Professional**.

12.2.6. If each of three successive applications, as certified by the **Design Professional**, indicate that the actual Work completed is less than 90% of the values estimated in the progress schedule to be completed by the respective dates, the **City** may at the **City's** option, treat the **Contractor's** delinquency as a default justifying the action permitted under Article 18.

12.2.7. If the **Design Professional** has determined that the **Contractor** should be permitted to extend the time for completion as provided below, the calendar dates in the progress schedule shall be adjusted accordingly to retain their same relationship to the adjusted date of Substantial Completion, and the dollar value of the Work to be completed as of the first of each month shall be adjusted pro rata.

12.2.8. If the **Contractor** fails to submit any application for payment in any month, the **Design Professional** shall, for the purpose of this evaluation of progress, certify separately to the actual value of the Work in place completed as of the first of the month to the best of the **Design Professional's** knowledge.

12.2.9. Nothing herein shall limit the **City's** right to liquidated or other damages for delays by the **Contractor** or to any other remedy which the **City** may be entitled or may possess under other provisions of the Contract Documents or by law.

12.3. Delays and Extensions of Time.

12.3.1. If the **Contractor** is delayed at any time in the progress of the Work by an act or neglect of the **City** or the **Design Professional**, or of an employee of either, or of a separate contractor employed by the **City**, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, or other causes (except weather) beyond the **Contractor's** control, or by delay authorized by the **City**, or by other causes which the **Design Professional** determines may justify delay, then the Contract Time shall be extended by Change Order or **Construction Change** Directive for such reasonable time as the **Design Professional** may determine.

12.3.2. Claims relating to time shall be made in accordance with applicable provisions of Article 16.

12.3.3. No claim for extension of time shall be allowed on account of failure of the **Design Professional** to furnish Plans, Specifications or instructions or to return Shop Drawings or Samples until fifteen (15) days after receipt by the **Design Professional** by registered or certified mail of written demand for such instructions, Plans, Specifications, or Samples, and then not unless such claim is reasonable.

12.3.4. No extensions of time shall be granted because of seasonal or abnormal variations in temperature, humidity or precipitation, which conditions shall be wholly at the risk of the **Contractor**, whether occurring within the time originally scheduled for completion or within the period of any extension granted. There shall be no increase in the Contract Sum on account of any additional costs of operations or conditions resulting therefrom.

12.3.5. The **Contractor** hereby agrees that the **Contractor** shall have no claim for damages of any kind against the **City** or the **Design Professional** on account of any delay in the commencement of the Work and/or any hindrance, delay, or suspension of any portion of the Work, whether such delay is caused by the **City**, the **Design Professional**, or otherwise, except as and to the extent expressly provided under M.G.L. c. 30, §39O, in the case of written orders by the **City**. The **Contractor** acknowledges that the **Contractor's** sole remedy for any such delay and/or suspension will be an extension of time as provided in this Article.

12.3.6. (*Reference: M.G.L. c. 30, §39O*). (a) The **City** may order the **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 **City**, provided however that if there is a suspension, delay, or interruption for fifteen (15) days or more due to a failure of the **City** to act within the time specified in this Contract, the **City** shall make an adjustment in the

Contract prices for any increase in the cost of performance of this Contract 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 **Contractor** must submit the amount of a claim under provision (a) to the **City** 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 **City** shall not approve any costs in the claim incurred more than twenty (20) days before the **Contractor** notified the **City** in writing of the act or a failure to act involved in the Claim.

In the event a suspension, delay, interruption, or failure to act of the **City** increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the **Contractor** for payment for an increase in the cost of its performance as provisions (a) and (b) give the **Contractor** against the **City**, but nothing in provisions (a) and (b) shall in any way change, modify, or alter any other rights which the **Contractor** or the Subcontractor may have against each other.

12.4. Liquidated Damages.

12.4.1. If the **Contractor** shall fail to achieve Substantial Completion within the Contract Time, it shall be liable to pay the **City** the daily amount specified in the Agreement, not as a penalty, but as a fixed and agreed upon damages for breach of contract. The said amount is fixed and agreed upon because of the difficulty of ascertaining the **City's** actual damages. It is mutually understood that the said amount is a reasonable approximation or estimate thereof as of the date of the Agreement. The **City** may elect to withhold said amount from periodic or final payments due to the **Contractor**, in addition to retainage and other back charges.

12.5. Changes in the Contract Time.

12.5.1. In Writing. The Contract Time may only be changed by a Change Order or a Modification. Any claim for an adjustment of the Contract Time shall be based on a written notice delivered to the party making the claim to the other party and to the **Design Professional** promptly (but in no event later than seven (7) days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within thirty (30) days after such occurrence and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by the **Design Professional** in accordance with Article 16. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph.

12.5.2. Early Completion. The Contract Time shall not be changed due to a delay in the **Contractor's** early completion date.

ARTICLE 13 PAYMENTS

13.1. Schedule of Values.

13.1.1. The **Contractor** shall submit to the **Design Professional** a schedule of values which shall subdivide the Work into its component parts and shall include quantities, direct craft labor worker hours, labor cost and material/equipment cost. Labor cost shall include an appropriate amount of construction equipment costs, supplemental costs, administrative expenses, contingencies, and profit. The **Contractor** shall prepare the schedule of values in such form and supported by such data to substantiate its accuracy as the **Design Professional** may require and shall be revised if later found by the **Design Professional** to be inaccurate. This schedule, unless objected to by the **Design Professional**, shall be used as a basis for reviewing the **Contractor's** applications for payment.

13.2. Content and Submission of Applications for Payment.

13.2.1. At least ten (10) days before the date established for each progress payment, the **Contractor** shall submit to the **Design Professional** six (6) copies of an itemized application for payment for Work completed in accordance with the schedule of values. Such application shall be in a form or format established or approved by the **Design Professional** and shall be supported by documentation substantiating the **Contractor's** right to payment.

13.2.2. When **Construction Change** Directives have set forth an adjustment to the Contract Sum but have not yet been included in Change Orders, the value established by the **City** may be included in the application.

13.2.3. Applications covering Work of Subcontractors or Suppliers shall not include requests for payments of amounts the **Contractor** does not intend to pay to a Subcontractor or Supplier because of a dispute or other reason. The **Contractor** shall not be paid for any Work performed by a Subcontractor unless and until the **City** receives for that Subcontractor a certificate of insurance that conforms to the requirements of the Contract Documents .

13.2.4. Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and

equipment delivered and suitably stored at the Site for subsequent incorporation in the Work. If approved in advance by the **City**, payment may similarly be made for materials and equipment suitably stored off the Site at a location agreed upon in writing. Payment for materials and equipment stored on or off the Site shall be conditioned upon the application for payment being accompanied by a bill of sale, an invoice, or other documentation warranting that the **City** has received the materials and equipment free and clear of all liens, claims, security interests, or encumbrances, hereinafter collectively referred to as "liens," and evidence that the materials and equipment are covered by appropriate insurance and other arrangements to protect the **City's** interest therein.

13.2.5. Each application for payment or periodic estimate requesting payment shall be accompanied by, at the **City's** option, a certificate from each Subcontractor stating that the Subcontractor has been paid all amounts due the Subcontractor on the basis of the previous periodic payment to the **Contractor**, or else stating the amount not so paid and the reason for the discrepancy. In the event of any such discrepancy, the **Contractor** shall furnish the **Contractor's** own written explanation to the **City** through the **Design Professional**. Such waiver or certificate shall be in a form acceptable to the **City**.

13.3. False Applications for Payment.

13.3.1. (*Reference: M.G.L. c. 266, §§67B*). Any person who makes or presents to any claim upon or against any employee or department of the **City**, knowing such claim to be false, fictitious, or fraudulent shall be punished by a fine or not more than ten thousand dollars (\$10,000) or by imprisonment in the state prison for not more than five (5) years, or in the house of correction for not more than two and one-half years, or both.

13.4. Review of Applications for Payment.

13.4.1. The **Design Professional** shall review each application for payment and will reject any application that (1) is not accompanied by the required documentation or (2) contains errors, mathematical or otherwise.

13.4.2. Within five (5) business days after receipt of an application for payment, the **Design Professional** will either (1) return the application to the **Contractor** with a written explanation as to why it was rejected or (2) issue to the **City** a certificate for payment, with a copy to the **Contractor**, for such amount as the **Design Professional** determines is properly due. In the event an application is returned to the **Contractor**, the date of receipt of the application shall be the date of receipt of the corrected application.

13.4.3. The **Design Professional** or the **City** may make changes to any application submitted by the **Contractor**.

13.4.4. By recommending any payment, the **Design Professional** will not thereby be deemed to have represented that: (1) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to the **Design Professional** in the Contract Documents or (2) that there may not be other matters or issues between the parties that might entitle the **Contractor** to be paid additionally by the **City** or entitle the **City** to withhold payment to the **Contractor**. The **Design Professional's** approval of the application for payment and the accompanying documentation shall indicate that to the best of the **Design Professional's** knowledge, information, and belief, the Work has progressed to the point indicated by the **Contractor**, and that the quality of the Work is in accordance with the Contract Documents, subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests specified in the Contract Documents, final determination of quantities and classifications for unit price work and any other qualifications so stated.

13.4.5. The **Design Professional's** recommendation of any payment shall not mean that the **Design Professional** is responsible for the **Contractor's** means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the **Contractor** to comply with laws and regulations applicable to the furnishing or performance of Work, or for any failure of the **Contractor** to perform or furnish Work in accordance with the Contract Documents.

13.4.6. No certificate given or payment made shall be evidence of the performance of this Contract, either wholly or in part and no payment, whether made upon the final certificate or otherwise, shall be construed as an acceptance of defective work or materials.

13.5. Decisions to Withhold Certification.

13.5.1. The **Design Professional** may refuse to recommend the whole or any part of any payment if, in the **Design Professional's** opinion, it would be incorrect to make the representations to the **City** referred to above.

13.5.2. If the **Contractor** and the **Design Professional** cannot agree on a revised amount, the **Design Professional** will promptly approve a certificate for payment for the amount for which the **Design Professional** is able to make such representations to the **City**. The **Design Professional** may also decide not to certify payment or, because of subsequently discovered evidence or subsequent observations, may nullify the whole or a part of a certificate for payment previously issued, to such extent as may be necessary in the **Design Professional's** opinion to protect the **City** from loss because of:

13.5.2.1. defective Work not remedied;

- 13.5.2.2. third party claims filed or reasonable evidence indicating probable filing of such claims;
 - 13.5.2.3. failure of the **Contractor** to make payments properly to Subcontractors or for labor, materials or equipment;
 - 13.5.2.4. reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
 - 13.5.2.5. damage to the **City** or another contractor;
 - 13.5.2.6. reasonable evidence that the Work will not be completed within the Contract Time, and that retainage currently held by the **City** would not be adequate to cover actual or liquidated damage for the anticipated delay;
 - 13.5.2.7. persistent failure to carry out the Work in accordance with the Contract Documents; or
 - 13.5.2.8. failure of mechanical trade or electrical trade subcontractors to comply with mandatory requirements for maintaining record drawings. The **Contractor** shall check record drawings each month. Written confirmation that the record drawings are current will be required by the **Design Professional** before approval of the **Contractor's** monthly payment requisition.
- 13.5.3. When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

13.6. Progress Payments.

13.6.1. After the **Design Professional** has issued a certificate for payment, the **City** shall make payment in the manner and within the time provided in the Contract Documents.

13.6.2. (*Reference: M.G.L. c. 30, §39G, 39K;*). In the case of Contracts for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building when the amount is more than two thousand dollars, the following paragraph applies: 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 owner 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 per cent 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 per cent 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 than 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 a periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

For all other construction contracts, progress payments are governed by chapter 30, §39G, and as follows: The **City** shall pay the amount due pursuant to any periodic, Substantial Completion or final estimate within thirty-five (35) days after receipt of written acceptance for such estimate from the **Contractor**. In the case of periodic payments, the **City** may deduct from its payment a retention based on its 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 M.G.L. c. 30, §39F; and a retention to secure satisfactory performance of the contractual work, not exceeding five percent (5%) of the approved amount of any periodic payment, and the same right to retention shall apply to bonded Subcontractors entitled to direct payment under M.G.L. c. 30, §39F; provided, that a five percent (5%) value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

Retainage prior to Substantial Completion. In all construction contracts, the City may hold back a retainage of up to five percent of each progress payment to ensure satisfactory completion of the work. In addition, the City may withhold any amounts in dispute, including disputed change orders and direct payments owed to subcontractors pursuant to Chapter 30, §39F of the General Laws.

Payment upon Substantial Completion. In the case of contracts for construction, reconstruction, alteration, repair, remodeling, or demolition of a public building, where the amount is more than \$2,000, Chapter 30, Section 39K, of the General Laws governs payment upon substantial completion. For all other contracts, Chapter 30, Section 39F of the General Laws governs payment upon substantial completion.

13.6.3. No periodic, Substantial Completion or final estimate or acceptance or payment thereof shall bar the **Contractor** from reserving all rights to dispute the quantity and amount of, or the failure of the **City** to approve a quantity and amount of, all or part of any Work item or extra Work item.

13.7. Final Payment.

13.7.1. After final inspection and after the **Contractor** has completed all the required corrections to the satisfaction of the **Design Professional** and the **City** and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, bonds, certificates, or other evidence of insurance, certificates of inspection, marked-up record documents, and all other documents called for in the Contract Documents, as well as any surplus materials requested by the **City**, the **Contractor** may make an application for final payment as provided below.

13.7.2. (*Reference:* M.G.L. c. 30, §39G;). Within thirty (30) days after receipt by the **City** of a notice from the **Contractor** stating that all of the Work required by the Contract has been completed, the **City** 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 the Work less all payments made to date, unless the **City's** inspection shows that Work required by the Contract remains incomplete or unsatisfactory, or that documentation required by the Contract has not been completed.

13.7.3. The making and acceptance of final payment will constitute a waiver of all claims by the **Contractor** against the **City** other than those previously made in writing and still unsettled.

13.7.4. Interest. If the City fails to pay the Contractor within the time periods mandated by statute, the City shall pay interest to the Contractor in accordance with Chapter 30, Sections 39G and 39K, whichever is applicable.

13.8. Payments to Subcontractors.

13.8.1. Neither the **City** nor the **Design Professional** shall have an obligation to pay or see to the payment of money to a Subcontractor, Sub-subcontractor, or Supplier except as may otherwise be required by law.

13.8.2. (*Reference:* M.G.L. c. 30, §39F;). (1) Every contract awarded pursuant to sections forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

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

(b) Not later than the sixty-fifth day after each Subcontractor substantially completes its Work in accordance with the Plans and Specifications, the entire balance due under the subcontract, less amounts retained by the **City** as the estimated cost of completing the incomplete and unsatisfactory items of Work, shall be due the Subcontractor; and the **City** shall pay that amount to the **Contractor**. The **Contractor** shall forthwith pay to the Subcontractor the full amount received from the **City** less any amount specified in any court proceeding barring such payment and also less any amount claimed due from the Subcontractor by the **Contractor**.

(c) Each payment made by the **City** to the **Contractor** pursuant to paragraphs (a) and (b) of M.G.L. c. 30, §39F(1);, for the labor performed and the materials furnished by a Subcontractor shall be made to the **Contractor** for the account of that Subcontractor; and the **City** shall take reasonable steps to compel the **Contractor** to make each such payment to each such Subcontractor. If the **City** has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the **Contractor** or which is to be include in a payment to the **Contractor** for payment to the Subcontractor as provided in paragraphs (a) and (b) of M.G.L. c. 30, §39F(1), the **City** shall act upon the demand as provided in M.G.L. c. 30, §39F.

(d) If, within seventy (70) days after the Subcontractor has substantially completed the subcontract Work, the Subcontractor has not received from the **Contractor** the balance due under the subcontract including any amount due for extra labor and materials furnished to the **Contractor**, less any amount retained by the **City** as the estimated cost of completing the incomplete and unsatisfactory items of Work, the Subcontractor may demand direct payment of that

balance from the **City**. The demand shall be by a sworn statement delivered to or sent by certified mail to the **City**, and a copy shall be delivered to or sent by certified mail to the **Contractor** at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract Work. [The demand letter shall indicate the certified mail number assigned by the postal service or the date of delivery to the **Contractor**.] Any demand made after substantial completion of the subcontract Work shall be valid even if delivered or mailed prior to the seventieth day after the Subcontractor has substantially completed the subcontract Work. Within ten (10) days after the Subcontractor has delivered or so mailed the demand to the **City** and delivered or so mailed a copy to the **Contractor**, the **Contractor** may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the **City**, and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract, including any amount due for extra labor and materials furnished to the **Contractor** and of the amount due for each claim made by the **Contractor** against the Subcontractor.

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

(f) The **City** shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of the previous paragraph in an interest-bearing joint account in the names of the **Contractor** and the Subcontractor in a bank in Massachusetts selected by the **City** or agreed upon by the **Contractor** and the Subcontractor and shall notify the **Contractor** and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the **Contractor** and the Subcontractor or as determined by decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to the previous paragraph shall be made out of amounts payable to the **Contractor** at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the **Contractor** and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the **City** to the **Contractor** to the extent of such payment.

(h) The **City** shall deduct from payments to a **Contractor** amounts that, together with the deposits in interest-bearing accounts pursuant to paragraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the **Contractor**.

(i) If the Subcontractor does not receive payment as provided in paragraph (a) or if the **Contractor** does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for in paragraph (a), the Subcontractor may demand direct payment by following the procedure in paragraph (d) and the **Contractor** may file a sworn reply as provided in that same paragraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the **Contractor**. Thereafter the **City** shall proceed as provided in paragraphs (e), (f), (g), and (h). "Subcontractor" as used in this paragraph (1)(i) shall mean a person approved by the **City** in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the **Contractor**.

(2) Any assignment by a Subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of M.G.L. c. 149, §29; shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the **City** or which are on deposit pursuant to paragraph (g) shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this section and who have not been paid in full.

(3) A **Contractor** or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited as provided in herein by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in paragraph (f) by a petition in equity in the superior court against the **City** and the **Contractor** shall not be a

necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. M.G.L. c. 231, §§59 and 59B shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to §§59 and 59B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors or the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will present unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a Subcontractor filing a demand for direct payment for which no funds due the **Contractor** are available for direct payment shall have a right to file a petition in court of equity against the **City** claiming a demand for direct payment is premature, and such Subcontractor must file the petition before the **City** has made a direct payment to the Subcontractor and has made a deposit of the disputed portion as provided in part (iii) of paragraph (e) and in paragraph (f).

(4) In any petition to collect any claim for which a Subcontractor has filed a demand for direct payment the court shall, upon motion of the **Contractor**, reduce by the amount of any deposit of a disputed amount by the **City** as provided in part (iii) of paragraph (e) and in paragraph (f) any amount held under a trustee writ or pursuant to a restraining order or injunction.

ARTICLE 14

SUBSTANTIAL COMPLETION

14.1. Substantial Completion.

14.1.1. Upon Substantial Completion of the Work, the **Contractor** shall present in writing to the **City** its certification that the Work has been substantially completed and include in its certification (1) a list of items to be completed or corrected, (2) all special warranties required by the Contract Documents, endorsed by the **Contractor** and in a form reasonably acceptable to the **Design Professional** and (3) the permits and certificates referred to in 13.7.1., or elsewhere. The failure to include any item on the list mentioned in the preceding sentence does not alter the responsibility of the **Contractor** to complete all Work in accordance with the Contract Documents. When the **Design Professional** on the basis of an inspection determines that the Work or designed portion thereof is substantially complete and the other conditions have been met, the **Design Professional** will then prepare a certificate of Substantial Completion which shall establish the date of Substantial Completion, shall state the responsibilities of the **City** and the **Contractor** for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the **Contractor** shall complete the items listed therein. The certificate of Substantial Completion shall be submitted to the **City** and the **Contractor** for their written acceptance of the responsibilities assigned to them in such certificate.

14.1.2. Within twenty-one (21) days after receipt of the certification from the **Contractor**, the **City** 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 **City** may include with such list a notice setting forth a reasonable time within which the **Contractor** must achieve Substantial Completion of the Work. If the **City** fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the **Contractor's** certification within the twenty-one (21) day period, the **Contractor's** certification shall take effect as the **City's** declaration that the Work has been substantially completed.

14.2. Partial Use or Occupancy of the Premises.

14.2.1. The **City** may occupy or use any completed or partially completed portion of the Work at any stage. Such partial occupancy or use may begin whether or not the portion is substantially complete, provided that the respective responsibilities of the **City** and the **Contractor** with respect to payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work, insurance, correction of the Work, and warranties shall be established by agreement of the **City** and the **Contractor** or, absent such agreement, shall be determined by the **Design Professional** subject to the right of either party to contest such determination as provided in Article 16.

14.2.2. Immediately prior to such partial occupancy or use, the **City**, the **Contractor** and the **Design Professional** shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

14.2.3. Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

14.2.4. (*Reference:* M.G.L. c. 30, §39G;). Within sixty-five (65) days after the effective date of a declaration of

Substantial Completion, the **City** shall prepare and send to the **Contractor** for acceptance a Substantial Completion estimate for the quantity and price of the Work done and all but one percent (1%) retainage on that Work, including the quantity, price and all but one percent (1%) retainage for the undisputed part of each item and extra work item in dispute, but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory items and less the total periodic payments made to date for the Work. The **City** shall also deduct from the Substantial Completion estimate an amount equal to the sum of all demands for direct payment filed by Subcontractors and not yet paid to Subcontractors or deposited in joint accounts pursuant to M.G.L. c. 30, §39F.

14.2.5. (*Reference:* M.G.L. c. 30, §39G). If the **City** fails to prepare and send to the **Contractor** any Substantial Completion estimate required by the provisions herein on or before the date specified, the **City** 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 (3) percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the **City** sends that Substantial Completion estimate to the **Contractor** for acceptance or to the date of payment therefor, whichever occurs first. The **City** shall include the amount of such interest in the Substantial Completion estimate.

14.2.6. (*Reference:* M.G.L. c. 30, §39G). Within fifteen (15) days after the effective date of the declaration of Substantial Completion, the **City** shall send to the **Contractor** by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory items, and unless delayed by causes beyond its control, the **Contractor** shall complete all such items within forty-five (45) days after the receipt of such list or before the date for final payment and acceptance, whichever is later. If the **Contractor** fails to complete such Work within such time, the **City** may, subsequent to seven (7) days' written notice to the **Contractor** by certified mail, return receipt requested, terminate the Contract and complete the incomplete or unsatisfactory items and charge the cost of same to the **Contractor**.

14.3. Final Inspection.

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

ARTICLE 15 GUARANTEES AND WARRANTIES

15.1. In General.

15.1.1. All guarantees and warranties specifically called for by the Specifications shall expressly run to the benefit of the **City**. Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) shall constitute any acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) will give notice of observed defects with reasonable promptness.

15.2. Warranties.

15.2.1. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof, unless otherwise provided in the certificate of Substantial Completion.

15.2.2. The **Contractor** warrants that the materials and equipment furnished under the Contract will be new and of recent manufacture unless otherwise specified, and that all Work will be of good quality, free from faults and defects, and in conformance with the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The **Contractor's** warranty excludes remedy for damage or defect caused by abuse, Modifications not executed by the **Contractor**, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by the **Design Professional**, the **Contractor** shall furnish satisfactory evidence as to the kind and quality of material and equipment.

15.2.3. The **Contractor** warrants that title to all Work covered by an application for payment will pass to the **City** either by incorporation in the construction or upon the receipt of payment by the **Contractor**, whichever occurs first, free and clear of all liens. The **Contractor** further agrees that the submission of any application for payment shall conclusively be deemed to waive all liens with respect to said Work to which the **Contractor** may then be entitled, provided that such waiver of the lien rights shall not waive the **Contractor's** right to payment for such Work.

15.2.4. The **Contractor** warrants and guarantees that title to all Work, materials, and equipment covered by any

application for payment, whether incorporated in the Project or not, will pass to the **City** no later than the time of payment free and clear of all liens.

15.2.5. No materials or supplies for the Work shall be purchased by the **Contractor** or Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The **Contractor** warrants that it has good title to all materials and supplies used by it in the Work, free from all liens.

15.2.6. The **Contractor** shall indemnify and hold the **City** harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workers, mechanics, material persons, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this Contract. The **Contractor** shall at the **City's** request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If the **Contractor** fails to do so, then the **City** may, after having served written notice on the **Contractor** either pay unpaid bills, of which the **City** has written notice, direct, or withhold from the **Contractor's** unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the **Contractor** shall be resumed, in accordance with the terms of this Contract, but in no event shall the provisions of this sentence be construed to impose any obligations on the **City** to either the **Contractor** or its surety. In paying any unpaid bills of the **Contractor**, the **City** shall be deemed the agent of the **Contractor** and any payment so made by the **City** shall be considered as payment made under the Contract by the **City** to the **Contractor** and the **City** shall not be liable to the **Contractor** for any such payment made in good faith.

15.3. Extended Warranties and Guarantees.

15.3.1. Any defective Work that is either corrected or replaced will be warranted and guaranteed for a period of three (3) years from the date of such correction or replacement.

ARTICLE 16 CLAIMS

16.1. In General.

16.1.1. Written Notice. A Claim must be made by written notice to the other party.

16.1.2. Content of Notice. The notice must include all written supporting data.

16.1.3. Burden of Proof. The party making the Claim must substantiate the Claim.

16.2. Time Limits on Claims.

16.2.1. Unless otherwise provided, all Claims must be made within twenty-one (21) days after the occurrence of the event giving rise to such Claim or within twenty-one (21) days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Any change or addition to a previously made Claim shall be made by a written notice within the twenty-one-day period in order to be valid.

16.3. Continuing Contract Performance.

16.3.1. Pending final resolution of a Claim including arbitration, unless otherwise agreed in writing, the **Contractor** shall proceed diligently with performance of the Contract and the **City** shall continue to make payments in accordance with the Contract Documents.

16.4. Types of Claims.

16.4.1. Claims for Differing Subsurface or Latent Physical Conditions. (*Reference: M.G.L. c. 30, §39N;*). If, during the progress of the Work, the **Contractor** or the **City** 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 **City** may request an equitable adjustment in the Contract Sum 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 **City** 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 **City** shall make an equitable adjustment in the Contract Sum and the Contract shall be modified in writing accordingly.

16.4.2. Claims for Additional Cost. If the **Contractor** claims that any acts or omissions of the **City** or the **Design Professional**, including any instructions or orders, whether oral, written, by drawings, or otherwise, involve extra cost or time, and the **Contractor** has not received a written acknowledgment by the **City** or the **Design Professional** that extra payment will

be made or time extended on account thereof, the **Contractor** shall promptly so notify the **Design Professional** in writing of such Claim and shall proceed with the Work relating to such Claim and all rights of both parties with respect to such Claim shall be deemed to have been reserved. No Claim by the **Contractor** on account of such acts, omissions, instructions, or orders shall be valid unless the **Contractor** has so notified the **Design Professional** before proceeding.

16.4.2.1. Under no circumstances shall a Claim be made for additional cost where adverse weather conditions are the basis for the Claim.

16.4.3. Claims for Additional Time. If the **Contractor** wishes to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The **Contractor** shall have the burden of demonstrating the effect of the claimed delay on the Contract Time and shall furnish the **Design Professional** with such documentation relating thereto as the **Design Professional** may reasonably require. Under no circumstances shall the **Contractor** make a Claim for an increase in the Contract Time due to a change in the **Contractor's** early completion date. If the increase in the Contract Time extends beyond the Contract Time established by the **City**, only the time that so extends beyond the Contract Time shall be reviewed and considered. In the case of a continuing delay, only one Claim is necessary.

16.4.3.1. Under no circumstances shall a Claim be made for additional time where adverse weather conditions are the basis for the Claim.

16.4.4. Claims for Injury to Person or Damage to Property. Should either party to the Contract suffer injury to person or damage to property because of any error, omission, or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, a Claim will be made in writing to the other party within twenty-one (21) days of the occurrence of the act giving rise to the injury or damage.

16.5. Review of Claims.

16.5.1. Initial Referral. All Claims, the bases of which arise prior to final payment or the earlier termination of the Contract, shall be referred initially to the **Design Professional** for action as provided herein.

16.5.2. Time Period and Action. The **Design Professional** shall review Claims and shall do one of the following within fourteen (14) days of receipt of the Claim:

16.5.2.1. defer any action with respect to all or any part of a Claim for the purpose of requesting and receiving additional information from either party;

16.5.2.2. decline in writing to render a decision for any reason which it deems appropriate (including, but not limited to, the fact that the Claim involves allegations of fault on the part of the **Design Professional**); or

16.5.2.3. render a decision on all or a part of the Claim.

16.5.3. If the **Design Professional** requests additional information, the **Design Professional** shall take action with respect to the Claim no later than fourteen (14) days after receipt of the additional information. The **Design Professional** shall notify the parties in writing of its disposition of such Claim. If the **Design Professional** renders a decision or declines to render a decision, either party may proceed in accordance with paragraph 16.7.

16.6. Decisions.

16.6.1. Decisions by the City or the Design Professional. (*Reference: M.G.L. c. 30, §39P*). In every case in which this Contract requires the **City**, any official, or its **Design Professional** to make a decision on interpretation of the Specifications, approval of equipment, material or any other approval, or progress of the Work, the decision shall be made promptly and, in any event, no later than fourteen (14) days after the written submission for decision; but if such decision requires extended investigation and study, the **City**, the official, or the **Design Professional** shall, within fourteen (14) 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.

16.6.2. When Decision of the Design Professional is Final and Binding. The decision of the **Design Professional** shall be final and binding on the parties, unless a party files suit or a demand for arbitration within thirty (30) days after the date of the decision.

16.6.3. When Decision of the Design Professional is Not Final and Binding. (*Reference: M.G.L. c. 30, §39J*). Notwithstanding any contrary provision of this Contract, no decision by the **City** or by the **Design Professional** on a dispute, whether of fact or of law, arising under said Contract shall be final or conclusive if such decision is made in bad faith, fraudulently, capriciously, arbitrarily, is unsupported by substantial evidence, or is based upon error of law.

16.6.4. Resolved Claims. If a Claim is resolved, the **Design Professional** shall obtain or prepare the appropriate documentation and provide the **City** and the **Contractor** with a copy of same.

16.7. Arbitration.

16.7.1. Controversies and Claims Subject to Arbitration. Any controversy or Claim arising out of or related to the

Contract, or the breach thereof, shall be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator or arbitrators may be entered in any court having jurisdiction thereof, except controversies or Claims relating to aesthetic effect, subject to the provisions of paragraph 16.7.7. In any such arbitration in which the amount stated in the demand is \$100,000 or less, the American Arbitration Association shall appoint a single arbitrator in accordance with such Rules, who shall be a lawyer. In any such arbitration in which the amount stated in the demand is in excess of \$100,000, the demand shall include the name of an arbitrator appointed by the claimant. The respondent shall appoint a second arbitrator and shall notify the claimant in writing of such appointment within thirty (30) days of receipt of the demand, failing which the matter shall be decided by the arbitrator named in the claimant's demand. Within thirty (30) days after the claimant's receipt of notice of the appointment of the second arbitrator, the two arbitrators shall appoint a neutral arbitrator and shall notify the parties in writing of such appointment, failing which either party may apply to the American Arbitration Association to appoint such neutral arbitrator. If such neutral arbitrator is appointed by the American Arbitration Association, he or she shall be a lawyer.

