

PROJECT MANUAL

STATE-AIDED PROJECT: Pleasant View
Elderly Development, 667-1
ENFIELD, MASSACHUSETTS

ROOF REPLACEMENT

Massachusetts Department of
Housing and Community Development



ENFIELD HOUSING AUTHORITY

225 Submersible St
Enfield, MA 01111

Phone: 413.555.4444
FAX: 413.444.5555

XXXXXXXXXXXXXXXX, Chairman
XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX, Executive Director

Architect
(Name)
(Address)
(State, Zip Code)
(Telephone () (**-****))
(FAX #)
Email

DATE: 08/22/2012

TABLE OF CONTENTS

Number of Pages

PROCUREMENT DOCUMENTS

00.01.10	-	TABLE OF CONTENTS	1
00.11.10	-	PUBLIC NOTIFICATION (Advertisement)	1
00.21.10	-	INSTRUCTIONS TO BIDDERS	2
00.41.10	-	FORM FOR GENERAL BID	2

CONTRACTING FORMS

00.52.10	-	FORM OF OWNER/CONTRACTOR AGREEMENT	2
00.53.00	-	FORM OF CORPORATE VOTE	1

CONDITIONS OF THE CONTRACT

00.72.10	-	GENERAL CONDITIONS OF CONTRACT	5
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SPECIFICATIONS

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 00.73.43-	Labor Regulations & Prevailing Wages	63
SECTION 01.31.00-	General Administrative Requirements	3
SECTION 01.22.00-	Unit Prices	2

DIVISION 2 – TECHNICAL SPECIFICATIONS

SECTION 02.06.00-	Demolition	2
SECTION 06.10.00-	Carpentry	3
SECTION 07.30.00-	Asphalt Roofing Shingles	6

PUBLIC NOTIFICATION FOR WRITTEN QUOTES

The **Enfield Housing Authority** (the Awarding Authority) invites written quotes from contractors for the **Roof Replacement of One Building** in accordance with the documents prepared by the Enfield Housing Authority.

The Project consists of: Roof Replacement of one 2-story building (Building F) at the Pleasant View Elderly Development, 667-1.

Quotes are subject to M.G.L. c.149 §44A(2)(B) & to state prevailing wage rates as required by M.G.L. c.149 §§26 to 27H inclusive.

Written quotes will be received until **2:00 p.m., Wednesday, September 19, 2012**. Quotes may be hand delivered, mailed, faxed or e-mailed as identified below.

Mailed, hand delivered, faxed or e-mailed quotes should be sent to **225 Submersible Street, Enfield, MA 01111** and received no later than the date and time specified above. Faxed quotes should be faxed to **413-444-5555** or emailed to **Mary.Smith@Enfieldhousing.org**

Interested contractors please contact **Mary Smith** at the **Enfield Housing Authority** for a set of Contract Documents

The Project site will be available for inspection between **10:00 AM** and **12:30 PM** on **Wednesday, September 5, 2012**.

For an appointment call **Mary Smith** at **413-555-4444**.

INSTRUCTIONS TO BIDDER'S

ARTICLE 1 - BIDDER'S REPRESENTATION

- 1.1 Each Bidder submitting a quote represents that:
 1. The Bidder has read and understands the Contract Documents and the Bid is made in accordance therewith.
 2. The Bidder has visited the site and is familiar with the local conditions under which the Work has to be performed.
- 1.2 Failure to so examine the Contract Documents and site will not relieve any Bidder from any obligation under the Bid as submitted.

ARTICLE 2 - BIDDER CERTIFICATIONS – OSHA & LEAD TRAINING

- 2.1. Massachusetts law requires all workers on this project construction site must have no less than 10 hours of OSHA-approved safety and health training.
- 2.2 The Contractor shall comply with requirements of EPA Regulation 40 CFR 745 including but not limited to Company, supervisor, and worker training.

ARTICLE 3 - REQUESTS FOR INTERPRETATION

- 3.1 Bidders shall promptly notify the Owner of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents, the site, and local conditions.
- 3.2 Bidders requiring clarification or interpretation of the Contract Documents shall make such request to the Owner.

ARTICLE 4 - PREPARATION AND SUBMISSION OF BIDS

- 4.1 Bids should be submitted on the "Form for Quotes" as appropriate, furnished at no cost by the Owner.
- 4.2 All entries on the Form for Quotes shall be made by typewriter or in ink.
- 4.3 Where so indicated on the Form for Quotes sums shall be expressed in both words and figures. Where there is a discrepancy between the Bid sum expressed in words and the Bid sum expressed in figures, the words shall control.
- 4.4 The Bid shall be submitted with the following clearly marked on the envelope or fax cover sheet
BID FOR:
 - **NAME OF HOUSING AUTHORITY AND PROJECT NUMBER**
 - **BIDDER'S NAME AND BUSINESS ADDRESS**
 - **PHONE NUMBER & CONTACT PERSON**
- 4.5 Date and time for receipt of Bids is set forth in the Public Notification.
- 4.6 Timely delivery of a Bid at the location designated shall be the full responsibility of the Bidders.

ARTICLE 5- WITHDRAWAL OF BIDS

- 5.1. **Before Opening Bids** Any bid may be withdrawn prior to the time designated for receipt of bids upon written request. Withdrawal of bids must be confirmed over the Bidder's signature by written notice post-marked or sent by facsimile on or before the date and time set for receipt of bids. Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.

ARTICLE 6 - CONTRACT AWARD

- 6.1 Award means the determination and selection of the lowest, responsible and eligible Bidder, by the Owner.
The Owner will award the contract to the lowest responsible and eligible Bidder within thirty (30) days, Saturdays, Sundays, and legal holidays excluded after the opening of Bids.
- 6.2 The Owner reserves the right to waive any informalities in or to reject any or all Bids if it be in the public interest to do so.
- 6.3 The Owner also reserves the right to reject any Bid if it determines that such Bid does not represent the Bid of a person competent to perform the work as specified, or if the LHA determines additional competition is in the public interest.
- 6.4 The term "lowest responsible and eligible bidder" shall mean the Bidder whose Bid is the lowest of those Bidders demonstrably possessing the skill, ability, and integrity necessary for the faithful performance of the work, and who meets the requirements set forth in M.G.L. c.149 sec.44 (2)(B) and who shall certify that they are able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work.

ARTICLE 7 - FORMS REQUIRED AT CONTRACT APPROVAL

- 7.1 Upon award, the Bidder shall complete the following forms to ensure prompt contract validation. These forms will be provided to the Contractor by Owner, and three (3) originals must be submitted.
- .1 Owner/Contractor Agreement.**
.2 Form of Corporate Vote (If Applicable)
- 7.2 Insurance Certificates for the coverage required by Article 9 of the General Provisions must be submitted prior to contract validation.
- 7.5 Contractor's Company Certification with EPA Regulation 40 CFR 745 must be submitted prior to contract validation.

