

The State of Connecticut
Department of Housing (DOH)
Community Development Block Grant Disaster Recovery Program
(CDBG-DR)

Owner Occupied Rehabilitation and Rebuilding Program (OORR)

BID PACKAGE

For

Rehabilitation/Reconstruction work to:

Hallums Residence
20 Arthur Street
New Haven, CT 06511

Prepared by:

Capital Studio Architects, LLC.

1379 Main Street, East Hartford, CT 06108

860.289.3262

Project #: 2135

CSA Project # 1347-15



Project # 2135

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Section 1

Section 1

ADVERTISEMENT FOR BIDS

Project #2135

The State of Connecticut Department of Housing (DOH) is seeking proposals through a Request for Proposal (RFP) process for the rehabilitation, reconstruction and/or mitigation of residential structures damaged by Superstorm Sandy in compliance with all applicable local, federal, and state statutory requirements with special attention paid to requirements for Community Development Block Grants under the United States Department of Housing and Urban Development (“HUD”) Disaster Recovery grant program.

Separated sealed bids for **Project #2135, Hallums Residence, 20 Arthur Street, New Haven, CT 06511** will be received by Capital Studio Architects, LLC. located at 1379 Main Street, East Hartford, CT 06108 until **2:00 o’clock PM on Tuesday, July 22, 2014.**

A Mandatory Walk Through will be held at the Project Site located at **20 Arthur Street, New Haven, CT 06511 at 9:30 AM on Friday, July 11, 2014.**

The Information to Bidders, Form of Bid, Form of Contract, Plans, Specifications, and Form of Bid Bond, Performance and Payment Bond or Security, and other contract documents may be examined on the Department of Housing Hurricane Sandy Recover website at www.ct.gov/doh/ and click on the “Hurricane Sandy” link, and at the office Capital Studio Architects, LLC. located at 1379 Main Street, East Hartford, CT 06108.

Copies of plans may be downloaded directly from the Department of Housing website under bid notices or obtained at the office of Capital Studio Architects, LLC. located at 1379 Main Street, East Hartford, CT 06108 upon payment of \$25.00 for each set.

DOH reserves the right to waive any informalities or to reject any or all bids.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Information to Bidders.

Attention to bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wages rates to be paid under the contract (if applicable), Section 3, Segregated Facilities, Section 109 and E. O. 11246.

No bidder may withdraw his bid within 30 calendar days after the actual date of the bid opening thereof.

INFORMATION FOR BIDDERS

Receipt and Opening of Bids:

The State of Connecticut Department of Housing (herein called the "DOH"), invites bids on the form attached. Bids will be received by DOH at the office of David Holmes, Project Manager at Capital Studio Architects, LLC. located at 1379 Main Street, East Hartford, CT 06108, until **2:00 o'clock PM on Tuesday, July 22, 2014**.

The envelopes containing the bids must be sealed, addressed to David Holmes, Project Manager at Capital Studio Architects, LLC. and designated as bid for **Project #2135, Hallums Residence, 20 Arthur Street, New Haven, CT 06511**.

DOH may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement there considered. NO bidder may withdraw a bid within 30 days after the actual date of the opening thereof.

Mandatory Walk Through: All bidders must attend a mandatory walk through of the property designated above. The date and time of the walk through is set for **9:30 AM on Friday, July 11, 2014**.

Preparation of Bids:

Each bid must be submitted on the prescribed form and accompanied by Certification by Bidder Regarding Equal Employment Opportunity, Form HUD-950.1, and Certification of Bidder Regarding Section 3 and Segregated Facilities. All blank spaces for bid process must be filled in, in ink or typewritten, in both words and figures, and the foregoing Certifications must be fully completed and executed when submitted.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his/her address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

Subcontracts: The bidder is specifically advised that any person, for, or other party to whom it is proposed to award a subcontract under this contract:

1. Must be acceptable to the DOH after verification by the State of the current eligibility status; and,
2. Must submit Form HUD-950.2, Certification by Proposed Subcontractor Regarding Equal Employment Opportunity and Certification of Proposed Subcontractor Regarding Section 3 and Segregated Facilities. Approval of the proposed subcontractor award cannot be given by the DOH unless and until the proposed subcontractor has submitted the Certifications and/or other evidence showing that it has fully complied with any reporting requirements to which it is or was subject. Although the bidder is not required to attach such Certifications by proposed subcontractors to his/her bid, the bidder is here advised of this requirement so that appropriate action can be taken to prevent subsequent delay in subcontract awards.

Method of Bidding: DOH invites the following bid(s):

Qualifications of Bidder: The DOH may make such investigations as he/she deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the DOH all such information and date for this purpose as the DOH may request. The DOH reserves the right to reject any bid if the evidence submitted by, or

investigation of, such bidder fails to satisfy the DOH that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted. The State's set Contractor Prequalifications are available at the Department of Housing's Hurricane Sandy Recovers website www.ct.gov/doh/ and click on the "Hurricane Sandy" link.

Conditions of Work: Each bidder must inform him/herself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provision of his/her contract. Insofar as possible the contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

Addenda and Interpretations: No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing addressed to: David Holmes, Project Manager at Capital Studio Architects, LLC. located at 1379 Main Street, East Hartford, CT 06108 and, to be given consideration, must be received at least three days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instruction will be in the form of written addenda to the specifications which, if issued, will be forwarded by electronic mail and posted on DOH's Hurricane Sandy website to all prospective bidders (at the respective email addresses furnished for such purposes), not later than two days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents.

Performance and Payment Bonds: A performance and payment bond will be required of the successful bidder (contractor) for 100 percent of the contract price on contracts over \$100,000.

Notice of Special Conditions: Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

1. Inspection and testing of materials
2. Insurance requirements
3. Wage rates (if applicable)
4. State allowances

Laws and Regulations: The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

Method of Award-Lowest Qualified Bidder: If at the time this contract is to be awarded, the lowest base bid submitted by a responsible bidder does not exceed the amount of funds then estimated by the DOH as available to finance the contract; the contract will be awarded on the base bid only. If such bid exceeds such amount, the DOH may reject all bids or may award the contract on the base bid combined with such deductible alternatives applied in numerical order in which they are listed in the Form of Bids, as produces a net amount which is within the available funds.

If the homeowner wishes to select a prequalified bidding contractor other than the lowest and most responsible bidder, said owner is responsible for paying the difference between the lowest bidder and their chosen bidder from their own financing.

Obligation of Bidder: At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

Safety Standards and Accident Prevention: With respect to all work performed under this contract, the contractor shall:

1. Comply with the safety standards provision of applicable laws, building and construction codes and the “Manual of Accident Prevention in Construction” published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the “Federal Register,” Volume 36, No 75, Saturday, April 17, 1971.
2. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) who may be injured on the job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor’s care.

Contract Progress Schedule: Each bid shall be accompanied by a Contract Progress Schedule. Such Schedule shall list the bidder’s timetable for completion of the contract.

BID FORM

The undersigned, being familiarized with the local conditions affecting the cost of the work and with the Drawings, Specifications, Invitation to Bidders, Instructions to Bidders, General Conditions, Bid Form, Form of Contract and Form of Bonds for **Project No. 2135** and Addenda No. _____ and _____ thereto, as prepared by Capital Studio Architects, LLC. East Hartford, Connecticut, and on file in the office of DOH, hereby proposes to furnish all permits, labor, materials, tools, equipment and related items required for the rehabilitation and reconstruction including general construction, site improvements, plumbing, heating, electrical and finish items for said **Project No. 2135 located at 20 Arthur Street in New Haven, State of Connecticut**, all in accordance with the Drawings and Specifications, for the sum of:

_____ Dollars (\$ _____).

<i>Section #</i>	<i>Scope of Work</i>	<i>Subcontractor</i>	<i>Labor Cost</i>	<i>Material</i>	<i>Total</i>
TOTAL COST					

ALTERNATE PROPOSALS

The undersigned bidder further proposes and agrees that should any or all of the following Alternates be accepted and included in the Contract, the amount of the Base Bid, as heretofore stated, shall be adjusted by the amount stated for each Alternate, or Unit Price. All materials and workmanship shall be in strict accordance with the Drawings and Specifications and shall be in-place prices.

<u>Alternates</u>	<u>Unit Price</u>	<u>Unit Measure</u>
No. ___ _____	\$ _____	No. ___ _____ \$/ f
No. ___ _____	\$ _____	No. ___ _____ \$/ f
No. ___ _____	\$ _____	No. ___ _____ \$/ f
No. ___ _____	\$ _____	No. ___ _____ \$/ f
No. ___ _____	\$ _____	No. ___ _____ \$/ f
No. ___ _____	\$ _____	No. ___ _____ \$/ f
No. ___ _____	\$ _____	No. ___ _____ \$/ f
No. ___ _____	\$ _____	No. ___ _____ \$/ f

The undersigned agrees to commence the work on a date to be specified in the contract and to complete such work within **120** consecutive calendar days.