16.7.2. Rules for Arbitration. If the neutral arbitrator is appointed by the American Arbitration Association, the said Association shall administer the arbitration and its Construction Industry Arbitration Rules shall govern all aspects of the proceeding including the enforcement of any award. If the neutral arbitrator is not appointed by the American Arbitration Association, then the panel of arbitrators shall act as the administrator of the arbitration but the Construction Industry Arbitration Rules of the Association shall nonetheless govern all aspects of the proceeding, including the enforcement of any award, provided however that the arbitration panel shall have all of the powers and duties conferred on the Association pursuant to said rules. In addition, the following rules shall govern the selection of arbitrators and the proceedings:

16.7.2.1. Neither party may appoint as arbitrator an employee or an owner of that party, nor the parent, spouse, or child of an employee or owner of that party.

16.7.2.2. After the neutral arbitrator has been appointed, neither party may engage in *ex parte* communication with any arbitrator.

16.7.3. When Arbitration May Be Demanded. Demand for arbitration of any Claim, the basis of which arises prior to final payment or the earlier termination of the Contract may not be made before the earlier of (1) the date on which the **Design Professional** has rendered a written decision on the Claim or has notified the parties in writing that such decision will not be rendered or (2) forty-five (45) days following receipt by the **Design Professional** of a written request for a decision sent by registered or certified mail to both the **Design Professional** and the other party to this Contract.

16.7.3.1. In no event shall a demand for arbitration be made after the date when the institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations.

16.7.4. Limitation on Consolidation or Joinder. No arbitration arising out of or relating to the Contract Documents shall include, by consolidation or joinder or in any other manner, the **Design Professional**, the **Design Professional's** employees or consultants, except by written consent containing specific reference to the Contract and signed by the **Design Professional**, the **City**, the **Contractor**, and any other person or entity sought to be joined. No arbitration shall include, by consolidation or joinder or in any other manner, parties other than the **City**, the **Contractor**, a separate contractor, and other persons substantially involved in a common question of fact or law whose presence is required if complete relief is to be accorded in arbitration. No person or entity other than the **City**, the **Contractor**, or a separate contractor shall be included as an original third party or additional third party to an arbitration whose interest or responsibility is insubstantial. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a dispute not described therein or with a person or entity so named or described herein. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Contract shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

16.7.5. Claims and Timely Assertion of Claims. A party who files a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded. When a party fails to include a Claim through oversight, inadvertence, or excusable neglect, or when a Claim has matured or been acquired subsequently, the arbitrator or arbitrators may permit amendment.

16.7.6. Award Final. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

16.7.7. The City's Reservation of Rights. Notwithstanding any provision contained in this Article 16 or elsewhere in the Contract Documents, the **City** reserves the following rights in connection with Claims between the **City** and the **Contractor**, which rights may be exercised by the **City** unilaterally, in the **City's** sole discretion, and without the consent of the **Contractor**:

16.7.7.1. the right to institute legal action against the **Contractor** in any court of competent jurisdiction in lieu of demanding arbitration, in which case the dispute or disputes which are the subject of such action shall be decided by such court, and not by arbitration;

16.7.7.2. the right to obtain from any court of competent jurisdiction a stay of any arbitration instituted by the **Contractor**, provided that the application for such stay is made before the appointment of the neutral arbitrator in

such arbitration, in which case the dispute or disputes which are the subject of such arbitration shall be decided by such court and not by arbitration;

16.7.7.3. the right to require the **Contractor** to join as a party in any arbitration between the **City** and the **Design Professional** relating to the Project, in which case the **Contractor** agrees to be bound by the decision of the arbitrator or arbitrators in such arbitration.

16.7.8. In case the **City** elects to proceed in accordance with 16.7.7.1. or 16.7.7.2. above, the word "litigation" shall be deemed to replace the word "arbitration" wherever the latter word appears in the Contract Documents.

ARTICLE 17 EMERGENCIES

17.1. In an emergency affecting the health and safety of persons or property, the **Contractor** shall act to prevent threatened damage, injury, or loss.

17.2. In emergencies affecting the health, safety, or protection of persons, the Work or property at the Site or adjacent thereto, the **Contractor**, without special instruction or authorization from the **City** or the **Design Professional**, is obligated to act to prevent threatened damage, injury, or loss. The **Contractor** shall give the **Design Professional** prompt written notice if the **Contractor** believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If the **Design Professional** determines that a change in the Contract Documents is required because of the action taken by the **Contractor** in response to such an emergency, a **Construction Change Directive** or **Change Order** will be issued to document the consequences of such action.

ARTICLE 18 TERMINATION OR SUSPENSION OF THE CONTRACT

18.1. Suspension by the City.

18.1.1. At any time and without cause, the **City** may suspend the Work or any portion thereof for a period of not more than ninety (90) days by notice in writing to the **Contractor** and the **Design Professional** that will fix the date on which Work will be resumed. The **Contractor** shall resume Work on the date so fixed. The **Contractor** shall be allowed an adjustment in the Contract Sum or an extension of the Contract Time, or both, directly attributable to any such suspension if the **Contractor** makes an approved Claim therefor, 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. The General Contractor must submit the amount of a claim under provision (1) 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. The General Contractor must submit the amount of a claim under provision (1) 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.

18.1.1.1 Notwithstanding the above, if the City is required to suspend the work as a result of a request from the Office of the Attorney General in connection with a bid protest or an injunction, the Contractor shall not have a claim for damages, but the City shall extend the date of substantial completion for a period of time commensurate with the period of the suspension, and the liquidated damages clause shall not take effect until the extended date of substantial completion. If any of the following occurrences causes a delay in the work, the Contractor shall immediately notify CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) in writing. If, upon investigation, the City finds that the delay is excusable, the City shall extend the date of substantial completion for a period of time commensurate with the period of the excusable delay, and the liquidated damages clause shall not take effect until the extended date of substantial completion: (1) any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, National Defense, or any other national emergency; (2) delays which are caused by the City and which are not occasioned by the Contractor's failure to supply CONTRACTING DEPARTMENT (AS STATED ON THE FIRST PAGE OF THE AGREEMENT) or its design professional with progress schedules, documents, samples, and the like, in a timely manner; (3) causes not reasonably foreseeable by the parties to this Contract, which are beyond the reasonable

control of the Contractor, such as blizzards, floods, hurricanes, tornadoes, and strikes; (4) any delay of any subcontractor resulting from paragraphs (1), (2), or (3).

18.1.2. If the Work is defective, if the **Contractor** fails to provide a sufficient number of skilled workers or suitable materials or equipment, or if the **Contractor** defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the **City** to begin and prosecute correction of such default or neglect with diligence and promptness, the **City** may correct such deficiencies, without prejudice to other remedies the **City** may have. In such case, an appropriate **Construction Change** Directive shall be issued deducting from payments then or thereafter due to the **Contractor** the cost of correcting such deficiencies including compensation for the **Design Professional's** additional services and expenses made necessary by such default, neglect, or failure and any and all direct, indirect, or consequential costs associated with the order to stop the Work. If such payments then or thereafter due the **Contractor** are not sufficient to cover such amounts, the **Contractor** shall immediately pay the difference to the **City**. The **Contractor** shall remain responsible for maintaining progress and shall not be entitled to any increase in the Contract Time or the Contract Sum.

18.2. Termination by the Contractor.

18.2.1. If, through no act or fault of the **Contractor**, a Subcontractor, or a Sub-subcontractor, the Work is suspended for a period of more than ninety (90) days by the **City**, or under an order of court or other public authority, or the **Design Professional** fails to act on any application for payment within thirty (30) days after it is submitted in proper form and content or the **City** fails for thirty (30) days to pay the **Contractor** any sum finally determined to be due, then the **Contractor** may terminate the Contract upon seven (7) days' written notice to the **City**, provided that the **City** does not remedy such suspension or failure within that time.

18.3. Termination by the City.

18.3.1. If the **Contractor** is adjudged a bankrupt, or if the **Contractor** makes a general assignment for the benefit of the **Contractor's** creditors, or if a receiver is appointed on account of the **Contractor's** insolvency, or if the Contractor makes a written admission of the Contractor's inability to pay debts, or if the Contractor becomes a debtor or defendant in (i) a voluntary or involuntary petition in bankruptcy, (ii) a petition for appointment of a receiver, (iii) a levy of an attachment or execution, (iv) a winding up or dissolution of a partnership or corporation, (v) or any other proceeding under which a court of competent jurisdiction assumes custody or control over the Contractor, or if the **Contractor** persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or fails to prosecute the work with such diligence as will, in the reasonable estimation of the City, ensure substantial completion within the time specified in the Contract Documents, or if the **Contractor** fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction or disregards an instruction, order, or decision of the **Design Professional**, or otherwise is in breach of any provision of the Contract and has failed to cure such breach after written notice from the City specifying 1) the breach, 2) what must be done to cure the breach, and 3) the time within which the breach must be cured, or otherwise is guilty of substantial violation of any provision of the Contract, then the **Contractor** shall be in default, and the **City** may, without prejudice to any other right or remedy and upon written notice to the **Contractor**, temporarily withhold cash payments pending correction of the deficiency, hold the Contractor and its sureties liable in damages, require the Contractor's sureties to complete the Contract, take possession of all materials, tools, appliances, equipment, construction equipment and machinery and vehicles, offices and other facilities on the Project Site, and all materials intended for the Work, wherever stored, without liability for loss or damage, following which use, the Contractor shall be liable for their removal from the site; and, seven (7) days after such notice, may terminate the employment of the **Contractor**, accept assignment of any or all subcontracts pursuant to Paragraph 6.6.1.1, and finish the Work by whatever method the **City** may deem expedient (including but not limited to using the services of another contractor (in which case the City shall have no obligation to use a competitive process to obtain the lowest contract prices) and look to the Contractor and the Contractor's sureties for the difference between the cost to complete the work and the contract sum hereunder.

. The **City** shall be entitled to collect from the **Contractor** all direct, indirect, and consequential damages suffered by the **City** on account of the **Contractor's** default, including without limitation additional services and expenses of the **Design Professional** made necessary thereby. The **City** shall be entitled to hold all amounts due to the **Contractor** at the date of termination until all of the **City's** damages have been established, and to apply such amounts to such damages.

18.3.1.1. HUD Action. If the Contractor is in default, HUD and/or any other administering agency named herein may, with or without the consent of the City, cancel, suspend, or terminate this Contract in whole or in part; require the withholding or disallowance all or part of the funding for the project; declare the contractor ineligible for further Government contracts or avail itself of any other remedies available under the law.

18.3.2. (*Reference:* Somerville Municipal Code Chapter 2.117, Section 2.117.110C). In the event the **Contractor** or any of its agents or employees violates any provision of Somerville Municipal Code Chapter 2.117 that is applicable to **City**

contractors in connection with the awarding, administration, or performance of the Contract, the **City** may terminate the Contract.

18.3.3. (a) The City may terminate this Contract without cause, at any time, effective upon the date of termination specified by written notice to the Contractor, in which case, the Contractor shall be compensated for: (1) sums due under this Contract incurred up to the date of termination for all Work performed and accepted by the City up to the termination date, calculated on a percentage completion basis covering the period of time between the last approved application for payment and the date of termination using the progress schedule and schedule of values. The Contractor shall use its best efforts to mitigate any expenses and shall in no event incur any new obligations after the date of termination.

(1) Payment by the City as provided in this section shall be deemed to fully compensate the Contractor for all expenses and those of any consultants, subcontractors and suppliers, directly or indirectly attributable to the termination. Lost profits shall not be payable. Any such termination shall not give rise to any cause of action for damages against the City.

(b) Contractor's Duties Upon Termination For Convenience. Upon termination of this Contract without cause, the Contractor shall: (1) immediately stop the Work; (2) stop placing orders and Subcontracts in connection with this Contract; (3) cancel all existing orders and Subcontracts (subject to the City providing notice that it accepts assignment of any or all subcontracts pursuant to Paragraph 6.6.1.1); (4) surrender the site to City in a safe condition; and (5) promptly transfer to City all materials, supplies, work in process, appliances, facilities, equipment and machinery of this Contract, and all work product, plans, drawings, specifications and other information and documents used in connection with Services performed under this Contract. Failure by the Contractor to comply with said duties shall relieve the City of its obligation to compensate the Contractor, as provided for under this section.

ARTICLE 19

AMERICANS WITH DISABILITIES ACT (42 U.S. 12131)

19.1. On July 26, 1994, the Americans with Disabilities Act ("the Act") became effective for employers of fifteen or more employees.

19.2. The Act protects against discrimination of the basis of "disability," which is defined as a physical or mental impairment that substantially limits at least one "major life activity;" or discrimination against an individual who has a record of such impairment; or discrimination against an individual being regarded - even if inaccurately - as having such impairment. The Act also expressly prohibits job discrimination that is based on any individual's relationship or association with a disabled person.

19.3. If the **Contractor** is subject to the Act, it must comply with its provisions.

ARTICLE 20

WRITTEN NOTICE TO THE PARTIES

20.1. In General.

20.1.1. All written communications from the **Design Professional** to the **Contractor** shall be copied to the **City**. All written communications from the **Contractor** to the **Design Professional** shall be copied to the **City**. All written communications from the **Contractor** to the **City** shall be copied to the **Design Professional**.

20.2. Addresses.

20.2.1. To the City. Written notice to the **City** shall be sent or hand-delivered to:

Mayor
City of Somerville
93 Highland Avenue
Somerville, MA 02143

City Solicitor
Law Department
93 Highland Avenue
Somerville, MA 02143

Director of Contracting Department (as stated on first page of this Agreement)
City Hall
93 Highland Avenue
Somerville, MA 02143

20.2.2. To the Contractor. Both the address given on the bid form upon which the Agreement is founded and the **Contractor's** office at or near the Site of the Work are hereby designated as places to either of which notices, letters, and other communications to the **Contractor** shall be certified, mailed, or delivered. Delivery of any notice, letter, or other communication to the **Contractor** at or depositing same in a postpaid wrapper directed to either place shall be deemed sufficient service thereof upon the **Contractor**. Written notice shall be deemed to have been duly served on the **Contractor** if it is sent or hand-delivered to any member or officer of the **Contractor**. The date of said service shall be the date of such delivery or mailing. The address may be changed at any time by an instrument in writing, executed and acknowledged by the **Contractor** and delivered to the **City** and to the **Design Professional**. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon the **Contractor** personally. Moreover, any notice, letter, or other communication required under the Contract may be served on the **Contractor's** representative at job meetings. The **Contractor** shall provide the **City** with its change of address seven (7) days prior to its effective date.

20.2.3. To the Design Professional. Written notice to the **Design Professional** shall be sent or hand-delivered to the address appearing on the Project Manual. Written notice shall be deemed to have been duly served on the **Design Professional** if it is sent or hand-delivered to any member or officer of the **Design Professional**.

ARTICLE 21 MISCELLANEOUS PROVISIONS

21.1. Governing Law.

21.1.1. This Contract shall be governed by the laws of the Commonwealth of Massachusetts and the United States of America.

21.2. Venue.

21.2.1. Venue for any court action or proceeding shall be Middlesex County in the Commonwealth of Massachusetts only. The **Contractor**, all Subcontractors, and Suppliers waive any and all jurisdictional and venue defenses.

21.3. Successors and Assigns.

21.3.1. The **Contractor** shall not assign, in whole or in part, its rights and obligations under the Contract Documents without prior written consent of the **City**. An assignment without the prior written consent of the **City** shall not relieve the **Contractor** of its obligations thereunder.

21.3.2. The **City** and the **Contractor** respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents.

21.4. Statutory Limitation Period.

21.4.1. It is expressly agreed that the obligations of the **Contractor** hereunder arise out of contractual duties, and that the failure of the **Contractor** to comply with the requirements of the Contract Documents shall constitute a breach of contract, not a tort, for the purpose of applicable statutes of limitations and repose. Any cause of action which the **City** may have on account of such failure shall be deemed to accrue only when the **City** has obtained actual knowledge of such failure, not before.

21.5. Rights and Remedies.

21.5.1. Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

21.5.2. No action or failure to act by the **City**, the **Design Professional**, or the **Contractor** shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

21.6 Severability. In the event that any provision of this Agreement is found to be legally unenforceable, the remainder of the Agreement shall remain in full force and effect.

21.7 Conflict of Interest Laws. The City and the Contractor shall comply with all applicable conflict of interest statutes and regulations.

21.8 If this contract is in excess of \$2,000 and is federally funded, the Contractor shall comply with the Copeland "Anti-Kickback Act" (18 U.S.C. 874 and 29 CFR Part 3) more fully set forth in Appendix G attached hereto, and shall not induce any person employed in the construction, completion, or repair of a public building or public work, to give up any part of the

compensation to which he would otherwise be entitled.

21.9. EQUAL EMPLOYMENT OPPORTUNITY/NONDISCRIMINATION

a) the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, sexual orientation, national origin, age, disability, Vietnam Era veteran status or because an employee or applicant is a recipient of federal, state, or local public assistance or housing subsidies; and

b) the Contractor shall not discriminate, in any stage of the contract from award to completion, in the selection or retention of subcontractors, suppliers, and materialmen, or in the procurement of materials or supplies, or the rental of equipment, on the basis of race, religion, sex, marital status, sexual orientation, national origin, age, disability, Vietnam Era veteran status, or because an individual is a recipient of federal, state, or local public assistance or housing subsidies; and

c) the Contractor shall post an equal employment opportunity notice in conspicuous places at the worksite, shall make copies of such notice available to employees and job applicants, and shall send such notice to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding; and

d) the Contractor shall, to the greatest extent feasible, give employment and on-site training opportunities, to lower-income, minority, women, and disabled members of the local community and shall award subcontracts, when possible, to Minority Business Enterprises (MBE) and Women Business Enterprises (WBE).

e) the contractor shall include language similar to the above in all subcontracts.

END

PART 3: TECHNICAL SPECIFICATIONS

SECTION 01 01 00

SUMMARY OF WORK

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Scope of Work, Codes/Standards & Permits, Contractor's Use of Premises, Examination of Site, Discovery, Authority to Stop Work, Owner Occupancy.***

1.03 SCOPE OF WORK

- A. The work contemplated by the Contract Documents includes the Work of all trades required and all labor, equipment, materials and supervision necessary and incidental to the Work indicated. The work of this contract includes selective demolition and renovations of existing construction. The work required by the Contract Documents includes the Work of all trades required and all labor, equipment, materials and supervision necessary and incidental to the Work indicated. The following descriptions of the Work represent a brief summary of the Project. For additional and more complete information refer to the Project Manual and Drawings. The Drawings indicate and show limits of construction for this Project. The Drawings and Project Manual are complementary to each other and both shall be followed to complete the Work.
- B. The project scope consists of waterproofing repairs and associated work at the Somerville School Administration Building. General Bidders are to be DCAMM certified in General Construction. Work shall include but is not limited to:
 - 1. Demolition, including removal of ivy and other plant growth
 - 2. Repairs to CMU masonry walls
 - 3. Application of sheet waterproofing and sheet metal flashing
 - 4. Removal and replacement (and in certain locations, relocation) of windows
 - 5. Application of waterproofing to prepared CMU wall surfaces
 - 6. Removal and relocation or reinstallation of exterior electrical equipment
 - 7. Preparation and application of fill materials
 - 8. Installation of three catch basins and related below grade piping and connection to an Owner provided manhole
 - 9. Installation of asphalt paving
 - 10. Installation of 2 solid sections of fence and one double set of swing gates

C. The General Contractor shall provide and maintain proper supervision of the labor force for project duration. The General Contractor shall provide, for project duration, a competent full-time, *Project Superintendent* who shall remain on site, full-time every workday. The Project Superintendent shall be responsible for providing full-time supervision of the labor force, including but not limited to his employees, his subcontractors, his material suppliers, and his equipment suppliers. His responsibilities shall also include general coordination and management of the job and his attendance is required at all project meetings. He shall not work as a foreman, mechanic, laborer, or tradesman, except with the written permission of the Engineer. The Project Superintendent shall be a Licensed Construction Supervisor in the State of Massachusetts.

D. Project Schedule is as follows:

Project out to bid
On-site Pre-Bid Meeting.....
General Bids Due.....

The construction phase is expected to occur during 2016. The Contractor will be allowed to commence the construction work on within 10 days of notice to proceed, and achieve final completion within 75 days of notice to proceed. In case the Work embraced in this Contract shall not have been completed due to failure of the Contractor to complete the work or any part of the work within the time specified, the Awarding Authority may recover as liquidated damages **\$500** per day for every day beyond the final completion date or revised completion date as extended in accordance with any change orders. The work hours shall be as follows: Monday through Saturday 7:00 am to 4:00 pm. The Contractor shall start the work under this Contract on written notice from and on the date set by the Awarding Authority and continue to completion with all practical dispatch and regularity so that the entire project shall be completed in a timely fashion.

1.04 CODES, STANDARDS AND PERMITS

A. All work under this Contract shall conform to all codes and standards in effect as of the date of receipt of Bids, which are applicable to this Project. All work shall further conform to specific requirements and interpretations of local authorities having jurisdiction over the Project. These codes, standards and authorities are referred to collectively as "the governing codes and authorities", and similar terms, throughout the Specifications. Determination of applicable codes and standards, and authorities having jurisdiction, shall be the responsibility of the General Contractor, as shall be the analysis of all such codes and standards in regard to their applicability to the Project for the purposes of determining necessary construction to conform to such code requirements, securing all approvals and permits necessary to proceed with construction, and to obtain all permits necessary for the Owner to occupy the facilities for their intended use. In the case of conflicts between the requirements of different codes and standards,

the most restrictive or stringent requirements shall be met.

1. The General Contractor shall maintain at the site, for the duration of the construction operations at the site, two (2) copies of all relevant codes and standards listed herein or determined to be applicable to the work. One copy of such codes shall be for the exclusive use of the Owner and Engineer and its consultants, and shall be kept in the Construction Manager's site office.
- B. Code Enforcement and Approvals: The General Contractor shall secure the general building permit for the work, and the General Contractor shall conform to all conditions and requirements of the permit and code enforcement authority. The General Contractor shall provide names and license numbers of its responsible representatives to complete application for permit, and shall receive permit and promptly distribute copies thereof to Owner and Engineer.
- C. The General Contractor shall identify all permits (other than general building permit) required from authorities having jurisdiction over the Project for the construction and occupancy of the work, shall prepare the necessary applications and submit required plans and documents to obtain such permits in a timely manner, and shall pay all fees and charges in connection therewith. Building permit fees shall be waived.
 1. The General Contractor shall display all permit cards as required by the authorities, and shall deliver photocopies of all permits to the Owner and Engineer promptly upon receipt.
 2. The General Contractor shall arrange for all inspections, testing and approvals required for all permits, and shall notify the Engineer and Owner of such inspections at least three business days in advance, so they may arrange to observe.
 3. The General Contractor shall comply with all conditions and provide all notices required by all permits.
 4. The General Contractor shall perform and/or arrange for and pay for all testing and inspections required by governing codes and authorities, other than those provided by the Owner, and shall notify Engineer and Owner of such inspections at least three business days in advance of all such testing or inspection, so they may arrange to observe.
 5. Where inspecting authorities require corrective work in conjunction with applicable codes and authorities, the General Contractor shall promptly comply with such requirements, except in cases in which requirements clearly exceed the requirements of the Contract Documents in which case the Contractors shall proceed in accordance with the procedures for modifications or changes in the work established in the Contract Documents, as amended.

1.05 CONTRACTOR'S USE OF PREMISES

- A. The building will not be occupied during the project. At all times during the demolition, construction, and alterations, the General Contractor shall provide adequate and safe means of egress for all work force in the building and at the same time provide security of the building. "Means of Egress" also includes safe and adequate paths on the site, and safe access for pedestrians adjacent to the property.
- B. Prior to beginning work of the Contract, the General Contractor shall meet with the Owner and the Engineer to determine procedures regarding access to and use of site, exterior staging, parking, and storage areas, tree protection, special site conditions, and any other restrictions regarding the use of the site areas surrounding the construction.
- C. Where work on public roads or walks, or other work on municipal property or easements is done, all such work shall conform to applicable portions of this Specification and the rules, regulations, and specifications of the public agencies having jurisdiction. Wherever work on a public street is done, a Town special duty police officer must be present arranged and paid for by the General Contractor at no change in contract price. All permits and fees in relation to such off-site work shall be obtained and paid for by the General Contractor.
- D. The General Contractor shall keep all public and private access roads and walks clear of debris caused by their work during the entire term of the Contract. They shall repair all public and private streets, drives, curbs, walks, and other improvements where disturbed by work of, or related to, building operations, leaving them in as good condition after completion of the work as before operations started, in accordance with rules, regulations, and specifications of the public agencies having jurisdiction.
- E. There is no on site parking capability. Steel parking is available on a first come first served basis.
- F. Access roads and fire-lanes on and about the site shall be kept open and free at all times, except moving traffic, for passage of emergency vehicles.
- G. A reasonable sum (cost of equivalent replacement) will be deducted from the Contract Sum for any permanent damage to existing trees or plantings which are outside the construction site area but on the Owner's property or are within the construction site area and are designated to be protected. Damage to trees and plants off the Owner's property shall be fully the responsibility of the General Contractor.
- H. The General Contractor shall endeavor at all times to maintain as low a level of construction noise as practicable in order not to create a disturbance in the neighborhood. The General Contractor shall provide and maintain portable noise barriers for compressors and generators. Compressors and generators shall be located to prevent fumes from entering occupied space (including abutter

properties).

1. Refer to the City of Somerville By-Laws.
 2. All workers on the project are required to conduct themselves in a professional manner. Abusive or obscene language will not be tolerated. No obscene gestures, whistles, or cat-calls will be allowed. No soliciting or harassing of neighborhood residents for any reason will be permitted. The Owner reserves the right to have any worker barred from the construction site.
 3. Use of alcohol or drugs on property is prohibited.
 4. Workers shall wear shirts at all times.
 5. Smoking is prohibited on property.
 6. No radios are allowed on the work site.
- I. The intent of the specifications is that required work shall be performed with a minimum of interference with the public and the Owner's operations. To achieve this end, the General Contractor shall prosecute the work to its completion as soon as possible with full crews of workers during regular working hours, with multiple shift work or overtime hours are indicated in their Progress Schedule as approved. All work at other than regular hours shall be subject to prior approval by Owner.
- J. The General Contractor shall confine his apparatus, storage of materials, and operations of his workers to areas as required by the Owner, and shall not unreasonably encumber the premises with his materials. The General Contractor shall keep corridors and exits clear of debris, stored materials, etc. At all times, to provide for normal and fire egress from the building. The premises shall be maintained in a safe, orderly condition at all times.
- K. Site Cleaning and Maintenance:
1. Before the start of any work it is required that an inspection is made to determine the existing conditions of the site around the work areas, including areas outside of the Site boundaries in which operations of the Contractors may occur. This should be performed jointly by representatives of each Contractor and Engineer.
 2. Unless otherwise specified in the various technical specification Sections, the General Contractor shall take all necessary precautions to prevent the spreading of dirt and dust throughout the area of the work. During demolition and other work, the General Contractor shall take all measures necessary to contain dust and other debris from the work within the limits of the site under their control. The General Contractor shall be responsible for promptly cleaning up all dirt, dust and debris escaping

from the work areas or dropped from vehicles traveling to and from the work. All vehicles used for removal of material from the site shall be equipped with covers, in good condition, adequate to contain dust and debris within lawful and acceptable limits. The General Contractor shall provide all facilities for preventing spread of objectionable matter outside of the site areas through washing of vehicles and vehicle wheels, decontamination of vehicles transporting hazardous waste containing materials including asbestos, lead, or other matter, and all other means necessary.

3. Prior to final completion of the Contract, The General Contractor shall remove all spots, stains, dirt and dust from all surfaces, including areas within other buildings and any portion of property of others, which were the result of the work of this Project to the satisfaction of the Owner.
 4. Any damage to the present quarters or equipment of the Owner caused by the General Contractor or their Subcontractors shall be corrected, as directed by the Engineer, at the expense of the Contractors.
- L. As a condition of Engineer's certification for Final Completion, restore site areas and areas off the site damaged by work under this Contract to their condition existing at the start of the work unless otherwise directed by the Owner.

1.06 EXAMINATION OF SITE

- A. Prior to bidding the General Contractor shall carefully examine the site and the Contract Documents to ensure their knowledge of conditions and requirements affecting the work. No claim for extra compensation or extension of time will be allowed for by the Contractor's failure to comply with this requirement nor will any condition at the site, whether or not in agreement with conditions shown or called for on the Contract Documents, be allowed as a basis or such claims, except as otherwise specifically provided for.

1.07 DISCOVERY

- A. If during the demolition, excavation, disposal, or other work, articles of unusual value, or of historical or archaeological significance are encountered the ownership of such articles is retained by the Owner, and information regarding their discovery shall be immediately furnished to the Engineer. If the nature of the article is such that the work cannot proceed without danger of damaging same, work in that area shall be immediately discontinued until the Engineer has decided the proper procedure to be followed. Any time lost thereby shall be a condition for which the time of the Contract may be extended. All costs incurred after discovery in the salvaging of such articles shall be borne by the Owner.

1.08 AUTHORITY TO STOP WORK

- A. The Engineer, the Owner, or their authorized representatives shall retain the right to stop work on the project when, in their judgment, the specifications, the manufacturer's requirements, drawings or similar requirements and conditions are not being fully complied with by the General Contractor or subcontractors.
- B. The Engineer, the Owner, or their authorized representatives shall retain the right to stop work on the project when, in their judgment, unforeseen conditions require field changes. The General Contractor shall make watertight the area in construction and the Engineer shall develop the necessary modifications to the design.
- C. No claims by the General Contractor for additional compensation or extension of contract schedules shall be allowed due to a suspension of the work ordered by the Owner or Engineer because of the Contractor's failure to comply with the Contract Documents or due to unforeseen conditions that require field changes.
- D. If work is suspended on the project due to the Contractor's failure to comply with the Contract Documents, the Contractor shall immediately take whatever measures are necessary to bring his work on the project into compliance and to resume work.
- E. If the Contractor neglects or refuses to bring his work into full compliance with the Contract Documents, the Owner shall retain the right to terminate the Contract.

1.09 OWNER OCCUPANCY

- A. The building will not be occupied during the project. Contractors (under separate contracts) may also be on site during the construction period. The work sequence and operations must be coordinated and approved with the Owner and others working on-site. The General Contractor shall cooperate with the Owner to minimize conflict and to facilitate the Owner's operations, and to maintain pedestrian traffic at all times.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 29 00
MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements and hereby made part of this specification

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Project Pricing, Lump Sum Prices, Unit Prices, Schedule of Values, Application for Payment, Waivers of Mechanics Liens.***

1.03 PROJECT PRICING

- A. Bidder shall complete the Form for General Bid including all requested information.
- B. Project pricing is lump sum. Estimated quantities relative to repairs of anticipated deteriorated conditions are included in the lump sum price. Unit prices are requested for any adds or deducts to these estimated quantities.

1.04 LUMP SUM PRICES

- A. Lump Sum Prices shall include all costs to provide and install the Work including, but not limited to labor, materials, equipment, supervision, overhead, profit.

1.05 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's schedule.
 - 1. Submit a complete schedule of values, totaling the entire project amount.
 - 2. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal Schedule
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 3. Organize the schedule of values with line items aligning with the specification section numbers and titles in the Project Manual Table of Contents.

4. Submit the schedule of values to Architect at earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
 5. Sub-schedules for Separate Elements of Work: Where the Contractor's construction schedule defines separate elements of the Work, provide sub-schedules showing values correlated with each element.
- B. Format and Content: Use The Project Manual's Table of Contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Provide a breakdown of the Contract Sum in enough detail to facilitate evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual's Table of Contents. Provide multiple line items for principal subcontract amounts in excess of five percent of Contract Sum.
 3. Round amounts to the nearest whole dollar; total shall equal the Contract Sum.
 4. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 5. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total value of that part of the Work.
 6. Purchase Contracts: Provide a separate line item in the schedule of values for each purchase contract. Show line-item value of purchase contract. Indicate owner payments or deposits, if any, and balance to be paid by Contractor.
 7. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

- a. Temporary facilities and other major cost items that are not direct cost of actual work-in place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
8. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders of Construction Change Directives result in a change in the Contract Sum.