END OF SECTION

FORM FOR GENERAL BID

TO THE AWARDING AUTHORITY

A. The undersigned proposes to furnish all labor and materials required for **Roofing** for the **Enfield Housing Authority in Enfield, Massachusetts** in accordance with the Contract Documents prepared by the Department of Housing & Community Development for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

B. This bid includes addenda numbers(s) _____.

**All Quantities are computed on a "Measured in Place Basis".
Bidders shall compute their own waste factors into their bids.**



LOW BID WILL BE BASED ON SUM OF TOTAL UNIT PRICES

C.	Unit Price Item	Quantity	Unit	x Unit Price	= Total Unit Price
000	General Conditions	1	LS	_____	_____
001A	Remove & Dispose of Existing Roofing 1 Layer @ 2 Story	60	SQ	_____	_____
003 A	Shingle including felt underlayment (2 Story Bldg)	60	SQ	_____	_____
004	Ice and Water Shield at eaves(per lf)	372	LF	_____	_____
005	Vented Aluminum Drip Edge per lf	530	LF	_____	_____
008	Ridge Vent (replace existing)	180	LF	_____	_____
011	Plumbing Penetrations	10	Each	_____	_____
013	Step Flashing at Porch Roof	19	LF	_____	_____

D. The Sum of the Total Unit Prices and proposed contract price is:

_____ dollars \$ _____

F. The undersigned agrees that, if selected as general contractor, we 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 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 they are able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that they will comply fully with all laws and regulations applicable to awards made subject to M.G.L. c.149.

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

Signature 

Date: _____

Name of General Bidder

BY: _____
Signature & Title of person signing bid

Business Address

City and State

Note: If the bidder is a corporation, indicate state of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses if different from business addresses.

OWNER-CONTRACTOR AGREEMENT

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

This agreement made the NNth day of Month 20 by and between City or Town Name Housing Authority hereinafter called the "Owner", and Contractor' Name hereinafter called the "Contractor"
CONTRACTOR'S NAME

Witnesseth, that the Owner and the Contractor, for the consideration hereinunder named, agree as follows

Article 1. Scope of Work: The Contractor shall perform all Work required by the Contract Documents for Brief Description of the Work prepared by

Name of Architect or Engineer acting as and referred to in the Contract Documents as the "Architect".

ARTICLE 2. TIME OF COMPLETION: The Contractor shall commence work under this Contract on the date specified in the written "Notice to Proceed" and shall bring the Work to Substantial Completion within NNN calendar days of said date. Damages for delays in the performance of the Work shall be in accordance with Article 9 of the General Conditions of the Contract.

ARTICLE 3. CONTRACT SUM: The Owner shall pay the Contractor, in current funds, for the performance of the Work, subject to additions and deductions by Change Order, of the Contract Sum of:

CONTRACT AMOUNT IN WORDS

CONTRACT SUM IN WORDS

Dollars

NUMBERS

CONTRACT SUM IN NUMBERS

ARTICLE 4. THE CONTRACT DOCUMENTS: The following, together with this Agreement, form the Contract and all are as fully a part of the contract as if attached to this Agreement or repeated herein: The Advertisement, Bidding Documents, Contract Forms, Conditions of the Contract, and Specifications as enumerated in the Table of Contents, the drawings as enumerated in the List of Contract Drawings, DHCD publication known as the Construction Handbook, and all Modifications issued after execution of the Contract. Terms used in this Agreement which are defined in the Conditions of the Contract shall have the meanings designated in those Conditions.

ARTICLE 5. ALTERNATES: The following Alternates have been accepted and their costs are included in the Contract Sum stated in Article 3 of this Agreement:

Alternate No(s): _____ and _____

ARTICLE 6. REAP CERTIFICATION: Pursuant to M.G.L. c.62(c) §49(a), the individual signing this Contract on behalf of the Contractor, hereby certifies, under the penalties of perjury, that to the best of their knowledge and belief the Contractor has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support

Article 7. Worker Documentation Certification: In accordance with Executive Order 481 the undersigned further certifies under the penalties of perjury that the Contractor shall not knowingly use undocumented workers in connection with the performance of this contract; that pursuant to federal requirements, the Contractor shall verify the immigration status of all workers assigned to such contract without engaging in unlawful discrimination; and that the it shall not knowingly or recklessly alter, falsify, or accept altered or falsified documents from any such worker(s). The Contractor understands and agrees that breach of any of these terms during the contract period may be regarded as a material breach, subjecting the Contractor to sanctions, including but not limited to monetary penalties, withholding of payments, contract suspension or termination.

Article 8. Conflict of Interest: The Contractor covenants, that (1) presently, there is no financial interest and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement or which would violate M.G.L. c.268A, as amended; (2) in the performance of this Contract, no person having any such interest shall be employed by the Contractor or engaged as a subcontractor by the contractor; and (3) no partner or employee of the firm is related by blood or marriage to any Board Member or employee of the Awarding Authority."

In Witness Whereof, the Parties Hereto Have Caused This Instrument to be Executed Under Seal.

¹ CONTRACTOR

Contractor's Name

Name of Contractor

Contractor's Street Address

Street

Contractor's City State Zip

City State Zip

By: _____
Signature and Seal

Witness _____

¹ If a Corporation, attach a notarized copy of the Corporate Vote authorizing signatory to sign Contract.

² AWARDING AUTHORITY

Name of Housing Authority

Name of Housing Authority

LHA Address

Address

Signature and Seal

Title

Attest:

² If signed by someone other than a Housing Authority Board member, attach a copy of Certified Board Vote authorizing the signatory to sign Contract.

CERTIFICATE OF VOTE OF AUTHORIZATION

Day and Month, 201Y

I hereby certify that a meeting of the Board of Directors of the:

Name of Contractor

NAME OF CORPORATION

duly called and held at Location of Meeting on the NNth day of Month 201Y

At which a quorum was present and acting, it was voted that **Name of Officer**

Name of Corporate Officer

of the Officer's Home, be and hereby is authorized to execute and deliver for

and on behalf of the Corporation a Contract with City or Town Housing Authority, for

work to be done at State-Aided Housing Project No. Dev No In the City/Town of City or Town

And to act as principal to execute bonds in connection therewith, which Contract and Bonds were presented to and made part of the records of said meeting.

I further certify that **Name of Officer** is duly qualified and acting

Name of Corporate Officer

Officer's title of the Corporation and that said vote has not been

Title

Repealed, rescinded or amended.

A true copy of the record,

ATTEST:

(CORPORATE SEAL)

On this ____ day of _____ 201____, before me, the undersigned Notary Public, personally appeared _____, duly designated by the board of directors and proved to me, through satisfactory evidence of identification, which was _____, that s/he is the person whose name is signed on the foregoing documents, and acknowledged to me that s/he signed it voluntarily for its stated purpose and that it was her/his free act and deed.

Notary Public

My Commission Expires:

<p>TERMS AND CONDITIONS OF THE CONTRACT FOR CONSTRUCTION FOR c.149 sec.44A(2)(B) PROJECTS BETWEEN \$10,000 - \$25,000</p>

1.0 GENERAL PROVISIONS

1.1 THE CONTRACT DOCUMENTS

The Contract for Construction consists of the Contract Documents which include the Owner-Contractor Agreement, Public Notification, Bid Form, Contract Forms, Conditions of the Contract, Specifications, Drawings, all addenda issued prior to execution of the Contract, and other documents listed in the Agreement and Modifications issued after execution of the Contract.