The undersigned agrees that if within the period of thirty (30) days after the opening of bids, or when extended to the next work day immediately following said period, notice of the acceptance of this bid shall be mailed, or delivered to him/her at the business address given below, or at any time thereafter before this bid is withdrawn, will within fifteen (15) days thereafter deliver to the DOH, where directed, a contract properly executed in such number of counterparts as may be required by said DOH, on the forms annexed, with such changes therein as shall have been made by DOH, prior to the time named for delivery of this proposal, together with an executed Completion Assurance Agreement with a Letter of Credit in a form satisfactory to the DOH and a letter indicating those Small/Minority Business Enterprises that will perform work and/or provide materials, equipment or services as part of the contract.

In submitting this bid, it is understood that the right is reserved by the abovementioned DOH to reject any and all bids; and it is agreed that this bid may not be withdrawn for a period of thirty (30) days from the date of bid opening or until the next work day immediately following said period if such period ends on a weekend or a State holiday.

Attached hereto is an affidavit, in proof that the undersigned has not entered into any collusion with any person in respect to this proposal, or any other proposal, or the submitting of proposals for the above Project. Also attached is a statement of contractor's qualifications, Certification of Bidder Regarding Equal Employment Opportunity, and Segregated Facilities.

Acknowledgement of Bidder

I, THE UNDERSIGNED AS AN AUTHORIZED OFFICER OF:

(Company Name)

(Date)

(Address)

(Telephone)

(City/State/Zip)

(Fax No.)

(FEIN)

I HEREBY SUBMIT THE FOLLOWING PRICES FOR THE PROJECT IDENTIFIED ABOVE: (Indicate in words and numerals)

BASE BID PRICE: Cost _____

AMOUNT IN WORDS: _____

(Signature)

(Date)

(Printed Name)

(Title/Position)

(Email address) _____

FORM OF NON-COLLUSIVE AFFIDAVIT
AFFIDAVIT

State of _____)

County of _____)

_____, being first duly sworn, deposes and says:

That he/she is, _____ the party making the foregoing proposal for bid, that such proposal or bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not, in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or of any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against DOH or any person interested in the proposed contract, and that all statements in said proposal for bid are true.

Project No. _____

Location _____

Signature

Name and Title

Date

(Signature should be notarized.)

BIDDER'S CERTIFICATION OF ELIGIBILITY

By the submission of this bid, the bidder certifies that to the best of its knowledge and belief, neither it, nor any person or firm which has an interest in the bidder's firm, nor any of the bidder's subcontractors, is ineligible to:

- (1) Be awarded contracts by any agency of the United States Government or HUD; or,
- (2) Participate in HUD programs pursuant to 24 CFR part 24.

(Name of Bidder)

(Address)

BY: _____

Title: _____

NOTE: This certification is a material representation of fact upon which reliance is placed when making award. If it is later determined that the bidder knowingly rendered an erroneous certification, the contract may be terminated for default, and the bidder may be debarred or suspended from participation in HUD programs and other Federal programs.

CERTIFICATION OF GENERAL BIDDERS ON CDBG-DR CONSTRUCTION PROJECTS

I. CERTIFICATION REGARDING HEALTH AND SAFETY

The undersigned hereby certifies that he/she 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 ten 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

II. CERTIFICATION REGARDING NON-COLLUSION AND DEBARMENT

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies that neither he/she nor any firm, corporation, partnership or association in which he/she has a substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6 (b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR, Part 5), or pursuant to Section 3 (a) of the Davis-Bacon Act, as amended (40 USC 276a). The undersigned further certifies that said undersigned is not presently debarred from doing public construction work in the State of Connecticut.

Date: _____

Name of General Bidder

By _____

Signature

Print name and title

Business Address

Street Address City and State

OSHA-10 OSHA-10

CERTIFICATION OF SUB- BIDDERS (IF ANY) ON CDBG-DR CONSTRUCTION PROJECTS

I. CERTIFICATION REGARDING HEALTH AND SAFETY

The undersigned hereby certifies that he/she 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 ten 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

II. CERTIFICATION REGARDING NON-COLLUSION AND DEBARMENT

The undersigned further certifies under penalties of perjury that this subbid is in all responses bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the “person” shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies that neither he/she nor any firm, corporation, partnership or association in which he/she has a substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6 (b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR, Part 5), or pursuant to Section 3 (a) of the Davis-Bacon Act, as amended (40 USC 276a). The undersigned further certifies that said undersigned is not presently debarred from doing public construction work in the State of Connecticut.

Date _____

Name of Sub-bidder

By _____

Signature

Print Name and Title

Business Name

Street Address, City and State

SUBCONTRACTOR IDENTIFICATION

(Provide additional forms for more subcontractors, as needed.)

This form is a part of your bid package and must be submitted along with the itemized and formal bid forms at the time of the bid opening. Failure to submit a completed document could result in the disqualification of your bid.

Name of Subcontractor: _____

Address: _____

Trade: _____

Hourly Wage: \$_____ Full Contract Price: \$_____

Federal Tax# or SSN #: _____

Male Owned Business _____ Female Owned Business _____

Is he/she of Hispanic or Latino ethnicity? Yes _____ No _____

Race: (Please check one)

- White American Indian/Alaskan Native
 Black/African American Hasidic Jew
 Asian/Pacific American

Name of Subcontractor: _____

Address: _____

Trade: _____

Hourly Wage: \$_____ Full Contract Price: \$_____

Federal Tax# or SSN #: _____

Male Owned Business _____ Female Owned Business _____

Is he/she of Hispanic or Latino ethnicity? Yes _____ No _____

Race: (Please check one)

- White American Indian/Alaskan Native
 Black/African American Hasidic Jew
 Asian/Pacific American

Name of Subcontractor: _____

Address: _____

Trade: _____

Hourly Wage: \$_____ Full Contract Price: \$_____

Federal Tax# or SSN #: _____

Male Owned Business _____ Female Owned Business _____

Is he/she of Hispanic or Latino ethnicity? Yes _____ No _____

Race: (Please check one)

- White American Indian/Alaskan Native
 Black/African American Hasidic Jew
 Asian/Pacific American

Contractor's Signature

Date

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F R 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION OF BIDDER

Name and address of Bidder (include zip code)

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.
 YES NO
2. Compliance reports were required to be filed in connection with such contract or subcontract.
 YES NO
3. Bidder has filed all compliance reports due under applicable instructions, including SF.100.
 YES NO NOT REQUIRED
4. Have you ever seen or are you being considered for sanction due to violation of Executive Order 11246, as amended?
 YES NO
5. No segregated facilities will be maintained.

NAME AND TITLE OF SIGNER (Please type.)

SIGNATURE

DATE

Green Building Standards Checklist

HUD CPD Green Building Retrofit Checklist

The CPD Green Retrofit Checklist promotes energy efficiency and green building practices for residential retrofit projects. Grantees must follow the checklist in its entirety and apply all measures within the Checklist to the extent applicable to the particular building type being retrofitted. The phrase “when replacing” in the Checklist refers to the mandatory replacement with specified green improvements, products, and fixtures only when replacing those systems during the normal course of the retrofit.

WATER AND ENERGY CONSERVATION MEASURES

N/A

Water-Conserving Fixtures

Install or retrofit water conserving fixtures in any unit and common facility, use the following specifications: Toilets-- 1.28 gpf; Urinals-- 0.5 gpf; Showerheads-- 2.0 gpm; Kitchen faucets-- 2.0 gpm; and Bathroom faucets-- 1.5gpm. [gpf = gallons per flush; gpm = gallons per minute]

N/A

ENERGY STAR Appliances

Install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators, if these appliance categories are provided in units or common areas.

N/A

Air Sealing: Building Envelope

Seal all accessible gaps and penetrations in the building envelope. If applicable, use low VOC caulk or foam.

N/A

Insulation: Attic (if applicable to building type)

For attics with closed floor cavities directly above the conditioned space, blow in insulation per manufacturer's specifications to a minimum density of 3.5 Lbs. per cubic foot (CF). For attics with open floor cavities directly above the conditioned space, install insulation to meet or exceed IECC levels.

N/A

Insulation: Flooring (if applicable to building type)

Install \geq R-19 insulation in contact with the subfloor in buildings with floor systems over vented crawl spaces. Install a 6-mil vapor barrier in contact with 100% of the floor of the crawl space (the ground), overlapping seams and piers at least 6 inches.

N/A

Duct Sealing (if applicable to building type)

In buildings with ducted forced-air heating and cooling systems, seal all penetrations of the air distribution system to reduce leakage in order to meet or exceed ENERGY STAR for Homes' duct leakage standard.

N/A

Air Barrier System

Ensure continuous unbroken air barrier surrounding all conditioned space and dwelling units. Align insulation completely and continuously with the air barrier.