1.06 APPLICATION FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 1. Initial Applications for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Progress payment applications shall be submitted to Architect by the seventh day (7th) of the month. The period covered by each Application for Payment is one month, ending on the last day of the previous month.
- C. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Used updated schedules if revisions were made.
 2. Include amounts of work completed following previous Application for Payment, whether or not payment has been received.
 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner requested project acceleration.
- D. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but yet not installed. Differentiate between items stored onsite and items stored off site.
 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Materials previously stored and included in previous Applications for Payment.

- b. Work completed for this Application utilizing previously stored materials.
 - c. Additional materials stored with this Application.
 - d. Total materials remaining stored, including materials with this Application.
- E. Transmittal: Submit three (3) signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
- F. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - 2. Schedule of values.
 - 3. Contractor's construction schedule (preliminary if not final).
 - 4. Combined Contractor's construction schedule (preliminary if not final) incorporating Work of multiple contracts, with indication of acceptance of schedule by each Contractor.
 - 5. Products list (preliminary if not final).
 - 6. Schedule of unit prices.
 - 7. Submittal schedule (preliminary if not final).
 - 8. List of Contractor's staff assignments.
 - 9. List of Contractor's principal consultants.
 - 10. Copies of building permits.
 - 11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 12. Initial progress report.
 - 13. Report of preconstruction conference.
 - 14. Certificates of insurance and insurance policies.
 - 15. Data needed to acquire Owner's insurance.
- G. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the work.
- H. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited to the following:
 - 1. Evidence of completion of Project closeout requirements.

2. Insurance certificates for products and completed operations where required and proof that taxes, fees and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payments of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements and hereby made part of this specification

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Project Coordination, Project Superintendence, Project Meetings, Project Progress Schedules, and RFIs.***

1.03 PROJECT COORDINATION

- A. The Project Coordination Administrator shall be the Owner's Project Manager (OPM) as employed and directed by the Owner. The Contractor shall cooperate fully with the Administrator in allocation of mobilization areas, protection, field offices, storage sheds/areas, traffic and parking facilities.
- B. Contractor shall coordinate all aspects of the work (including his and any of his subcontractors), including but not limited to: scheduling, submittals, shop drawings, and permitting so as to ensure efficient and orderly sequencing of the construction.
- C. Contractor shall verify that utility requirements of all project related required machinery and equipment are compatible with the building's utilities. Contractor shall coordinate for installing, connecting to, and placing in service, all such required machinery and equipment.
- D. Contractor shall coordinate completion and clean up of work on a daily basis, including maintaining water-tightness for project duration.

1.04 PROJECT SUPERINTENDENCE

- A. The Contractor shall provide and maintain proper supervision of the labor force for project duration. To this end, the Contractor shall provide, for project duration, a competent full-time, ***Project Superintendent*** who shall remain on site, full-time every workday. The Project Superintendent shall be responsible for providing full-time supervision of the labor force, including but not limited to his employees, his subcontractors, his material suppliers, and his equipment suppliers. His responsibilities shall also include general coordination and management of the job and his attendance is required at all project meetings.

He shall not work as a foreman, mechanic, laborer, or tradesman, except with the written permission of the Engineer. The Project Superintendent shall be a Licensed Construction Supervisor in the State of Massachusetts.

- B. Prior to the pre-construction meeting, the Contractor shall provide the Project Superintendent's resume to the Engineer for approval. The Engineer shall have the right, by written notice sent to the Contractor at any time to disapprove such Project Superintendent. The Contractor shall then appoint a new and approved Project Superintendent within one (1) day of receipt of notice. The Contractor shall not remove the Project Superintendent without the Engineer's written approval.
- C. The Contractor shall provide appropriate and adequate labor for this project and such labor will work in harmony with all other elements of labor employed or groups taking part in, or concerned with this facility. The Contractor shall promptly remove from work on this project any employee who, in the opinion of the Engineer, is incompetent, unskillful, disruptive or disorderly. Any such person so removed from the work shall not be re-employed on this project without the Engineer's written approval.

1.05 PROJECT PROGRESS MEETINGS

- A. Project Progress Meetings will be held on-site for project duration. The OPM will schedule them in advance. Representatives directly concerned with the work shall be in attendance, including but not limited to, Owner, OPM, Engineer and Contractor (including Project Superintendent). The OPM will maintain a record of the meetings and shall distribute a copy of this record to all participants.
- B. Prior to the commencement of the work, a *pre-construction meeting* will be held with the above-mentioned representatives in attendance. The OPM will maintain a record of the meeting and shall distribute a copy of this record to all participants. A copy of this record shall be incorporated into the Contract Documents. The objectives and agenda of the pre-construction meeting shall include:
 - 1. The execution and distribution of Contract Documents.
 - 2. The execution and distribution of required bonds and insurance certificates.
 - 3. The execution and distribution of required permits.
 - 4. Review the required submittals and shop drawings, including but not limited to: product lists, subcontractors list, schedule of values and construction schedule.
 - 5. Review project assigned personnel, including emergency phone numbers.
 - 6. Review procedures related to permits, submittals, shop drawings, field changes, product substitutions, applications for payments, change orders and contract closeout procedures.

7. Review construction progress schedule including sequencing of events and hours of operation, verify the availability of materials, installers personnel, and the equipment and facilities needed to make progress and avoid delays.
8. Review Owner's requirements, his occupancy and use of premises (by both Owner and Contractor), including accessing the work areas, locations of dumpsters and set-up areas, the use of electrical power supplied by the Owner and toilet facilities.
9. Review the technical specifications and drawings, the application requirements, construction facilities, utilities, security, protection, material storage, and housekeeping procedures.
10. Review procedures for all required inspections, testing, certifying and material usage accounting procedures, including maintaining record documents and as-built drawings.
11. Tour representative areas of construction, inspect and discuss the condition of the facility and the Contractor's project approach.
12. Review the notification procedures for weather or non-working days, including procedures for coping with unfavorable conditions and maintaining watertightness on a daily basis.

1.06 PROJECT PROGRESS SCHEDULES

- A. Contractor shall prepare and provide his Project Progress Schedule, prior to the preconstruction meeting, to the OPM for review. The schedule shall show the complete sequence of construction by activity, with dates for beginning and completion of each element of construction. Identify each item by specification Section number. Provide sub-schedules to define critical portions of the entire schedule. Coordinate content with Schedule of Values.
- B. The Project Progress Schedule will be reviewed at the preconstruction meeting and will be updated at each construction meeting, or more often as needed. Contractor shall update the schedule after each meeting, identifying changes since previous version, and submit to all parties in advance of the next scheduled construction meeting, or as directed by the OPM.
- C. The Project Progress Schedule shall utilize one of the following acceptable formats: a horizontal bar chart or a computer generated network analysis diagram using the critical path method, generally as outlined in Associated General Contractors of America publication "The Use of CPM in Construction - A Manual for General Contractors and Construction Industry".
- D. Contractor shall also provide a separate schedule of submittal dates for shop drawings, product data, and samples, prior to the preconstruction meeting, to the Engineer for review. The schedule shall indicate dates reviewed submittals will be required from Engineer and anticipated delivery dates for products.

E. The above referenced schedules shall indicate revisions as they occur including projected completion date of each activity, activities modified since previous submittal, major changes in scope, and other identifiable changes. The schedules shall provide narrative reports to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken, or proposed, and its effect including the effect of changes on schedules of separate contractors.

F. At the start of the project The Contractor shall be required to meet with representatives from the City. The Contractor will then prepare a detailed Construction Management and Logistics Plan (CMP) based on the requirements of the City. The CMP must be approved by the owner prior to the start of construction. The CMP will include all of the measures the Contractor determines are necessary to successfully complete the project while minimizing project impacts on the surrounding public.

1. The CMP must include, but shall not be limited to, the Contractors proposed procedures for following items:

a. Safety of pedestrians

- i. Procedures and site logistics the Contractor will implement to insure the safety of pedestrians
- ii. Temporary construction and barriers the Contractor will build on site to insure the safety of pedestrians.
- iii. Construction Scheduling, and notification protocols for any changes in that schedule, that the Contractor will implement to insure the safety of pedestrians.

b. Control of Construction Personnel on Site

- i. Confirmation that the Contractor will follow all of the City of Somerville required CORI procedures for all construction personnel on-site at all times, as necessary.
- ii. Site security, site monitoring, site visitor log and all other procedures the Contractor will implement to insure that only construction personnel that have been cleared by the City are on site.
- iii. Monitoring and disciplinary procedures that insure that the Conduct of Work requirements listed in Item 1c. (below) will be met.

c. Conduct of the Work

- i. Safety requirements and accident prevention
- ii. Emergency contact information and procedures
- iii. Conduct of Construction personnel
 - Appropriate attire
 - Appropriate language
 - No Smoking Allowed
- iv. Public Notification
 - Construction impact notices
 - Construction Mitigation information

- d. Hours of Work
 - i. Work hour limitations
 - ii. Notification protocols for any changes from established work hour limitations.
 - e. Noise control
 - i. General noise control
 - ii. Notification procedures for exceptional noise
 - f. Site Logistics:
 - i. Construction phase site plans showing:
 - The sequence of Work Areas over the duration of the project
 - How existing landscape and other city owned property will be protected
 - Dumpster location
 - Portable Toilet location
 - ii. Site security, temporary fencing, site lighting
 - iii. Storage of materials on-site
 - g. Site Maintenance
 - i. Pollution control and Disposal requirements
 - ii. Dust control
 - iii. Debris control and Removal of rubbish
 - iv. Cleaning during construction
 - h. Transportation / Circulation Management
 - i. Truck routing and delivery schedule
 - ii. Logistics for delivery / loading / unloading
 - No idling of vehicles is allowed
 - iii. Logistics for construction workers parking
 - iv. Emergency vehicle access
2. The format of the CMP must include the following items:
- a. Name of the Project
 - b. Name of the Owner
 - c. Name of the General Contractor
 - d. Project Address
3. The Contractor will ensure that all subcontractors and other workers on the site receive and comply fully with the approved CMP
4. No work shall commence until the Construction Management Plan has been approved by the Owner.

1.07 REQUESTS FOR INTERPRETATION (RFIs)

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
 - 1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
 - 1. Project name.
 - 2. Date.
 - 3. Name of Contractor.
 - 4. Name of Architect.
 - 5. RFI number, numbered sequentially.
 - 6. Specification Section number and title and related paragraphs, as appropriate.
 - 7. Drawing number and detail references, as appropriate.
 - 8. Field dimensions and conditions, as appropriate.
 - 9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 - 10. Contractor's signature.
 - 11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
- C. Hard Copy RFIs:
 - 1. Identify each page of attachments with the RFI number and sequential page number.
- D. Architect's Action: Architect will review each RFI, determine action required, and return it. Allow seven working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.
 - 1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.

- e. Requests for interpretation of Architect's actions on submittals.
 - f. Incomplete RFIs or RFIs with numerous errors.
- 2. Architect's action may include a request for additional information, in which case Architect's time for response will start again.
 - 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 1 Section "Contract Modifications."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within 7 days if Contractor disagrees with response.
 - F. RFI Log: Prepare, maintain, and be prepared to submit upon request a tabular log of RFIs organized by the RFI number.
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Architect.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Architect's response was received.
 - 8. Identification of related Minor Change in the Work, Construction Change Directive, or Proposal Request, as appropriate.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 00

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements and hereby made part of this specification

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Project Authorizations and Sales Tax.***

1.03 PROJECT AUTHORIZATIONS

- A. The Contractor shall obtain all necessary authorizations, including but not limited to permits, licenses, and easements, for permanent structures and changes, give all necessary notices, pay all legal fees, and comply with all regulations of all authorities having jurisdiction, including, State, County, and City Building and Sanitary Laws, Rules, Ordinances, or Regulations, relating to the building or preservation of public health. The Contractor shall pay all fees and costs as required including filing, inspection and re-inspection costs. No work shall begin until all required project authorizations are obtained and a copy of the building permit, provided by the building department, shall be posted on-site, in view and protected from the weather, for project duration.

1.04 SALES TAX

- A. Sales Tax shall be not included in the cost for any and all materials used on this project. The Contractor shall not include the cost of any or all taxes in his bid for all materials to be used for this project.
- B. Contractor employed by the City of Somerville, shall be exempt from state sales tax and will be provided with the tax-exempt number or certificate.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 33 00

SUBMITTAL REQUIREMENTS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.
- B. Work on the project, which requires submittals, shall not commence and materials shall not be ordered until all necessary submittals including shop drawings, product data, construction management plan, and samples are reviewed and approved in writing by the Engineer.

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Schedule, Procedures and Product Data, Shop Drawings, Samples, Contractor's Responsibilities, Submission Requirements, and Engineer's Responsibilities.***

1.02 SCHEDULE

- A. Contractor shall provide a schedule of submittal dates for shop drawings, product data, and samples, prior to the preconstruction meeting, to the OPM and Engineer for review. The schedule shall indicate dates reviewed submittals will be required from Engineer and anticipated delivery dates for products.
- B. The above referenced schedule shall indicate revisions as they occur including projected completion date of each activity, activities modified since previous submittal, major changes in scope, and other identifiable changes. The schedule shall provide narrative reports to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken, or proposed, and its effect including the effect of changes on schedules of separate contractors.

1.03 PROCEDURES AND PRODUCT DATA

- A. Contractor shall submit to the Engineer copies of Manufacturer's Spec and Product Data Sheets, Health and Safety Data Sheets (MSDS sheets to remain on site for project duration and additional copies to be supplied to Owner as requested), and recommended installation procedures, temperature limitations, mix designs for materials, and any other information as required by the technical specifications .
- B. Submit three (3) copies of the manufacturer's printed data all stamped with the Contractor's approval and stating its intended use to the Engineer for review.

After review of the manufacturer's printed data by the Engineer, the Engineer will stamp one (1) copy, noting, if necessary, any further action required, and return the copy to the Contractor.

1.04 SHOP DRAWINGS

- A. Contractor shall submit Shop Drawings as required by the technical sections of the Specifications. Check and approve Shop Drawings before submitting to the Engineer. Submit checked Shop Drawings stamped with the approval of the Contractor, to the Engineer for review per the accepted schedule of Shop Drawing submissions. Engineer shall review, stamp and return Shop Drawings to the Contractor within ten (10) working days from the date of receipt of Shop Drawings at the Engineer's office.
- B. Shop Drawings shall demonstrate that the Contractor understands the intent of the design as detailed and specified in the Contract Documents and show materials (kinds, quality, shapes and sizes), details (fabrication, construction, assembly, and installation) and all required dimensions and measurements. All Shop Drawings shall bear the Contractor's stamp of approval certifying that they have been so checked. Any Shop Drawings submitted without this stamp of approval and Shop Drawings, which, in the opinion of the Engineer, are incomplete or have not been checked adequately will be returned without review by the Engineer for resubmission by the Contractor.
- C. From Suppliers receive three (3) prints of all Shop Drawings for checking and approval. After review of the Shop Drawings by both the MSBA Commissioning Agent and Engineer, the Engineer shall stamp each print, noting, if necessary, any further action required, and return the prints to the Contractor. All Shop Drawings shall have final review by Engineer before materials are ordered or fabrication is begun. Contractor shall provide the Engineer with seven (7) prints of the final Shop Drawings, reproduced from the corrected original, and provide as many other prints as are required to expedite the Work. Contractor shall only use unmarked final approved Shop Drawings in the field.

1.05 SAMPLES

- A. Contractor shall submit samples as required by technical sections of the Specifications. Receive, check, approve and stamp all samples before submitting to the Engineer.
- B. Label each sample, giving a complete description of the material, the intended use and the name of the entity submitting the sample. Allow ample time before samples are required for the Work.

1.06 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor shall review Shop Drawings, Product data and Samples and affix Contractor's stamp prior to submitting to the Engineer.
- B. Contractor shall verify existing conditions, field dimensions, catalogue numbers, quantities and similar data.
- C. Contractor shall coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Contractor's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals. Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Engineer's review of submittals, unless Engineer gives written acceptance of specific deviations.
- E. Contractor shall thoroughly check all Shop Drawings for completeness, for correctness with respect to field conditions, and for compliance with the Contract Documents before submitting to the Engineer. Notify Engineer in writing, at the time of submission, of deviations in submittals from requirements of Contract Documents.

1.07 SUBMISSION REQUIREMENTS

- A. Submittals shall be submitted in an orderly sequence and sufficiently in advance of construction requirements so as to allow ample time for review, resubmitting and rechecking. Accompany submittals with transmittal letter, in duplicate. Shop Drawings: three (3) blue-line prints. Product Data: three (3) copies.
- B. Submittals shall include the following minimum information:
 - 1. Date and revision dates
 - 2. Project Title and Project Number
 - 3. Names of: Engineer, Contractor, Subcontractor, Supplier, Manufacturer
 - 4. Identification of product or material
 - 5. Field dimension clearly defined as such. Relation to adjacent structure or
 - 6. Materials.
 - 7. Specification Section Number.
 - 8. Applicable standards- ASTM or Federal Spec.
 - 9. Blank 3"x4" space for Engineer's stamp, located in bottom right hand corner.
 - 10. Identification of deviations from the Contract Documents.
 - 11. Contractor's stamp signed certifying as to review of submittal, verification of existing conditions and field dimensions and compliance with Contract Documents.

- C. Contractor shall revise the initial submittal as required and resubmit as specified for the initial submittal. Clearly indicate by clouding and use of revision level number in triangular symbol, all changes which have been made including those requested by the Engineer.
- D. Contractor shall distribute copies of Product Data and Shop Drawings that carry Engineer's stamp to the following:
 - 1. Contractor's file.
 - 2. Job site file.
 - 3. Record documents file.
 - 4. Owner's representative.
 - 5. Fabricator.
 - 6. Supplier.
 - 7. Subcontractors.
 - 8. Local Building Inspector (if required).
- E. Contractor shall distribute Samples as required in the technical specifications, but at a minimum they shall be distributed to the Engineer.

1.08 ENGINEER'S RESPONSIBILITIES

- A. Engineer shall review submittals and transmit to the Contractor within ten (10) working days after receipt of submittal at the Engineer's office, for Contractor distribution. Engineer shall review for design concept of Project and information provided in the Contract Documents.

PART 2 - PRODUCT (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Quality Assurance, References and Standards, and Cutting and Patching.***

1.03 QUALITY ASSURANCE

- A. All materials used as a component of the waterproofing system shall be supplied or approved in writing by the waterproofing system manufacturer. All materials shall be installed to serve their intended function.
- B. A licensed contractor approved by the waterproofing manufacturer and employing personnel experienced and skilled in the application of the manufacturer's waterproofing systems shall install the complete system. The Contractor shall have a minimum of five (5) years experience installing the system.
- C. All work shall be applied in strict accordance with the provisions of the technical specification. No deviations shall be permitted without written consent from the Engineer. Should a conflict between this specification and the manufacturer's requirements arise, the most restrictive provision, as determined by the Engineer, shall govern.
- D. At least one week prior to construction work, a conference shall be held and attended by the Engineer, OPM, Owner, Contractor. The purpose of this conference is to review the specifications, details, application requirements, storage area and work to be completed before construction operations begin.

1.04 REFERENCES AND STANDARDS

- A. Contractor shall comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- B. Contractor shall conform to the most current referenced standard and/or reference.

- C. Contractor shall obtain and maintain copies of references and standards as required by the Contract Documents. If specified standards or references conflict with Contract Documents, Contractor shall request clarification from Engineer before proceeding.

1.05 CUTTING AND PATCHING

- A. All cutting, patching, and drilling shall be the responsibility of the Contractor. Contractor shall repair all cutting, patching, and drilling so as to match the existing surrounding surfaces as required by the Engineer. Contractor is responsible to ensure that the project progress will not be interrupted and that the structural and architectural integrity of the project shall not be altered by misplaced or incorrectly sized penetrations.
- B. Contractor shall submit written request in advance of cutting or altering elements that affects the structural integrity, maintenance, efficiency, quality or safety of such elements.
- C. Contractor shall perform cutting and patching so as to:
 - 1. Remove and replace defective and non-conforming Work.
 - 2. Remove samples of installed Work for testing.
 - 3. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Contractor shall execute work by methods that will avoid damage to other Work, and provide proper surfaces to receive new products and/or repairs.
- E. Contractor shall maintain integrity of building components and shall refinish surfaces to match adjacent surfaces.
- F. Contractor shall identify any hazardous substance or condition exposed during the work to the Engineer for decision or remedy.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 50 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.
- B. All temporary facilities shall be installed, maintained, and removed, leaving the existing permanent facilities, utilities and grounds in their original condition, at the expense of the Contractor. Temporary facilities shall at all times comply with all applicable regulations and shall not create or contribute to a safety, fire, health or other hazard.
- C. The Contractor must not interfere with the operations of the facility in any way including personnel, customers, and vehicles. The Contractor must fully cooperate with the Owner, Owner's Project Manager (OPM), and Engineer.
- D. No Smoking shall be allowed at any time on the Project site.
- E. Maintain strict supervision of use of temporary services. Enforce conformance with applicable standards. Enforce safe practices. Prevent abuse of services and systems. Prevent damages to finishes. Prevent wasteful use of water. Maintain, service and clean facilities.
- F. Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on the Project site.
- G. All work on the project is to be conducted from areas of the building designated by the Engineer and Owner. The Contractor shall take care not to block any travel lanes, fire lanes, access for fire apparatus, any means of egress, and any shipping/receiving areas of the facility and shall not interfere with the normal operation of the facility.
- H. Contractor shall access the project site by his own means, utilizing ladders, staging, etc. No access from the interior will be allowed except with the written permission of the OPM. Contractor shall be allowed to enter the building during construction to perform visual surveys of his work and during emergency situations.
- I. Contractor shall protect all smoke detectors and remove all protection at the end of each work day. All costs associated with resetting smoke detectors that were

activated due to the Contractor's activities shall be the responsibility of the Contractor.

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Temporary Utilities- Electrical, Lighting, Telephone, Water, Sanitary, and Fire Protection; Dust and Fume Control, Debris Control, Rodent and Pest Control, Noise Control, First Aid, Parking Areas, Barricades, Security, Temporary Project Offices and Enclosures, Thermometer, Existing Drawings and Construction Documents, Protection of Existing Landscaping and Pavement, Protection of Work, Project Representation, Emergency Repairs.***

1.03 TEMPORARY UTILITIES

- A. ***Electrical:*** Contractor shall provide his own generator for electrical power. Facility's electrical power is not available to the Contractor except for small tools. Owner shall provide power for small tools only at no cost to Contractor for energy, but Contractor must employ a licensed electrician satisfactory to Owner to make all connections and do all work including removal of temporary wiring. Temporary power service shall comply with OSHA Standards. Contractor shall maintain these temporary services in good order throughout the project until Work is complete. The Contractor requiring power shall provide all extension cords.
- B. ***Lighting:*** Contractor shall provide all temporary lighting for the Project. Adequate illumination shall be provided for the Work being performed; for safe movement of authorized persons through the project; for public safety and special warning lighting for hazardous conditions; and as required protecting the Project site from unauthorized entry.
- C. ***Telephone:*** Contractor shall provide the Project Superintendent with a cellular phone so that he can be reached at all times for Project duration. Engineer and Owner shall be provided with the phone number.
- D. ***Water:*** The Owner shall permit the Contractor to use the existing exterior water facilities providing this does not interfere in any way with the normal daily operations of the facility or normal maintenance operations. If special temporary hook-ups or plumbing is required the Contractor shall be solely responsible for the cost incurred. The Contractor shall provide drinking water for all personnel working on the project. The Contractor's use of water on the project shall comply with all federal, state, county and municipal requirements, regulations and restrictions.
- E. ***Sanitary:*** The Contractor can use the existing toilet facilities in the building, however must maintain the facilities in a clean condition, with periodic cleaning.

- F. **Fire Protection:** Contractor shall provide adequate fire protection and fire prevention for the Project and in no case less than that is required by applicable City, County, State and Federal laws. No open flames or similar sources of ignition shall be allowed in related work or storage areas. Fire extinguishers shall be kept at all times in the immediate work area in all storage and disposal areas, and wherever flammable or combustible materials, or sources of ignition are present. All personnel on the project site shall be informed of the phone number of the local fire department and the location of the nearest telephone and shall be instructed in emergency procedures. Contractor shall instruct all personnel on the project site on the dangers of the materials being installed as well on the combustibility of the existing materials and shall insure that extreme caution is used at all times.

1.04 DUST AND FUME CONTROL

- A. Contractor shall take all necessary precautions to (1) keep dust confined in the present work area and (2) prevent hazardous accumulations of dust, fumes, mists, vapors, or gases in areas during construction.
- B. Contractor shall submit to the Engineer, for approval, proposed methods used to contain dust and fumes in the work area. At a minimum, Contractor shall provide adequate protection at air intake units so as to prevent dust, fumes, vapors or gases from entering the facility. Owner shall employ an industrial hygienist to monitor air quality during application of hazardous or volatile materials.

1.05 DEBRIS CONTROL

- A. Provide adequate number and size of dumpsters; refuse containers, trucks, chutes, etc. for proper execution of demolition work. All demolition removal containers shall be properly protected and maintained on a daily basis. Owner must approve locations of dumpsters/refuse containers. Contractor shall submit to the Engineer, for approval, proposed methods used to conduct demolition operations and debris control.
- B. Contractor shall remove all debris from the project site and shall legally dispose of all debris generated by the project. Debris shall be properly protected (and totally covered at the end of each work day) while on site and shall be properly secured and totally covered before it is transported. Debris shall be removed from the project site on a weekly basis or more often as required to maintain a neat clean site. Project site shall be broom swept on a daily basis.
- C. Contractor shall be responsible for any damages to the building; it's contents, and any vehicles as a result of his negligence during the demolition and/or construction process.

1.06 RODENT AND PEST CONTROL

- A. Contractor is responsible to provide rodent and pest control as necessary or as required preventing infestation of construction and temporary project offices and enclosures. Employ methods and use materials that will not adversely affect conditions at the Project site or on adjacent properties. Submit copies of proposed program contractor will utilize including products to be used, manufacturer's instructions, areas to be treated, and pollution preventive measures.

1.07 NOISE CONTROL

- A. All demolition and construction work that creates excessive noise shall be reviewed with the Owner as to the types of equipment that is intended for use during normal business hours and obtain Owner's approval for such use. Noise limits shall conform to the requirements of the local governing body.

1.08 FIRST AID

- A. Contractor shall provide a first aid kit with adequate provisions for the materials being used on site. All Health and Safety Data Sheets for materials being used on site shall be located within the first aid kit.

1.09 PARKING AREAS

- A. The Contractor shall instruct all his employees and Subcontractor's employees to park on the street. All costs associated with any parking shall be the responsibility of the Contractor.
- B. Contractor shall at all times keep fire lanes, access for fire apparatus, and fire protection and fire equipment clear and unobstructed. Contractor is responsible for the protection and safety of pedestrians and vehicles on the Project site in the areas of construction.

1.10 BARRICADES

- A. The Contractor shall provide and maintain suitable barriers as required to prevent public entry, and to protect the work, existing facilities, trees and plants from public construction operations; remove when no longer needed or at completion of Work. Barriers shall conform to city and state laws, ordinances and permit requirements

- B. All work areas shall be protected and well marked with fences or barriers and as required by public officials. Provide such barricades, safety and traffic control equipment, and police officer as shall be necessary to restrict traffic from work areas and protect all pedestrians, Owners, tenants, and visitors during construction. Contractor shall provide and maintain all necessary temporary barricades for safe conduct of his work, or as required by federal, state or local laws or ordinances and in accordance with OSHA requirements and other requirements of this specification.
- C. The Contractor shall confine his apparatus, the storage of materials, parking and the operations of his workmen to those areas designated or as directed. The Contractor shall cause the minimum possible interference with the operation of the facility, shall not bar or block off any access ways, interfere with any egress ways or exits in or around the building, or move or operate to interfere with any utility lines servicing the building, except as scheduled with and approved by the Owner in advance. During the progress of work the Contractor shall phase construction so as to provide continuous access to the facility during regular operational hours. Barriers shall be provided to limit access to all work areas during construction. Contractor shall provide protection above doorways and walks in the construction area. Parking as required to deliver materials, or otherwise shall be the minimum possible. The Contractor shall confine his operations to the immediate work areas, and shall enter other areas only as specifically directed.
- D. The Contractor shall provide Police Details as required to comport pedestrians around the site when construction activities interrupt the use of City sidewalks.

1.11 SECURITY

- A. Contractor shall at all times comply with the security measures established by the Owner and Engineer. Contractor shall be responsible for the security of his work and equipment. The Owner is not responsible for losses due to theft.
- B. Contractor shall thoroughly familiarize himself with the security measures contemplated by the Owner before submitting his bid as no claims for additional monies due to these security measures will be allowed.
- C. Contractor and/or his employees or Subcontractors shall not enter the facility without notifying and receiving permission from the Owner's representative.
- D. The Owner, his employees and agents shall not be responsible for the protection and security of the Contractor's equipment, facilities, tools and materials. Contractor shall provide his own security measures, if in his opinion, they are warranted. Contractor's security measures shall be approved by the Engineer and the Owner and shall not interfere or pose a hazard to the Owner, his employees, agents, visitors, customers, the facility or its contents and grounds.

1.12 TEMPORARY PROJECT OFFICES AND ENCLOSURES

- A. The Contractor may provide temporary field offices and other temporary enclosures for storage, tools, employee clothes, change convenience and other activities that may be required. Coordinate location with Owner. Area is to be kept clean and must not interfere with safe pedestrian and vehicle flow.
- B. The construction office and all storage shall be in secured temporary enclosures. Provide and maintain fire-fighting equipment for all temporary buildings and enclosures. Upon completion of the Project, remove temporary buildings and enclosures from the site assuming all costs in connection with their removal and proper clean up.

1.13 THERMOMETER

- A. Install an official project outdoor thermometer in a shaded-from-the-sun, conveniently readable location, which will give reasonably accurate readings of the actual temperatures, and which can be reached easily for resetting. Thermometer shall be resettable type indicating daily maximum and minimum temperature. Contractor shall keep a permanent daily log of those readings.

1.14 EXISTING DRAWINGS AND CONSTRUCTION DOCUMENTS

- A. The Owner shall provide the Contractor with three (3) sets of construction Drawings and Specifications. Additional sets will be provided upon request at cost.
- B. Contractor shall keep on the job site at all times the following items:
 - 1. The most revision of the Drawings and Specifications, including all changes made by addenda, sketches, bulletins, and change orders.
 - 2. Health and Safety Data Sheets (MSDS sheets).
 - 3. The most recent issue of approved submittals. Obsolete or unapproved submittals and Health and Safety Data Sheets shall not be kept at the job site.
 - 4. All material evaluation reports.

1.15 PROTECTION OF LANDSCAPING, PAVEMENT AND FURNISHINGS

- A. Contractor shall protect existing landscaping and pavement areas as necessary or as required. Do not stockpile/store construction materials or debris materials in such a manner that it will permanently harm the landscaping or the pavement. Provide temporary protection to protect landscaping and pavement.

- B. Contractor shall bring back to its original conditions (repair or replace in a manner acceptable to the Engineer and Owner) any portion of the landscaping (including lawns, trees, bushes and plantings), parking areas and pavements or equipment that is damaged by the Contractor or his Subcontractors' operations.
- C. Contractor shall temporarily remove, store in the area designated by the Owner and replace in their original locations all furnishings located below skylights to be replaced. All damage to existing furnishings caused by the Work shall be corrected by the Contractor at no additional expense to the Owner.