1.2 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligation.

2.0 OWNER

The term "Owner" sometimes also referred to as the "Awarding Authority" or "Authority" means the Housing Authority identified in the Owner-Contractor Agreement, organized and existing under the provisions of M.G.L. c.121B.

2.1 BIDDER

The terms "Quote(s)", "Bid(s)" or "Bidder(s)" shall mean the person or firm from which prices have been submitted to the Owner for the work identified in these documents.

3.0 DEPARTMENT

3.1 The term "Department" means the Commonwealth of Massachusetts, Department of Housing and Community Development.

3.2 The term "Construction Advisor" means the person who may be designated by the Administrator to assist the Owner with the Administration of the Contract.

3.3 PROJECT FUNDING

The Work under this Contract is funded wholly or in part by the Commonwealth of Massachusetts through the Department pursuant to a Contract for Financial Assistance between the Department and the Owner.

4.0 CONTRACTOR

4.1 The Contractor, sometimes referred to as the General Contractor, is the person or entity identified as such throughout the Contract Documents as if singular in number. The term Contractor means the Contractor or its authorized representative.

4.2 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. 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.

4.3 SALES TAX EXEMPTION AND OTHER TAXES

4.3.1 To the extent that materials and supplies are used or incorporated in the performance of this Contract, the Contractor is considered an exempt purchaser under the Massachusetts Sales Act, Chapter 14 of the Acts of 1966.

4.3.2 The Contractor shall be responsible for paying all other taxes and tariffs of any sort, related to the work.

4.4 PERMITS, FEES, AND NOTICES

4.4.1 The Contractor shall secure and the Owner shall pay for any and all permits. The Contractor shall secure and pay for all licenses, and other fees required for the proper execution of the Work. The Contractor shall coordinate all efforts required to obtain these permits including having the permit issued in the name of the Contractor.

4.4.2 The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on performance of the Work.

4.4.3 If the Contractor performs Work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Owner, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs.

4.5 SAFETY REQUIREMENTS

The Contractor must comply with all Federal, State, and local safety laws and regulations applicable to work performed under this Contract.

4.6 PREVAILING WAGE RATES AND LABOR REGULATIONS

4.6.1 The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of the Massachusetts Department of Labor Division of Occupational Safety. This schedule shall continue to be the minimum rate of wages for said employees during the life of this Contract. Any questions relative to the applicability of any wage rate shall be directed to the Division of Occupational Safety.

4.6.2 Keep a legible copy of said schedule posted on the site at all times. Provide the Owner, on a weekly basis, and keep an on-site file of the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, Department, Architect, or any agency having jurisdiction.

4.6.3 Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by MGL c149 § 34B, as amended. Such police officers shall be covered by Worker's Compensation Insurance and Employers Liability Insurance provided by the Contractor.

4.6.4 The Contractor shall not have any claim for extra compensation from the Owner if the actual wages paid to employees on the Contract exceeds the rates listed on the Schedule

4.6.5 WAGE RATE REPORTING

- .1 The Contractor and all subcontractors shall provide certified payroll affidavits verifying compliance with MGL c.149 §§26 - 27H.
- .2 The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.

4.6.6 APPRENTICE REQUIREMENTS

Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.

4.6.7 EMPLOYEE OSHA SAFETY TRAINING

- .1 All employees who work on this construction site must have no less than 10 hours of OSHA-approved safety and health training.
- .2 The Contractor and all Subcontractors shall furnish to the Owner, with the certified payroll reports, documentation indicating that each employee has successfully completed 10 hours of a course in construction safety and health. This course must be approved by the United States Occupational Health and Safety Administration (OSHA).

5.0 CONTRACT ADMINISTRATION

5.1 PRECONSTRUCTION CONFERENCE

Prior to commencement of the Work, the Contractor shall meet in conference with representatives of the Owner, to discuss and develop mutual understandings relative to administration of the quality assurance program, safety program, labor provisions, the schedule of work, and other Contract procedures.

5.2 REJECTION OF DEFECTIVE MATERIALS AND WORK

The Owner's inspection of the Work shall not relieve the Contractor of any of its responsibilities to fulfill the Contract obligations, and defective work shall be corrected. Unsuitable work may be rejected by the Owner, notwithstanding that such work and materials have been previously overlooked or misjudged by the Owner and accepted for payment. If the Work or any part thereof shall be found defective at any time before the final acceptance of the whole Work, the Contractor shall forthwith correct such defect in a manner satisfactory to the Owner, and if any material brought upon the site for use in the Work, or selected for the same, shall be rejected by the Owner as unsuitable or not in conformity with the Contract requirements, the Contractor shall forthwith remove such materials from the vicinity of the Work.

6.0 CHANGES

6.1 All changes in the work, including any increase, decrease, or other equitable adjustment in the Contract price or in the time for performing the Contract, shall be authorized in writing by the Owner. .

6.2 The Owner may direct changes to the Work provided:

- .1 the unit prices remain the same,
- .2 the Owner's representative has specified in writing that an increase is necessary to fulfill the al needs of the Owner and is more economical than awarding another contract,
- .3 the Contractor agrees to the increase or decrease in writing, and

7.0 PAYMENTS

7.1 CONTRACT SUM

The Contract Sum is stated in the Owner-Contractor Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

7.2 APPLICATIONS FOR PAYMENT

7.2.1 Once each month, on a date established at the beginning of the Work, the Contractor shall deliver to the Owner an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Owner may require, and reflecting a minimum of 5% retainage until the final acceptance and payment by the Owner.

7.2.2 . The Owner shall make payment to the Contractor within 30 days of receipt of said application, less any applicable retainage.

7.2.3 The Owner may make changes in any application for payment submitted by the Contractor for:

- .1 Retention based on the value of its claims against the Contractor,
- .2 Retention of 5% of the approved amount of the Application for Payment.

7.3 FINAL PAYMENT

The acceptance by the Contractor of the last payment due under this Contract or the execution of the Final Certificate of Completion, shall operate as a release to the Owner from all claims and liability related to this Contract.

8.0 GUARANTY AND WARRANTY

8.1 WARRANTY

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment furnished. The Owner reserves the right to reject said substituted materials even after requesting evidence.

8.2 GENERAL GUARANTY

If at any time during the period of one (1) year from the date of the Substantial Completion the Work to be performed under this Contract, or any part of the Work shall, in the reasonable determination of the Owner, require replacing or repairing due to the fact that it is broken, defective, or otherwise does not conform to the Contract Documents, the Owner will notify the Contractor to make the required repairs or replacement. If the Contractor shall neglect to commence such repairs or replacement to the satisfaction of the Owner within ten (10) days from the date of giving or mailing such notice, then the Owner may employ other persons to make said repairs or replacements. The Contractor agrees, upon demand, to pay to the Owner all amounts which the Owner expends for such repairs or replacements. During this one year guarantee period any corrective work shall be performed in accordance with the applicable terms of this Contract. For items of work completed after substantial completion, the one year guarantee shall commence at the time the Owner accepts such items. This one year guarantee shall not limit any express guaranty or warranty provided elsewhere in the Contract.