N/A

Radiant Barriers: Roofing

When replacing or making a substantial repair to the roof, use radiant barrier sheathing or other radiant barrier material; if economically feasible, also use cool roofing materials.

X	<p>Windows</p> <p>When replacing windows, install geographically appropriate ENERGY STAR rated windows.</p>
N/A	<p>Sizing of Heating and Cooling Equipment</p> <p>When replacing, size heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals, Parts J and S, or 2012 ASHRAE Handbook--HVAC Systems and Equipment or most recent edition.</p>
N/A	<p>Domestic Hot Water Systems</p> <p>When replacing domestic water heating system(s), ensure the system(s) meet or exceed the efficiency requirements of ENERGY STAR for Homes' Reference Design. Insulate pipes by at least R-4.</p>
N/A	<p>Efficient Lighting: Interior Units</p> <p>Follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP); OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR when replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.</p>
N/A	<p>Efficient Lighting: Common Areas and Emergency Lighting (if applicable to building type)</p> <p>Follow the guidance appropriate for the project type: use ENERGY STAR-labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; OR when replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exist signs shall meet or exceed LED efficiency levels and conform to local building codes.</p>
N/A	<p>Efficient Lighting: Exterior</p> <p>Follow the guidance appropriate for the project type: install ENERGY STAR-qualified fixtures or LEDs with a minimum efficacy of 45 lumens/watt; OR follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR when replacing, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt.</p>

INDOOR AIR QUALITY

N/A	<p>Air Ventilation: Single Family and Multifamily (three stories or fewer)</p> <p>Install an in-unit ventilation system capable of providing adequate fresh air per ASHRAE 62.2 requirements.</p>
N/A	<p>Air Ventilation: Multifamily (four stories or more)</p> <p>Install apartment ventilation systems that satisfy ASHRAE 62.2 for all dwelling units and common area ventilation systems that satisfy ASHRAE 62.1 requirements. If economically feasible, consider heat/energy recovery for 100% of corridor air supply.</p>
N/A	<p>Composite Wood Products that Emit Low/No Formaldehyde</p>

Composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

N/A

Environmentally Preferable Flooring

When replacing flooring, use environmentally preferable flooring, including the FloorScore certification. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives.

X

Low/No VOC Paints and Primers

All interior paints and primers must be less than or equal to the following VOC levels: Flats--50 g/L; Non-flats--50 g/L; Floor--100 g/L. [g/L = grams per liter; levels are based on a combination of the Master Painters Institute (MPI) and GreenSeal standards.]

X

Low/No VOC Adhesives and Sealants

All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.

N/A

Clothes Dryer Exhaust

Vent clothes dryers directly to the outdoors using rigid-type duct work.

X

Mold Inspection and Remediation

Inspect the interior and exterior of the building for evidence of moisture problems. Document the extent and location of the problems, and implement the proposed repairs according to the Moisture section of the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades.

N/A

Combustion Equipment

When installing new space and water-heating equipment, specify power-vented or direct vent combustion equipment.

N/A

Mold Prevention: Water Heaters

Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

N/A

Mold Prevention: Surfaces

When replacing or repairing bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

N/A

Mold Prevention: Tub and Shower Enclosures

When replacing or repairing tub and/or shower enclosures, use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

N/A

Integrated Pest Management

Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry. [If applicable, provide training to multifamily buildings staff.]

X

Lead-Safe Work Practices

For properties built before 1978, if the project will involve disturbing painted surfaces or cleaning up lead contaminated dust or soil, use certified renovation or lead abatement contractors and workers using lead-safe work practices and clearance examinations consistent with the more stringent of EPA's Renovation, Repair, and Painting Rule and HUD's Lead Safe Housing Rule.

X

Radon Testing and Mitigation (if applicable based on building location)

For buildings in EPA Radon Zone 1 or 2, test for radon using the current edition of American Association of Radon Scientists and Technologists (AARST)'s Protocols for Radon Measurement in Homes Standard for Single-Family Housing or Duplexes, or AARST's Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings. To install radon mitigation systems in buildings with radon level of 4 pCi/L or more, use ASTM E 2121 for single-family housing or duplexes, or AARST's Radon Mitigation Standards for Multifamily Buildings. For new construction, use AARST's Reducing Radon in New Construction of 1 & 2 Family Dwellings and Townhouses, or ASTM E 1465.

Section 2

Section 2

General Conditions

1. The purpose of this HUD and DOH sponsored 0% interest loan Owner Occupied Rehabilitation and Rebuilding program is to make good faith efforts to assist qualified property owners in making repairs to their property damaged by Superstorm Sandy. Eligible repairs include code, health and safety compliance modifications, including but not limited to building envelope and energy efficiency upgrades (See Green Building Standards).
2. In the event that the homeowner is dissatisfied with the work performed although the work has been completed to industry standards, approved by the local municipality's code enforcement officials and approved by the DOH or its agent, the homeowner's approval will be overridden, full payment will be issued to the contractor and the project will be officially closed.
3. The owner is responsible for removal or relocation from the respective work areas the following, including but not necessarily limited to: personal belongings, window treatments, small furniture, fixtures, area carpets, interior and exterior plants. The contractor will be responsible for covering and protecting large furniture unable to be removed from the respective work areas.
4. The Contractor, unless otherwise specified, shall provide all labor, materials, tools, equipment, and related items required for the erection and completion of all work indicated in this project manual and as may be inferred, implied or otherwise necessary for the proper execution of the work.
5. The Contractor shall pay all necessary taxes, fees, and permits necessary to complete all of his work as detailed on the attached scope of work.
6. The premises herein shall be occupied during the course of the construction work.
7. All rehabilitation, alterations, repairs, or extensions shall be in compliance with all applicable codes of the Municipality, HUD requirements or compliance with the latest edition of the International Building Code, which ever applies and is the more strict. All electrical, heating, and plumbing work shall comply with the rules and regulations of the National, State and Local Codes. Before commencing work, contractors and/or subcontractors shall obtain all necessary permits.
8. The Contractor certifies that he has familiarized himself with the requirements of the specifications and plans and understands the extent and character of the work to be done, and inspected the premises and given his full attention to any and all areas with which he might become specifically involved. He must familiarize himself with all conditions relating to and affecting his work and bid.
9. The selected Contractor must, prior to contract signing, supply the DOH and the Owner with the original certificates of insurance in accordance with the following insurance requirements:
 - A. Contractor shall procure and maintain for the duration of the Agreement the following types of insurance, in amounts no less than the stated limits, against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder:
 - 1) Workers' Compensation Insurance: The Contractor shall maintain full and complete Workers' Compensation Insurance for all of its employees and those of its subcontractors engaged in work on the premises, in accordance with the local and state laws governing the same, in the minimum amounts of \$100,000 each accident, \$500,000 disease – Policy limit, \$100,000 disease – each employee.
 - 2) General Liability Insurance: The Contractor shall furnish evidence of a comprehensive general liability insurance coverage with a combined single limit for bodily injury, death, and property damage in the amount of \$1,000,000 per occurrence, naming the Owner and the State as additional insured. This shall cover the use of all equipment, hoists and vehicles on the Premises not covered by any automobile liability policy. If the Contractor has a "claims-made" policy, then the following additional requirements apply: (a) the policy must provide a retroactive date which must be on or before the execution date of this Agreement and (b) the extended reporting period may not be less than five (5) years following the Construction Completion Date.
 - 3) Automobile Liability: The Contractor shall furnish evidence of Automobile Liability insurance with minimum limits of \$1,000,000 per occurrence, combined single limit for bodily injury and property damage liability. This shall include owned vehicles, non-owned vehicles and employee non-ownership.
 - 4) Cargo Insurance: The Contractor shall furnish evidence of all-risk cargo insurance, with a minimum limit of \$_____ per occurrence when the project involves raising a structure above the Base Flood Elevation.
 - 5) Builders Risk: The Contractor shall maintain Builder's Risk (fire and extended coverage) insurance providing coverage for the entire work at the project site, including all work in place, all materials stored at the building site, foundations and building equipment. Coverage shall be on a completed value form basis in an amount equal to the projected value of the project. The Contractor agrees to endorse the State of Connecticut and the Owner as Loss Payees.