1.16 PROTECTION OF WORK

- A. Contractor shall protect the project site including the building, its contents, all streets, walls, underground and overhead utilities. All areas shall be left in a watertight condition in their entirety at all times. Contractor shall provide protective measures and materials to assure that each element will be without damage or deterioration throughout the entire construction period up to the date of final completion. Any defective elements shall be removed and replaced at the Contractor's expense and to the satisfaction of the Engineer and Owner. Remove protective coverings and materials at the appropriate time, but no later than final cleaning operations.
- B. No work shall take place during inclement weather. No work shall take place when moisture is present on the work area or in any of the materials. The Engineer may order the work stopped when, in his opinion, the weather conditions warrants him to do so. Contractor shall take such measures as necessary to dry out work surfaces so that the work can continue with minimum delay.
- C. Contractor shall cover and protect all walls, windows, projections, soffits, etc. where material is to be hoisted or removed from the roof deck. Contractor shall be responsible for all scrapes, stains, and damage to the walls and shall repair or replace any walls, windows, siding, etc., which are damaged by his operations, to the satisfaction of the Engineer and Owner. Any areas damaged shall be restored or cleaned, to the satisfaction of the Owner by the Contractor at no cost to the Owner.
- D. Whenever the possibility exists that debris or materials may fall causing a hazard to persons inside or outside the building, the Contractor shall post one or more of his employees to temporarily close these hazardous areas. The person in charge of the facility shall be notified prior to the commencement of work which may pose this type of hazard. Proper barricades shall be provided to prevent normal access to or around these areas.
- E. Contractor shall properly protect all areas where falling debris or dust is expected due to his operations. Contractor shall be responsible for providing adequate

personnel to clean and protect these areas. Contractor shall include these costs in the bids.

- F. Protect the building interior, contents, Owner's employees and customers from all hazards associated with the Contractor's operations.
- G. Any damage to the interior of the building or its contents due to the Contractor's operations or to leaks during the Contractor's operations shall be corrected at the Contractor's expense to the satisfaction of the Owner and the Engineer.
- H. Any damage to the exterior of the building or any roof top equipment due to the Contractor's operations shall be corrected at the Contractor's expense or to the satisfaction of the Owner and the Engineer.
- I. No member of the roof shall be overstressed due to construction loads.
- J. Contractor is to provide any necessary protection to the installed work prior to acceptance by the Owner and Engineer. The Contractor at no additional cost to the Owner shall correct any damage incurred during this period.

1.17 PROJECT REPRESENTATION

- A. Contractor covenants and agrees with Owner that it will not make any use whatsoever of or cause others to make or assist others in making any use whatsoever of, any photograph, drawing or other representation of the structure which is the subject matter of this agreement and will not make any use whatsoever of the corporate or trade names, of Owner, or any portion thereof, or any of its trademarks, or any portion thereof, in connection with any advertising, promotion, publicity or other printed material. It is expressly understood and agreed that Contractor's obligation under this provision shall survive performance of the terms of this agreement, its rescission or other termination and that this provision shall remain in full force and effect and shall be deemed severable from an independent of the other provisions of this agreement.
- B. Contractor shall not place, erect, hang or otherwise display any type of advertising or sign on the project site without the written permission of the Owner.

1.18 EMERGENCY REPAIRS

- A. Contractor shall provide Owner, OPM, and Engineer with the name, address, and home telephone number of the Project Superintendent and at least two tradesmen that can be called in an emergency basis, including nights and other times when the Contractor is not working on the job, to take care of leaks on an emergency basis.
- B. Such emergency work will be done at no additional cost to the Owner if such leaks are a result of the Contractor's negligence. If for any reason the

Contractor's representatives cannot be reached within two hours, others will
make temporary repairs and the Contractor will be backcharged for this work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.
- B. Work on the project, which requires submittals, shall not commence and materials shall not be ordered until all necessary submittals including shop drawings, product data, and samples are reviewed and approved in writing by the Engineer.

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Products, Transportation and Handling, Storage and Protection, Weather and Temperature Requirements, Substitutions.***

1.03 PRODUCTS

- A. Products are defined as new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.

1.04 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.05 STORAGE AND PROTECTION

- A. Contractor shall follow the recommended storage procedures of the manufacturer of the materials being used. No storage on or within the building will be allowed without written permission from the Owner. Any materials brought

to the site for daily operations or storage shall be evenly distributed to prevent concentrated loads and shall not overload the structure.

- B. All moisture sensitive materials shall be stored in weatherproof trailers or temporary protective shelters and shall be stored at least 4 in. above the ground on stable pallets or skids and shall at all times be completely covered and secured. Tarpaulins or a similar "breathable" material shall be used to cover materials. Rubber or plastic materials shall not be acceptable. Factory applied "shrink wraps" or plastic wrappings shall not be acceptable.
- C. Materials stored on the ground shall be thoroughly secured against moisture and wind. Materials and their coverings shall be tied and/or weighted to prevent uncovering or blowing of material by the wind. Contractor shall be responsible for damages caused by blowing and improperly stored material and equipment.
- D. Materials shall be handled with care and shall not be installed if they have been damaged in any way due to handling, storage or manufacturing defects. Contractor shall promptly mark and remove from the site any damaged or improperly stored materials when so requested by the Engineer.
- E. All materials are to be stored at the recommended temperature range as specified by the manufacturer. Contractor shall provide manufacturer's information to the Engineer concerning storage and handling of flammable or volatile materials. The "shelf life" materials shall be provided with the date of manufacture of all perishables. Materials that become congealed, thick, non-uniform or otherwise unsuitable for proper application shall be removed from the project site and replaced with new, properly stored and tested materials.
- F. Provisions for placement of the Contractor's equipment must be planned by the Contractor and submitted to the Owner and the Engineer for approval.
- G. Provide off-site storage and protection when site does not permit on-site storage or protection.

1.05 WEATHER AND TEMPERATURE REQUIREMENTS

- A. Work shall not commence or proceed, with the exception of the completion of necessary temporary measures to make the building weathertight, when the ambient air temperature is below 32°F unless otherwise specified.

1.06 SUBSTITUTIONS

- A. Whenever the proposal of substitute material, equipment or process is permitted by the Specifications, the proposed substitute material, equipment or process shall be submitted in accordance with the General Conditions and subject to the requirements contained herein and the construction regulations and laws of the Commonwealth of Massachusetts.

- B. After the start of construction, the proposal of substitute material, equipment or process will be considered only for one of the following reasons:
1. The manufacture or production of the specified material, equipment or process has been discontinued.
 2. The specified material, equipment or process is not available in sufficient quantity or quantities to complete the work. Failure of the Contractor to award subcontracts in sufficient time, or failure of the Contractor and/or subcontractor to place orders for material, equipment or process so as to insure delivery or execution without delaying the Work shall not establish cause for approval of substitutions.
 3. Delays beyond the control of the Contractor, such as but not limited to, strikes, lockouts, storms, fires, or earthquakes, which preclude the procurement and delivery of materials or equipment for the Project as included in Contractor's proposal.
 4. Advancement of the delivery date, provided this advances the overall progress of the Work.
 5. Improvement in quality or function of the material, equipment or process.
- C. The Contractor must submit a separate request in writing for each proposed substitution, supported with complete data with drawings, specifications, samples as appropriate, including:
1. Comparison of the qualities of the proposed substitution with that specified.
 2. Changes required in other elements of the Work because of substitution.
 3. Effect on the construction schedule.
 4. Cost data comparing the proposed substitution with the product specified.
 5. Any required license fees or royalties.
 6. Availability of maintenance service and source of replacement materials.
- D. Any proposed substitute material, equipment or process shall be subject to the following conditions:
1. Submittal of the proposed substitute material, equipment or process per the General Conditions.
 2. Submittal of the request for a substitute early enough to allow ample lead time for the Engineer's review, preparation of the submittals, fabrication and delivery, without delaying the Work.
 3. Approval of substitution by the Engineer and Owner.
- E. A request for substitution constitutes a representation that the Contractor:
1. Has investigated proposed product and determined that it is equal to or superior in all respects to that specified.
 2. Will provide the same warranty for the Substitution as for the specified product.
 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.

4. Waives claims for additional costs or time extension that may subsequently become apparent.
 5. Will reimburse Owner for review or redesign services associated with approval.
- F. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 77 00

CONTRACT CLOSEOUT

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

- A. The work of this section consists of ***Final Cleaning and Closeout, Project Record Documents, Warranties and Bonds.***

1.03 FINAL CLEANING AND CLOSEOUT

- A. Each Subcontractor or Contractor, in addition set forth in the General Conditions, shall at all times keep the premises free from accumulation of waste materials or rubbish caused by his employees or work.
- B. At the completion of the Project, the Contractor shall restore or replace all property damaged by his Work and shall remove all spots, paint, smears, soil, concrete, mortar, sealant, adhesives, asphalt, writing, droppings, or other foreign materials, from all Work. Remove all temporary protection from all the Work. Final cleaning shall include as a minimum:
 - 1. Clean site; sweep paved areas, rake clean landscaped surfaces.
 - 2. Remove waste and surplus materials, rubbish, and construction facilities from the site.
 - 3. The Contractor shall clean all walls, windows or other building and grounds elements that have been affected by his work.
 - 4. Repair, patch and touch-up marred surfaces to specified finish to match adjacent surfaces.
- C. Contractor shall submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is substantially complete in accordance with Contract Documents and ready for Engineer's and Owner's Project Manager (OPM) inspection. Engineer and OPM shall issue a punch list consisting of unacceptable Work and items. Contractor shall immediately make acceptable such punch list items to the satisfaction of the Engineer, OPM, and Owner. Contractor shall then notify, in writing, the Engineer and OPM, that all such punch list items are complete and he is ready for reinspection. Any subsequent costs relative to reinspections that are required due to the Contractor not properly correcting the punch list items shall be paid for by the Contractor, and will be deducted from his final application for payment.

- D. Contractor shall not remove crews or equipment until the project is totally completed, including punch list items, without the written permission of the Engineer.
- E. If the Contractor fails to totally complete the project by the completion date required by the Contract Documents and as modified by any change orders, the Contractor shall pay all Engineering and OPM costs incurred from this project by the Owner after Contract Completion Date. These costs will be deducted from the Contractor's Final Requisition for Payment.
- F. If the Contractor feels that he cannot properly complete the work during the given time constraints, then he shall make provisions for and submit his plans and requirements for working a double shift and/or weekends in order to complete the project by the date given in the Contract Documents.
- G. Contractor shall submit Final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- H. Contractor shall submit as-built drawings after substantial completion of the Project. The as-builts shall include, but not be limited to, the sepias of the Drawings incorporating all changes and bulletins (enclosed in clouds), location and size of unit price work, all shop drawings incorporating all changes (enclosed in clouds), and all approved submittals.
- I. Closeout submittals include, but are not limited to the following:
 - 1. Project Record Documents.
 - 2. Operation and Maintenance Data.
 - 3. Maintenance Manuals.
 - 4. As-built Drawings.
 - 5. Manufacturer's inspection reports and punch list.
 - 6. Warranties and Guarantees.
 - 7. Evidence of payments and release of liens, including but not limited to:
 - a. Contractor's Affidavit of Payment of Debts and Claims-AIA G706.
 - b. Contractor's Affidavit of Release of Liens-AIA G706A, with Consent of Surety to Final Payment (AIA G707), and Contractor's release of waivers of lien for subcontractors, suppliers and others with lien rights against property of Owner, together with a list of those parties.
 - 8. Disposal manifests and written certification that all materials removed from the site have been disposed of in strict accordance with existing federal, state and local laws.

1.04 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
 - 1. Contract Drawings.

2. Project Manual, including addenda.
 3. Specifications.
 4. Approved shop drawings.
 5. Change Orders and other Modifications to the Contract.
 6. Field change authorizations.
- B. Store Record Documents separate from documents used for construction. Maintain documents in clean, dry, legible condition; do not use record documents for construction purposes. Make documents available at all times for inspection by Engineer and Owner.
- C. Record information concurrent with construction progress.
- D. Specifications and Addenda: Legibly mark to record:
1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and Modifications.
- E. Record Documents and Shop Drawings: Legibly mark the record set of Contract Documents using a red pencil for all graphic work and red ink for all written work to record actual construction:
1. Field changes of dimension and detail.
 2. Location and extent of all repairs.
 3. Details not on original Contract Drawings.
 4. Changes not made by change order and field change authorization.
- F. Legibly mark shop drawings to record changes made after approval.
- G. Submit record documents to Engineer at completion of project.

1.05 WARRANTIES AND BONDS

- A. The act of the Contractor in executing the Contract or the Work shall be considered as his acceptance of the following guarantees covering the Project:
1. Any materials, workmanship or equipment furnished as part of this Project which prove defective or fail to operate properly, within two (2) years, or as otherwise specified in the Contract Documents, of the date of acceptance of the Work, shall be repaired and/or replaced by the Contractor promptly upon notification from the Owner and without cost to the Owner. Also reference Divisions 02 through 32 for additional warranties and guarantees.

2. Date of acceptance will be established by the Owner, OPM, and Engineer upon finding all items of this Project have achieved final completion as to quality of workmanship and materials.

PART 2 - PRODUCTS (Not used)

PART 3 - PRODUCTS (Not Used)

END OF SECTION

SECTION 02 05 00

SELECTIVE DEMOLITION

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.02 DESCRIPTION OF WORK

- A. The work of this section consists of the selective demolition and legal disposal of materials, to be removed at specified locations. The work shall include, but is not limited to, the following:
 - 1. The removal and legal disposal of all materials at areas designated to be renovated, or abutting new work, both interior and exterior of the building, as required to complete the work, including but not limited to, masonry and concrete materials, glass block windows and a store front window, sheetrock and associated wall materials, drywells and fencing.
 - 2. Additional demolition of miscellaneous items described in the drawings is to be completed. This additional demolition includes, work associated with the electrical and mechanical renovations, and glass block windows, not designated to be removed by those contractors.
 - 3. Remove all ivy and vegetative growth from all sides of the building and as required to properly install waterproof coatings.
- B. Alternates: Not Applicable.
- C. Items To Be Installed Only: Not Applicable.
- D. Items To Be Furnished Only: Not Applicable.

1.03 RELATED WORK

- A. SECTION 02 05 00 Selective Demolition
- B. SECTION 04 50 00 Masonry Restoration
- C. SECTION 07 27 00 Waterproofing
- D. SECTION 08 50 00 Aluminum Windows
- E. SECTION 09 90 07 Painting
- F. SECTION 26 10 00 Temporary Electrical Disconnects
- G. SECTION 31 23 00 Excavation and Fill
- H. SECTION 32 12 16 Asphalt Paving
- I. SECTION 32 31 13 Fencing

1.04 PROJECT COORDINATION

- A. The Contractor shall cooperate fully with the Owner in all aspects of the demolition, including but not limited to, the following: allocation of demolition areas, demolition equipment, dumpsters, dump trucks, chutes, protection; hours of operation, and traffic flow.
- B. It is the responsibility of the Contractor to coordinate the work of this Section with all other work on the project.
- C. Contractor shall coordinate completion and clean up of work on a daily basis, including maintaining water-tightness for project duration.

1.05 SUBMITTALS

- A. The Contractor shall submit a description of all procedures and equipment to be utilized to perform the cleaning, demolition work and debris control.
- B. Contractor shall submit to the Architect, for approval, proposed methods used to contain dust and fumes in the work area.
- C. The Contractor shall provide a list of damaged or deteriorated elements of the building and adjacent areas to the Architect prior to the demolition process and shall be responsible for repair or replacement of damaged or deteriorated items not on that list when the operations of the Contractor are substantially complete.

1.06 HAZARDOUS WASTE

- A. If any hazardous waste materials, or materials suspected to contain hazardous waste including asbestos, are encountered during construction, demolition, or cutting and patching, the Contractor shall contact the appropriate Massachusetts State Agency and the appropriate Federal Agency concerning all questions and the latest procedures for the safe removal, disposal, or encapsulation of these materials and shall adhere to all procedures. The Contractor shall provide the Architect these procedures prior to any demolition. The Contractor shall also provide the Architect all information related to the safe disposal of such (i.e. dumping slips, manifestation reports, etc.).
- B. If the Contractor or Subcontractor disturbs, removes, disposes, or encapsulates these materials without written authorization and instructions from the Architect; or disturbs, removes, disposes, or encapsulates these materials in a manner not in accordance with the authorizations and instructions, the Contractor and Subcontractor shall indemnify, defend, and hold harmless the Owner and Engineer against any loss, damage, or liability arising or resulting from such unauthorized improper acts of the Contractor and Subcontractor; and further, the Owner and Architect shall not be responsible for any such loss, damage, or liability arising or resulting from the Contractor's or Subcontractor's acts.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Provide adequate number and size of dumpsters; refuse containers, trucks, chutes, etc. for proper execution of demolition work. All demolition removal containers shall be properly protected and maintained on a daily basis. Owner must approve locations of dumpsters/refuse containers. Contractor shall submit to the Engineer, for approval, proposed methods used to conduct demolition operations and debris control.

PART 3 – EXECUTION

3.01 DUST AND FUME CONTROL

- A. Contractor shall take all necessary precautions to (1) keep dust confined in the present work area and (2) prevent hazardous accumulations of dust, fumes, mists, vapors, or gases in areas occupied during construction.
- B. Contractor shall submit to the Architect, for approval, proposed methods used to contain dust and fumes in the work area. At a minimum, Contractor shall provide adequate protection at air intake units so as to prevent dust, fumes, vapors or gases from entering the facility. Contractor shall employ an industrial hygienist to monitor air quality during application of hazardous or volatile materials, if required.

3.02 DEBRIS CONTROL

- A. Contractor shall remove all debris from the project site and shall legally dispose of all debris generated by the project. Debris shall be properly protected (and totally covered at the end of each work day) while on site and shall be properly secured and totally covered before it is transported. Debris shall be removed from the project site on a weekly basis or more often as required to maintain a neat clean site. Project site shall be broom swept on a daily basis.
- B. Contractor shall be responsible for any damages to the landscaping; the building and its contents; and any vehicles as a result of his negligence during the demolition and/or construction process. Contractor shall be responsible for any non-authorized use of their dumpsters or related equipment.

3.03 NOISE CONTROL

- A. All demolition and construction work that creates excessive noise shall be reviewed with the Architect as to the types of equipment that is intended for use during normal business hours and obtain Architect's and Authority's approval for such use. Noise limits shall conform to the requirements of the local governing body.

3.04 BARRICADES

- A. The Contractor shall provide and maintain suitable barriers as required to prevent public entry, and to protect the work, existing facilities, trees and plants from public construction operations; remove when no longer needed or at completion of Work. Barriers shall conform to city and state laws, ordinances and permit requirements.
- B. All work areas shall be protected and well marked with fences or barriers and as required by public officials. Provide such barricades, safety and traffic control equipment, and police officer as shall be necessary to restrict traffic from work areas and protect all pedestrians, Owners, tenants, and visitors during construction. Contractor shall provide and maintain all necessary temporary barricades for safe conduct of his work, or as required by federal, state, or local laws or ordinances and in accordance with OSHA requirements and other requirements of this specification.

3.05 PROTECTION OF WORK

- A. Contractor shall protect the project site including the building, its contents, all streets, walls, underground, and overhead utilities. All areas shall be left in a watertight condition in their entirety at all times. Contractor shall provide protective measures and materials to assure that each element will be without damage or deterioration throughout the entire construction period up to the date of final completion. Any defective elements shall be removed and replaced at the Contractor's expense and to the satisfaction of the Engineer and Owner. Remove protective coverings and materials at the appropriate time, but no later than final cleaning operations.
- B. No work shall take place during inclement weather. No work shall take place when moisture is present on the work area or in any of the materials. The Engineer may order the work stopped when, in his opinion, the weather conditions warrants him to do so. Contractor shall take such measures as necessary to dry out work surfaces so that the work can continue with minimum delay.
- C. Contractor shall cover and protect all walls, windows, projections, soffits, openings made due to demolition, etc. as necessary to ensure that damage does not occur. Contractor shall be responsible for all scrapes, stains, and damage and shall repair or replace any walls, windows, siding, etc., which are damaged by his operations, to the satisfaction of the Engineer and Owner. Any areas damaged shall be restored or cleaned, to the satisfaction of the Owner by the Contractor at no cost to the Owner.
- D. Whenever the possibility exists that debris or materials may fall causing a hazard to persons inside or outside the building, the Contractor shall post one or more of his employees to temporarily close these hazardous areas. The person in charge of the facility shall be notified prior to the commencement of work that may pose this type of hazard. Proper barricades shall be provided to prevent normal access to or around these areas.

- E. Contractor shall properly protect all areas where debris or dust is expected due to his operations. Contractor shall be responsible for providing adequate personnel to clean and protect these areas. Contractor shall include these costs in the bids.
- F. Protect the building interior, contents, Owner's employees and customers from all hazards associated with the Contractor's operations.
- G. Any damage to the interior of the building or its contents due to the Contractor's operations during the Contractor's operations shall be corrected at the Contractor's expense to the satisfaction of the Owner and the Engineer.
- H. Any damage to the exterior of the building or any associated building equipment due to the Contractor's operations shall be corrected at the Contractor's expense or to the satisfaction of the Owner and the Engineer.

3.06 REPAIR OF DAMAGES

- A. Damage to any portion of the building which results in disruption of or inconvenience to the Owner or his employees shall be immediately repaired or replaced by the Contractor. If such restitution is not promptly made, the Owner shall have the necessary work performed by an outside agency at the Contractor's expense.

3.07 DEMOLITION CLEANING

- A. The building and adjacent areas shall be left in a broom-clean condition at the end of each day. On completion of the work of this section and after removal of all debris, the site shall be left in a clean condition satisfactory to the Owner and to the Engineer.
- B. At the completion of the Project, the Contractor shall restore or replace all property damaged by his Work and shall remove all spots, paint, smears, soil, concrete, mortar, sealant, adhesives, asphalt, writing, droppings, or other foreign materials, from all Work. Remove all temporary protection from all the Work. Final cleaning shall include as a minimum:
 - 1. Clean site; sweep paved areas, rake clean landscaped surfaces.
 - 2. Remove waste and surplus materials, rubbish, and construction facilities from the site.
 - 3. The Contractor shall clean all walls, windows or other building and grounds elements that have been affected by his work.
 - 4. Repair, patch and touch-up marred surfaces to specified finish to match adjacent surfaces.

END OF SECTION

SECTION 04 50 00

MASONRY RESTORATION

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.02 DESCRIPTION OF WORK

- A. The work of this Section consists of completing the work as indicated on the Drawings and specified herein. This work includes the following:
 - 1. Repointing and replacement of CMU masonry as shown on the drawings.
 - 2. Clean all masonry to remove all atmospheric staining and the remaining wall coating.
 - 3. Install new steel lintels where glass block windows are to be removed and replaced with aluminum windows, including all associated masonry, as indicated in the drawings.
 - 4. Remove and replace individual spalled or damaged masonry units, to be designated by the engineer.
- B. All work shall be performed in a first class, workmanlike manner. The Contractor shall schedule and coordinate the work to minimize any inconvenience to the public and any disruption of the normal use of the park.
- C. All materials shall be verified by Contractor to be proper for each intended use, and the entire work of this Section shall be done in such a manner that each installation will perform its intended purpose as applicable, in the finished work.
- D. The drawings indicate and show limits of construction for this project. The specifications specify material and work requirements for this project. Both are complementary to each other and both shall be followed to complete the work.
- E. Plans and dimensions under which the Work is to be performed are derived from a variety of sources. The existing conditions are provided for information only. Actual conditions may vary. Contractor is required to verify existing system composition, conditions, and dimensions prior to submitting his bid. No additional compensation or time extension will be made for dimensional errors or discoverable inaccuracies related to existing conditions in the contract documents.

- F. Alternates: Not Applicable.
- G. Items To Be Installed Only: Not Applicable.
- H. Items To Be Furnished Only: Not Applicable

1.03 RELATED WORK

- A. SECTION 02 05 00 Selective Demolition
- B. SECTION 07 27 00 Waterproofing
- C. SECTION 08 50 00 Aluminum Windows
- D. SECTION 09 90 07 Painting
- E. SECTION 16 10 00 Temporary Electrical Disconnects
- F. SECTION 31 23 00 Excavation and Fill
- G. SECTION 32 12 16 Asphalt Paving
- H. SECTION 32 31 13 Fencing

1.04 SUBMITTALS

- A. Submit the following in compliance with requirements of Conditions of the Contract and Division I specification sections. Revise and resubmit each item as required to obtain approval of Engineer.
- B. Qualification Data: Submit qualification data for firm and personnel specified in "Quality Assurance" Article that demonstrates that both firm and personnel have capabilities and experience complying with requirements specified. For firm and foreman, provide a list of at least three (3) completed restoration projects within the New England Region similar in size and scope to work required on this project. For each project list project name, address, architect, conservator, supervising preservation agency, scope of Contractor's work, and other specified information.
- C. Product Literature: Manufacturer's published technical data for each product to be used in work of this Section including recommendations for application and use. Include test reports and certificates verifying that product complies with specified requirements.
- D. Program of Work: Submit a written program for each type of masonry restoration required by this Section.
 - 1. Include detailed description of materials, methods, and equipment to be used for each type of work.
 - 2. Include written descriptions, drawings, and diagrams, outlining proposed methods and procedures for protection of personnel, the public, and the existing construction during work of this Section.

3. If alternate methods and materials to those specified are proposed for any phase of masonry restoration, provide written description. Show evidence of successful use on comparable projects and demonstrate effectiveness for use on this project.
 4. Include Waste Disposal Program, detailing specific methods used to control and dispose of all waste materials produced during this project.
- E. Samples:
1. Pointing Mortar: Cured mortar samples set in 1/2 in. by 6 in. plastic or aluminum channels for approval of color and texture.
 2. Replacement CMU.
- F. Prepare quality control panels as specified in Article "Quality Control Panels," below.

1.05 QUALITY CONTROL PANELS

- A. General: Before beginning masonry restoration, prepare quality control panels to provide standards for work of this Section. Do not proceed with masonry restoration until Engineer has approved relevant quality control panels.
1. Locate quality control panels as directed by Engineer.
 2. Provide 48 hours notice to Engineer prior to start of each quality control panel.
 3. Perform quality control panels using crew that will be executing the work and following requirements of this Section.
 4. Repeat quality control panels as necessary to obtain approval of Engineer.
 5. Protect approved quality control panels to ensure that they are without damage, deterioration, or alteration at time of Substantial Completion.
 6. Approved quality control panels in undamaged condition at time of Substantial Completion may be incorporated into the Work.
 7. Approved quality control panels will represent minimum acceptable standards for masonry restoration. Subsequent masonry restoration work that does not meet standards of approved quality control panels will be rejected.

1.06 QUALITY ASSURANCE

- A. Contractor that is regularly engaged in masonry restoration and sealant installation work. Contractor shall demonstrate to Owner's satisfaction that, within previous five (5) years, he has successfully performed and completed in a timely manner at least three (3) projects similar in scope and type.
- B. Source of Materials: Obtain materials from a single source for each type of material required to ensure uniform quality, color, and texture.
- C. Alternate Cleaning Methods: If Contractor proposes use of cleaning procedures and products other than those specified and Architect gives preliminary approval following required submittals, Contractor shall create quality control panels demonstrating ability of proposed products and procedures to produce specified cleaning results and for comparison with specified quality control panels at no additional cost to Owner. No alternate method shall be permitted until it has been approved by Architect.
- D. Field Supervised Construction: Notify Engineer before beginning any of the work, including, joint preparation, mortar preparation, masonry repair or repointing, sealant replacement, and chemical cleaning.

1.07 CODES

- A. Except as modified by the requirements of other governing codes and by this specification, masonry restoration work shall conform to the provisions and recommendations of the following codes and standards:
 - 1. American Society for Testing and Materials (ASTM);
 - ASTM C144 - Aggregate for Masonry Purposes
 - ASTM C150 - Portland Cement
 - ASTM C207 - Hydrated Lime for Masonry Purposes
 - ASTM C270 - Mortar for Unit Masonry
 - 2. Federal Specifications (FS).
 - 3. Occupational Safety and Health Administration (OSHA) - Construction Standards.
 - 4. Brick Institute of America (BIA).
 - 5. IMIAC – Recommended practices and specifications for cold weather masonry construction.
 - 6. ACI 530 – Building code requirements for masonry structures.
 - 7. ACI 530.1 – Specifications for masonry structures.

1.08 PRODUCT DELIVERY, HANDLING AND STORAGE

- A. All materials shall be new and of the best quality. All materials shall be delivered to the site in the Manufacturer's unopened containers with Manufacturer's labels intact.

- B. Materials shall be delivered to the site in sufficient quantities to allow continuity of the work.
- C. All materials shall be handled and stored in strict accordance with the Manufacturer's requirements. All materials shall be stored in dry locations, protected from the weather and elevated off the ground.
- D. All flammable materials shall be stored in a cool, dry area away from sparks and open flames. Follow precautions outlined on containers or supplied by material Manufacturer/supplier.
- E. The Contractor shall provide all storage facilities. The buildings shall not be used as storage areas.
- F. The location of all storage facilities and staging shall be coordinated with the Owner.

1.09 JOB CONDITIONS

- A. Protection of Building During Cleaning: Protect all building elements and finishes from damage or deterioration caused by masonry work using all means necessary. Repair any damage to materials or finishes resulting from work of this Section to satisfaction of Engineer at no additional cost to Owner.
 - 1. Adjacent Materials: Protect adjacent materials, including but not limited to masonry, metals, glass, paint, and sealants, from cleaning solutions that might damage such materials. Repair or replace materials damaged as a result of work of this Section to Engineer's satisfaction at no additional cost to Owner.
 - 2. Spread of Cleaning Solutions: Do not clean masonry during winds of sufficient force to spread cleaning solutions to unprotected surfaces. Cease cleaning operations when winds may carry chemicals, rinse water, or run-off from chemical cleaning to unprotected areas.
 - 3. Collect and dispose of runoff from cleaning operations by legal means and in manner that prevents soil erosion, undermining of paving and foundations, damage to sidewalks, water penetration into building interiors, and any harm to buildings, landscape elements, and natural bodies of water or groundwater table.
- B. Maintain materials and surrounding air temperatures to minimum 40 degrees F and rising prior to, during, and 48 hours after completion of masonry work. Masonry materials shall be protected from the elements at all times. All protection to achieve this requirement shall be done in a manner approved first by the Engineer. In no case shall uncured masonry work be exposed to freezing temperatures.

- C. Do not erect masonry when air temperatures exceed 99 degrees F in the shade and relative humidity is less than 40 percent, unless work is prevented from drying out for not less than 48 hours after having been installed by a method first approved by the Engineer.
- D. Remove masonry work damaged by climatic conditions or insufficient covering or protection and reconstruct as directed by Engineer at no additional compensation. Make adequate provisions during construction to prevent damage by wind.