9.0 INSURANCE REQUIREMENTS

The Contractor shall provide insurance coverage as listed in subparagraphs 9.1 - 9.6. This insurance shall be provided at the Contractor's expense and shall be in full force and effect during the full term of this contract.

9.1 WORKER'S COMPENSATION

Worker's Compensation:	Coverage A	Statutory Per M.G.L. c.149 §34 and c.152 as amended
Employer's liability:	Coverage B	up to \$ 500,000 each accident
		\$ 500,000 disease per employee
		\$ 500,000 disease policy

9.2 CONTRACTOR'S COMMERCIAL GENERAL LIABILITY

Bodily Injury &	\$ 1,000,000.	each occurrence
Property Damage	\$ 1,000,000.	general aggregate

Products & Completed Operations	\$ 1,000,000.	aggregate
Personal & Advertising Injury	\$ 1,000,000.	each occurrence

9.3 VEHICLE LIABILITY

Personal Injury	\$ 500,000.	each person
and Property Damage	\$ 1,000,000.	aggregate
Combined Single Limit	\$ 1,000,000.	

9.4 OWNER AS CO-INSURED

The Owner and Department shall be named as additional insured on the Contractor's liability policies.

9.5 CERTIFICATES OF INSURANCE, POLICIES

9.5.1 The Contractor shall not commence work on this contract until proof of compliance with this article has been furnished to the Owner by submitting one copy of a properly endorsed insurance certificate issued by a company authorized to write insurance in the Commonwealth. This certificate shall indicate that the Contractual Liability Coverage is in force.

9.5.2 The Contractor shall file the original and one certified copy of all policies with the Owner within sixty days after Contract award. If the Owner is damaged by the Contractor's failure to maintain such insurance and to so notify the Owner, then the Contractor shall be responsible for all reasonable costs attributable thereto.

9.6 CANCELLATION

Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the Owner at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

10.0 INDEMNIFICATION

10.1 The Contractor shall take all responsibility for the Work and take all precautions for preventing injuries to persons and property in or about the Work and shall bear all losses resulting to or on account of the amount or character of the Work. The Contractor shall pay or cause payment to be made for all labor performed or furnished and for all materials used or employed in carrying out this Contract.

10.2 The Contractor shall assume the defense of, and indemnify and save harmless the Owner, the Department, and their officers and agents from all claims:

- .1 relating to labor performed or furnished and materials used or employed for the Work;
- .2 to inventions, patents and patent rights used in and in doing the Work unless such patent infringement is due to a product or process specified by the Owner;
- .3 to injuries to any person or corporation received or sustained by or from the Contractor and any employees, and subcontractors and employees, in doing the work, or in consequence of any improper materials, implements or labor used or employed therein;
- .4 and to any act, omission or neglect of the Contractor and any employees therein.

11.0 NOT USED

12.0 MISCELLANEOUS REQUIREMENTS AND EXECUTIVE ORDERS

12.1 The Contractor shall comply with the provisions of EPA Regulation 40 CFR 745; M.G.L. c.151B; Executive Order 526, Order regarding Non-Discrimination, Diversity, Equal Opportunity, and Affirmative Action; pertaining to minority and women owned business enterprises; Executive Order 527 establishing the Office of Access and Opportunity and Executive Order 481, prohibiting the use of undocumented workers on state contracts and all regulations promulgated pursuant thereto. The aforementioned law, executive orders, regulations and any amendments are incorporated herein by reference and made a part of this Contract.

12.2 CONFLICT OF INTEREST

The Contractor covenants, that:

- .1 presently, there is no financial interest and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement or which would violate M.G.L. c.268A, as amended;
- .2 in the performance of this Contract, no person having any such interest shall be employed by the Contractor or engaged as a subcontractor by the contractor; and
- .3 no partner or employee of the firm is related by blood or marriage to any Board Member or employee of the Awarding Authority."

13.0 TERMINATION

13.1 TERMINATION FOR CAUSE

13.1.1 The Owner may terminate this contract for cause if it determines that any of the following circumstances have occurred:

- .1 The Contractor is adjudged bankrupt or has made a general assignment for the benefit of its creditors.
- .2 A receiver has been appointed of the Contractor's property.
- .3 All or a part of the Work has been abandoned.
- .4 The Contractor has sublet or assigned all or any portion of the Work, the Contract, or claims thereunder, without the prior written consent of the Owner, except as provided in the Contract Documents.
- .5 The Owner has determined that the rate of progress required on the project is not being met.
- .6 The Contractor has substantially violated any provisions of this Contract.

13.1.3 The Owner may complete the work, or any part thereof, and charge its expense of so completing the work or part thereof, to the Contractor.

13.1.4 The Owner may take possession of and use any materials, machinery, implements and tools found upon the site of said Work. The Owner shall not be liable for any depreciation, loss or damage to said materials, machinery, implements or tools during said use and the Contractor shall be solely responsible for their removal from the Project site after the Owner has no further use for them.

13.3 TERMINATION - NO FAULT

13.3.1 In the event that this Contract is terminated by the Owner, prior to the completion of construction and termination is not based on a reason listed in Paragraph 13.1, the Contractor shall be compensated for its costs incurred, including reasonable costs of de-mobilization, calculated on a percent completion basis covering the period of time between the last approved application for payment and the date of termination.

13.3.2 Payment by the Owner pursuant to Subparagraph 13.3.1 shall be considered to fully compensate the Contractor for all claims and expenses and those of any consultants, subcontractors, and suppliers, directly or indirectly attributable to the termination, including any claims for lost profits.

END OF GENERAL CONDITIONS

00.72.10



DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
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

JOANNE F. GOLDSTEIN
Secretary

HEATHER E. ROWE
Director

Awarding Authority: Housing Authority

Contract Number:

City/Town:

Description of Work:

Job Location:

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	06/01/2012	\$30.15	\$8.56	\$7.27	0.00	\$45.98
	08/01/2012	\$30.15	\$8.91	\$7.27	0.00	\$46.33
	12/01/2012	\$30.45	\$8.91	\$8.00	0.00	\$47.36
(3 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	06/01/2012	\$30.22	\$8.56	\$7.27	0.00	\$46.05
	08/01/2012	\$30.22	\$8.91	\$7.27	0.00	\$46.40
	12/01/2012	\$30.52	\$8.91	\$8.00	0.00	\$47.43
(4 & 5 AXLE) DRIVER - EQUIPMENT TEAMSTERS JOINT COUNCIL NO. 10 ZONE B	06/01/2012	\$30.34	\$8.56	\$7.27	0.00	\$46.17
	08/01/2012	\$30.34	\$8.91	\$7.27	0.00	\$46.52
	12/01/2012	\$30.64	\$9.07	\$8.00	0.00	\$47.71
ADS/SUBMERSIBLE PILOT PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2011	\$80.43	\$9.80	\$17.12	0.00	\$107.35
AIR TRACK OPERATOR LABORERS - ZONE 2	06/01/2012	\$30.10	\$7.10	\$11.55	0.00	\$48.75
	12/01/2012	\$30.35	\$7.10	\$11.55	0.00	\$49.00
	06/01/2013	\$30.85	\$7.10	\$11.55	0.00	\$49.50
	12/01/2013	\$31.35	\$7.10	\$11.55	0.00	\$50.00
	06/01/2014	\$31.85	\$7.10	\$11.55	0.00	\$50.50
	12/01/2014	\$32.35	\$7.10	\$11.55	0.00	\$51.00
	06/01/2015	\$32.85	\$7.10	\$11.55	0.00	\$51.50
	12/01/2015	\$33.35	\$7.10	\$11.55	0.00	\$52.00
	06/01/2016	\$33.85	\$7.10	\$11.55	0.00	\$52.50
	12/01/2016	\$34.60	\$7.10	\$11.55	0.00	\$53.25