B. Additional Insurance Provisions

- 1) Each of the Owner and the State of Connecticut Department of Housing, and their successors and assigns, as their interests may appear, shall be named as an Additional Insured on the Commercial General Liability policy.
 - 2) Described insurance shall be primary coverage and Applicant and Applicant's insurer shall have no right of subrogation recovery or subrogation against the State of Connecticut.
 - 3) Applicant shall assume any and all deductibles in the described insurance policies.
 - 4) Without limiting Applicant's obligation to procure and maintain insurance for the duration identified in (A) above, each insurance policy shall not be suspended, voided, cancelled or reduced except after thirty (30) days prior written notice by certified mail has been given to the State of Connecticut, with the exception that a ten (10) day prior written notice by certified mail for non-payment of premium is acceptable.
 - 5) Each policy shall be issued by an Insurance Company licensed to do business by Connecticut Department of Insurance and having a minimum Best Rating of A- or equivalent or as otherwise approved by the State.
10. DOH and its agents must be notified prior to start of work of any subcontractor to be paid for work on the job who is different from the subcontractor identified in original bid proposal.
 11. Working times for the project shall be Monday through Friday 8 am to 5 pm (EST). Contractors must request permission from owner and be in compliance with local municipal ordinances prior to working longer hours or weekends.
 12. All materials shall be new and of acceptable quality. The Contractor shall submit proof of purchase of warrantee items at closeout. The property Owner shall select all colors, models, etc. as per scope of work. All materials and work must be applied in accordance with the applicable manufacturer's latest instructions and specifications, and in accordance with Federal prohibitions against the use of lead paint.
 13. All manufacturers' warranties are to be extended to the property Owner free and clear of all liens. Unless otherwise specified, all labor, material, and workmanship provided by the Contractor shall be guaranteed by the Contractor, including that of subcontractors, for a one (1) year period from the date of the Final Payment. This guarantee shall be in addition to and not in limitation of, in lieu of, or modify and other guarantee that is due the property Owner from any manufacturer.
 14. The Contractor shall repair or replace all work, materials and equipment which are found to be defective during construction and the guarantee period. Repair shall include all damage to surrounding work caused by the failure and/or necessary for the repair or replacement of the defect. All repairs and replacements shall be performed at no additional expense to the Owner and shall be completed promptly after the Contractor receives notice of the defect.
 15. The Contractor shall take all necessary measures and precautions to protect the surroundings from damage occurring due to performance of the work. All areas and surfaces of the existing building which are affected by the execution of the new work (removals, demolition, repairs etc.) shall be patched and restored to either match the existing adjacent conditions or to match the new work, whichever is applicable. If such damage occurs it will be repaired by the Contractor at no cost to the Owner. Contractor shall provide all temporary shoring, bracing and other construction (interior and exterior) required to perform the work of this contract.
 16. The Contractor shall dispose of all debris and remove all material resulting from his work in accordance with local and State law. The Contractor shall police and maintain a clean and safe job site daily. He shall reinstall accessories taken down and clean up all scrap around the project and remove fingerprints. All on-site maintenance relating to the performance of the work shall be the responsibility of the Contractor until the Certificate of Completion is issued. The project shall be maintained in a habitable and safe condition daily if the project is to remain occupied.
 17. Materials and products not otherwise specified in these documents shall be to match building standards and existing conditions, provided such items are in compliance with all applicable codes. Such codes set the minimum standards to be achieved.
 18. All work shall be neat and accurate and done in a manner in accordance with customary trade practices. **The Contractor, at a minimum, shall leave the premises broom clean and orderly after each working day and shall keep the premises free from accumulation of materials and rubbish by disposing of such debris in an onsite disposal container (provided by the contractor) or removed by vehicle in accordance with all applicable state and local regulations.** At the completion of the project the Contractor shall remove all excess materials from the site. Any surplus material agreed to be left for the owner shall be stored neatly by the contractor in a location directed by the owner free from weather, spoilage or pilferage.
 19. The Contractor shall coordinate any work which interfaces with other Contractors or with the operations of the Owner. The Contractor shall take all necessary precautions to prevent fire, bodily injury, damage to property and any other calamities that may arise which pose a threat to life, limb property.
 20. The Contractor shall not make any changes to the scope of work unless a change order is processed and fully executed by the DOH.

21. The Owner may cancel this contract within three days of signing and not be liable to the Contractor or DOH. Should the Owner opt to cancel they must sign and send a Notice of Cancellation to DOH, otherwise DOH shall issue a Notice to Proceed authorizing the contractor to commence with the proposed improvements.
22. The Contractor shall commence work under this contract within 15 work days of the date of the notice to proceed and complete work within **60** calendar days of the notice to proceed.
23. If the Contractor is delayed at any time in the progress of the work by any act or neglect of the Owner or by any employee of the Owner, or by any separate Contractor employed by the Owner, or by changes ordered in the work or by labor disputes, fire, unusual delay in delivery of materials, transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any cause beyond the Contractor's control, or by delay authorized by the Owner pending arbitration, or by any other cause which justifies the delay, the contract time may be extended by Change Order for such reasonable time as may be agreed upon by all parties. It shall be the responsibility of the Contractor to request and document in writing such extensions within three (3) work days.
24. In the event that the Contractor does not commence or pursue the work as hereinafter stated, then DOH shall have the right to terminate this agreement and to hire a successor Contractor to perform the work. Any such termination shall be by certified mail to the address noted in this agreement, and shall be effective as of the date of mailing. Payments by the DOH/Owner in the event of termination shall be as follows:
25. The successor Contractor shall first be paid and then the terminated Contractor. Payments to the terminated Contractor shall be limited both as to those funds remaining after payment to the successor Contractor but shall not exceed the value of the work actually performed by the terminated Contractor. Further, should the total cost for work performed under this contract exceed the amount stated in this agreement due to the Contractor's termination, then the Owner shall have a cause of action against the terminated Contractor for any such additional cost.
26. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner his obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, DOH shall, thereupon, have the right to terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date of such termination. In such event, all unfinished work required by the Contractor under this Contract shall, at the option of the DOH, be completed or not.
27. **Payments**
 - 1) DOH/Homeowner shall pay the Contractor the price as provided in this contract.
 - 2) DOH shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer. DOH may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.
 - 3) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments. The breakdown shall be approved by the Contracting Officer and must be acceptable to DOH. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the contract price. The Contractor shall prorate its overhead and profit over the construction period of the contract.
 - 4) The Contractor shall submit, on AIA forms provided by DOH, periodic estimates showing the value of the work performed during each period based upon the approved breakdown of the contract price. Such estimates shall be submitted not later than 14 days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
 - 5) Along with each request for progress payments and the required estimates, the Contractor shall furnish lien waivers and labor releases as good and sufficient evidence that the premises are free from all liens, damages, and anything chargeable to said contractor.
 - 6) Except as otherwise provided in State law, DOH shall retain five (5) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, DOH may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, DOH shall reinstate the five (5) percent retainage until such time as the Contracting Officer determines that performance and progress are satisfactory. Retainage will be released 90 days after project completion.
 - 7) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments. Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of DOH's/Homeowner's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the Homeowner.
 - 8) All material and work covered by progress payments made shall, at the time of payment become the sole property of the Homeowner, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of DOH/Homeowner to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of DOH in the course of their employment, the Contractor shall restore such damaged work without cost to DOH/Homeowner and to seek redress for its damage only from those who directly caused it.

- 9) DOH shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against DOH/Homeowner arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.
 - 10) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.
 - 11) DOH shall not; (1) determine or adjust any claims for payment or disputes arising there under between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of DOH to withhold moneys from the Contractor shall in nowise impair the obligations of any surety or sureties under any bonds furnished under this contract.
28. Disputes
- 1) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
 - 2) Except for disputes arising under the clauses entitled Labor Standards - Davis Bacon and Related Acts, herein, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this clause.
 - 3) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision.
 - 4) A claim by the Homeowner against the Contractor shall be subject to a written decision by the Contracting Officer.
 - 5) The Contracting Officer shall, within calendar 60 (unless otherwise indicated) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
 - 6) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in DOH in accordance with DOH's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) calendar days after receipt of the Contracting Officer's decision.
 - 7) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.
29. The Contractor will not discriminate against any employee or applicant for employment because of race, color, creed, religion, sex, sexual preference, national origin, or mental or physical disability during the performance of this agreement. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship, without regard to their race, color, creed, religion, sex, sexual preference, national origin or mental or physical disability. This provision will be inserted in all subcontracts, if any, for work covered by this agreement.
30. Equal Employment Opportunity (EEO) Clause
- During the performance of this contract, the Contractor agrees as follows:
- 1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and the employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - 2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
 - 3) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 - 4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
 - 5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
 - 6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by the rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- 7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.
31. In the event of the Contractor's noncompliance with this equal opportunity clause or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further contracts in accordance with procedures authorized in Presidential Executive Order 11246, or by rule, regulations, or order of the Secretary of Labor or as provided by law.
32. The following applies to all contracts of \$10,000,000.00 or more: SECTION 402 VETERANS OF THE VIETNAM ERA. AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VEITNAM ERA. The Contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veteran status in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship.
33. No officer, employee or member of the Governing Body of the Municipality shall have any financial interest, direct or indirect, in this contract or the proceeds of this loan.
34. DOH retains the right to reject any or all bids or any part of any bid in part or in whole if deemed to be in the best interest of the project.
35. Substitutions of materials from that specified are only allowed on an approved/equal basis. The Contractor must submit written documentation of the substitute item or material for approval by the Owner and Program prior to making such substitution. Any items or material substituted by the Contractor without prior written approval of the Owner and Program will at the Contractor's expense be replaced if it is determined not to be equal to the item or material specified. Any surrounding, adjoining, or dependent items affected by replacement of the unequal substituted material shall also be replaced, reworked, and reinstalled at no cost to the Owner.
36. Bids shall contain prices for general categories of work and/or items as specified on the provided bid sheets. In the case of a mathematical error by the Contractor, the correct sum of the individual line items in the cost summary shall be the Contractor's bid.
37. All bids shall remain in effect for thirty (30) calendar days.
38. The Owner will supply all necessary power required by the Contractor at no additional cost to complete his work. Power shall be limited to the use of existing outlets and shall not exceed the existing capacity of the system. Power required over the capacity of the existing electrical system shall be the responsibility of the Contractor. Heating during construction shall be supplied by the Owner.
39. If any unseen or unknown asbestos related conditions arise during the work the Contractor shall stop all work immediately and notify the DOH of such.
40. OTHER PROVISIONS – LEAD BASED PAINT