1.10 COLLECTION AND DISPOSAL OF WASTE PRODUCTS

- A. General: Collect, contain, test, and dispose of solid and liquid wastes in accordance with applicable federal, state, and local laws and regulations.
- B. Provide gutters and troughs to collect runoff from cleaning operations for pretreatment prior to disposal. Do not allow waste materials from cleaning operations to flow or drop onto adjacent roofs, setbacks, sidewalks, plantings, soil, or structures. Direct waste materials to collection vessels for treatment.
- C. Neutralize all cleaning waste products to a pH of between 5.0 and 9.5. Propose specific methods and materials for neutralization in Waste Disposal Program submission.
- D. Dispose of cleaning run-off by legal means that prevent: erosion, undermining, damage to plant material, and water penetration into building.
 - 1. Install protection and waste collection systems before general cleaning begins.
 - 2. Test all drains and other water removal systems to ensure that they are functioning properly before cleaning operations begin. Notify Owner immediately if any drains or systems are stopped or blocked. Do not begin work of this Section until drains are in good working order.
 - 3. Provide filtration to prevent suspended solids such as masonry residue from entering drains and drain lines. Contractor shall be responsible for cleaning out any drain or drain line that becomes blocked or filled with sand or other solids as a result of work performed under this Section.
- E. Dispose of all waste products at regular intervals. Do not allow waste products to accumulate on site.

1.11 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall limit its use of the site for work and for storage to allow for:
 - 1. Owner use of the site during construction.

2. Public use of walks, parking lots, and driveways.

- B. Do not block exits at any time. Provide protected entranceways at each entrance when working in these areas.
- C. Coordinate use of the site, storage areas, and staging areas with the Owner. Limit use of the site and working hours to dates, times, and locations approved by the Owner.
- D. The Contractor is responsible for protecting all materials and equipment stored on the site.
- E. Smoking is not permitted on the grounds.
- F. Dispose of all trash and debris in a legal manner off-site. Do not throw debris from roof, access equipment, or staging. Conduct debris to approved containers on the ground. Locate debris containers only in locations approved by the Owner in advance.

1.12 COORDINATION

- A. Coordinate all work of this section with other trades. Perform all masonry work in a timely manner as not to delay other trades. The Masonry Contractor shall coordinate all work with the window contractor, to prevent exposure of the building to inclement weather and leaks, at all times.

1.13 CONTRACTOR'S GUARANTEE

The Contractor shall provide the Owner a guarantee, in a form acceptable to the Owner, guaranteeing the work to be free from material or workmanship defects in accordance with the following conditions:

- A. The guarantee shall require the Contractor to repair or replace any materials or workmanship found to be deficient at no additional cost to the Owner.
- B. The contractor shall guarantee work for a minimum period of two (2) years from the date of acceptance by the Owner.

PART 2 - PRODUCTS

2.01 CONCRETE MASONRY UNITS

- A. Flat: Replacement block shall match existing block in hardness and weatherability, size, color, and surface texture and reflectance. Provide replacement block custom made to match existing block if required to provide an exact match to existing units.

2.02 MORTAR

- A. White Portland Cement: Type 1, ASTM C 150.
- B. Portland Cement: Type I or Type 2, ASTM C 150, nonstaining. Do not use masonry cement.
- C. Hydrated Lime: ASTM C 207, Type S.
- D. Sand: Clean sharp sand, free of loam, silt, soluble salts, organic matter, and other deleterious substances and graded in compliance with ASTM C 144. Where mortar is to match existing mortar, select sand or other aggregate to provide mortar matching color and texture of original mortar (with minimum addition of pigment). Mix sand and aggregates as required to provide mortar matching original mortar.
- E. Water: Clean and free of substances deleterious to mortar and masonry.
- F. No additives or admixtures other than those specified shall be used. No chlorides or aggressive corrosive chemicals shall be used.
- G. Colored Mortar Pigments or approved equal:
 - a) Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes.
 - b) Use only pigments with record of satisfactory performance in masonry mortars.
 - c) Products - Subject to compliance with requirements: Solomon Grind-Chem Services Inc. Model SGS Mortar Colors, Davis Colors Model True Tone Mortar Colors, Consolidated Brick and Building Supplies Inc. Model SE-0.

2.03 MORTAR MIXES

A. Mortars for Setting and Pointing Masonry: Mortars specified hereinafter shall comply with ASTM C 270, "Standard Specification for Mortar for Unit Masonry." Type "N" Mortar strength, in general, shall be consistent with a low standard deviation, and a 28 day cube compressive strength of a minimum of 750 psi and a maximum of 1799 psi. Mortar mixes may change and may require adjustment before and during construction to match the reviewed & accepted Quality Control Panel.

- 1. Type "N" Mortar for Setting and Repointing Masonry:
 - a. 1 part by volume white Portland cement (Type 1)
 - b. 1 part by volume hydrated lime (Type S)
 - c. 6 parts "00" sand (Selected to match sand in original mortar)

- d. Oxide pigments as needed to match existing mortar color.

2.04 MIXING OF MORTAR

- A. Measure mortar ingredients carefully so that proportions are controlled and maintained throughout all work periods.
- B. Mix mortar in an approved type of power operated batch mixer. Mix for time required to produce a homogeneous plastic mortar and not less than five minutes: approximately two minutes for mixing dry materials and not less than three minutes for mixing after water has been added.
- C. Use minimum amount of water to produce a workable consistency for mortar's intended purpose. Mortar for Pointing: As dry a consistency as will produce a mortar sufficiently plastic to be worked into joints.
- D. Where mortar or grout is required in small batches of less than one cubic yard and Architect specifically approves, mortar may be mixed by hand in clean wooden or metal boxes prepared for that purpose provided that mixing boxes and methods of mixing and transferring mortar are approved by Architect.
- E. After mixing, mortars for pointing or setting shall sit for 20 minutes prior to use to allow for initial shrinkage. Mortar shall be placed in final position within two (2) hours of mixing. Retempering of partially hardened material is not permitted.

2.05 STEEL LINTELS

- A. Steel lintels to be installed where glass block windows are removed and new aluminum windows are to be installed shall be ASTM A-36/A36M steel and shall be hot dipped galvanized in accordance with ASTM A153. Replacement lintels to conform to the following:
 - 1. Unless otherwise noted on the drawings, lintels shall be the same size (horizontal leg, vertical leg and thickness) as the existing lintel being replaced, but shall not be smaller in size as stipulated in the following schedule:

MASONRY OPENING	LINTEL SIZE
3'-1" TO 4'-6"	L 4 X 3-1/2 X 5/16

- 2. Provide one angle for each 4 inches of nominal masonry thickness.
- 3. Provide a minimum of 6 inches of bearing at each end of all lintels for masonry openings of 4'-6" or less, and 8 inches of bearing each end at wider masonry openings.

2.06 FLASHING MATERIALS

- A. Through wall flashing shall be constructed of self-adhering bituminous membrane.
- B. Bituminous membranes shall be such as Permabarrier by W R Grace, CCW-705 by Carlisle Coatings & Waterproofing Inc., TW Flashing Membrane by Tamko Building Products, Inc., or approved equal.
- C. Termination bar shall be 1/8" x 1" copper with pre-punched holes at 6" on center.

2.07 MASONRY CLEANING MATERIALS

- A. General Brick Cleaning: General Purpose cleaner shall be SURE KLEAN-600 Detergent as manufactured by ProSoCo, Inc., Diedrich #202 as manufactured by Diedrich Technologies Inc., iCleen as manufactured by Chemical Products Industries, Inc., or approved equal.

Miscellaneous Coating Removal: Contractor shall clean existing remnants of white coating that remain on the brick wall areas using restoration cleaners as determined through cleaning mock-up panels, and as approved by the engineer. Cleaners shall be as manufactured by Diedrich Technologies, Inc., EaCo Chem, Inc., Hydrochemical Techniques, Inc., or Prosoco, Inc.

2.08 TOOLS

- A. Hand Tools: Chisels, hammers, and mallets.
 - 1. Thickness of Chisels: Chisels used to remove mortar from and to otherwise prepare joints shall have a maximum thickness of 5/8 times joint width extending back from tip of chisel a minimum of two (2) times depth at which chisel will be inserted into joint.
 - 2. Special Tools: Provide special knives or special thin cutter blades for use in joints less than 1/8 in. wide.
- B. Power Tools: Small, hand-held electric grinders with diamond or abrasive blades no greater than 3/32 in. thick and a maximum of 4-1/2 in. in diameter may be used to cut joints. Masonry cutting saws shall have a vacuum attachment for collecting dust or a constant water spray attachment for limiting dust generation. It is a primary concern to limit dust generation to the greatest extent practicable.
- C. Brushes: Stiff, natural bristle brushes.
- D. Trowels for Pointing: Long, thin pointing trowels that are narrower than joints being pointed. Fabricate special trowels for pointing if necessary to provide for proper insertion and compaction of mortar.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.
- B. Verify items provided by other sections of work are properly sized and located.
- C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.02 JOINT PREPARATION

- A. Prior to cutting mortar joints, seal off all exterior wall areas where dust and debris could possibly enter or exit the interior of the building. Coordinate between interior & exterior portions of the work. Remove joint material from joints to a depth of 3/4 in. or to sound mortar or substrate, whichever is greater. In all cases remove all weathered and loose material.
- B. Take all necessary precautions to ensure that faces of masonry units are not damaged in any way during joint preparation.
- C. Joint preparation shall cease if, in judgment of Engineer, Contractor's methods are damaging masonry units and/or excessive dust is occurring. Work shall not resume until tools, workmen, and methodology are corrected to meet standard of approved quality control panel and Owner requirements.
- D. Remove all mortar from surfaces of masonry units adjoining joint to allow new mortar to bond directly with masonry units. Surface at rear of joint shall be uniform and roughly perpendicular to sides of joint.
- E. Mortar Removal:
 - 1. Hand Tools: Use hand tools for removal of mortar from joints less than 6 inches long and from all other joints in which use of power tools might cause damage to masonry units. Use hand tools to complete mortar removal from joints where power tools have been used to partially remove mortar.
 - a. For narrow joints of 1/8 in. or less in width, rake mortar from joints manually with a sharp knife blade or cutter made for this purpose. Cutter may be used with or without aid of a hammer.
 - b. Sharpen chisels hourly to minimize chipping.
 - 2. Power Tools: With specific prior approval from Engineer following successful demonstrations of skill by mechanics, power grinders may be used to remove mortar from horizontal joints in brick masonry and from

joints longer than 6 inches in stone masonry where there is no danger of cutting into adjacent masonry units. Masonry cutting saws shall have a vacuum attachment for collecting dust or a constant water spray attachment for limiting dust generation. It is a primary concern to limit dust generation to the greatest extent practicable.

- a. Demonstrated Ability of Mechanics: Prior to beginning work, demonstrate that all workmen using power tools are proficient in use of power tools for joint preparation. Failure to demonstrate to satisfaction of Architect that each worker is proficient and that power tool joint preparation does not result in damage to masonry to remain shall result in prohibition of use of power tools for joint preparation. If proficiency is not demonstrated, or if work in progress results in damage to masonry to remain, all power tool work shall cease, and joints shall be prepared using hand tools.
- b. Limitations on Use of Power Tools:
 - 1) Do not use power grinders on joints less than 1/8 in. wide or less than 6 inches long or where projections, ornament, or other surface irregularity might make damage to masonry units likely.
 - 2) Stop at least 4 inches from inside corners and projecting elements. Remove remaining mortar using hand tools.
 - 3) Contractor may construct jigs to guide power tools and to prevent damage to adjacent masonry.
- F. Cleaning: Remove loose mortar and foreign material from raked joints using a fine, stiff natural bristle brush. Remove remaining particles, dust, and dirt using filtered, oil-free compressed air. Ensure that dust and dirt are not blown back into joints that have previously been cleaned.
- G. Repair or replace masonry units damaged during joint preparation process to satisfaction of Engineer at no additional cost to Owner.

3.03 MASONRY REMOVAL

- A. General: Carefully dismantle block masonry to be rebuilt. Avoid damaging masonry to remain.
- B. Remove mortar from joints before removing block. Remove block once mortar has been removed from accessible joints and gentle tapping has broken bond at other joints.

3.04 REBUILDING MASONRY

- A. General: Lay block plumb, level, and true to line in full beds of mortar with bond pattern matching original bond pattern and joints meeting those of adjacent remaining work. Provide supports, anchors, and reinforcing to ensure solid, stable construction and flashing to ensure that water is directed to exterior of wall above openings and penetrations.
- B. Fill all joints in masonry and joints between masonry and other materials with mortar as each course is laid.
 - 1. Bed Joints: Form bed joints in one of the following ways:
 - a. Apply a thick layer of smooth or slightly furrowed mortar on top of units previously laid and shove block in place.
 - b. Apply a full coat of mortar to bottom of block and shove it into place.
 - 2. Head and Collar Joints: Form head and collar joints by applying a full coat of mortar to entire end or entire side as case requires and then shoving mortar covered end and/or side of block tightly against bricks previously laid. Apply 3/8-in.-coat of mortar to back of facing block before block is installed.
- C. Build in supports, anchors and fasteners as shown on approved shop drawings. Anchor fasteners solidly into sound masonry.
- E. Jointing of rebuilt masonry shall match that of existing masonry. Each course shall align with and be flush with existing work.
- F. Where brick is to be cut to size, make cuts neatly with a power-driven saw. Do not expose cut face to weather.
- G. Joints shall be uniform and shall match pointing sample approved by Architect. Tool with stainless steel jointer after becoming "leather" hard. Enlarge any holes or voids, except weepholes, and completely fill with mortar.
- H. Remove masonry units disturbed after laying and relay in fresh mortar. If adjustments are required, do not pound block ends but remove and reset in fresh mortar.
 - 1. Remove and replace block that are loose, chipped, broken, stained or damaged by freezing or for any other reason, or if units do not match adjoining units as intended. Furnish new units to match adjoining units and install in fresh mortar, pointed to eliminate evidence of replacement.

3.05 MORTAR JOINT TOOLING

- A. Tooling: After final layer of mortar is "leather hard," tool joints with a flat rule jointer, or as directed by Architect.
- B. Profile: Tool joints to match original joint profiles. Solidly compress mortar so that it adheres well to masonry on both sides and forms a dense surface. Premature or late tooling will result in unacceptable finishes that will be rejected.
- C. Duplicate existing finish on adjacent historic joints by brushing newly pointed joints with a nonmetallic natural fiber bristle brush to produce a slight texture.

3.06 MASONRY CURING

- A. Keep newly pointed joints damp for at least 48 hours after mortar has been inserted. Do not apply a direct stream of water to joints for at least 24 hours after mortar has been placed.
- B. Ensure masonry temperature remains as required by specifications until mortar is thoroughly cured.

3.07 CLEANING

- A. The Contractor is to clean the masonry wall areas of repointing with the specified General Purpose Cleaner and remaining areas with the approved restoration cleaners. The Contractor is to follow recommendations of the cleaning material manufacturer as to the cleaning procedures required in cleaning the interior and exterior masonry components with each of the materials specified. Any dilution of cleaning materials shall be with clean water according to the instructions on the manufacturer's printed label (container label).
- B. Surfaces shall be cleaned of all mortar droppings, stains and foreign substances with general purpose masonry cleaner specified. Marred, cracked, scratched or chipped surfaces will not be accepted. Water run-off during saw-cutting and masonry cleaning shall not be permitted to stain existing building, roofs, sidewalks, curbs, etc.
- C. Non-masonry surfaces shall be protected from contact with the cleaning solution. Wooden and/or painted surfaces shall be protected with sheets of polyethylene, or other proven protective materials, firmly fixed and sealed to the surface. Non-masonry surfaces, which are not protected, shall be kept running-wet with clean water throughout the cleaning process of adjacent masonry.
- D. Pressure applications of the general cleaning materials is not allowed. This practice may drive the cleaning compounds deep into the masonry surface making it impossible to rinse treated surfaces free of all cleaning residues. High pressure spray application of cleaning materials may result in scumming, efflorescence, burning, and severe metallic staining. If spray application of the

cleaning solution is desired, apply cleaning agents with low pressure (50 PSI maximum) spray equipment.

- E. Removal of excess mortar and job dirt shall be performed in the following manner unless otherwise indicated by testing.
 - 1. Scrape off excess mortar deposits with sections of block, wooden scrapers or other non-metallic scraping devices.
 - 2. Thoroughly pre-wet a large area of the masonry surface to be cleaned.
 - 3. Using a densely packed, soft fibered masonry washing brush and low pressure water spray, clean the newly installed block surface of all excess mortar and job dirt.
 - 4. Rinse treated surfaces thoroughly with fresh water employing full city water pressure or pressure washing equipment, removing all dirt, mortar, etc. from masonry surfaces.
 - 5. Repeat as necessary.
- F. Clean masonry prior to final setting of mortar. Remove mortar and stains from face of work with dry, stiff-bristle brushes. Additional cleaning procedures may be required by Engineer, if masonry staining occurs. Keep walls clean as work progresses. After mortar has cured, perform final cleaning, using clean water only and stiff fiber brushes.
- G. Water Washing: Wash pointed masonry with clean filtered water and nonabrasive hand tools to remove mortar debris from masonry surfaces.
 - 1. Wash within 48 hours following completion of pointing.
 - 2. Use blunt-edged wood scrapers, stiff natural bristle brushes, and rough towels along with water to remove mortar debris. Do not use wire brushes.
- H. Repair of Pointed Joints: As cleaning progresses, examine joints to locate cracks, holes, and other defects. Carefully point up and fill such defects with mortar. Where necessary in opinion of Engineer, cut out joints and refill with pointing mortar exercising extreme care to ensure that color matches that of original pointing work. Exposed joint surfaces shall be free from protruding mortar, holes, pits, depressions, and other defects.

3.08 STEEL LINTEL INSATALLATION

- A. Completely remove existing block and properly clean and prepare existing substrate to receive new steel lintel and flashing. Finish work to be free from water leakage under all weather conditions. Lintels shall be installed to the

substrate in a manner duplicating the existing installation. Lintels shall be aligned with the exterior masonry openings and with new masonry, as detailed and specified.

- B. Provide a minimum of 6 inches of bearing at each end of all lintels for masonry openings of 4'-6" or less,
- C. Flashings shall be installed as detailed. End dams shall be formed at the ends of all flashing runs and end of lintels by folding and not cutting the flashing to form a 2" tall end dam. End dam shall extend out of the masonry and shall be cut flush once the masonry has cured. Flashings shall extend out of the wall construction by 1/2" and shall be cut off even with the face of masonry. Tops of flashings shall extend up behind lintel as detailed.

3.09 FINAL CLEANING

- A. The building and adjacent areas shall be left in a broom-clean condition at the end of each day. On completion of the work of this section and after removal of all debris, the building and site shall be left in a clean condition satisfactory to the Owner and to the Engineer.
- B. At the completion of the Project, the Contractor shall restore or replace all property damaged by his Work and shall remove all spots, paint, smears, soil, concrete, mortar, sealant, adhesives, asphalt, writing, droppings, or other foreign materials, from all Work. Remove all temporary protection from all the Work. Final cleaning shall include as a minimum:
 - 1. Clean site; sweep paved areas, rake clean landscaped surfaces.
 - 2. Remove waste and surplus materials, rubbish, and construction facilities from the site.
 - 3. The Contractor shall clean all walls, windows or other building and grounds elements that have been affected by his work.
 - 4. Repair, patch and touch-up marred surfaces to specified finish to match adjacent surfaces.

END OF SECTION

SECTION 07 27 00

WATERPROOFING

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.03 SECTION INCLUDES

- A. The work of this Section consists of furnishing and installing waterproofing membrane at the base of the exterior wall and related items as indicated on the Drawing and specified herein, required to complete the work.
- B. All materials shall be verified by Contractor to be proper for each intended use, and the entire work of this Section shall be done in such a manner that each installation will perform its intended purpose as applicable, in the finished work.
- C. The drawings indicate and show limits of construction for this project. The specifications specify material and work requirements for this project. Both are complementary to each other and both shall be followed to complete the work.
- D. Plans and dimensions under which the Work is to be performed are derived from a variety of sources. The existing conditions are provided for information only. Actual conditions may vary. Contractor is required to verify existing system composition, conditions, and dimensions prior to submitting his bid. No additional compensation or time extension will be made for dimensional errors or discoverable inaccuracies related to existing conditions in the contract documents.

1.04 QUALITY ASSURANCE

- A. All work shall be applied in strict accordance with the provisions of the technical specification and details. No deviations shall be permitted without written consent from the Engineer. Should a conflict between this specification (and the associated details) and the manufacturer's requirements arise, the most restrictive provision, as determined by the Engineer, shall govern.

1.05 RELATED WORK

- A. SECTION 02 05 00 Selective Demolition
- B. SECTION 04 50 00 Masonry Restoration
- C. SECTION 08 50 00 Aluminum Windows
- D. SECTION 09 90 07 Painting
- E. SECTION 26 10 00 Temporary Electrical Disconnects

- F. SECTION 31 23 00 Excavation and Fill
- G. SECTION 32 12 16 Asphalt Paving
- H. SECTION 32 31 13 Fencing

1.06 SUBMITTALS

- A. Submit the following under the provisions of Section 01300.
 - 1. Manufacturer's data sheet for each type of air & moisture barrier.
 - 2. Manufacturer's Material Safety Data Sheets for all products specified in this Section.

1.07 QUALITY ASSURANCE

- A. All materials and equipment utilized for the moisture barrier installation shall be approved in writing by the Engineer prior to their use. All materials shall be installed to serve their intended function.
- B. All moisture barrier work shall be applied in strict accordance with the provisions of this technical specification and associated details. No deviations shall be permitted without written consent from the Engineer. Should a conflict between this specification (and the associated details) and the manufacturer's requirements arise, the most restrictive provision, as determined by the Engineer, shall govern.
- C. Upon completion of the air & moisture barrier, an inspection shall be made by the Engineer to ascertain that work has been installed according to the applicable specifications and details. Note: No system accessories or fill shall be installed over the moisture barrier system until it has been inspected and approved by the Engineer. The Contractor shall notify Engineer 24 hours in advance of the required inspection.

1.08 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.10 STORAGE AND PROTECTION

- A. Contractor shall follow the recommended storage procedures of the manufacturer of the materials being used. No storage on or within the building will be allowed without written permission from the Owner. Any materials brought to the site for daily operations or storage shall be evenly distributed to prevent concentrated loads and shall not overload the structure.

- B. All moisture sensitive materials shall be stored in weatherproof trailers or temporary protective shelters and shall be stored at least 4 inches above the ground on stable pallets or skids and shall at all times be completely covered and secured. Tarpaulins or a similar "breathable" material shall be used to cover materials. Rubber or plastic materials shall not be acceptable. Factory applied "shrink packs" or plastic wrappings shall not be acceptable.
- C. Materials stored on the ground shall be thoroughly secured against moisture and wind. Materials and their coverings shall be tied and/or weighted to prevent uncovering or blowing of material by the wind. Contractor shall be responsible for damages caused by blowing and improperly stored material and equipment.
- D. Materials shall be handled with care and shall not be installed if they have been damaged in any way due to handling, storage or manufacturing defects. Contractor shall promptly mark and remove from the site any damaged or improperly stored materials when so requested by the Engineer.
- E. All materials are to be stored at the recommended temperature range as specified by the manufacturer. Contractor shall provide manufacturer's information to the Engineer concerning storage and handling of flammable or volatile materials. The "shelf life" materials shall be provided with the date of manufacture of all perishables. Materials that become congealed, thick, non-uniform or otherwise unsuitable for proper application shall be removed from the project site and replaced with new properly stored and tested materials.
- F. All materials installed shall be protected from the weather at all times, until the building is made weathertight.
- G. Provisions for placement of the Contractor's equipment must be planned by the Contractor and submitted to the Owner and the Engineer for approval.
- H. Provide off-site storage and protection when site does not permit on-site storage or protection.

1.11 WEATHER AND TEMPERATURE REQUIREMENTS

- A. Work shall not commence or proceed, with the exception of the completion of necessary temporary measures to make the building weathertight, when the ambient air temperature is below 32°F unless otherwise specified.
- B. Work shall not commence or proceed, with the exception of the completion of necessary temporary measures to make the building weathertight, when precipitation of any kind, or winds in excess of 20 miles per hour are present or imminent or when, in the sole judgment of the Engineer or his authorized representatives, conditions are unfavorable or detrimental to the proper installation of the systems.
- C. Work shall not commence or proceed, with the exception of the completion of necessary temporary measure to make the building weathertight, when water, ice

or frost is present on or within the materials or surfaces to which materials are to be applied.

- D. Work shall not commence or proceed with the exception of the completion of necessary temporary measures to make the building weathertight when the temperature is too hot to allow proper installation, or when existing or previously installed work is being damaged by the application, or when temperature conditions present a health or safety hazard to the workers on the site.

1.12 COORDINATION

- A. Coordinate all work of this section with other trades. Perform all insulation work in a timely manner as not to delay other trades. The Contractor shall coordinate all work with the roofing and waterproofing trades, to prevent exposure of the building to inclement weather and leaks, at all times.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Sheet applied moisture barriers shall be a moisture barrier material, suitable for below grade applications, and shall be a single component sheet applied system including accessories such as CCW-MiraDRI-860 as manufactured by Carlisle Coatings & Waterproofing Incorporated, Bituthene 3000 as manufactured by the Grace Construction Products Company, Henry Blueskin WP100 as manufactured by the Henry Company, or an approved equal.
- B. All accessories, such as primer for sheet waterproofing, reinforcing mesh for pretreating joints and mastic for secondary seal of seams, T-joints, top surface and perimeter edges shall be manufactured by, or approved by the sheet membrane manufacturer.
- C. Termination bars shall be 1/8" x 1" aluminum with pre-punched holes at 12" OC.
- D. Reglet flashings shall be formed of .040" bronze painted aluminum.
- E. Protection board shall be 1/4" minimum thickness bituminous board.

PART 3 – EXECUTION

3.01 WORKMANSHIP/SUBSTRATE PREPARATION

- A. Workmanship for moisture barrier shall be as follows:
 - 1. Verify that substrate surfaces and conditions to receive waterproofing are acceptable for product installation in accordance with manufacturer's instructions. Surfaces to be covered with waterproofing shall be free from defects of every description and clean of dirt and other foreign matter before waterproofing installation work is started.

2. Substrate and plane surfaces shall be free from splinters, depressions, uneven seam/panel joints, waves and buckles. Joints and seams in substrate shall be made even and tight to eliminate voids behind sheet waterproofing.
3. Cold weather application requirements for waterproofing installation include complete substrate priming and partial nailing of the sheet waterproofing. Reference manufacturers specific requirements for cold weather application of sheet waterproofing systems.

3.02 SHEET WATERPROOFING INSTALLATION

- A. Install waterproofing in strict accordance with this specification and manufacturer's instructions.
- B. Completed waterproofing system shall be free from water leakage under all weather conditions. Waterproofing system shall be permanently watertight and weather tight and perform as a stand-alone system. All substrates to receive waterproofing shall be cleaned and prepared to receive waterproofing. Voids shall be corrected and seam in gypsum board sheathing shall be tapes as required by the manufacturer. Waterproofing shall be liberally installed in a neat uniform manner to properly seal the edges of the waterproofing to the adjacent substrate.
- C. Waterproofing shall not be exposed to direct sunlight for extended periods of time. Coordinate installation of standing seam metal so that waterproofing is not damaged by extend ultra violet (UV) light exposure. Failure to properly coordinate work may be cause for rejection of installed waterproofing
- D. Daily cleanup and removal from the site of all shavings, overspray, clippings, fasteners, and whatever other debris resulting from these operations are required.
- E. Proceed with waterproofing termination work concurrently to waterproofing installation to prevent water intrusion into the building assembly.

3.03 SAW CUT REGLETS

- A. Saw cut and remove existing mortar at a line parallel with new pavement surface. Saw cuts shall be 1" deep and a saw blade wide. Insert reglet flashings with upward spring and secure with sheet metal wedges and continuous sealant. Secure bottom edges with clips at 18" on center.

END OF SECTION

SECTION 08 50 00

ALUMINUM WINDOWS (Filed Sub-Bid required)

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.02 FILED SUB-BIDS

- A. This section is stipulated as the Metal Windows Filed Sub-Bid under Part D, Item 2 of the Form for General Bid.
- B. Sub-bids shall be submitted for the Work of this Section in accordance with the provisions of M.G.L. c.149 §§44A-J. The time and place for submission of sub-bids are set forth in the Invitation to Bid.
- C. Sub-bidders must be DCAM Certified in the listed trade and shall include a Current DCAM sub-bidder Certificate of Eligibility and a signed DCAM Sub-bidder's Update Statement with the bid
- D. Each sub-bid submitted for work under this section shall be on the Filed Sub-Bid Form (Section 00 03 50).
- E. A bid deposit equal to five percent of the value of the bid must be submitted with the sub-bid. The bid deposit may be in the form of a bid bond, cash, or a certified check, or a treasurer's or cashier's check issued by a responsible bank or trust company, payable to the Awarding Authority. A sub-bid accompanied by any other form of bid deposit than those specified will be rejected.
- F. The Contractor (Filed sub-bid Metal Windows Contractor) shall be responsible for providing all access, staging, lifts, equipment, dumpsters, materials and labor as required and as necessary to complete the work of this section.
- G. The Contractor (Filed sub-bid Metal Windows Contractor) shall be responsible for coordinating all work of this section with the General Contractor and with the other Filed sub-bid contractors.
- H. The work to be done under this Section 08 50 00 – Aluminum Windows (Filed Sub-bid) is shown on Drawing numbered: A1.3 & A2.1.

1.03 DESCRIPTION OF WORK

- A. Furnish and install new factory glazed, thermally broken, aluminum architectural windows, types as specified herein, together with necessary mullions, panning,

trim, expanders, operating hardware and all other accessories, as indicated on the plans.

1.04 RELATED WORK

- A. SECTION 02 05 00 Selective Demolition
- B. SECTION 04 50 00 Masonry Restoration
- C. SECTION 06 10 00 Rough Carpentry
- D. SECTION 07 27 00 Waterproofing
- E. SECTION 09 90 07 Painting
- F. SECTION 26 10 00 Temporary Electrical Disconnects
- G. SECTION 31 23 00 Excavation and Fill
- H. SECTION 32 12 16 Asphalt Paving
- I. SECTION 32 31 13 Fencing

1.05 REFERENCES

- A. AAMA 502 - Voluntary Specification for Field Testing of Windows and Sliding Glass Doors.
- B. AAMA 2604-98 - Specification for High Performance Organic Coatings on Architectural Extrusions and Panels.
- C. ASTM E283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
- D. ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- E. ASTM E331 - Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- F. ANSI Z97.1 - American National Standard for Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
- G. ASTM C162 - Standard Terminology of Glass and Glass Products.
- H. ASTM C1036 - Standard Specification for Flat Glass.
- I. ASTM C1048 - Standard Specification for Heat-Treated Flat Glass -- Kind HS, Kind FT Coated and Uncoated Glass.
- J. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Glass.
- K. ASTM E773 - Standard Test Method for Seal Durability of Sealed Insulating Glass Units.
- L. ASTM E774 - Standard Specification for Sealed Insulating Glass Units.
- M. ASTM E1300 - Standard Practice for Determining the Minimum Thickness and Type of Glass Required to Resist a Specified Load.

- N. ASTM E2188 - Standard Test Method for Insulating Glass Unit Performance.
- O. ASTM E2189 - Standard Test Method for Testing Resistance to Fogging in Insulating Glass Units.
- P. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.
- Q. CPSC 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
- R. Insulating Glass Manufacturers Alliance (IGMA)- Glazing Guidelines.

1.06 SUBMITTALS

- A. Product Data: Submit manufacturers specifications, recommendations and standard details for aluminum window units, including certified test laboratory reports as necessary to show compliance with requirements.
- B. Shop Drawings: Indicate opening dimensions, typical unit elevations at $\frac{3}{4}$ " scale and full size detail sections of every typical composite member. Show anchors, hardware, operators and other components not included in manufacturer's standard data. Include framed opening tolerances, glazing details, affected related work, installation requirements, and modifications to existing details.
- B. Samples: Submit samples as follows:
 - 1. One sample of each required aluminum finish, on 6 inch long sections of extrusion shapes and aluminum sheets as required for window units.
 - 2. Additional samples, as directed by Architect, to show fabrication techniques, workmanship of component parts and design of hardware and other exposed auxiliary items.
- D. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements. Submit firm's qualifications.
- E. Submit color charts for standard colors of manufacturers available aluminum coatings and sample chips of specified color.
- F. Test reports documenting compliance with requirements of Section 1.05.
- G. Submit complete samples of manufacturer warranties.
- H. Samples of materials shall be provided without cost to the owner, i.e., metal, glass, fasteners, anchors, frame sections, mullion section, corner section, etc.