This wage schedule must be posted by the contractor at the work site in accordance with M.G.L. ch. 149, sec. 27. Failure of the employer to pay "prevailing wage rates," which are the "total rates" listed above, on public works projects is a violation of M.G.L. ch. 149, sec. 27. Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at www.mass.gov/dols or at 617-626-6952. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General, 100 Cambridge Street, Boston, MA 02108; Tel:

DIVISION 1

General Administrative Requirements

1.01 GENERAL SCOPE OF THE WORK

- A.** The Work of the Contract consists of:
- 1.** Removal of 60 squares of existing asphalt roof system complete on one, two-story apartment building and the installation of 60 squares of new 50 year asphalt roofing shingle system complete.
 - 2.** Work either shown on the Drawings or included in the specifications unless specifically indicated not to be done.
 - 3.** Work outside the Project Site as called for in the Contract Documents and as required for the performance of the Work.
 - 4.** Providing and restoring, where appropriate, all temporary facilities.

1.02 TIME OF COMPLETION

The Work shall be commenced at the time stated in the Owner's Notice to Proceed and shall be completed within **30 consecutive calendar days** thereafter.

1.03 SELECTION CRITERIA

- A.** In addition to any provisions of the General Conditions, the Contractor will be selected based on the lowest base bid and upon demonstrating successful completion of the following criteria:
- 1.** Contractor must list 3 other similar roofing projects that have been successfully completed in the last 5 years.

1.04 PREVAILING WAGE RATES AND OSHA SAFETY TRAINING

- A** Bidders shall include in their bid wages calculated from the wage rates established by the Massachusetts Department of Labor and Workforce Development and subject to M.G.L. c.149 §26 to 27H inclusive. A list of the wage rates for this project can be found at the end of this section
- B** The Contractor shall certify that all employees working on this project have successfully completed a 10 Hour Safety and Health Training Course approved by the United State Occupational Health an Safety Administration (OSHA). This certification must be submitted with the payroll certifications require by paragraph A above.

1.05 COORDINATION OF WORK

- A.** Owner will provide a tenant coordinator.

1.06 SAMPLES AND SUBMITTALS

- A.** The Contractor shall provide samples (or submittal of manufacturer's literature) for the Owner's approval prior to installation:
 - 1. Roof shingles.
 - 2. Ice and water shield
 - 3. Ridge vent.
 - 4. Metal drip edge.
 - 5. All metal flashing and counter flashing.

1.07 CONDUCT OF THE WORK

- A.** Existing Buildings. All units will be occupied during construction. The Contractor shall take all necessary precautions to ensure the public safety and convenience of the occupants during construction.
- B.** Unless specifically authorized by the Owner, the Work must be conducted between the hours of 8:00 A.M. and 4:30 P.M. on Monday through Friday. No work is to be done on holidays, Saturdays, or Sundays other than for emergencies.

1.08 SHUTDOWN OF SERVICES

The Contractor's attention is especially called to the fact that the continuous operation of services for this housing development is mandatory. If any unit is to be left without heat, hot water, domestic water, electricity, gas, sanitary facilities, or any other services for more than an eight hour period, the Contractor shall submit a letter and obtain written authority from the Owner before proceeding.

If such a shutdown is unacceptable to the Owner, the Contractor shall make, and pay for, alternative arrangements to insure that services are provided.

1.09 PROTECTION AND ACCESS

- A.** The Contractor shall, at all times, leave an unobstructed way along walks and roadways, and shall maintain barriers and lights for the protection of all persons and property in all locations where materials are stored or work is in progress.
- B.** The Contractor shall take special measures to protect the tenants from noise, dust, and other disturbances.
- C.** The Contractor shall take necessary precautions to insure against fire during construction. The Contractor shall be responsible to insure that the area within the contract limits is kept orderly and clean and that combustible rubbish and construction debris is promptly removed from the site.

1.10 TEMPORARY FACILITIES

- A.** Temporary Water - The Contractor may make use of the water available at the site for construction purposes.
- B.** Temporary Electricity - The Contractor may make use of the electricity available at the site, metered and paid for by the Owner, provided that the Contractor shall supply the proper adapters and extension cords. Where heavy duty electric equipment drawing a current in excess of 15 amps is involved, the Contractor shall provide temporary electric work to supply this power.
- C.** Temporary Toilets - Contractor may use the toilet facilities as designated by the EHA or provide temporary toilets.

1.11 CLEANING UP

- A.** Conduct cleaning and disposal operations to comply with all Federal, State, and local laws, ordinances, and regulations.
- B.** Provide on-site containers for collection of waste materials and rubbish, to be located with the approval of the Owner.
- C.** At the end of each day's work, remove, and legally dispose, all waste materials and rubbish from the site,

END OF SECTION

SECTION 01.22.00 UNIT PRICES

1. GENERAL PROVISIONS

The Unit Prices for items set forth on the Form for Bid shall be used to determine adjustments to the Contract Sum when changes in the Work involving said items are made in accordance with Article 8 of the General Conditions and other sections of the Contract Documents.

2. REQUIREMENTS

- A. Unit Prices shall apply until the date of Contract Completion established at the time of the Notice to Proceed. If the date of Contract Completion has been modified by Change Order, Unit Prices may be adjusted at the discretion of the Department.
- B. Materials, methods of installation, and definitions of terms set forth under the various Unit Price items in the Schedule of Unit Prices shall be as indicated in the Contract Documents.
- C. Unit Price will be paid in accordance with Unit Prices listed by the General Contractor on the Form for Bid, based on quantities provided by the Architect.
- D. All Unit Prices shall include their pro-rata share of all costs for overhead, profit, bond, materials, equipment, and disposal required to complete the work item.
- E. The Contractor shall compute the Unit Prices based on a potential variance of plus or minus 50 percent from the quantities listed on the Schedule of Unit Prices.

3. APPLICABILITY OF UNIT PRICES

- A. The payment lines shall be as indicated in the Contract Documents.
- B. Prior to commencing removal or placement of materials set forth in the Schedule of Unit Prices, the Contractor shall notify the Architect in sufficient time to permit proper measurements to be taken on behalf of the Owner. Only quantities which have been approved in writing by the Architect will be considered in the determination of adjustments to the Contract Sum.
- C. Performance of Work which is not required under the Contract Documents or which is not authorized by Change Order, whether or not such Work item is set forth hereunder as a Unit Price item, shall not be considered cause for extra payment. The Contractor will be held fully responsible for such unauthorized work, including the performance of all corrective measures required by the Architect.

Schedule of Unit Prices

000 General Conditions

Lump Sum cost for Bonds, insurance, building permit fees, and other administrative costs related to the completion of work. Proper submission of payroll affidavits shall be precedent to 100% payment of this line item.