For properties built before 1978, if the project will involve disturbing painted surfaces or cleaning up lead contaminated dust or soil, use certified renovation or lead abatement contractors and workers using lead-safe work practices and clearance examinations consistent with the more stringent of EPA's Renovation, Repair, and Painting Rule and HUD's Lead Safe Housing Rule. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35 and EPA's Repair Renovation, and Painting Rule at 40 CFR.80 Subpart E.

Any and all rehabilitation work under this Agreement will comply with the requirements of the Federal Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4831) which prohibits the use of lead-based paint in residential structures constructed or rehabilitated with Federal Assistance in any form.

The construction or rehabilitation of residential structures with assistance provided under this contract is subject to the final regulations "Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally owned Residential Property and Housing Receiving Federal Assistance." The regulation is at 24 CFR part 35. It implements sections 1012 and 1013 of the Residential Lead-Based Paint Hazard Reduction Act of 1992, Title X, of the Housing and Community Development Act of 1992. Sections 1012 and 1013 amend the Lead-Based Paint Poisoning Prevention Act of 1971.

Beginning April 22, 2010, the Contractor is required to have a certificate from a 6 hour EPA/HUD RRP lead remediation course.

41. The Contractor shall comply with the provisions of the immigration Reform and Control Act of 1986 effective and enforceable as of June 6, 1987 which Act makes unlawful the hiring for employment or subcontracting individuals failing to provide documentation of legal eligibility to work in the United States. The Contractor shall hold DOH, its agents and the Homeowner harmless for the failure to comply with the provisions of said Act.

Section 3

SECTION 00900
SPECIAL CONDITIONS

1. SPECIAL CONDITIONS DEFINITIONS

A. Where the Specifications refer to Owner, or the DOH this shall be construed to mean the Connecticut Department of Housing, 505 Hudson Street, Hartford, CT 06106. Its designated agent shall be referred to as the "Contracting Officer" in these specifications.

2. BIDDING REQUIREMENTS

A. Contractor shall contact the DOH regarding site visit questions. Contact should be by the telephone to:

Ms. Erma Esangbedo, Grants and Contracts Specialist
CDBG-Disaster Recovery Program
Connecticut Department of Housing
505 Hudson Street
Hartford, CT 06106
(860) 270-8152

B. Architectural questions on specifications and drawings are to be addressed to:

Mr. David Holmes, or Jason Pitts
Capital Studio Architects, LLC
1379 Main Street
East Hartford, CT 06108
Tel: (860) 289-3262
Fax: (860) 289-3163
Email: dholmes@capitalstudio.net, or jpitts@capitalstudio.net

3. SALES TAX

A. The DOH is exempt from Connecticut Sales Tax. Other fees assessed by the State of Connecticut may be passed through to the contractor.

4. INSURANCE

A. No insurance shall be terminated by the Contractor without ten (10) days notice to the DOH.

B. All insurance companies shall be licensed and registered in the State of Connecticut.

5. INTERPRETATIONS OF DRAWINGS

A. Any questions or disagreements arising as to the true intent of this specification or the drawings, or the kind and quality of work required thereby, shall be decided by the Architect, whose interpretations thereof shall be final, conclusive, and binding on all parties.

B. In the case of disagreement between drawings and specifications, or within either document itself, the better quality, greater quantity, or more costly work shall be included in the contract price, and the matter referred to the Architect's attention for decision and/or adjustment.

C. If the disagreement between the drawings and specification cannot be resolved through

either A. or B. above, the specifications shall take precedence over the drawings.

6. VISITING THE SITE

A. Before submitting his final proposal, the Contractor shall examine the site of the proposed work to determine the existing conditions that may affect his work, as he will be held responsible for any assumptions made by him in regard thereto.

7. CONTRACTOR'S PROPOSAL

A. The Contractor's proposal and bid must cover all items on the drawings and in the specifications exactly as drawn and specified.

B. Proposals and bids that do not conform to drawings and specifications will not be accepted.

8. SUBSTITUTIONS

A. Substitutions of equipment or materials other than those indicated on the drawings or in the specifications, shall be limited to those approved in advance, in writing, by the Architect.

9. SUB-CONTRACTORS

A. All sub-contractors shall be subject to approval of the DOH and listed on the Form of Bid.

B. When requested by the DOH, the prospective contractors should submit a list with names, addresses, and telephone numbers of similar type projects previously completed.

10. LAWS, ORDINANCES, PERMITS AND FEES

A. The Contractor shall give all necessary notices, obtain all permits and pay for governmental taxes, fees, and other costs in connection with his work; file all necessary plans, prepare all documents and obtain all necessary plans, prepare all documents and obtain all necessary approvals of the Governmental departments having jurisdiction; obtain all required Certificates of Inspection for his work and deliver to the Architect before request for acceptance and final payment for the work. The DOH is not exempt from paying Building Permit Fees to the City of New Haven. The Contractor shall include for any and all State of Connecticut Department of Environmental Protection Permits in addition to all Local Permits.

11. APPROVALS

A. The materials, workmanship, design and arrangement of all work installed under the contract shall be subject to the approval of the Architect. If material or equipment is installed before it is approved, the contractor shall be liable for the removal and replacement, at no extra charge to the owner, if, in the opinion of the Architect, the material or equipment does not meet the intent of the drawings and specifications.

B. The words "approved equal" shall be understood to apply only to those items of equipment and material approved in advance by the Architect.

C. Equipment and materials that do not conform to the specifications or the previous paragraph will not be approved.

12. NON-SEGREGATED FACILITIES

A. By signing the bid, the bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, or under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this Contract. As used in this certification, the term "segregated facilities" mean any waiting room, work areas, restrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom or otherwise. He further agrees that (except where he has obtained identical certification from proposed sub-contractors for specific time periods) he will obtain identical certification from proposed sub-contractors prior to the award of sub-contracts exceeding \$10,000.00, which are not exempt from the provisions of the Equal Opportunity Clause; that he will retain such certifications in his files; that he will forward a notice to his proposed sub-contractors as provided in the Instruction to Bidders

13. JOB MEETINGS

- A. The contractor and others concerned with the project whose presence is necessary as determined by the DOH and/or the Architect shall attend job meetings when requested for the purpose of discussing and expediting the prosecution of the work.
- B. The schedule for meetings will be established by the DOH and/or the Architect.
- C. The proceedings of these meetings will be recorded by the DOH and/or the Architect; the contractor will be furnished a copy for his use and distribution as required.

14. DRAWINGS

A. Drawings are generally schematic and may differ to some degree from field conditions. Specifically, certain drawings may be opposite hand from actual conditions and/or requirements. All dimensions are \pm . The contractor shall ascertain for himself the actual field conditions and shall be fully responsible for the indicated, specified and required work as designated and/or implied.

15. SCHEDULE OF THE WORK

- A. The project area is tenant occupied. All work shall be carried out in such a manner so as to cause minimal interference with the use of the project by the tenant.
- B. Other work in progress concurrently with work under this contract shall be affected by the performance of this contract. Conformance with this provision shall be the responsibility of this contractor.
- C. The standard working hours shall be from 8:00 a.m., until 4:30 p.m., Monday through Friday. The Contractor shall confirm working hours with the Owner prior to starting the work. Holidays shall include those observed by the DOH and the State of Connecticut.

D. The contractor shall at all times, maintain the fire integrity of the structures and shall maintain, free and clear all exitways.

E. The Contractor is required to submit to the Architect, for approval, prior to commencement of the work, a Project Schedule which identifies the time frame and sequence of construction. The Contractor is to provide an updated Project Schedule with each Application for Payment.