1.07 SYSTEM DESCRIPTION

- A. Fixed and in-swing projected windows shall be as indicated on the drawings, meeting AP-AW50 rating, with thermally broken frame, with a minimum frame depth of 2-1/4".

1.08 TESTING AND PERFORMANCE REQUIREMENTS

- A. Conformance to AP-AW50 specifications in AAMA/WDMA/ CSA 101/I.S.2/A440-05 when tests are performed on a 60" x 72" test unit with the following results:
 - 1. Air Infiltration: Maximum 0.10 cfm/ft² when tested per ASTM E 283 at a static air pressure difference of 6.2 psf (50 mph).
 - 2. Water penetration: No uncontrolled water leakage when tested per ASTM E 331 at a static air pressure difference of 12 psf.
 - 3. Uniform Load Deflection: no more than L/175 when tested per ASTM E330 at a static air pressure difference of 90 psf.
 - 4. Uniform Structural Load: No glass breakage or permanent damage to fasteners, and maximum 0.2 percent permanent deformation of the span of any frame member when tested per ASTM E 330 at a static air pressure difference of 135 psf.
 - 5. Forced Entry: No entry shall be achieved when tested to ASTM F 588 standard test methods for measuring the forced entry resistance of window assemblies, excluding glazing impact. Unit shall pass sequence of: Type A; Grade10.
- B. Thermal performance in accordance with NFRC 100-2004 and NFRC 200-2004, for a 59" x 23" nominal sizes window unit.
 - 1. U-Factor for the entire window shall be: 0.38. Value based on thermal simulation for a 1" IGU with 3/16" Clear lites, Softcoat low-e, warm edge spacer and argon fill.
 - 2. Solar Heat Gain Coefficient shall be: 0.19. Value based on thermal simulation for a 1" IGU with 3/16" Clear lites, Softcoat low-e, warm edge spacer and argon fill.

1.09 QUALITY ASSURANCE

- A. Perform Work in accordance with AAMA/NWWDA 101/I.S.2 and applicable general recommendations published by AAMA. Manufacturer shall be an active member in the AAMA certification program.
- B. Provide test reports from AAMA accredited laboratories certifying the performance as specified in 1.06.
- C. Test reports shall be accompanied by the window manufacturers letter of certification stating that the tested window meets or exceeds the referenced criteria for the appropriate window type.

1.10 QUALIFICATIONS

- A. Manufacturer and Installer: Company specializing in manufacturing aluminum windows with minimum three years documented experience.

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01 50 00.
- B. Protect pre-finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings which bond when exposed to sunlight or weather.

1.12 ENVIRONMENTAL REQUIREMENTS

- A. Do not install sealants when ambient temperature is less than 40 degrees F or when inclement weather is present or forecasted.
- B. Maintain this minimum temperature during and after installation of sealants.

1.123 WARRANTIES AND GUARANTEES

- A. Total Window System (Contractor)
 - 1. The responsible contractor shall assume full responsibility and warrant for two year the satisfactory performance of the total window installation which includes that of the windows, hardware, glass (including insulated units), glazing, anchorage and setting system, sealing, flashing, etc., as it relates to air, water and structural adequacy as called for in the specifications and approved shop drawings.
 - 2. Any deficiencies due to such elements not meeting the specifications shall be corrected by the responsible contractor at his expense during the warranty period.
- B. Insulated glazing (Manufacturer)
 - 1. Insulated glazing shall be warranted 10 years against seal failure by manufacturer
- C. Windows and frames (Manufacturer)
 - 1. Windows and frames shall be warranted 5 years by manufacturer against material failure.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All windows shall be fixed or operable, as indicated on the drawings, and as indicated in paragraph 1.05 of this section. Color shall be chosen by the Owner.
- B. Glass and Glazing
 - 1. All units are to be interior factory glazed.
 - a. Exterior lite tinted annealed 3/16" thick glass.
 - b. Interior lite shall be clear with Softcoat Low E # 3 surface, annealed 3/16".
 - c. Total interior air space shall be 5/8", argon filled, with warm edge spacer.
 - d. Overall unit thickness shall be 1" thick
 - e. All glazing to be used in entranceways, and where required by code, shall be tempered/laminated on the interior lite.
 - 2. All insulated glass shall be tested, certified and carry the respective IGCC-CBA level certification number on the glass spacer.
 - 3. Test reports supporting IGCC-CBA certification shall be submitted with bid.
 - 4. All insulated glass shall come with a 10 yr. warranty.
- C. Aluminum
 - 1. Extruded aluminum shall be 6063-T5 or T6 alloy and tempered.
- D. Thermal Barrier
 - 1. Dual strut glass reinforced polyamide nylon thermal break.
- E. Single Source Requirement
 - 1. All products listed in Section 2.01 shall be by the same manufacturer.
- F. Window Hardware:

Hardware: Concealed 4-bar hinge to rotate vent inward on horizontal axis (PIT). A single operating handle shall activate Euro-Groove hardware assembly with multiple locking points that engages adjustable keepers. Vents with multiple handles are prohibited. Hardware shall have the capability to be repaired and/or replaced in the field without disassembly of sash and/or frame.

2.02 FABRICATION

A. General

1. Frame construction: Frame shall be constructed of extruded aluminum with 2 thermal struts, consisting of glass reinforced polyamide nylon, mechanically crimped in raceways extruded in the exterior and interior extrusions. Corners shall be double keyed, staked and sealed.
2. Vent construction: The vent shall be constructed of extruded aluminum with 2 thermal struts, consisting of glass reinforced polyamide nylon, mechanically crimped in raceways extruded in the exterior and interior extrusions. The corners shall be double keyed, staked and sealed.
3. Vent and fixed sash shall be reglazable without dismantling or removing the sash and without the use of special tools. Sash and frame shall be dry glazed to simplify reglazing. Exterior of sash and frame shall contain a continuous preset EPDM gasket. Interior of frame and sash shall contain a removable wedge gasket.
4. Water control: A 1" wide by 1/8" high weep flap shall be located 3" from each end of the sill for drainage.

B. Finish

1. Finish aluminum window system with 50% PVDF fluoropolymer finishes in accordance with Aluminum Association Designation AA-M12-C42-R1X. Color shall be as chosen by the Owner, from standard color charts.

2.03 ACCESSORIES

- A. Exterior Expanders: Expanders are to be use at jambs and head to increase the caulking surface area. Expanders are to be fastened to window frame before installation with a continuous 1/4" thick bead of silicone sealant

2.04 SPRAYED-FOAM INSULATION AT PERIMETER OF WINDOWS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
1. Super Green Foam by Foam-Tech Div. of H.C. Fennell.
 2. Pur Fill 1G by Todol Products.
 3. Zerodraft ZI-24 Foam Sealant by Zerodraft Div. of Canam Building Envelope Specialists.

2.05 SCREENS

- A. Vandal resistant screens, finished to match the window frames, are to be installed on all windows:

1. Screens: Screen frames to have double hollows and to have .078" nominal wall thickness. Frame members to be mitered, and mechanically fastened with two mechanical fasteners. Screen mesh to have a minimum 1" space from the glass surface. No exposed fasteners to the exterior will be acceptable. Screens to have four tamper proof stainless steel screws, two per jamb to hold the screen in place, for removal from the interior only.
2. Mesh: Screen cloth to be .023 stainless steel 12 x 12 mesh, powder coated. Each edge of screen to have a ½" 90 degree bend. Mesh to be held in place with coped extruded retainers, fastened through the mesh into the frame with tamper proof stainless steel screws.

PART 3 - EXECUTION

3.01 INSPECTION

A. Job Conditions

1. Verify that openings are dimensionally within allowable tolerances, plumb, level, clean, provide a solid anchoring surface and are in accordance with approved shop drawings.

3.02 INSTALLATION

- A. Use only skilled tradesmen with work done in accordance with approved shop drawings and specifications.
- B. Plumb and align window faces in a single plane for each wall plane and erect windows and materials square and true. Adequately anchor to maintain positions permanently when subjected to normal thermal movement, specified building movement, and specified wind loads.
- C. Furnish and install vandal resistant screens, in accordance with manufacturers specifications.

3.03 ADJUSTING AND CLEANING

- A. After completion of window installation, windows shall be inspected and left clean, free of labels, dirt, protective films etc. Protection from this point shall be the responsibility of the general contractor.

END OF SECTION

SECTION 09 90 07

PAINTING

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

- A. The work of this Section consists of providing all labor and materials as indicated on the Drawings and specified herein, required to complete the work, including but not limited to the following:
 - 1. Coat all masonry areas on the three sides of the building indicated.
- B. All materials shall be verified by Contractor to be proper for each intended use, and the entire work of this Section shall be done in such a manner that each installation will perform its intended purpose as applicable, in the finished work.
- C. The drawings indicate and show limits of construction for this project. The specifications specify material and work requirements for this project. Both are complementary to each other and both shall be followed to complete the work.
- D. Plans and dimensions under which the Work is to be performed are derived from a variety of sources. The existing conditions are provided for general information only. Actual conditions may vary. Contractor is required to verify conditions and dimensions prior to submitting his bid. No additional compensation or time extension will be made for dimensional errors or discoverable inaccuracies related to existing conditions in the contract documents.

1.03 RELATED WORK

- A. SECTION 02 05 00 Selective Demolition
- B. SECTION 04 50 00 Masonry Restoration
- C. SECTION 07 27 00 Waterproofing
- D. SECTION 08 50 00 Aluminum Windows
- E. SECTION 26 10 00 Temporary Electrical Disconnects
- F. SECTION 31 23 00 Excavation and Fill
- G. SECTION 32 12 16 Asphalt Paving
- H. SECTION 32 31 13 Fencing

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for each coating, including generic description, complete technical data, surface preparation, and application instructions.
- B. Color Samples: Submit manufacturer's color samples showing full range of standard colors.
- C. Manufacturer's Quality Assurance: Submit manufacturer's certification that coatings comply with specified requirements and are suitable for intended application.
- D. Warranty: Submit manufacturer's standard warranty.

1.05 REFERENCE STANDARDS

- A. SSPC: Steel Structures Painting Council, 4400 Fifth Avenue, Pittsburgh, PA 15213, USA as published in Volumes 1 and 2 of "SSPC Manual".
- B. ASTM D 16 - Terminology Relating to Paint, Varnish, Lacquer, and Related Products.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying:
 - 1. Coating or material name.
 - 2. Manufacturer.
 - 3. Color name and number.
 - 4. Batch or lot number.
 - 5. Date of manufacture.
 - 6. Mixing and thinning instructions.
- B. Storage:
 - 1. Store materials in a clean dry area and within temperature range in accordance with manufacturer's instructions.
 - 2. Keep containers sealed until ready for use.
 - 3. Do not use materials beyond manufacturer's shelf life limits.
- B. Handling: Protect materials during handling and application to prevent damage or contamination.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Weather:
 - 1. Air and Surface Temperatures: Prepare surfaces and apply and cure coatings within air and surface temperature range in accordance with manufacturer's instructions.
 - 2. Surface Temperature: Minimum of 5 degrees F (3 degrees C) above dew point.
 - 3. Relative Humidity: Prepare surfaces and apply and cure coatings within relative humidity range in accordance with manufacturer's instructions.
 - 4. Precipitation: Do not prepare surfaces or apply coatings in rain, snow, fog, or mist.
 - 5. Wind: Do not spray coatings if wind velocity is above manufacturer's limit.
- B. Ventilation: Provide ventilation during coating evaporation stage in confined or enclosed areas in accordance with manufacturer's instructions.
- C. Dust and Contaminants:
 - 1. Schedule coating work to avoid excessive dust and airborne contaminants.
 - 2. Protect work areas from excessive dust and airborne contaminants during coating application and curing.

1.08 CONTRACTOR'S GUARANTEE

The Contractor shall provide the Owner a guarantee, in a form acceptable to the Owner, guaranteeing the work to be free from material or workmanship defects in accordance with the following conditions:

- A. The guarantee shall require the Contractor to repair or replace any materials or workmanship found to be deficient at no additional cost to the Owner.
- B. The guarantee shall be for a minimum period of two (2) years from the date of acceptance by the Owner.

PART 2 - PRODUCTS

2.01 PROTECTIVE SILICATE MINERAL COATING FOR STONE & STUCCO

- A. Protective Silicate Mineral Coating shall be a high performance, vapor permeable mineral silicate protective coating; meeting or exceeding the following physical properties:
 - 1. Moisture Vapor Permeability (ASTM E-96) – 77 Perms
 - 2. Tensile Properties – T standard: 2.1 N/mm²
 - 3. VOCs (ASTM D6886) - <1g/l

4. Resistance to Wind Driven rain (ASTM E514) – Pass, No water leakage
5. Accelerated Weathering (ASTM G154) at 2,016 hours – Pass, no change, no deterioration of any type
6. Density – approximately 1.65 g/cm³
7. Color: White

PART 3 - EXECUTION

3.01 MIXING

- A. Materials shall be stored and mixed in a single place designated by the Owner/Engineer for this purpose. The Contractor shall not use any plumbing fixture or pipe for mixing or for disposal of any refuse material. The Contractor shall carry to the mixing room all water necessary, and shall dump all waste outside of the building into a suitable receptacle. The Contractor will be held responsible for any damage due to his failure to observe these provisions. Waste and clean-up material shall be legally disposed of off site.
- B. Prior to application, ensure having enough material boxed or mixed in one container to complete an entire section.

3.02 WORKMANSHIP

- A. Surface preparation shall meet or exceed the coating manufacturer's printed recommendations and these specifications.
- B. Cleaning and painting shall be so programmed that dust and other contaminants from the cleaning process will not fall on prepared surfaces or wet, newly painted surfaces.
- C. Only skilled mechanics shall be employed in the work. All surfaces to be painted shall be clean and ready to receive paint. The Engineer shall be notified in writing of any conditions that would prevent proper paint application or affect future paint performance and that are not to be corrected under the work of this section. The start of the work will imply acceptance of conditions either as found or as corrected.
- D. Paint shall be applied under favorable conditions and shall be brushed out carefully to a smooth, even coating without runs and sags. Each coat of paint shall be allowed to dry thoroughly, not only on the surface, but throughout the thickness of the paint film before the next coat is applied. Finish surfaces shall be uniform in finish and color, and free from flash spots and brush marks. In all cases, the paint film produced shall be satisfactory in all respects to the Engineer.
- E. Paint shall be applied to obtain a coverage per gallon not greater than that recommended by the manufacturer so that dry film thickness is not less than that required. The Contractor shall record, in a manner satisfactory to the Engineer, the quantities of paint used for successive coats on the various parts of the work.

- F. The minimum dry film thickness of prime coats shall be per manufacturer's recommendations, but not less than 2.5 mils per coat.
- G. Coatings shall not be applied when the surrounding air temperature is below 45 degrees F., or during rain, snow, fog or mist, or when the relative humidity is higher than 85 degrees.

3.03 ACCEPTABLE APPEARANCE

- A. Provide visually uniform finishes, free of runs, sags, wrinkles, streaks, shiners, pin holes, holidays, application marks, color variations, show through, bleed through, and other visual imperfections and deviations.
- B. Number of Coats: The number of coats specified is the minimum number of coats required.
 - 1. Provide additional coats to eliminate defects, imperfections, and visual deviations.

3.04 PROTECTIVE SILICATE MINERAL COATING

- A. All coating shall be thoroughly mixed in strict conformance with the manufacturer's requirements.
- B. Silicate mineral coating materials shall be applied in a minimum of three (3) coats; Base Coat/Intermediate Coat/Finish Coat. Apply additional coats as necessary to provide final dry film thickness of 9 mils. Brush, roller or airless sprayer shall apply coating materials over the entire area, moving in a fan pattern to ensure uniformity.
- C. Allow a minimum of twelve (12) hours cure time between coats. For the finish coat allow 12-36 hours.
- D. Application Conditions: 41°F up to maximum 86°F air and substrate temperature; Below 85% relative atmospheric humidity and below 40% humidity in substrate. Apply only in dry weather conditions. Do not apply under direct sun or on sun-heated substrates or in strong wind. After application, surfaces must be protected from strong wind and direct sun until dry (3-6 hours) and from rain until they are cured (12-36 hours). Times depend on temperature and humidity.

3.05 CLEAN-UP AND PROTECTION

- A. The Contractor shall not only protect work at all times, but shall also protect all adjacent exterior masonry building components, window and materials by the use of sufficient masking, drop cloths and/or screens during the progress of his work. Priming and painting operations should not be performed in winds higher than 20 miles per hour unless other precautions have been taken to protect the work and surrounding areas.

- B. Upon completion of the work, contractor shall clean up paint spots, oil, and stains from all adjacent surfaces, window frames and glass, hardware, and similar finished items.
- C. Empty cans, soiled wiping cloths, and related waste shall be removed from the building at the end of each day's work.

END OF SECTION

SECTION 26 10 00

TEMPORARY ELECTRICAL DISCONNECTS

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. All of the Contract Documents, including the General and Supplementary Conditions and Division 0 – Bidding Documents, Contract Forms, and Conditions of the Contract and Division 1 – General Requirements, apply to the work of this Section.
- B. Carefully examine all the Contract Documents for requirements which affect the work of this Section. The exact scope of this Section cannot be determined without a thorough review of all specification sections and other Contract Documents.

1.02 SECTION INCLUDES

- A. The work of this Section consists of conducting all temporary electrical disconnects of any building electrical equipment required to complete the work according to the details and specifications. Contractor shall notify Owner a minimum 48 hours in advance of any disconnects.
- B. The contractor is responsible to ensure the electrical service does not become interrupted as a result of his operations. Any damages that occur to the existing electrical service as a result of the contractor's operations shall be immediately corrected by the contractor at no additional expense.
- C. All materials shall be verified by Contractor to be proper for each intended use, and the entire work of this Section shall be done in such a manner that each installation will perform its intended purpose as applicable, in the finished work.
- D. The drawings indicate and show limits of construction for this project. The specifications specify material and work requirements for this project. Both are complementary to each other and both shall be followed to complete the work.

1.03 RELATED WORK

- A. SECTION 02 05 00 Selective Demolition
- B. SECTION 07 27 00 Waterproofing
- C. SECTION 08 50 00 Aluminum Windows
- D. SECTION 09 90 07 Painting
- E. SECTION 31 23 00 Excavation and Fill
- F. SECTION 32 12 16 Asphalt Paving
- G. SECTION 32 31 13 Fencing

1.04 QUALITY ASSURANCE

- A. The Contractor shall employ mechanics licensed in the electrical trade.
- B. The Contractor shall disconnect electrical equipment or feeds when performing work as needed to install masonry.
- C. Each feed or unit shall be fully operational immediately after reinstallation. Shutdown time for each unit shall be limited to an eight-hour period unless otherwise agreed in writing by tenant.

1.05 TESTING

- A. Prior to commencing any disconnects, the Owner shall be given 48 hours notice. Prior to commencing work, the Contractor shall test all electrical components related to work.
- B. All deficiencies in operation shall be noted in writing by the contractor and shall be promptly provided to the Engineer.
- C. Upon completion of the reinstallation of each unit, it shall be retested by the Contractor. Contractor shall promptly provide a written report to the Engineer documenting the results of the testing.
- D. Any deficiencies which were not noted in the initial testing shall be corrected by the Contractor at his expense.

1.06 COORDINATION

- A. Coordinate all work of this section with other trades. Perform all temporary electrical disconnect work in a timely manner as not to delay other trades. The Contractor shall coordinate all work with the masonry and waterproofing trades, to prevent exposure of the building to inclement weather and leaks, at all times.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Any replacement parts or additional materials needed due to changes in curb or sleeper heights shall be as recommended by the manufacturer of the mechanical unit or as required by governing codes, and shall match the existing materials as to type, size, thickness and quality.

PART 3 - EXECUTION

3.01 GENERAL

- A. After disconnection, move electrical equipment and materials a sufficient distance to permit the installation of masonry and flashing materials.
- B. Perform all work to meet the requirements of the state and local building codes.
- C. Retesting: As soon as units have been reconnected and are serviceable, retest them with the Engineer to assure that they are fully operational and do not evidence any deficiencies not previously noted.

END OF SECTION

SECTION 31 23 00

EXCAVATION AND FILL

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

- A. The work of this section includes furnishing and installing all labor, materials, services and incidentals required to perform earthwork operations including excavation, fill, backfill and grading in connection with the following work, at specified locations as listed herein and on the drawings. The work shall include but is not limited to the following:
 - 1. All excavation and fill associated with the installation of new drainage piping and catch basins, as well as grading for the asphalt paving.
- B. Contractor shall notify MASS DIG-SAFE (1-800-322-4844) and procure DIG SAFE number prior to disturbing the ground in any way.
- C. The existing conditions composition information has been compiled from a variety of sources. Plans and dimensions under which the Work is to be performed are derived from a variety of sources. The existing conditions are provided for information only. Actual conditions may vary. Contractor is required to verify existing composition, conditions, and dimensions prior to submitting his bid. No additional compensation or time extension will be made for dimensional errors or discoverable inaccuracies related to existing conditions in the contract documents.

1.03 RELATED WORK

- A. Section 07 27 00 - Waterproofing
- B. Section 32 12 16 - Asphalt Paving
- C. Section 33 40 00 - Storm Drainage System

1.04 REGULATIONS AND STANDARDS

- A. All work shall comply with the rules and regulations of the Division of Industrial Safety and The Massachusetts Highway Department Standard Specification for Highways and Bridges, latest revision.

1.05 SUBMITTALS

- A. The Contractor shall submit all product information for all products specified in this section.

- B. The Contractor shall submit a description of all procedures and equipment to be utilized to perform the required earthwork.

1.06 PROTECTION

- A. Protect all existing utilities against damage. Any damage to such utilities shall be repaired at Contractor's expense. Use of explosives are not permitted on the job site.
- B. Locate existing underground utilities by careful hand excavation. If any unknown and/or uncharted utilities are encountered during excavation, promptly notify the Engineer.
- C. If necessary during the progress of the work it is necessary to interrupt the natural surface drainage or flow of drains, the Contractor shall provide adequate temporary drainage facilities that will prevent erosion damage or unnecessary delay of the work, and shall restore original drainage or construct proposed drainage structures as soon as the work will permit. Contractor shall provide and maintain adequate drainage away from the building and excavations during construction.
- D. The Contractor shall provide and maintain suitable barriers as required to prevent public entry, and to protect the work, and open excavations from the public; remove when no longer needed or at completion of Work. Barriers shall conform to city and state laws, ordinances and permit requirements.
- E. All work areas shall be protected and well marked with fences or barriers and as required by public officials. Provide such barricades, safety and traffic control equipment, and police officer as shall be necessary to restrict traffic from work areas and protect all pedestrians, Owners, tenants, and visitors during construction. Contractor shall provide and maintain all necessary temporary barricades, bracing and shoring for safe conduct of his work, or as required by federal, state or local laws or ordinances and in accordance with OSHA requirements and other requirements of this specification.

PART 2 – PRODUCTS

2.01 FILLS

- A. General: All fill material shall be approved by the Engineer. Excavated materials from site may be used if approved by Engineer. Imported fill where required shall be predominately granular soil or oil-rock mixture which is free from organic matter and deleterious substances.

B. Structural Fill:

1. Fill for use as compacted fill should consist of gravel, sandy gravel or gravely sand, free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material conforming to the following gradation requirements. Maximum size of stone in gravel shall be 2" (largest dimension).

<u>Sieve Size</u>	<u>Percent Fines by Weight</u>
1/2"	50-85
#4	40-75
#50	8-28
#200	0-10

2. Existing fill materials meeting the above requirements may be stockpiled for reuse as compacted granular fill.
3. Compact granular fill shall be placed in-the-dry, in layers not to exceed six inches in depth measured between compaction. Each layer shall be compacted by suitable equipment. Compaction to at least 95% of maximum dry density as determined by ASTM Test Designation D155 Method D.

- C. Common fill: ASTM D2321 Class I, II or III soil material. Mineral soil wholly or substantially free from organics and unsuitable materials, depending on classification for specified use.

PART 3 – EXECUTION

3.01 GENERAL

- A. The existing grounds disturbed by the construction shall be graded and restored to a condition acceptable to the Owner, including necessary fill, bituminous concrete and restored seeded areas that shall blend with the surrounding areas.
- B. Contractor shall be responsible for proper and satisfactory legal disposal of all excavated materials, litter, and debris. No accumulation of materials shall be permitted to remain on site.
- C. The existing bituminous concrete pavement shall be sawcut through its full depth, or to the elevation of the abutting proposed bituminous concrete pavement subgrade; and curbing, whichever is lesser, where shown on the drawings and at all joints between existing and proposed pavements, to provide a uniform vertical surface for the proposed pavement joint with the existing pavement. Sawcut edges that become broken, ragged or undermined shall be re-sawcut prior to the placement of new materials.

3.02 EXCAVATION

- A. Excavation shall be sufficient to allow for proper installation of the waterproofing membrane, to the full depth of the foundation. Remove subgrade materials that are unsuitable (boulders, concrete, ledge, etc. in excess of 4" diameter) and replace with acceptable materials.
- B. All materials to be excavated shall be non-classified and shall include earthfills, gravels, and other materials encountered in excavating and grading operations. The work shall include the removal of all materials to the depth required for the proper installation of the new work as specified and detailed.
- C. Maintain stability of excavations; coordinate shoring and bracing as required by authorities having jurisdiction. Prevent surface and subsurface water from accumulating in excavations.

3.03 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: 12 inches each side of pipe or conduit. Minimum trench width to be at least 3.5 feet.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
 - 1. Excavate trenches to a minimum depth of 8 inches but not more than 12-inches below the bottom of the pipe so that bedding material can be placed in the bottom of the trench and shaped to provide a continuous, firm bearing.

3.04 FILLING AND BACKFILLING

- A. General: Filling and Backfilling shall not begin until all foreign materials have been removed from the excavations.
- B. Placing: Place materials in horizontal layers not exceeding six inches in loose depth. Compact the material as specified. No materials shall be placed on surfaces that are frozen, muddy or contain frost.
- C. Compaction: Compaction shall be accomplished with approved compacting equipment (tamping rollers, sheepfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibrator compactors). Vibratory compaction equipment shall not be operated within 10 feet of new or existing building walls, concrete pads, and

mechanical equipment. Material shall be moistened or aerated as necessary to facilitate the specified compaction with the equipment being used. Compact each layer to at least 95% of maximum dry density as determined by ASTM Test Designation D155 Method D.

3.05 GRADING

- A. Place crushed stone or gravel fill, tamped and sloped as indicated on the drawings. Provide $\frac{1}{4}$ " per foot slope in the direction shown and away from the existing building.
- B. Subgrade shall be finished in a condition acceptable to the Engineer at least one day in advance of asphalt installation operations. Finished subgrade shall be maintained in a smooth and compacted condition until succeeding operation has been accomplished.

3.06 CLEANING

- A. The building and adjacent areas shall be left in a broom-clean condition at the end of each day. On completion of the work of this section and after removal of all debris, the site shall be left in a clean condition satisfactory to the Owner and to the Engineer.
- B. At the completion of the Project, the Contractor shall restore or replace all property damaged by his Work. Remove all temporary protection from all the Work. Final cleaning shall include as a minimum:
 - 1. Clean site; sweep paved areas, rake clean landscaped surfaces.
 - 2. Remove waste and surplus materials, rubbish, and construction facilities from the site.
 - 3. The Contractor shall clean all walls, windows or other building and grounds elements that have been affected by his work.
 - 4. Repair, patch and touch-up marred surfaces to specified finish to match adjacent surfaces.

END OF SECTION

SECTION 32 12 16

ASPHALT PAVING

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

- A. This Section specifies asphalt paving, including subbase preparation for the complete constructions of the following:
 - 1. Hot-mix asphalt paving of the side and rear alleyway, as indicated on the drawings. Also included is placement of satisfactory sub base materials.

1.03 RELATED WORK

- A. Section 07 27 00 - Waterproofing
- B. Section 31 23 00 - Excavation & Fill

1.04 DEFINITIONS

- A. Hot-mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.
- B. DOT: Department of Transportation.

1.05 SYSTEM DESCRIPTION

- A. Provide hot-mix asphalt paving according to materials, workmanship, and other applicable requirements of standard specifications of state or local DOT.
 - 1. Standard Specification: Massachusetts Department of Public Works Standard Specifications for Highways and Bridges, 1988 edition as amended.

1.06 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties
- B. Job-mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.

1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer
 - 1. Manufacturer shall be a paving-mix manufacturer register with and approved by authorities having jurisdiction of the DOT of the state in which Project is located.
- B. Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated, as documented according to ASTM E 548.
- C. Regulatory Requirements: Comply with Massachusetts Department of Public Works Standard Specification for Highways and Bridges, 1988 edition as amended for asphalt paving work.
- D. Asphalt-Paving Publication: Comply with AI MS-22 "Construction of Hot-mix Asphalt Pavements," unless more stringent requirements are indicated

1.08 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, contains frost or if the following conditions are not met:
 - 1. Tack Coats: Minimum surface temperature of 60 deg F (4 deg C)
 - 2. Slurry Coats: Comply with weather limitations of ASTM D 3910.
 - 3. Asphalt Binder Course: Minimum surface temperature of 40 deg F (4 deg C) and rising at time of placement.
 - 4. Asphalt Top Course: Minimum surface temperature of 60 deg F (15.5 deg C) at time of placement.

PART 2- PRODUCTS

2.01 AGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.
- B. Coarse Aggregate: Comply with section M3.11.04A of the Standard Specification.
- C. Fine Aggregate: Comply with section M3.11.04B of the Standard Specification.
- D. Mineral Filler: Comply with section M3.11.05 of the Standard Specification.

2.02 ASPHALT MATERIALS

- A. Asphalt Cement: Comply with section M3.01.0 of the Standard Specification.
- B. Tack Coat: AASHTO M140, emulsified asphalt or AASHTO M 208, cationic emulsified asphalt, slow setting, diluted in water, or suitable grade and consistency for application.
- C. Asphalt Binder: AASHTO MP 1, PG 64-28

- D. Water: Portable.
- E. Undersealing Asphalt: ASTM D 3141 or AASHTO M 238, pumping consistency.

2.03 MIXES

- A. The aggregates and asphalt cement shall be combined to produce a hot mix conforming to the asphalt cement content, gradation and Marshall Properties as listed below:

Sieve Size (mm)												
%A.C	26.5	19.0	16.0	13.2	9.5	4.75	2.36	1.18	0.60	0.30	0.15	0.08
5.3-7.0	100	100	100	99.4	82.5	55.0	48.0	32.3	20.5	12.4	7.4	4.9
Percent Particles Passing												

Marshall Properties:

Minimum Marshall Stability (Newton's @ 60°C)	14,000
Minimum Marshall Flow (Units of 0.25mm @ 3.5% Air voids)	8-14
Air voids (%)	3-5
Minimum Voids in mineral aggregates (%)	14.5
Minimum Compaction of Marshall Density (%)	96

PART 3- EXECUTION

3.01 HOT-MIX ASPHALT PLACING

- A. All waterproofing materials shall be installed and approved by the membrane manufacturer prior to starting repaving operations.
- B. Asphalt Placement:
 - 1. Asphalt wearing course shall be installed at a depth of 3" (5.08 cm) in a single pass with a mechanical, self-propelled rubber wheeled spreader.
 - 2. Wearing course shall be rolled even and compressed with a steel-wheeled roller of a minimum 3000lbs. (1400kg.).
- C. Machine Place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section and thickness when compacted.
 - 1. Place hot-mix asphalt top course in single lift.
 - 2. Spread mix at minimum temperature of 250 deg F (121 deg C).
 - 3. Begin applying mix along centerline of crowned sections and on high side of one-way slopes, unless otherwise indicated.
 - 4. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

- D. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.02 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions with same texture and smoothness as other sections of hot-mix asphalt course.
 - 1. Clean contact surfaces and apply tack coat to joints.
 - 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches (150 mm).
 - 3. Offset transverse joints, in successive courses, a minimum of 24 inches (600 mm).
 - 4. Construct transverse joints as described in AI MS-22, "Construction of Hot Mix Asphalt Pavements."
 - 5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
 - 6. Compact asphalt at joints to density within 2 percent of specified course density.