001A Remove and Dispose of Existing Roofing (1 Layers on a 2 Story Building)

This item includes removal of all existing roofing materials including but not limited to Shingles, nails or roof fasteners, felt underlayment. Also check all existing sheathing and renail any loose nails or add

nails as required to properly secure sheathing for proper installation of the new roofing materials. This item includes providing proper protection, disposal, and cleanup, supervision, associated with this phase of the Work.

003A Furnish and Install Shingles including felt underlayment (2 Story Building)

Furnish and Install new Asphalt Shingles, felt underlayment and all necessary associated materials required to install a complete weather tight roof in accordance with the specified manufacturer's recommendations. This Item includes all protection, cleanup, and other necessary tools equipment and labor to install the Work as described in the Contract Documents. Provide the Owner with 3 copies of the Shingle Installation instructions printed on the Shingle Packages.

004 Furnish and Install Ice and Water Shield Rubberized Membrane along eaves

Furnish and Install Rubberized Ice and Water Shield membrane along the entire length of the Roof applying primer as required by the approved manufacturer. Unit Price shall be on a per linear foot basis.

005 Vented Aluminum Drip Edge

Furnish and install the specified Vented Aluminum Drip Edge along the full length of the roof eaves. Unit Price shall be on a per linear foot basis.

008 Ridge Vent (Replace Existing)

Remove existing ridge vent and furnish and install new ridges vent on roofs designated for same. Unit Price shall be on a per linear foot basis.

011 Plumbing Penetrations

Furnish and Install new Plumbing penetrations flashing on a per penetration basis in accordance with the Contract Documents.

013 Step Flashing at Porch Roof (Replace Existing)

Remove existing step flashing at porch roof and furnish and install new step flashing to match existing. Unit Price shall be on a linear foot basis.

END OF SECTION

SECTION 02 06 00

DEMOLITION

PART 1 - GENERAL

1.00 GENERAL REQUIREMENTS

The general provisions of the Contract, including General Conditions and Division 1 Specification Sections apply to this Section.

1.01 SCOPE OF WORK

- A. Strip off all of the existing roof shingles, nails, felt or membrane underlayment, metal drip edge, replace screen for gable vents, existing ridge vents and other flashing on the 3 buildings listed in the Summary of Work and legally dispose of all debris. Verify that the existing sheathing is in good condition, identifying for examination by the Architect all areas that show evidence of damaged sheathing. Should there be areas of sheathing or framing deterioration as determined by direct examination and in consultation with the Architect these areas will be replaced at a price listed in the schedule of Unit Prices.
- B. Gutters and downspouts are to be protected and returned to operating condition at the end of the Work. The Contractor will be required to replace any gutters or downspouts damaged during the project. Replacement gutters and downspouts shall be new.
- C. Patching and Repairs- Perform all necessary patching and repairs to the items scheduled to remain.

1.02 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies; Perform demolition work in accordance with applicable rules, regulations, codes, and ordinances of local, state and federal authorities, and in accordance with the requirements of public utility corporations having jurisdiction over the work.
- B. Obtain and pay for necessary permits, licenses and certificates and give notices as required during the performance of the demolition work.

PART 3 - EXECUTION

3.01 PREPARATION AND PROTECTION

- A. This Elderly development will be occupied at all times during this contract.
- B. Provide, erect and maintain catch platforms, lights, barriers, weather protection, warning signs and other items as required for the protection of the workers engaged in demolition operations, public, adjacent construction and occupants of the building.
- C. Provide fire protection in accordance with local fire department requirements.
- D. Do not close or obstruct streets or sidewalks without the proper permit. Conduct operations with minimum traffic interference.
- E. Buildings/ Apartments shall have at least one unobstructed means of egress at all times. The contract shall sequence the Work to insure this at all times.

- F. Protect public and private property adjacent to and on the job site, including landscaping, vents, utility lines, streets, sidewalks, light standards, hydrants, street signs, mail boxes and fire alarm boxes. Make repairs to the complete satisfaction of the owner of the damaged property.
- G. Make such explorations and probes as are necessary to ascertain any required protective measures before proceeding with demolition and removal work.
- H. Provide and maintain temporary protection of the existing structure designated to remain where demolition and removal work is being done, connections made, materials handled or equipment moved, including but not limited protecting areas where roofing has been re-moved and new work has not be made the existing weather tight.

3.02 DEMOLITION

- A. Perform demolition and removal work as indicated.
- B. Remove from the Owner's property and legally dispose of materials or items demolished and not designated to become the property of the Owner.
- C. The Development will be occupied by Residents at all times during this contract. Execute the work in a careful and orderly manner, with the least possible disturbances to the public.
- D. The Contractor shall have at least one person in charge of operations on the ground below shingle and other roof material removal operations. This person shall be cognizant of residents and other persons in the work area and shall remove debris that may obstruct passage or otherwise present a danger to residents.

END OF SECTION

SECTION 06 10 00 CARPENTRY

PART 1 - GENERAL

1.00 GENERAL REQUIREMENTS

Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification Sections apply to this Section.

1.01 SCOPE OF WORK

- A. Fasten existing sheathing to insure substrate meets the shingle manufacturer's requirements and that it is fastened in accordance with the requirements of the most recent version of the Massachusetts State Building Code.
- B. Verify that the existing sheathing is in good condition, identifying for examination by the Architect all areas that show evidence of damaged sheathing. Should there be areas of sheathing or framing deterioration as determined by direct examination and in consultation with the Architect replace sheathing or framing based on the price listed in the schedule of Unit Prices.

1.02 REFERENCES

Where the Specifications refer to a specific standard, other authoritative standards which ensure an equal or higher quality than the standards mentioned will also be acceptable.

1.03 STANDARDS

All material and workmanship shall be in accordance with the latest issue of the applicable standards of the U.S. Department of Commerce, Voluntary Product Standards (PS), American Wood-Preservers' Association (AWPA) for quality standard for each type of woodwork and quality grade indicated.

1.04 PRODUCT HANDLING

Keep rough carpentry material and work dry during delivery, storage and installation, and until finish is applied and building is enclosed. Provide for air circulation in stacks of lumber and plywood.

1.05 UNIT PRICES

Refer to Section 01020 -, Unit Prices where scope and description of unit prices to the Contract requirements are given

PART 2 - PRODUCTS

2.01 LUMBER:

- A. Lumber Size: - Provide dressed or worked and dressed lumber, as applicable, manufactured to the actual sizes and pattern to match the existing lumber to be replaced, unless otherwise indicated.
- B. Moisture Content - Softwood Lumber: Provide kiln dried lumber having a moisture content from time of manufacture until time of installation not greater than values required by the applicable grading rules of the respective grading and inspection agency for the species and product indicated.
- C. Lumber - Painted Finish: Use pieces which are made of solid lumber stock.
- D. Lumber Species: Use same species and grade of lumber for same items throughout work, do not mix different species or grade.