F. The Contractor must provide the DOH 48 hours' notice prior to the start of work so the owner may provide notice to the tenants.

16. MATERIALS AND EQUIPMENT

A. New materials and equipment installed into existing work shall be compatible with the existing work.

B. The contractor shall advise the Architect before ordering and/or installing any materials and equipment if he disputes those items and/or methods specified, otherwise he shall take full responsibility for their performance and suitability.

17. STORAGE OF MATERIALS

A. Storage space for materials and equipment is limited, Property Owner must approve in advance the locations of stored materials and/or dumpster(s).

B. Equipment and materials stored on the project site is the full responsibility of the contractor.

18. TEMPORARY FACILITIES

A. The contractor shall provide and maintain an adequate office at the project site at his discretion. If provided, it shall be located as directed by the DOH. It shall be kept clean, have adequate light and ventilation.

B. The contractor shall provide and maintain telephone service for his own use. No telephone service is available at the sites.

19. TEMPORARY SERVICE

A. The Contractor may connect to water available at the project without payment to the Owner.

B. The Contractor may connect to the existing electrical service without payment to the Owner.

C. Fixtures, or other modifications, shall be the responsibility of the contractor.

20. SANITARY FACILITIES

A. Sanitary facilities are not available at the project site. The Contractor shall provide temporary facilities at the site for his workers, at his own expense. Coordinate final locations with the DOH project representative.

21. DEMOLITION

A. This work includes the furnishing of all labor, materials, equipment and services necessary for, and reasonable incidental to, completion of all Demolition, as required for the installation of

the work, whether or not listed below.

B. The Contractor shall be confirm with Property Owner if a dumpster shall be permitted to remain on site for the purpose of disposal of demolished materials and debris. Final location of the dumpster to be coordinated with the Property Owner.

22. SALVABLE MATERIALS

A. NO SALVABLE MATERIALS.

23. SHOP DRAWINGS AND SUBMITTALS

A. Prior to delivery of materials and equipment to the project site, submit five (5) copies of Shop Drawings or Submittals of each item for approval by the Architect.

B. Submittals shall consist of manufacturer's scale drawings, cuts or catalogs, including descriptive literature and complete characteristics of equipment showing dimensions, capacity, code compliance, motor and drive and testing, all as required for this project.

C. Architect may designate submittal of physical samples for approval on items where actual color, texture or other characteristics might not be adequately described by drawing or written material.

24. PROTECTION OF WORK AND PROPERTY

A. The contractor shall be responsible for the maintenance and protection of all equipment, materials and tools, supplied by him and stored or installed on the job site, from loss or damage of all causes, until final acceptance by the DOH.

B. The contractor shall be responsible for the protection of any finished work of other trades or existing buildings and tenant's property and damage or defacement by his operation and must remedy any such injury at his own expense.

C. It shall be the Contractor's responsibility to protect all parts of the existing site, all trees, roads, streets, sidewalks, driveways, plantings, landscaping, lawns and curbs against damage caused by trucks, etc., driving over them. If they are damaged, the Contractor without cost to the Owner shall replace them.

D. The building is owner occupied. The Contractor shall take the necessary precautions to protect work areas and debris from potential dangers. Clear paths of egress must be maintained from the building at all times.

25. ACCESSIBILITY

A. The Contractor shall install all work so that all parts required and readily accessible for inspection, operation, maintenance and repair. Minor deviations from the drawings may be made to accomplish this, but changes of magnitude shall not be made without prior written approval from the Architect.

26. SCAFFOLDING, RIGGING, HOISTING

A. The Contractor shall provide all scaffolding, rigging, hoisting and services necessary for erection and delivery into the premises for all equipment and materials furnished, and remove same from premises when no longer required.

B. The Contractor shall coordinate in advance with the Owner the methods and locations for lifting of materials to the roof. The Contractor cannot assume that any existing site fixture can be temporarily removed or relocated during this construction process, this can only be discussed with the Owner after bids have been awarded.

27. GUARANTEE PERIOD

A. Refer to specific Sections of this project manual for warranty and guarantee periods.

28. FINAL PAYMENT REQUIREMENTS

A. Final Payment will not be approved until all items as outlined in Section 01700 have been completed.

B. All guarantees and warranties for new materials shall commence at date of written Final Acceptance of the Work, by the DOH, or its designated agent.

C. Upon completion of the project, the roofing manufacturer shall provide installation and material inspection warranties and certification of the roof system.

29. CLEAN UP

A. Project shall be cleaned daily or as required to keep project area free from rubbish and debris. Burning of rubbish shall not be allowed. All debris shall be removed from the site and deposited legally off-site.

B. Final clean up shall include all debris, stains, and other defacement caused by the work.

30. LIQUIDATED DAMAGES

A. In case of failure on the part of the contractor to complete the work within the time fixed in the Contract, or any extension thereof, the Contractor shall pay to the DOH as fixed, agreed and liquidated damages the sum of \$250.00 for each calendar day of delay.

31. HAZARDOUS MATERIALS

A. A hazardous material report has been completed by Eagle Environmental; this report is available within these Specifications, please refer to this report for handling, removal and disposal of all hazardous materials. It is the intention that this project's Scope of Work be completed in coordination with any hazardous materials encountered and be done within the quantities allowed, as specified by state and local authorities regulating abatement of these materials. If the Contractor suspects that certain building materials may contain hazardous materials, he shall notify the Architect in writing and the Architect will have the suspect materials tested.

32. CHANGE ORDERS

A. For all change orders, the general contractor shall be allowed 10% for overhead, above the direct costs and 5% for profit, above the direct costs to be calculated at 15% total above direct costs, for work performed by the general contractor.

- B. For all change orders, the sub-contractors shall be allowed 10% for overhead, above the direct costs and 5% for profit, above the direct costs to be calculated at 15% total above direct costs, for work performed by the sub-contractor.
- C. For all change orders, the general contractor shall be allowed 5% for overhead, above the direct costs and 2-1/2% for profit, above the direct costs to be calculated at 7-1/2% total above direct costs, for work performed by the sub-contractor.

33. BUILDER'S RISK INSURANCE

- A. Item 36B of HUD General Conditions, Form 5370-A refers to Builder's Risk Insurance. It has been determined that the Builder's Risk Insurance is not required on this project.

34. OSHA REGULATIONS

- A. The contractor shall comply with all applicable State and Federal OSHA regulations.
- B. The contractor shall submit to the owner, a copy of the OSHA ten (10) hour construction safety and health card for each employee.
- C. The contractor shall maintain any and all required OSHA materials, on site, at all times.

35. CONTRACT PERIOD

- A. The Contract period will be One Hundred and Twenty (120) consecutive calendar days from day of "Notice to Proceed" until day of "Substantial Completion".

36. GENERAL CONDITIONS

- A. In the event a conflict between the Special Conditions and the General Conditions located in Section 2 of these Specifications occurs, the General Conditions shall take precedence.

END OF SECTION 00900

SECTION 01200
SUMMARY OF THE WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 SUMMARY OF THE WORK

- A. The scope of this contract, Community Development Block Grant Disaster Recovery for the Owner Occupied Recovery and Rehabilitation Program for the Connecticut Department of Housing, **Project No. 2135 located at 20 Arthur Street, New Haven, CT 06511.**

- B. Verbal Summary of the Work: Without force and effect on the requirements of the Contract Documents, the Base Bid work includes, but is not limited to the following:

1. Selective demolition.
2. Removal of all layers of existing asphalt shingle roofing systems and clapboard roofing shingles down to existing plank and spaced roof sheathing.
3. Replace existing vent pipe boots.
4. Installation of 3/8" CDX plywood roof sheathing.
5. Installation of new fiberglass based asphalt roof shingle system including ice and water shield, underlayment, trim and accessories.
6. New aluminum gutters and downspouts.
7. Replacement of existing flashing systems, as indicated on the drawings.
8. New hip roof framing and fiberglass based asphalt roof shingle system at rear entry.
9. Asbestos and Lead Based Paint Remediation.
10. Scraping and painting of existing wood siding containing lead paint.
11. Removal and replacement of existing windows contaminated with lead paint.

- C. Refer to Section 02090 for Scope of Work, quantities and products required to accommodate the remediation of Lead Based Paint.

1.3 EXISTING CONDITIONS

- A. This project includes work which is affected by existing conditions. Existing conditions which may affect the Work may be discovered during the progress of the Work. Make adjustments in the work as required accommodating existing conditions. Where products are to be installed in existing construction, perform cutting, removal of old products (if applicable), installation of new products, rebuilding of adjacent construction, and other operations as required.

1. The Architect will issue prompt instructions when unanticipated conditions are encountered.
2. If unanticipated conditions are such as to impose a hardship on the Contractor as interpreted by the Architect, such as faulty structure which must be rebuilt, the

Architect shall issue the appropriate change orders for approval by the DOH.