3.03 COMPACTION

- A. General: begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
 - 1. Complete compaction before mix temperature cools to 185 °F (85 °C).
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt course has been uniformly compacted to the following density.
 - 1. Average Density: 96 percent of reference laboratory density according to AASHTO T 245, but not less than 94 percent nor greater than 100 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.

- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marketed.
- I. Seal to the edge of city owned sidewalk.

3.04 INSTALLATION TOLERANCES

- A. Grade: Maximum grades of pavement shall meet the following requirements unless otherwise indicated.
 - 1. Transverse: 2 percent.
 - 2. Longitudinal: 5 percent
- B. Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 - 1. Binder Course: 1/4 inch (6 mm)
 - 2. Top Course: 1/8 inch (3 mm)

3.05 FIELD QUALITY CONTROL

- A. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D 3549.
- B. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
- D. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.07 DISPOSAL

- A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them.
 - 1. Do not allow excavated materials to accumulate on-site.

END OF SECTION

SECTION 32 31 13

CHAIN LINK FENCING

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

- A. This Section specifies chain link fencing and gates for the following:
 - 1. Provide and install chain link fencing in two sections at the north east corner of the subject property and double chain link fence gates at the location of the existing gates.

1.03 RELATED WORK

- A. Section 32 12 16 – Asphalt Paving

1.04 DEFINITIONS

- A. American Society for Testing and Materials (ASTM) Standards: A90/A90M - Test Method for Weight (Mass) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings.

1.05 SYSTEM DESCRIPTION

- A. The contractor shall supply a galvanized steel chain link fencing system of the design, style and strength defined herein. The system shall include all components (i.e., framework, chain link fabric, gates and fittings) required.

1.06 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties

1.07 QUALITY ASSURANCE

- A. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.08 PROJECT CONDITIONS

- A. Install chain link fencing and gates prior to asphalt pavement placement.

PART 2- PRODUCTS

2.02 STEEL FRAMEWORK

- A. The steel material used to manufacture fencing and accessories shall be zinc-coated steel strip, galvanized by the hot-dip process conforming to the criteria of ASTM A653/A653M and the general requirements of ASTM A924/A924M.
- B. The zinc used in the galvanizing process shall conform to ASTM B6. Weight of zinc shall be determined using the test method described in ASTM A90 and shall conform to the weight range allowance for ASTM A653, Designation G-90.
- C. The framework shall be manufactured in accordance with commercial standards to meet the strength (50,000 psi minimum yield strength) and coating requirements of ASTM F1043, Group IC, Electrical Resistance Welded Round Steel Pipe, light industrial weight.
- D. The exterior surface of the electrical resistance weld shall be recoated with the same type of material and thickness as the basic zinc coating.

2.03 FENCE FABRIC

- A. The material for chain link fence fabric shall be manufactured from galvanized steel wire. The weight of zinc shall meet the requirements of ASTM F668, Table 4. Galvanized wire shall be PVC-coated to meet the requirements of ASTM F668. The class of the fence fabric shall be Class 1 - Extruded
- B. Selvage: Top edge and bottom edge shall be twisted.
- C. Wire Size: The size of the steel wire core shall be 10 gauge.
- D. Height and Mesh Size: The fabric height shall be 6 feet high with a mesh size of 2 x 2 inches.

2.04 FENCE FITTINGS

The material for fence fittings shall be manufactured to meet the requirements of ASTM F626. All fasteners shall be galvanized.

2.05 GATES

Swing gates shall be manufactured to meet the requirements of ASTM F900. All gate components shall be galvanized.

PART 3 – EXECUTION

3.01 PREPARATION

All new installation shall be laid out by the contractor in accordance with the construction plan.

3.02 INSTALLATION

Install chain link fence in accordance with ASTM F567. Fence posts shall be set at spacings of a maximum of 10' o.c. Gate posts shall be spaced according to the gate openings specified in the construction plans. Set end posts within 3" of adjacent structures. Set posts to a depth of 3" and set the posts in concrete. Install fabric on security side and attach with wire ties or clip to line posts at 15 inches o.c. and to rails, braces and tension wire at 24 inches o.c.

3.03 CLEANING

The contractor shall clean the jobsite of excess materials. Post hole excavations shall be scattered uniformly away from posts.

END OF SECTION

SECTION 33 40 00

STORM DRAINAGE SYSTEM

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.02 WORK INCLUDED

- A. Furnishing and installing storm drainage lines and catch basins and connecting to the Owner provided manhole as shown on the drawings.

1.03 RELATED WORK

- A. Section 31 23 00 - EXCAVATION & FILL
- B. Section 32 12 16 – ASPHALT PAVING

1.04 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials (AASHTO):
- B. American Concrete Pipe Association (ACPA):
- C. Concrete Pipe Design Manual
- D. American Society for Testing and Material (ASTM):
 - C 55 Concrete Building Brick
 - C 62 Building Brick (Solid Masonry Units Made from Clay or Shale)
 - C 140 Sampling and Testing Concrete Masonry Units
 - C 270 Mortar for Unit Masonry
 - C 443 Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets
 - C 564 Rubber Gaskets for Cast Iron Soil Pipe and Fittings
 - D 1557 Moisture-Density Relations of Soils and Soil Aggregate Mixtures Using 10-lb. (4.5-kg) Rammer and 18-in. (457-mm) drop

- D 2487 Soils for Engineering Purposes
- F 405 Heavy Duty Tubing
- F 667 Heavy Duty Tubing
- E. Federal Specifications (Fed. Spec.):
 - QQ-A-200/8 Aluminum Alloy Bar, Rod, Shapes, Tube and Wire, Extruded, 6061
 - SS-C-153 Cement, Bituminous, Plastic
- F. MassDOT - Highway
 - Massachusetts Department of Transportation – Highway Division Standard Specifications for Highways and Bridges: massDOT – Highway Standard Specifications latest Edition
- G. Boston Public Works Department – Standards and Specifications

1.05 SUBMITTALS

- A. Manufacturer's product data:
 - Castings
 - All Precast Structures
 - Grout
 - PVC
 - Washed Stone

PART 2 - PRODUC

PART 3 - TS

2.01 CATCH BASINS

- A. Catch basins shall be precast concrete similar to "Precast Catch Basin", manufactured by E. F. Shea New England Concrete Products, Inc..
 - 1. Hole in sections to receive piping may be cast into concrete or drilled.
 - 2. Diameter of hole shall be 2 to 4 in. larger than outside diameter of entering pipe.

2.02 EMBEDMENT MATERIALS

- A. Crushed stone fill shall consist of clean, washed stone.

2.03 BRICK

- A. Brick for support of casting shall be any of the following types:
1. Common brick meeting the physical requirements of ASTM C 62, Grade SW.
 2. Clay brick meeting the physical requirements of ASTM C 32, Grade MS.

2.04 PORTLAND CEMENT MORTAR

- A. Mortar shall be a Portland cement mortar conforming to ASTM C 270, Type M.
- B. Mortar shall contain a waterproofing admixture. Waterproofing admixture shall be one of the following:

Admixture	Manufacturer
Hydratite Plus	W.R. Grace and Company
Medusa Waterproofing	Medusa Portland Cement Company
Omicron Mortarproofing	Master Builders Company
Mortaron	The Aquabar Company
Hydrocide Powder	Sonneborn Building Products

2.05 NONSHRINK GROUT

- A. Grout shall be non-shrink type similar to:

Product	Manufacturer
Embeco	Master Builders, Cleveland, OH
5 Star Grout	U.S. Grout Corp., Old Greenwich, CT
Upcon 262	Upco Co., Cleveland, OH

2.06 CASTINGS

- A. All frames and covers shall be cast iron, heavy duty, conforming to ASTM A 48, Class 35 and shall be designed to safely withstand an AASHTO HS-10 loading.

- B. All frames and grates shall be City of Somerville standard and of uniform quality, free from blow holes, shrinkage, distortion or other defects. They shall be smooth and well cleaned by shotblasting and fitted together in a satisfactory manner. Round frames and covers shall have a continuously machined bearing surface to prevent rocking and rattling.
- C. All frames and covers shall conform to the MassDOT Specifications M 8.03.0.
- D. Castings shall have a shop-applied coal-tar-pitch varnish coating, thoroughly covering all metal.
- E. Catch basin frame and grate shall have a circular clear opening of 24 inches and a total frame and cover weight of at least 475 lbs.
- F. Upon completion of all hardscape and paving work all grates shall be cleared of foreign material (i.e. bituminous material, concrete, mortar etc). After cleaning the covers shall be removed and build-up of material inside the frame cleared to ease future removal of covers.

2.07 PVC PIPE AND FITTINGS (NON PRESSURE)

- A. Polyvinyl chloride (PVC) non-pressure pipe for gravity drainage shall conform to ASTM D 3034, SDR 35 minimum wall thickness or ASTM D 1785 Schedule 40 when specified on the Drawings.
- B. Pipe shall be bell-and-spigot type, furnished in standard lengths of 12'-6".
- C. Bell end shall be an integral wall section with solid cross section rubber ring, factory assembled.
- D. Spigot end shall be beveled to ensure proper insertion. Spigot end shall be imprinted with an "assembly stripe", to which the bell end of the mated pipe will extend upon proper jointing of the two pipes.
- E. Rubber rings shall conform to ASTM D 3212.
- F. Pipe ends shall permit checking of the rings with a feeler gauge to ensure their proper location in the coupling grooves.
- G. PVC fittings shall be bell-and-spigot type compatible with the pipe.

2.08 PVC PIPE EMBEDMENT MATERIALS

- A. PVC pipe shall use Class III embedment materials as defined in ASTM D 2321.

2.09 WASHED STONE

- A. Stone used as part of the infiltration system shall be $\frac{3}{4}$ " – $1\frac{1}{2}$ " washed stone. The stone shall be free from shale, clay, organic materials and debris. Not more than 0.5% of satisfactory material passing a No. 200 Sieve will be allowed to adhere to the crushed stone.

2.10 FILTER FABRIC

- A. Filter Fabric shall consist of Mirafi 140 N or approved equivalent.

PART 4 - EXECUTION

3.01 CATCH BASIN INSTALLATION

- A. Catch Basins shall be set to the required elevation and shall be plumb and vertical, with each section in true alignment.
 - 1. Lifting holes in precast sections shall be thoroughly plugged with mortar and finished smooth and flush with adjoining surfaces.
 - 2. Drain pipe shall extend, around its entire circumference, to inside surface of wall of structure into which it is inserted. Pipe shall be joined to catch basin and Owner's manhole wall using either a flexible manhole sleeve or nonshrink grout. For grouted joints, surface between pipe and wall shall be filled with nonshrink grout.
- B. Brick shall be employed to bring cast iron frame, cover, and grate to required elevation. Completed brick installation shall be coated with at least a $\frac{3}{4}$ in. thickness of mortar on outside to provide a fully sealed and watertight collar between the top of the catch basin section and the grate frame.
 - 1. Before installation of castings, chipped and scraped areas shall be touched up with one coat of bituminous paint.
 - 2. Cast iron frame shall be set concentric with catch basin opening in a full bed of mortar. A thick ring of mortar extending to the outer edge of brick or concrete shall be placed all around the bottom flange of the cast iron frame. Mortar surface shall be smooth and shall be sloped to shed water away from the frame.
 - 3. Waterproofing shall be added to the mortar for underground masonry in accordance with the water proofing manufacturers directions. Other additives will not be permitted in the mortar.

- C. Portland cement-based mixtures used on this work shall receive a minimum of three days of moist curing, which shall start immediately after the material has been placed. Suitable means shall be employed to protect cement-based mixtures from too rapid drying and damage from cold weather and frost.

3.02 PVC INSTALLATION

- A. Piping shall be installed essentially as indicated on the Drawings.
- B. PVC pipe installation shall conform to ASTM D 2321.
 - 1. Bottom of trench excavation shall be kept dry and free of water during pipe installation. Adequate measures shall be taken to prevent flotation of pipe in the trench.
 - 2. Pipe shall be thoroughly cleaned before installation, and shall be maintained free from foreign matter during installation.
 - 3. Each pipe length shall be installed to form a close joint with the next adjoining length and bring inverts to the required grade.
 - 4. Piping shall be properly graded, free from pockets.
 - 5. No pipe or fitting shall be permanently supported on saddles, blocking, or stones.
 - 6. Where necessary, tight-fitting temporary wood bulkheads shall be employed to close ends of pipeline at end of each day's work.
 - 7. Entire length of pipe shall be thoroughly flushed clean following completion of backfill.

3.03 CLEANING AND INSPECTION - GRAVITY SYSTEM

- A. All new drainage piping and drainage structures will be inspected and cleaned using an approved method at the completion of construction.

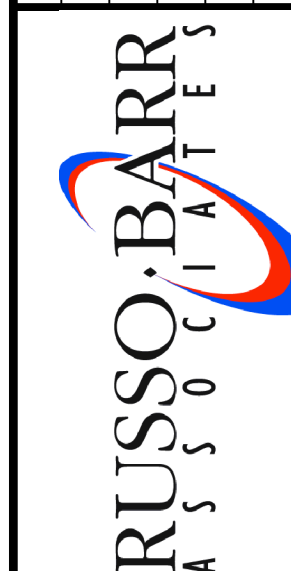
END OF SECTION

PART 4: TECHNICAL DRAWINGS

SOMERVILLE, MASSACHUSETTS

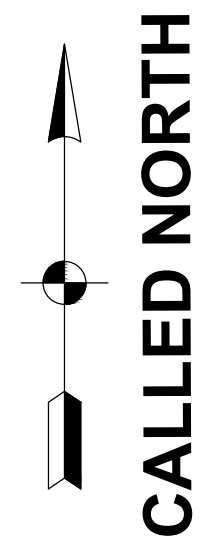


JUNE 10, 2016

[illegible]

CITY OF SOMERVILLE
42 CROSS STREET
SOMERVILLE, MASSACHUSETTS
WATERPROOFING REPAIR AND ASSOCIATED WORK
TITLE PAGE

<div style="text-align: center;"> <h1>SHEET INDEX</h1> </div> <div> <p>T-1 TITLE SHEET</p> <p>A1.1 SITE PLAN</p> <p>A1.2 ELEVATIONS - DEMO / WALL REPAIR</p> <p>A1.3 ELEVATIONS - PROPOSED</p> <p>A2.1 WINDOW DETAILS</p> <p>A2.2 SITE DETAILS</p> </div>	<div>DATE</div> <div>06.10.2015</div>
	<div>SCALE</div> <div>AS NOTED</div>
	<div>DRAWN BY / CHECKED BY</div> <div>RCO & JL / MF</div>
	<div>PROJECT NO</div> <div>2015085</div>
	<div>DRAWING NO</div> <div>T-1</div>



DETACHED
MASONRY SHED

ELEVATION

2

INSTALL 6' TALL CHAIN
LINK FENCE

OUTLINE OF ADJACENT
BUILDING

4
A2.2

16'±

REAR EGRESS DOOR

RIM	8.90'
INV OUT	7.5'
INV IN	NA
BS	0.40

EXISTING CAST IN PLACE
CONCRETE RETAINING WALL

+/- 10'-0"
INTERIOR FLOOR SLAB ELEVATION

ELEVATION

3

6" PVC
DRAIN LINE

6" PVC
DRAIN LINE

REMOVE ALL PVC DRAINAGE
TO POINT 12" BELOW TOP OF
NEW PAVEMENT

REMOVE DRY WELL INCLUDING
ALL CAST COMPONENTS

LEGEND

- MH MANHOLE TO BE PROVIDED BY OWNER
- CB NEW CATCH BASIN W/ 24" X 24" GRATE SEE DETAIL 2A/2.2
- (+-)9.5' RELATIVE ELEVATION (RELATIVE TO THE EXISTING INTERIOR FLOOR SLAB ELEVATION)
- AREA OF NEW PAVEMENT

REMOVE EXISTING
CONCRETE SIDEWALK

LINE OF CITY SIDEWALK
TO REMAIN

REMOVE AND REPLACE
EXISTING 6' TALL CHAIN
LINK FENCE

REMOVE DRY WELL INCLUDING
ALL CAST COMPONENTS

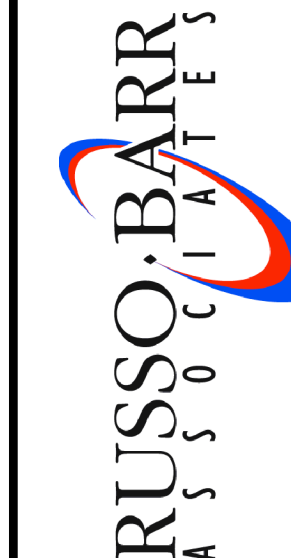
RIM	8.90'
INV OUT	5.7'
INV IN	5.7'
BS	0.40

RIM	8.90'
INV OUT	6.7'
INV IN	7.2'
BS	0.40

ELEVATION

SITE PLAN

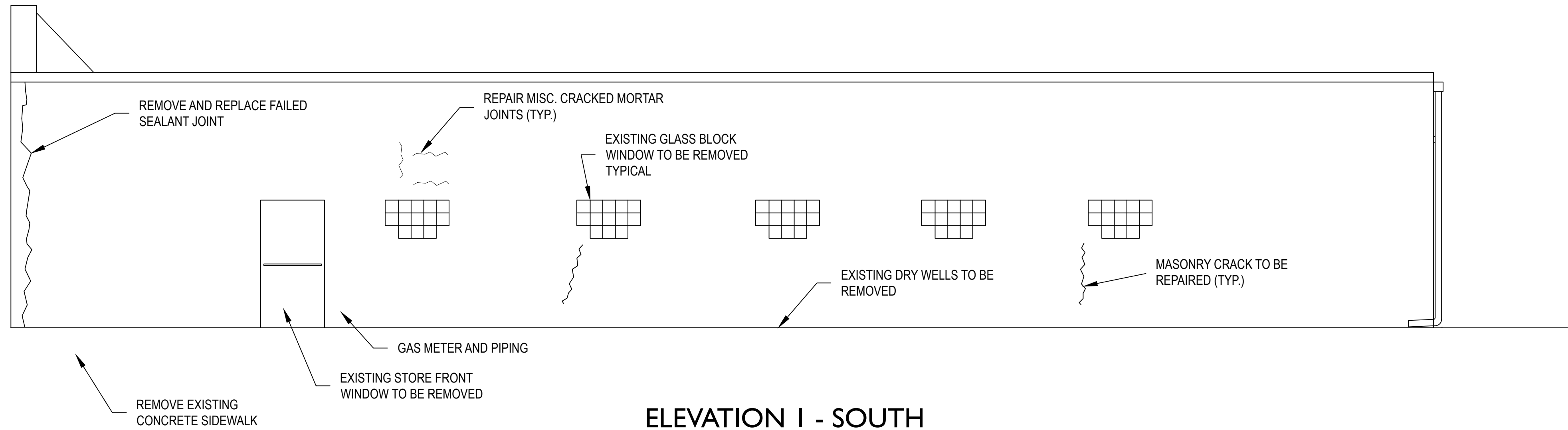
SCALE: 1/4" = 1'0"



CITY OF SOMERVILLE
42 CROSS STREET
SOMERVILLE, MASSACHUSETTS
WATERPROOFING REPAIR AND ASSOCIATED WORK
SITE PLAN

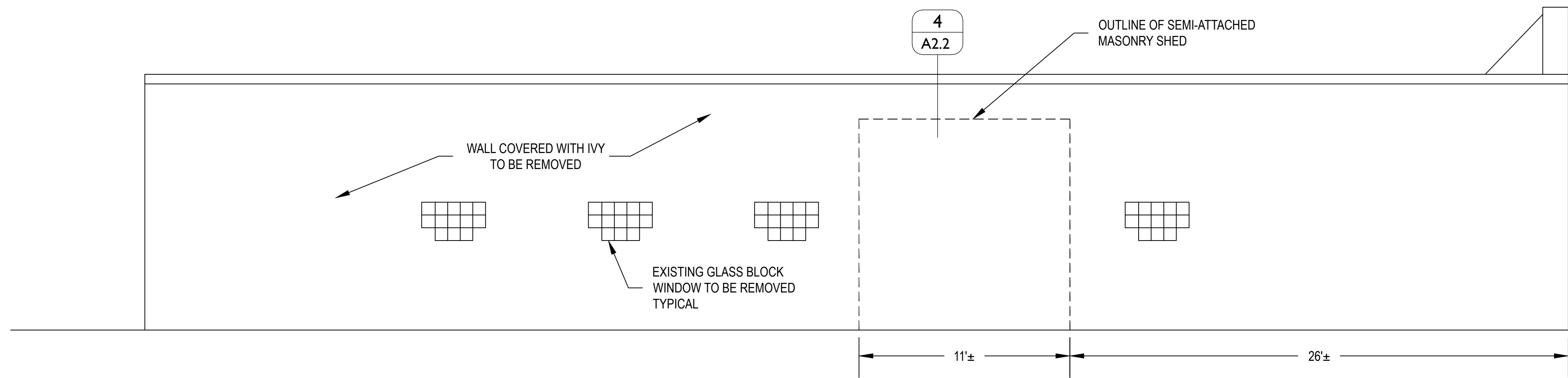
DATE 06.10.2016
SCALE AS NOTED
DRAWN BY / CHECKED BY RCO & JL / MF
PROJECT NO 2015085
DRAWING NO

AI.1



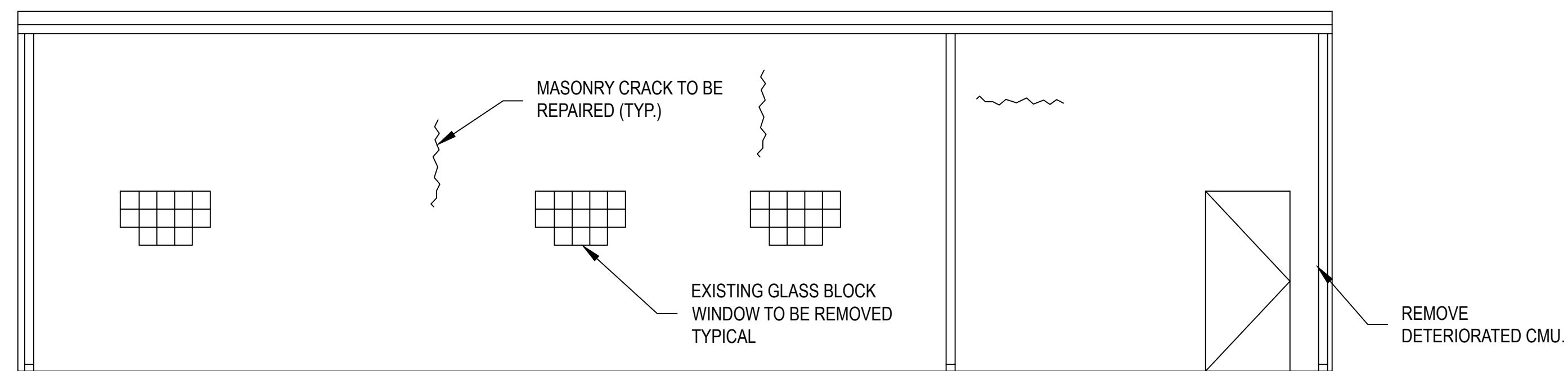
ELEVATION 1 - SOUTH

SCALE: 1/4" = 1'0"



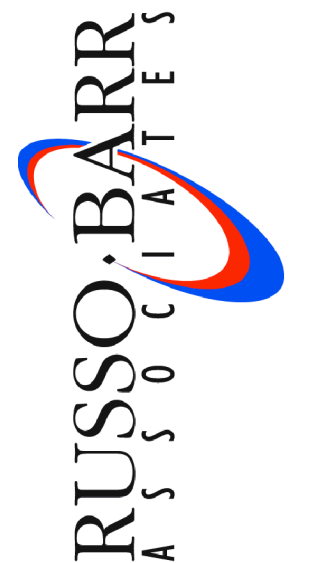
ELEVATION 2 - NORTH

SCALE: 1/4" = 1'0"



ELEVATION 3 - EAST

SCALE: 1/4" = 1'0"



CITY OF SOMERVILLE
 42 CROSS STREET
 SOMERVILLE, MASSACHUSETTS
 WATERPROOFING REPAIRS AND ASSOCIATED WORK
 ELEVATIONS - DEMO / WALL REPAIR

DATE
06.10.2016

SCALE
AS NOTED

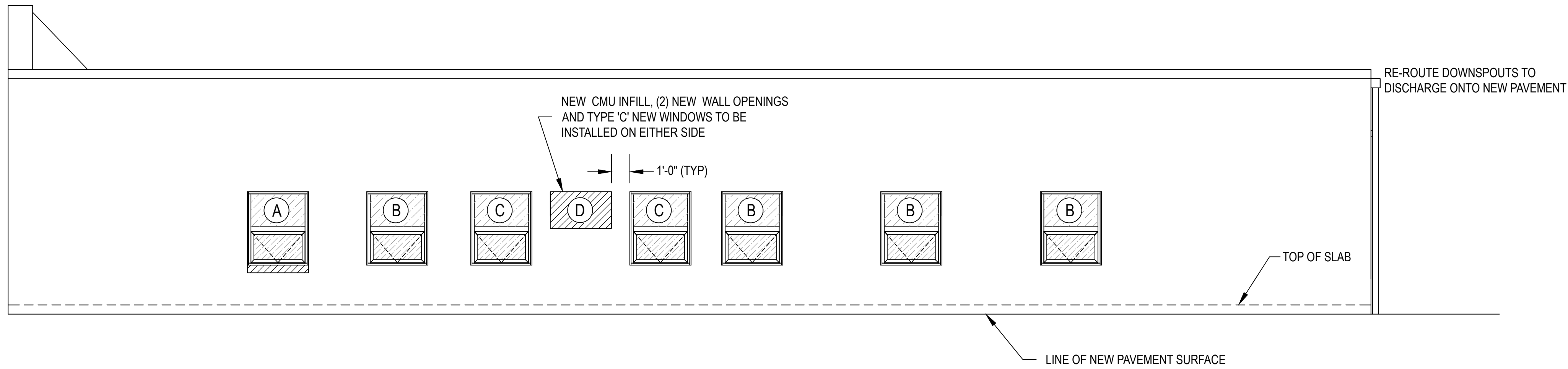
DRAWN BY / CHECKED BY
RCO & JL / MF

PROJECT NO
2015085

DRAWING NO

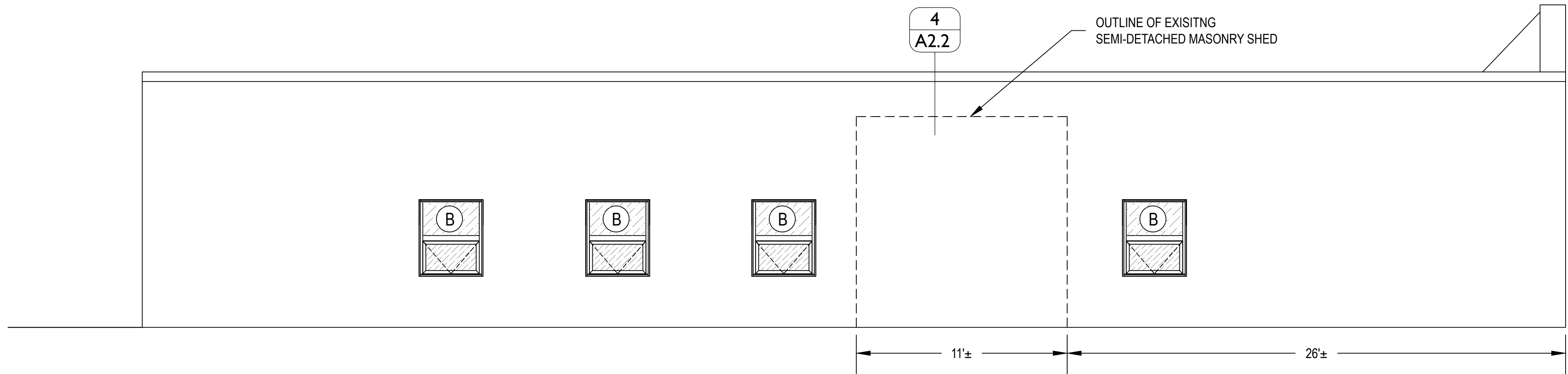
A1.2

NO
DATE
BY
DESCRIPTION



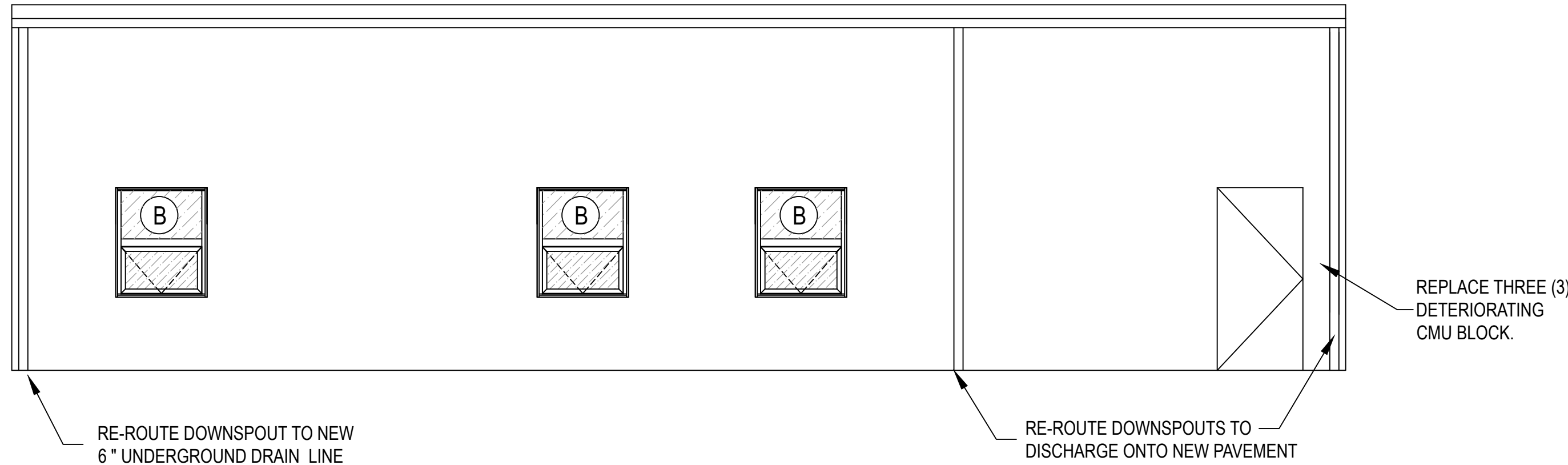
ELEVATION 1 - SOUTH

SCALE: 1/4" = 1'0"