2.02 PLYWOOD (See Unit Prices Section 01.22.00)

- A. Sheathing: Exterior Type, Standard Grade with exterior glue; Douglas Fir, 5 ply thickness to match the existing sheathing. Note: 4 ply southern yellow pine plywood is not acceptable.
- B. Plywood Grading: Comply with Product Standard PS 1, "Construction and Industrial Plywood".
- C. Certification and Marking: The producer shall include a Certificate of Inspection with each shipment. Grade mark each panel in compliance with applicable standards of Product Standard PS 1.
- D. Moisture Content: Provide plywood which has been seasoned by kiln drying to a moisture content not to exceed 19%.

2.03 ANCHORS, FASTENERS, AND PLATES

- A. Bolts, Replacement Plywood Clips, Nuts, Studs, Rivets: FS FF-B-575, FF-S-1362 and FF-R-556.
- B. Expansion Shields: FS FF-S-325; group, type, class and style best suited for the purpose.
- C. Lag Screws and Bolts: FS FF-B-561; type and grade best suited for the purpose.
- D. Nails: FS FF-N-105; type and size best suited for the purpose. Hot dipped galvanized for exterior use.
- E. Toggle Bolts: FS FF-B-588; type and class best suited for the purpose.
- F. Wood Screws: FS FF-S-111; style best suited for the purpose. Hot dipped galvanized for exterior use.
- G. Steel Plates and Shapes: ASTM A36, galvanized for exterior use.
- H. Primer: Shop primer for ferrous metal; zinc chromate with a synthetic resin vehicle.

PART 3 EXECUTION

3.01 CONDITION OF SURFACE

- A. Examine substrates, adjoining construction, and conditions under which the work is to be installed. Notify the Owner of any deteriorated condition. Do not proceed with the work until unsatisfactory conditions detrimental to the proper and timely completion of the work have been corrected.
- B. Whenever rough carpentry is fitted to other work, obtain measurements of such other work, verify dimensions shown and the shop drawing details.

3.02 ROUGH FRAMING

- A. Frame to fit closely, and set accurately to required lines and levels; secure rigidly in place in accordance with details and best recommended industry practices.
- B. Use shims of slate or steel for leveling wood members on concrete or masonry.
- C. Cut and fit to accommodate other work as required and in a neat workmanlike manner.
- D. Set joists with crown edge up.
- E. Nail in accordance with National Forest Products Association publication "Manual for House Framing", Table I - Recommended Nailing Schedule.
- F. Use no pieces of wood smaller than 30" in length.

3.03 BLOCKING AND NAILERS

Provide blocking and nailers between framing members and at masonry, concrete or steel as shown or required for fastening of sheathing, roofing, roof accessories, or attachment of fixtures, equipment and other such items.

3.04 PLYWOOD SHEATHING REPLACEMENT

- A. Replacement sheathing shall be installed in accordance with the recommendations of the APA the Engineered Wood Association and the requirements of the most recent edition of the Massachusetts State Building Code.
- B. Panel Size: Replacement panels shall be a minimum of 12" wide and shall span a minimum of two rafter/truss bays
- C. Spacing: Perimeter space around new panels shall be a minimum of the diameter of a 10d common nail.
- D. Fasteners: Minimum 8d common nails spaced at least 6" o.c. at the support edges and 12" o.c. at intermediate supports. Fasteners shall be a minimum 3/8" from all panel edges. In high wind areas additional fasteners shall be installed if requested by the Architect
- E. All panels shall be properly oriented so that panel grain runs perpendicular to the supports, check trusses and rafters so that all new panels are install true and in a level plane. Shim Trusses and rafters as required to prevent bows, bellies or other out of plane installations.

END OF SECTION

SECTION 07 30 00 ASPHALT ROOFING SHINGLES

PART 1 - GENERAL

1.00 GENERAL REQUIREMENTS

The general provisions of the Contract, including General and Division 1 Specifications Sections apply to this Section.

1.01 SCOPE OF WORK

- A. The general scope of work consists of replacement of the asphalt shingle roofing system including but not limited to asphalt roof shingles, underlayment, rubberized membrane underlayment, aluminum drip edge, and other sheet metal flashings, ridge vents, starter strips, nails and other fasteners, and plastic cement and other items required for a complete watertight installation.
- B. Shingles, flashing and drip edge shall be completely removed and replaced on all roofs.
- C. Metal Drip edge shall be installed on all edges including rakes and eaves.
- D. Cut existing plywood roof sheathing and install new Ridge vent on all roofs. Contractor should include the cost for new ridge vents that will be required on all roofs.

1.02 QUALITY ASSURANCE

- A. Provide certificate of compliance from shingle manufacturer for ASTM and UL Standards, indicating conformance to Contract requirements.
- B. Maintain one (1) copy of manufacturer's application instructions on site.
- C. All shingles shall have same Lot Number.

1.03 DELIVER, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's unopened, labeled bundles, rolls or containers.
- B. Store materials to avoid water damage and store rolled goods on end. Comply with manufacturer's recommendations for job-site storage and protection.

1.04 JOB CONDITIONS

- A. Substrate: Proceed with shingle work only after substrate construction and penetrating work have been completed.
- B. Weather Conditions: Proceed with shingle work only when weather conditions are in compliance with manufacturer's recommendations and,
- C. When substrate is completely dry.
- D. **ABSOLUTELY NO WORK WILL BE DONE IN THE RAIN.!!**
- E. **NO SHINGLE WORK SHALL BE PERFORMED WHEN THE AIR TEMPERATURE IS BELOW 32° F!!**

1.05 SPECIFIED PRODUCT WARRANTY

In addition to those Guarantees and Warranties required by the General Conditions the Contractor shall provide:

- A. The manufacturer's standard warranty shall be for a period of Fifty (50) years from date of substantial completion.
- B. The Contractor shall provide the Owner with a copy of the Bill of Sale for the Shingles clearly indicating the product, quantity, purchase date, and a note indicating the project for which the product is intended.
- C. Warranty Supplement - Shingle Manufacturer shall provide supplemental warranty covering labor and materials for a period of five (5) years from the date of substantial completion.
- D. Satisfactory delivery of warranties shall be precedent to final payment.

PART 2 PRODUCTS

2.01 ASPHALT SHINGLES

- A. Double layer, fiberglass mat; ceramically colored/UV resistant mineral granules across entire face of shingle; 300 lb./square; color to be selected by Architect; complying with

Applicable Standards

- ASTM D 3018, Type 1
- ASTM D 3462 Tear Resistance
- ASTM E 108 Fire Resistance: Class A
- ASTM D 316 Wind Resistance: Type 1
- UL 790 Fire Class A Resistance
- UL 997 Wind Resistance: 70 mph
- NYC-MEA-120-79-M
- BOCA & SBCCI Building Code
- CSA Standard A123.5-M90
- Algae Resistant-AR with minimum 10 yr. algae warranty

B. Available Products: Subject to compliance with contract requirements, products which may be incorporated into the work include the following:

1. GAF Timberline Prestique Lifetime- color selected by LHA.
2. Certain Teed Woodscape Premium (Limited Lifetime Warranty) - color selected by LHA.
3. IKO Cambridge Lifetime (Limited Lifetime Warranty)- color selected by LHA.
4. or equal approved by the Architect and Department in accordance with General Conditions Article 4.7 and specification section 01.33.00- Submittals.