3. Make adjustments in the Work, other than those described in two above, without additional compensation.
- B. The Drawings do not attempt to show every item of existing work to be demolished and every item of repair required to existing surfaces. Perform work required to remove existing materials which are not to be saved and to restore existing surfaces to like-new condition.
1. If possible, repairs shall be indistinguishable from adjacent sound surfaces. Where it is impossible to achieve repairs which are indistinguishable from adjacent sound surfaces, notify the Architect, and proceed according to the Architect's instructions.

1.4 - USE OF PREMISES

- A. The following are in addition to requirements of the General and Special Conditions governing the Contractor's use of the premises.
1. Assume full responsibility for protection and storage of products stored on the premises.
 2. The Contractor shall have use of the premises between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. It is during these hours that all work must take place. Additional hours must be approved in advance by the Owner.
 3. The Contractor shall not have use of the premises on holidays which the DOH is closed.
 4. The Contractor will have access to specific project site in accordance with the approved project schedule.
 5. Work on the building will not be allowed without providing the tenant 48 hour prior notice.

1.5 - REFERENCE STANDARDS

- A. Unless date is listed, reference to standard specifications shall mean latest edition of such specification legally adopted and published at the date the Contract is executed.
- B. Reference to technical society or organization is made in the project manual according to the following abbreviations:

A.A.M.A.	American Architectural Manufacturers Association
A.C.I.	American Concrete Institute
A.I.A.	American Institute of Architects
A.I.E.E.	American Institute of Electrical Engineers
A.I.S.C.	American Institute of Steel Construction A.I.T.C. American Institute of Timber Construction
A.F.P.A.	American Forest & Paper Association
A.N.S.I.	American National Standards Institute
A.P.A.	American Plywood Association

A.R.M.A.	Ashphalt Roofing Manufacturer's Association	
A.S.H.R.A.E.	American Society of Heating, Refrigeration,	and Air Conditioning Engineers
A.S.M.E.	American Society of Mechanical Engineers	
A.S.T.M.	American Society of Testing Materials	
A.W.I.	American Woodwork Institute	
A.W.P.I.	American Wood Preservers Institute	
A.W.S.	American Welding Society	
A.W.W.A.	American Water Works Association	
B.O.C.A.	Building Officials and Code Administrators International	
C.H.F.A.	Connecticut Housing Finance Authority	
C.P.S.C.	Consumer Products Safety Commission	
C.S.I.	Construction Specification Institute	
D.O.H.	Department of Housing	
E.E.I.	Edison Electric Institute	
Form 812	Connecticut State Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction	
F.M.	Factory Mutual	
F.S.	Federal Specification	
H.U.D.	U.S. Department of Housing and Urban	Development
I.E.S.	Illuminating Engineers Society	
I.S.D.S.I.	Insulated Steel Door Systems Institute	
N.A.A.M.M.	National Association of Architectural Metal	Manufacturers
N.B.F.U.	National Board of Fire Underwriters	
N.B.S.	National Bureau of Standards	
N.E.C.	National Electric Code	
N.E.M.A.	National Electrical Manufacturers Association	
N.F.P.A.	National Fire Protection Association	
O.S.H.A.	Occupational Safety and Health Administration	
S.D.I.	Steel Deck Institute	
S.I.G.M.A.	Sealed Insulating Glass Manufacturer's	Association
S.J.I.	Steel Joist Institute	
S.M.A.C.N.A.	Sheetmetal and Air Conditioning Contractors National Association, Inc.	
S.S.P.C.	Steel Structures Painting Council	
U.L.	Underwriters Laboratories, Inc.	
W.W.P.A.	Western Wood Products Association	

1.6 – FINAL PAYMENT REQUIREMENTS

- A. Final Payment will not be approved until all items as outlined in Section 01700 have been completed.
- B. All guarantees and warranties for new materials shall commence at date of written Final Acceptance of the Work, by the DOH, or its designated agent.
- C. Upon completion of the project, the roofing manufacturer shall provide installation and material inspection warranties and certification of the roof system.

1.7 - GENERAL INFORMATION

- A. The DOH is a governmental agency, and as such, **pays no sales tax**. The Contractor shall assume that materials purchased for the use on this project shall not be taxed. The appropriate information and tax exemption number will be given to the successful bidder.

1.8 - SCHEDULE

- A. Refer to Form of Contract for completion date.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01200

SECTION 01270

UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for Unit Prices.
- B. Refer to other specification sections for specific requirements for this work.
- C. Enter Unit Price amounts on the enclosed Bid Form.

1.2 DEFINITIONS

- A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

- A. Refer to drawings for details and locations for Unit Price work.
- B. Provide Unit Prices on Bid Form.

3.1 LIST OF UNIT PRICES

A. Unit Price No. 1 – 3/4“ Plywood Roof Sheathing

1. Condition –Existing roof sheathing is a combination of 3/4" plywood and plank boards. Contractor shall verify in field, the thickness of all deteriorated sheathing that shall be removed and replaced.
2. Description – Install new 3/4" CDX plywood sheathing for the following:
 - a. Rotted roof sheathing being replaced.
 - b. Infill plywood at existing ridge vent cut-outs being.
 - c. Existing openings for roof mounted attic vents being removed.
3. Unit of measure – Per square foot.

B. Unit Price No. 2 – Wood Fascia

1. Condition – Areas where the existing wood fascia is deteriorated, provide new wood fascia to match existing and prime and paint, two finish coats.
2. Unit of measure – Per linear foot.

C. Unit Price No. 3 – Wood Trim.

1. Condition – Areas where the existing wood trim is deteriorated, provide new wood trim to match existing and prime and paint, two finish coats.
2. Unit of measure – Per linear foot.

D. Unit Price No. 4 – Wood Soffit.

1. Condition – Areas where the existing wood soffit is deteriorated, provide new wood soffit to match existing and prime and paint, two finish coats.
2. Unit of measure – Per linear foot.

END OF SECTION 01270

SECTION 01300
DEMOLITION

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 - GENERAL REQUIREMENTS

- A. "Demolition" denotes razing and removal of materials or portions of existing structures, installations and obstructions shown on Drawings or specified to be removed from the site, and includes taking possession of and removing from the site, all material, equipment and debris resulting from demolition work except as otherwise specified herein. Burning of materials on the site will not be permitted.
- B. Upon completion remove all tools, equipment, temporary structures (if any) and installations and rubbish of every sort. Leave site in a level and orderly condition and the surrounding area in a broom-clean condition.
- C. It is the responsibility of the Contractor to coordinate any demolition work with any general construction work and the work of other trades. The demolition work must be phased accordingly.
- D. Provide any temporary weather protection which may be required as a result of demolition work.

1.3 - EXISTING PUBLIC SPACES

- A. Protect existing services indicated to remain on the site. Replace and/or repair services damaged as a result of demolition work, at no expense to the Owner.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 - SCOPE

- A. Portions of structures, installations and obstructions to be demolished are as shown on the Contract Drawings and, in general but not necessarily limited to, those items as listed below:
1. Removal of existing asphalt shingle roofing systems, including vent stack boots.
 2. Removal of existing deteriorated wood sheathing.
 3. Removal of existing flashing systems, as indicated on the drawings.
 4. Removal of existing porch above rear entry, including roof, framing, railings and wood shingles.

B. Demolition work shall not be limited to the above listing. The removal, relocation, or replacement of any item(s) by a trade as may be required (1) to complete the indicated scope of work or (2) to accomplish the intended result may require demolition work not specifically listed or shown on the Drawings. All such requirements shall be considered part of this work.

3.2 - PROTECTION

A. It shall be the Contractor's responsibility to protect all parts of the existing site, all trees, roads, streets, sidewalks, driveways, plantings, landscaping, lawns and curbs against damage caused by trucks, etc., driving over them. If they are damaged, the Contractor without cost to the Owner shall replace them.

B. Do not close or obstruct means of egress in connection with the work. Materials and debris shall not be placed or stored in egress paths. Conduct operations so as to interfere as little as possible with normal activities.

END OF SECTION 01300

SECTION 01400
SUBMITTALS

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 - RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Substitutions and product options are indicated in Section 00900 of the Special Conditions.
- B. Materials and methods requiring submittals are listed, where applicable, within each respective section of this specification.

1.3 IDENTIFICATION

- A. Identify each submittal with the following information:
1. Date and revision date(s).
 2. Project title.
 3. The names of: Architect, Contractor, subcontractor supplier, manufacturer or separate detailer when pertinent.
 4. Identification of products, materials and finishes.
 5. Relation to adjacent structure or material.
 6. Field dimensions, clearly identified as such.
 7. The specification section number, and applicable standards, such as ASTM or FS number.
 8. Quantities.
 9. Blank spaces, 4" x 4 1/2" each, for the Architect's stamp, and Consultant's stamp where applicable.
 10. Identification of deviations from Contract Documents.
 11. Contractor's stamp, initials or signed, certifying to review of submittal, the verification of the field measurements and quantities, and compliance with Contract Documents.
- B. Accompany the submittals with a transmittal letter containing:
1. Date.
 2. Project Title and H.U.D. number (where applicable).
 3. Contractor's name and address.
 4. The number and name of each item submitted.
 5. Notification of deviations from Contract Documents.