ELEVATION 2 - NORTH

SCALE: 1/4" = 1'0"

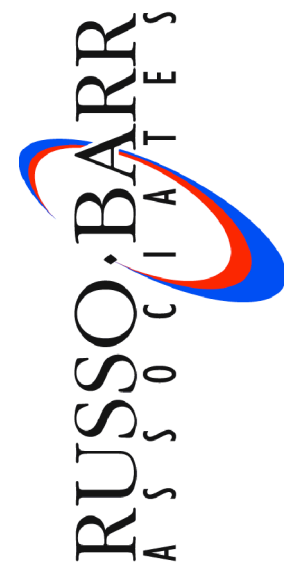


ELEVATION 3 - EAST

SCALE: 1/4" = 1'0"

LEGEND

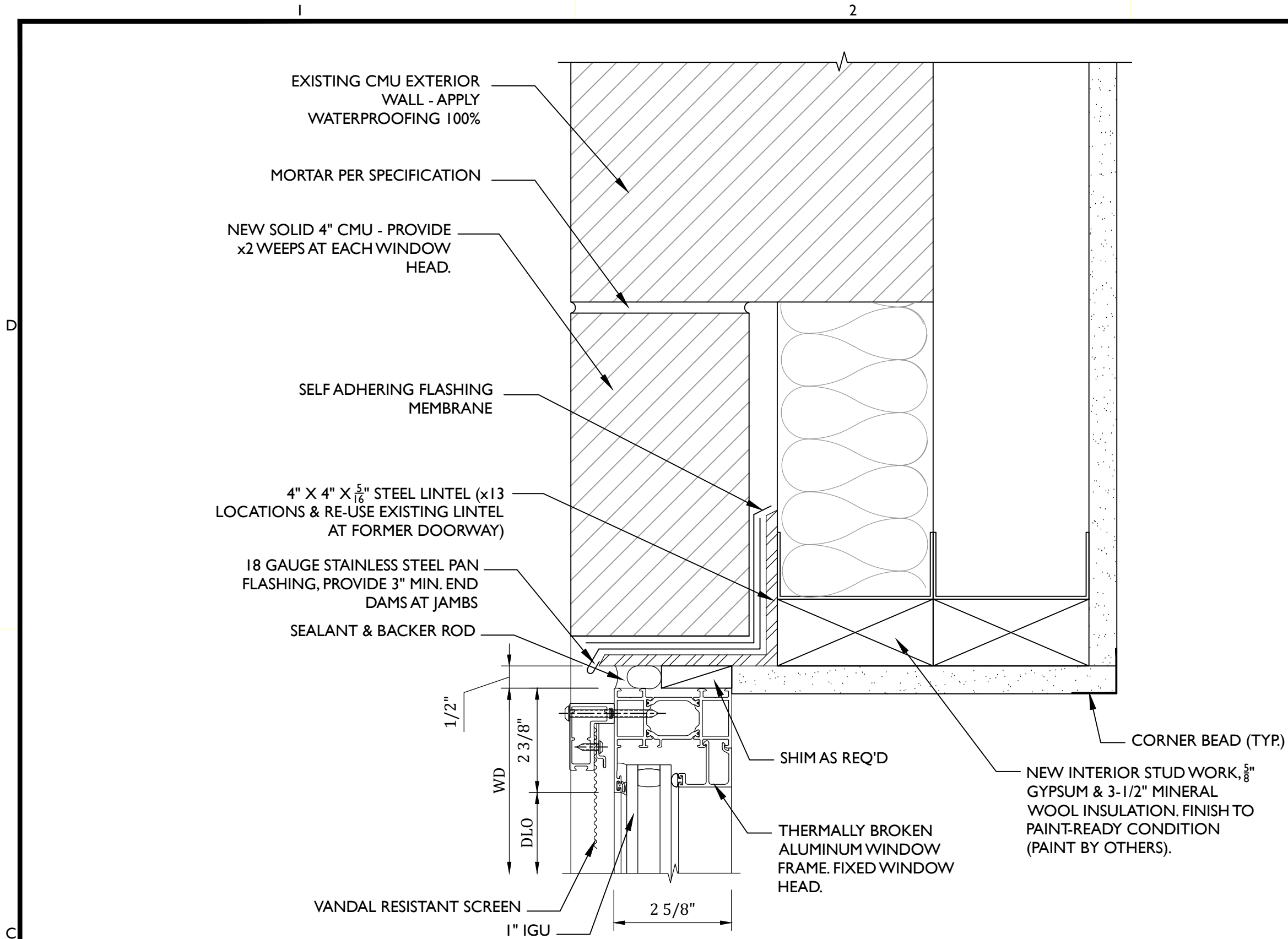
SYMBOL	DESCRIPTION
(A)	NEW 40"X48" ALUMINUM WINDOW IN REDUCED EXISTING OPENING (1) EA
(B)	NEW 40"X48" ALUMINUM WINDOW IN ENLARGED EXISTING OPENING (11) EA
(C)	NEW 40"X48" ALUMINUM WINDOW IN NEW MASONRY OPENING (2) EA
(D)	ORIGINAL GLASS BLOCK WINDOW AND OPENING TO BE ENCLOSED WITH MATCHING MASONRY (1) EA



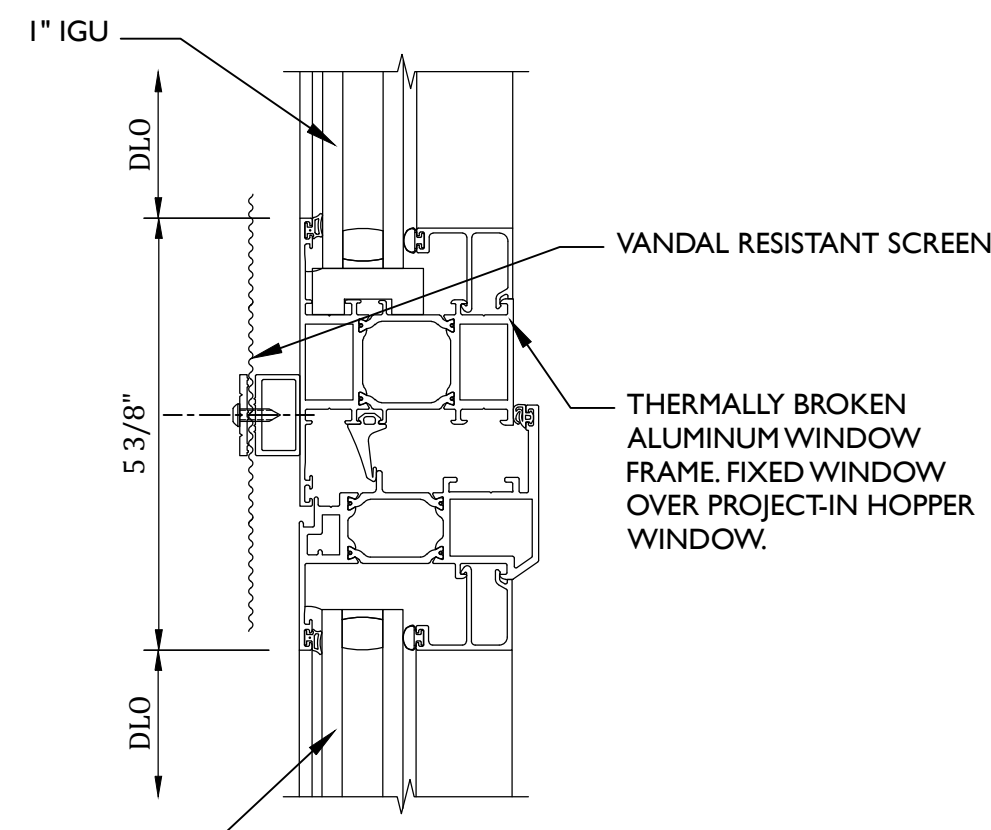
CITY OF SOMERVILLE
42 CROSS STREET
SOMERVILLE, MASSACHUSETTS
WATERPROOFING REPAIRS AND ASSOCIATED WORK
ELEVATIONS - PROPOSED

DATE	6.10.2016
SCALE	AS NOTED
DRAWN BY / CHECKED BY	RCO & JL / MF
PROJECT NO	2015085
DRAWING NO	

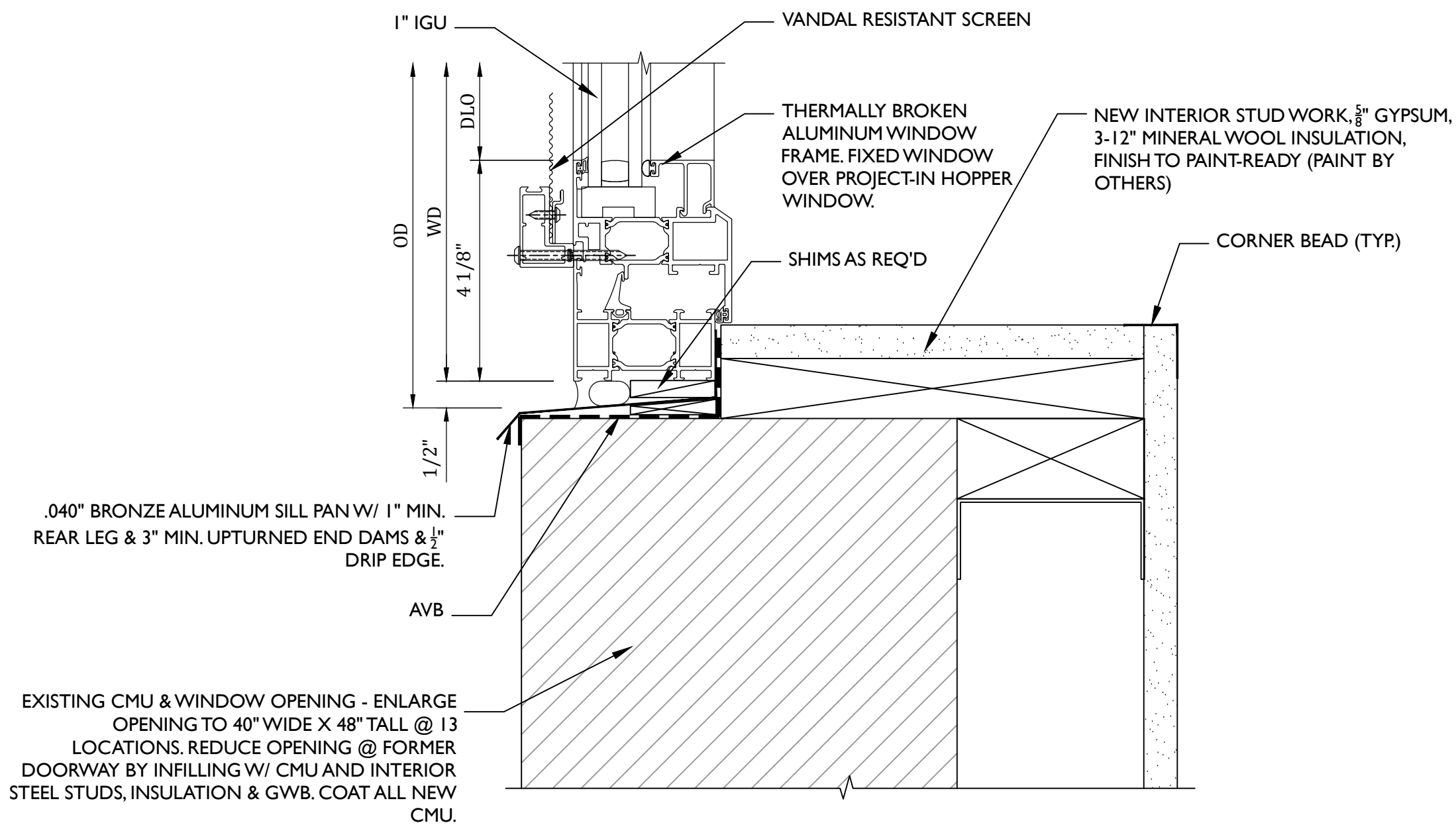
A1.3



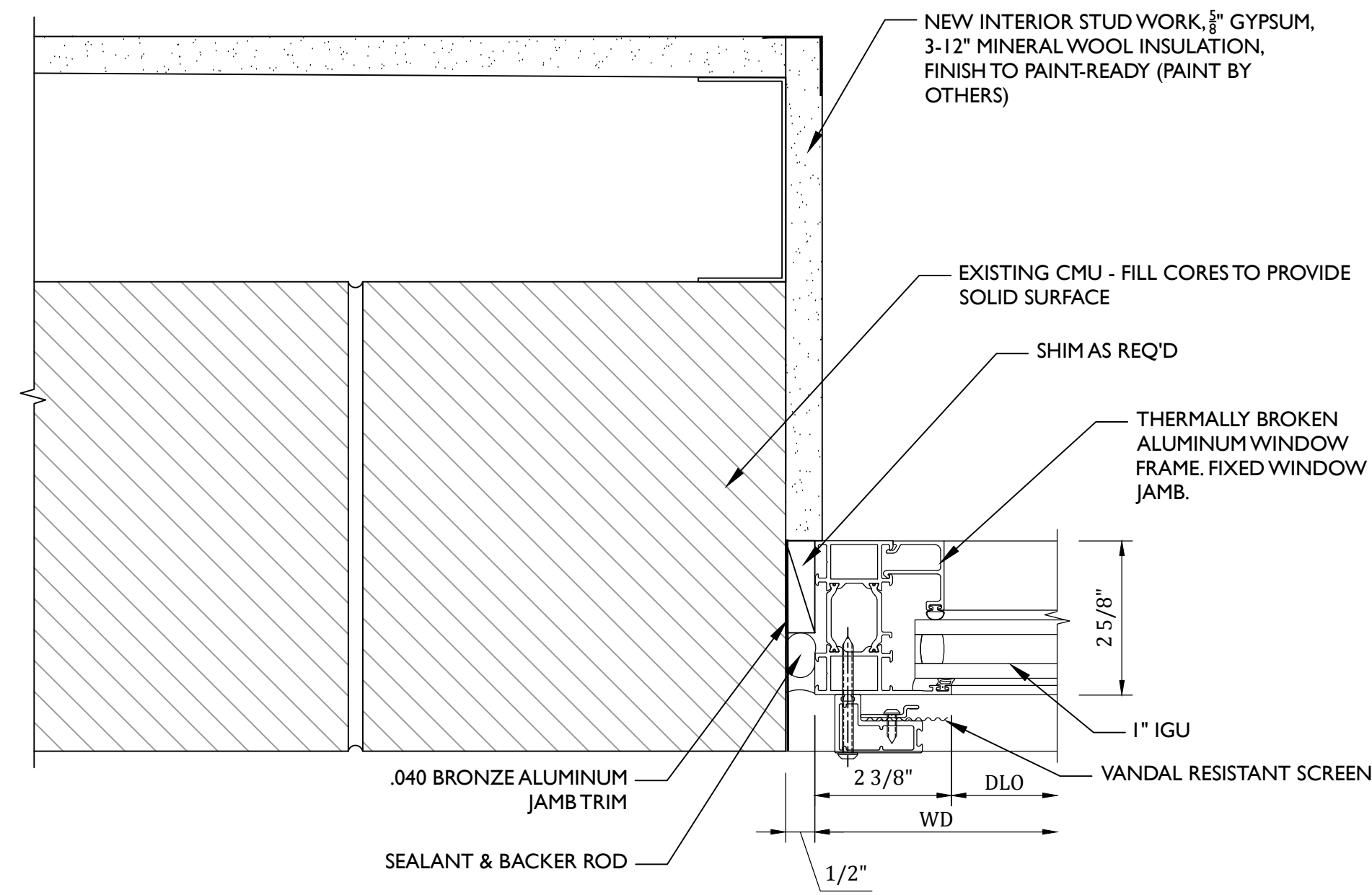
1 WINDOW HEAD DETAIL
A2.1 SCALE: NTS



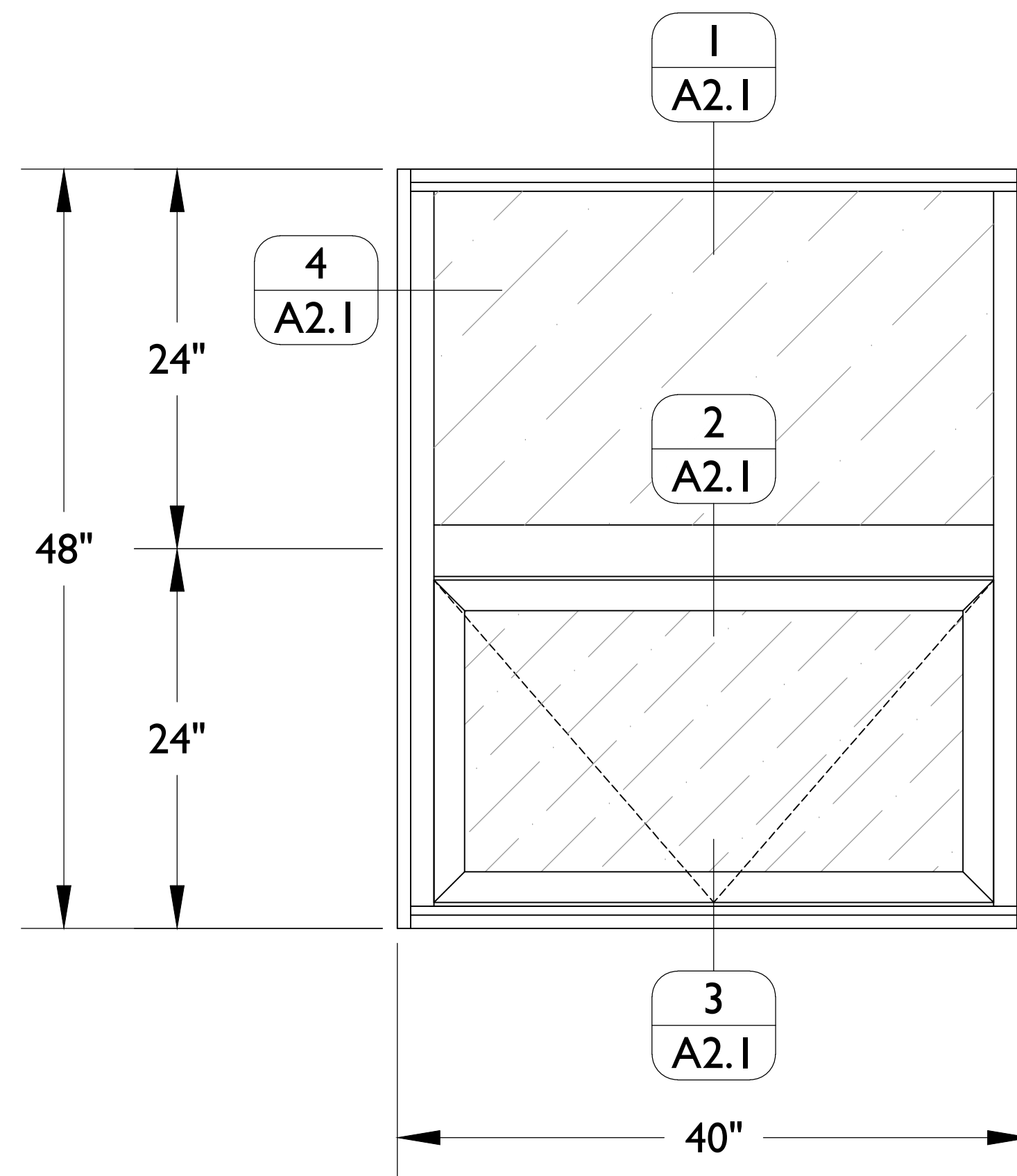
2 WINDOW INTERMEDIATE DETAIL
A2.1 SCALE: NTS



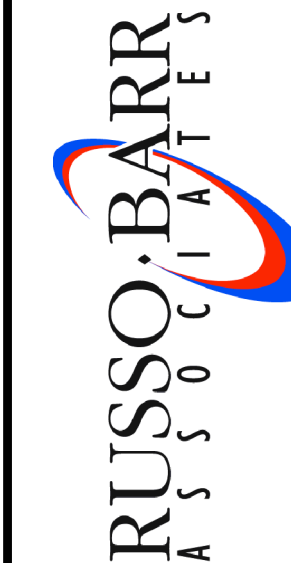
3 WINDOW SILL DETAIL
A2.1 SCALE: NTS



4 WINDOW JAMB DETAIL
A2.1 SCALE: NTS



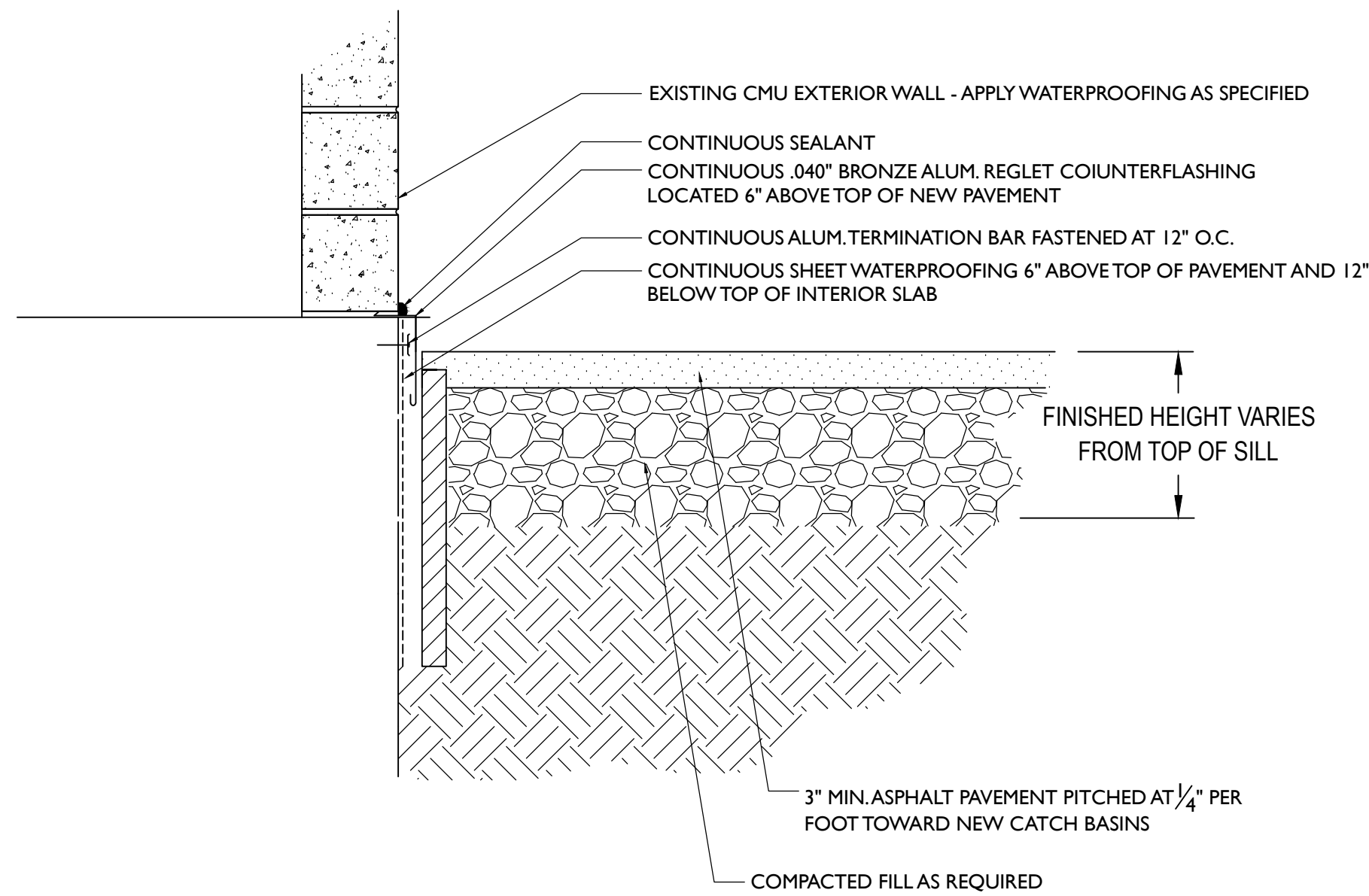
TYPICAL WINDOW ELEVATION
SCALE: NTS



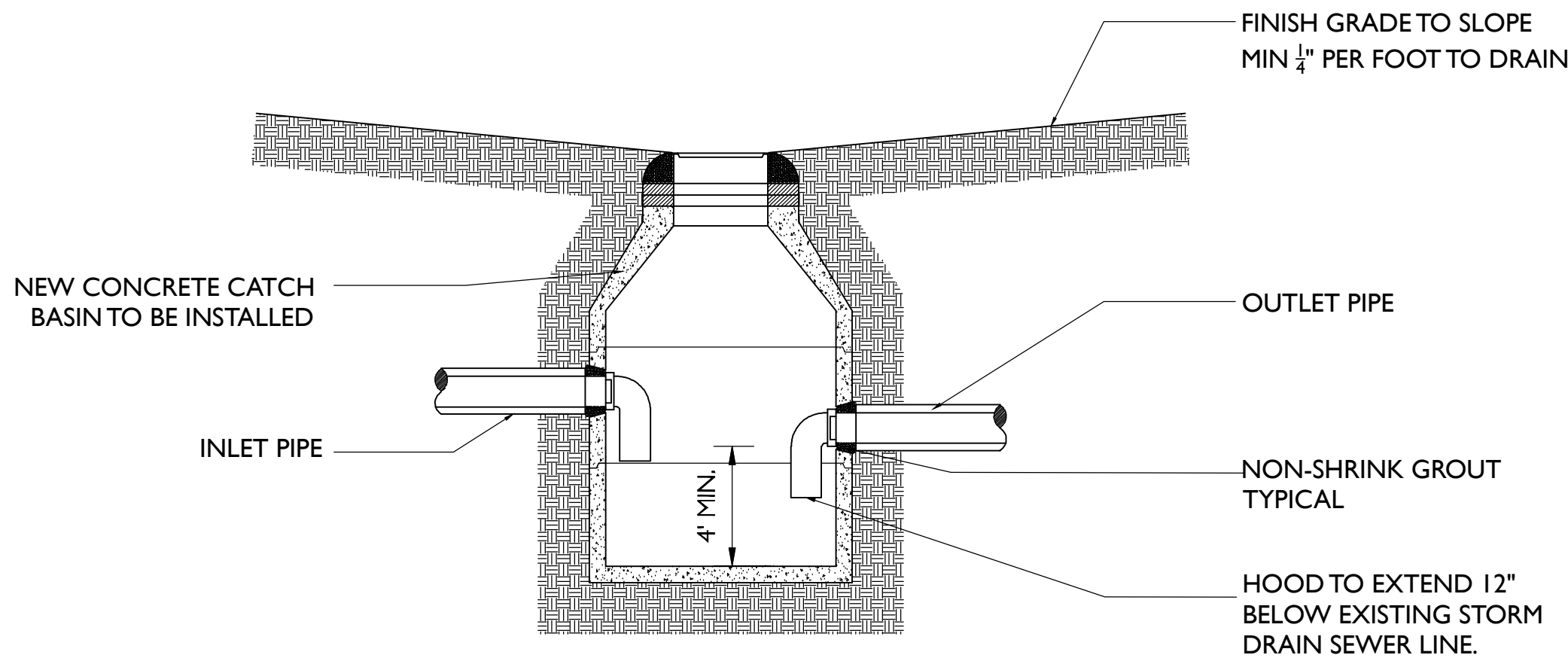
CITY OF SOMERVILLE
42 CROSS STREET
SOMERVILLE, MASSACHUSETTS
WATERPROOFING REPAIRS AND ASSOCIATED WORK
WINDOW DETAILS

DATE: 6.10.2016
SCALE: AS NOTED
DRAWN BY / CHECKED BY: RCO & JL / MF
PROJECT NO: 2015085
DRAWING NO:

A2.1



1
A2.2
PAVEMENT TO WALL DETAIL
SCALE: 1"=1'-0"



2
A2.2
PROPOSED CATCH BASIN DETAIL
SCALE: NTS

GENERAL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG-SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK, TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS AT NO ADDITIONAL COST.
2. ANY DAMAGE TO PRIVATE OR PUBLIC PROPERTIES DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
3. ALL APPLICABLE PERMITS AND APPROVED SET OF PLANS SHALL BE AVAILABLE AT THE CONSTRUCTION SITE.
4. ALL PERMITS AND APPROVALS NECESSARY FROM AGENCIES GOVERNING THE WORK SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK AT NO ADDITIONAL COST TO THE OWNER.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITEWORK OR EARTHWORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL BE INSTALLED IF NECESSARY BY ON-SITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR REGULATORY AGENCIES HAVING JURISDICTION AT NO ADDITIONAL COST TO THE OWNER.

GRADING/DRAINAGE NOTES

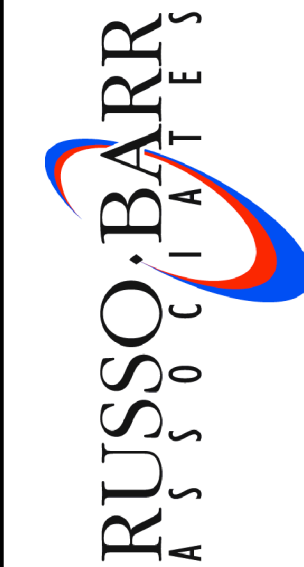
1. EXISTING PAVEMENT SHALL BE SAW-CUT AND PAVEMENT JOINT SHALL BE INSTALLED WHERE NECESSARY TO ENSURE A SMOOTH CONTINUOUS GRADE.
2. ALL GRADING & BACKFILL OPERATIONS OF UTILITIES SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES, LOCAL BUILDING DEPARTMENT OFFICIAL, AND COMMONWEALTH OF MA DEPARTMENT OF PUBLIC SAFETY.
3. IN PAVED AREAS THE TOP ELEVATIONS OF CATCH BASINS SHALL MATCH FINISH GRADE.
4. TEMPORARY STRAW BALE PROTECTION AND/OR SILT SACK SHALL BE INSTALLED AND MAINTAINED AT EXISTING DRAINAGE STRUCTURES DURING CONSTRUCTION, TO PRECLUDE SEDIMENT LADEN RUNOFF FROM ENTERING THE DRAINAGE SYSTEM UN-FILTERED.
5. ALL CATCH BASINS, MANHOLES, INFILTRATION SYSTEM, AND WATER QUALITY STRUCTURES TO BE CLEANED OUT PRIOR TO FINAL APPROVAL TO REMOVE ALL CONSTRUCTION SILT AND DEBRIS.
6. IF ANY EXISTING UTILITY STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS, OR BETTER, AT NO ADDITIONAL COST.
7. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
8. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
9. ALL DRAINAGE SHALL CONFORM TO LOCAL REQUIREMENTS.

DRAINAGE STRUCTURE NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR H-20 LOADING.
2. CO-POLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR FULL DEPTH OF STRUCTURE.
3. PROVIDE "V" KNOCKOUT PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE CONNECTIONS. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM.)

UTILITY NOTES

1. WHERE EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED, WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION.
2. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENTS OF NATURAL GAS, ELECTRIC, TELEPHONE AND ANY OTHER UTILITY BY THE UTILITY OWNER.
3. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITY'S INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
4. DRAWINGS DO NOT SHOW ALL EXISTING UTILITIES.



CITY OF SOMERVILLE
42 CROSS STREET
SOMERVILLE, MASSACHUSETTS
WATERPROOFING REPAIR AND ASSOCIATED WORK
SITE DETAILS

DATE
06.10.2016

SCALE
AS NOTED

DRAWN BY / CHECKED BY
RCO & JL / MF

PROJECT NO
2015085

DRAWING NO

A2.2