C. Contractor shall expect to provide 1 color of shingle as directed by the Owner.

D. Ridge Caps – Use manufacturer's Distinctive Ridge Caps designed for use with the Specified Product.

2.02 Asphalt-Saturated Roofing Felt

Fiberglass reinforced Roof Deck Protection - UL Classified for use with Class A Asphalt Shingles to meet roof shingle manufacturer's requirement, complying with ASTM D 226, ASTM D4869, 36" wide, Material shall be GAF Shingle mate, Tarah Type 30 ASTM Saturated Felt, United Roofing Manufacturing #30 HD ASTM 4869 Type II or equal.

2.03 Asphalt Plastic Cement

Rubber reinforced asphalt cement with mineral fibers complying with ASTM D-4586 Type 1, ASTM D 3409 and federal Spec SS-C-153 Type 1 (Asbestos-Free) designed for trowel application. Material shall be Karnak #19 Ultra Rubberized Flashing Cement, APOC 128 All Pro SBS Rubberized Flashing Cement, BLACK JACK Premium Rubberized Coating or equal.

2.04 Ridge Vent:

Provide continuous ridge vent complete with end caps. Use manufacturer's Distinctive Ridge Caps designed for use with the Specified Product. Net free vent area equal to 18 sq. in. per ft., by:

1. Shinglevent II by Air Vent, Inc.,
2. Easy-Up Single-Over Ridge Vent
3. ALCOA - ROVAR.;
4. VenturiVent Plus
5. Coro-vent V-400
6. or equal approved by the Architect and Department in accordance with General Conditions.

2.05 Membrane Flashing at Eaves and Valleys and Ridge:

Provide cross laminated, high density self adhering polyethylene membrane, 40 mils thick, 36" wide, with non skid surface. Membrane must be compatible with shingles and asphalt saturated felt underlayment. Acceptable products include:

1. W.R. Grace - Ice and Water Shield - 40 Mil
2. CertainTeed - Winter Guard

3. GAF – Storm Guard
4. Owens Corning - Deck Dri
5. EMCO - Proguard Waterproofing Membrane
5. or equal approved by the Architect and Department in accordance with General Conditions.

2.06 Nails:

Hot-dip galvanized 11 or 12-gage, sharp pointed, conventional roofing nails with barbed shanks, minimum 3/8" diameter head and of sufficient length to penetrate through sheathing. Nails shall meet ASTM A-153 Hot Dip Galvanizing Spec

2.07 Aluminum Drip Edge:

Minimum .024" aluminum sheet style-D drip edge, brake-formed to provide a minimum 1¼" inch flange with 3/8" drip at lower edge by minimum 6 1/2" roof deck flange. Furnish in 8' or 10' lengths. Do install drip edge in pieces shorter than 24". Color to be selected by Architect.

2.08 Metal Flashing:

- A. Aluminum Step Flashing - .027" minimum mill finished aluminum. Typically 7" x 10" bent to 7" x 5" or cut to sizes and configurations required for the job.

2.09 Roof Jacks

A. Attic Ventilation

Provide Vent Air Products RCV4 Roof Exhaust Vent Roof Cap, Master Flow SSB960A, Airhawk RVG 55 Slant Galvanized Roof Louver or equal- Color to be selected by Architect.

2.10 Roof Plumbing Vent Flashings

Furnish and install new Oatey Aluminum Base no-caulk Plumbing Pipe Penetration Flashing with black neoprene base at all plumbing penetrations, size to fit existing vent stack, IPS Adjustable Multi-size Roof Flashings, Aztec Washer Company Res Lead Master Flash Plumbing Vent Flashings or equal.

PART 3 - EXECUTION

3.01 INSPECTION

Examine substrate and conditions under which shingling work is to be performed and must notify the Owner in writing of unsatisfactory conditions. Do not proceed with shingling work until unsatisfactory conditions have been corrected.

3.02 PREPARATION OF SUBSTRATE

- A. Clean substrate of any projections and substances detrimental to shingling work. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with

roofing nails. Sweep substrate clean before application of underlayment and membrane

- B. Coordinate installation of shingles with flashing and other adjoining work to ensure proper sequencing. Do not install shingle roofing until all vent stacks and other penetrations through roofing have been installed and are securely fastened against movement.

3.03 ROOFING INSTALLATION

- A. **General:** Comply with instructions and recommendations of shingle manufacturer, except to extent more stringent requirements are indicated in these Contract Documents.
- B. **Underlayment:** Apply one layer felt, free of wrinkles, over entire surface, lapping succeeding courses 2" minimum and 6' minimum at side laps, fastening with sufficient nails to hold in place until shingle application. Stagger side laps at least 24" at each consecutive layer.
- C. **Membrane Flashing at Ridges, Valleys and Eaves:** Furnish and install continuous strip of ice protection underlayment asphalt roll roofing along eaves **to a point 36" minimum inboard of the heated wall line**. Provide sufficient protection membrane around the vent pipes, chimneys, cupola, and any other roof penetration. Provide 2" laps where required.
- D. **Membrane Flashing at Valleys:** For "Woven" valleys first place one 36" wide ply of specified rubberized membrane flashing, centered over the valley. Lap joints a minimum of 6" with laps headed downward. Follow membrane manufacturer's installation instructions.
- E. **Membrane Flashing at Roof Vents** – Cover metal flanges of roof vents with strips of rubberized membrane (minimum 12" wide) Starting at the bottom and lapping sides and top a minimum of 3".
- F. **Shingles:** Install manufacturer's starter strip or a course of the specified shingles with tabs removed; fasten shingles in pattern, weather exposure and number of fasteners per shingle as recommended by manufacturer. Use horizontal and vertical chalk lines to ensure straight coursing.

Inverting a course of shingles is **NOT an Acceptable Starter Course**

- G. Comply with installation details and recommendations of shingle manufacturer and NRCA Steep Roofing Manual.
- H. **Flashing and Edge Protection:** Install metal flashing, vent flashing and edge protection, as indicated and in compliance with details and recommendations of the NRCA Steep Roofing Manual.
- I. **Flashing at Vertical Walls;** Build in step flashing at each course of shingles as work progresses. Apply plastic cement at roof surfaces of each piece of flashing.

- J. **Valley Treatment:** Provide a "closed" (woven) valley.

Lay shingles on both sides of valley, carrying them across valley centerline an up opposite side a minimum of 12 inches. Nail no closer than 6 inches to the centerline of the valley.

- K. **Vent Pipe Flashing and Roof Jacks:** Protect and re-use existing copper plumbing penetration flashings. Bound in pipe flashing or Roof Jacks by applying shingles up to pipes. Cut hole in shingles for pipe in next course. Place a bed of roofer's cement around opening and set shingle in mastic.

Apply rubberized membrane over and around metal flashing. Cut shingles in next course around opening and bed into mastic.

- L. **Flashing at Chimneys and Roof Exhaust Fans and at Intersecting roofs:** Protect and re-use existing flashings and/or replace as required. Cut shingles to step and counter flash each course. Place a bed of asphalt plastic cement around opening and set shingle in mastic.

- M. **Ridge Vents:** Install in accordance with manufacturer's instructions. Contractor should provide cap shingles on all ridges, with or without vent.

END OF SECTION