1.4 - SHOP DRAWINGS

- A. Provide the following information, where applicable, on all shop drawings:
1. All necessary dimensions. Dimension work illustrated by shop drawings to fit actual field conditions.
 2. Sufficient detailing to show appearance, method of assembly or fabrication, and the

method of installation or erection.

3. Identification of details by reference to sheet and detail number shown on Contract Drawings.

1.5 - PRODUCT DATA

A. Manufacturer's standard schematic drawings which are:

1. Modified to delete any information which is not applicable to the Project.
2. Supplemented to provide any additional information applicable to Project.

B. Manufacturer's catalog sheets, brochures, diagrams schedules, performance charts, illustrations and other standard descriptive data.

1. Clearly mark each copy to identify the pertinent materials, products, or models.
2. Show dimensions and clearances required.
3. Show performance characteristics and capacities.
4. Show wiring diagrams and controls.

C. Test reports performed by independent testing agencies for manufacturer. On test reports list:

1. System, material or work tested.
2. Test results and witnesses.
3. Description of correction of faults.

1.6 - SAMPLES

A. Samples shall be of sufficient size and quantity to clearly illustrate:

1. Functional characteristics of product or material, with integrally related parts and attachment devices.
2. Full range of color samples.
3. After the review, approved samples may be used in construction of Project, where appropriate.

1.7 - SUBMISSION REQUIREMENTS

A. Submit to the Architect all shop drawings, product data and samples required by the specification sections.

B. Schedule submissions at least 10 working days before dates reviewed submittals will be needed.

C. Submit six (6) bond copy prints of each shop drawing.

D. Submit six (6) copies each of all product data.

E. Submit two each of required samples unless a greater number is specified or requested by the Architect.

F. Submit samples with delivery charges prepaid. Samples delivered in damaged condition may not be acceptable, and may have to be resubmitted, to Architect's discretion.

G. The Architect may, at his discretion, request submittals in addition to those specified.

1.8 - RESUBMISSION REQUIREMENTS

A. Shop Drawings:

1. Revise the initial drawings as required by General Conditions, and resubmit as specified for initial submission.
2. Indicate on drawings any changes which have been made other than those requested by Architect.

B. Product data and Samples: Submit new data and samples as required for initial submission.

1.9 - ARCHITECT'S DUTIES

A. Architect's responsibilities for processing submittals are defined in General Conditions.

B. Architect is not responsible for verifying quantities, dimensions, field measurements, or coordination of work of different trades. Architect's review of submittals shall not be construed to include or imply any such verification.

1.10 - CONTRACTOR'S DUTIES

A. In addition to requirements of the General Conditions,

1. Contractor shall be responsible for obtaining and distributing prints of shop drawings after, as well as before final approval, to all parties, including, but not limited to the Housing Authority, H.U.D. (where applicable), subcontractors and suppliers.
2. Prints of approved shop drawings shall be made from sepia transparencies which carry the Architect's and Consultant's stamp of approval.
3. Begin no work which requires shop drawings and product data unless the approved and stamp shop drawings and product data are on file at the job site.

B. The Contractor shall submit one (1) Submittal Package, which shall include all items required to complete any type, which shall be the basis of all units completed for the contract period, subject to any design changes which may result out of execution of the work.

END OF SECTION 01400

SECTION 01500
CUTTING AND PATCHING

Part 1 - GENERAL

1.1 - RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 - DESCRIPTION

A. Definition: "Cutting and Patching" is hereby defined to include, but not necessarily limited to the cutting and patching of nominally completed and previously existing work, in order to accommodate the coordination of work, or the installation of other work, or to uncover other work for access or inspection, or to obtain samples for testing, or for similar purposes; and is defined to exclude integral cutting and patching during manufacturing, fabricating, erecting and installing process for individual units of work.

B. Demolition is recognized as an example of a related, but separate category of work, which may or may not also require cutting and patching as defined in this Section. Refer to Section 01300.

1.3 - QUALITY ASSURANCE

A. Requirements for Structural Work:

1. General: Do not cut and patch structural work in a manner resulting in a reduction of bearing capacity or load/deflection ratio.

2. Call for a structural inspection, and/or obtain the Architect's approval prior to cutting and patching any of the following:

- a. Bearing Walls.
- b. Structural decking and roof or floor systems.
- c. Exterior wall construction.
- d. Pressurized piping, vessels and equipment.

B. Visual requirements: Do not cut and patch work which is exposed on the exterior or exposed in occupied spaces of the building in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of cutting and patching work, both as judged solely by the Architect. Remove and replace work judged by the Architect as having been cut and patched in a visually unsatisfactory manner.

1.4 - SUBMITTALS

A. Requests for Architect's Consent:

1. Prior to cutting and patching of structural elements, submit written request to the Architect for permission to proceed with cutting.
2. Should conditions of the Work, or schedule indicate a required change of materials or methods for cutting and patching, so notify the Architect and secure his written permission and the required Change Order prior to proceeding.
3. Cutting and patching of deteriorated materials listed in the Bid Form as Unit Prices, may proceed without the Architect's prior approval, however, the Contractor shall document the quantity, location and date of materials replaced. The Contractor shall be compensated for this additional work based on the unit price established and the quantities replaced pursuant to Change Orders, and in accordance with Item 2.2 of this Section.

B. Notices to the Architect:

1. Prior to cutting and patching performed pursuant to the Architect's instructions, submit cost estimate to the Architect. Secure the Architect's approval of cost estimates and type of reimbursement before proceeding with cutting and patching.
2. Submit written notice to the Architect designating the time the work will be uncovered, to provide for the Architect's observation.

C. Approval by the Architect to proceed with proposed cutting and patching does not waive the right to later require complete removal and replacement of work found to be cut and patched in an unsatisfactory manner.

Part 2 - PRODUCTS

2.1 - MATERIALS

A. For replacement of items removed, use identical materials to those being removed, or materials complying with the various Sections of these Specifications, as appropriate. The end result of the cutting and patching operation shall result in equal or better work than the work being cut and patched, in terms of performance characteristics and including visual effects where applicable.

2.2 - PAYMENT FOR COSTS

A. Perform cutting and patching needed to comply with the Contract Documents at no additional cost to the Owner. The Owner will reimburse the Contractor for cutting and patching performed pursuant to written Change Orders, after claim for such reimbursement is submitted by the Contractor, and approved in advance by the Architect.

PART 3 - EXECUTION

3.1 - INSPECTION

A. Inspection:

1. Inspect existing conditions, including elements subject to movement or damage during cutting and patching.

2. After uncovering the work, inspect conditions affecting installation of new work.

B. Discrepancies:

1. If uncovered conditions are not as anticipated, immediately notify the Architect and secure needed directions.

2. Do not proceed until unsatisfactory conditions are corrected.

3.2 - PREPARATION

A. Provide adequate temporary support including, but not necessarily limited to shoring and bracing to maintain structural integrity of the Work. Do not endanger other work.

B. Provide adequate protection of other work during cutting and patching, to prevent damage. Provide protection of the Work from adverse weather exposure.

3.3 CUTTING AND PATCHING

A. Perform cutting and patching as required under pertinent other Sections of these Specifications.

B. Employ skilled tradesmen to perform all cutting and patching. Proceed with cutting and patching at the earliest feasible time, in each instance, and perform the work promptly.

C. Patch with seams which are durable and as invisible as possible. Perform fitting and adjusting of products to provide finished installation complying with the specified tolerances and finishes.

D. Select systems that adequately resist racking and provide acceptable deflection under live and dead loads. Reinforce to prevent cracking. Inspect and test patched areas to demonstrate integrity of work.

E. In all cases of repair and renovation, restore exposed finishes of patched areas and where necessary, extend finished restoration onto retained work adjoining, in a manner which eliminates evidence of patching.

END OF SECTION 01500

SECTION 01700
PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 - GENERAL

- A. The following requirements supplement those of the General Conditions.

1.3 - CLEANING

- A. Hazard Control:
1. Store all volatile wastes in covered non-flammable containers.
 2. Prevent accumulation of wastes, which create hazardous conditions.
 3. Provide adequate ventilation during use of volatile or noxious substances.
- B. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
1. Do not burn or bury any rubbish and waste materials on project site.
 2. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in the storm or sanitary drains. Dispose of legally off the site.
 3. Do not dispose of wastes in streams or waterways.
 4. Dispose of demolition and waste materials, debris and rubbish legally off the site.
- C. During construction, in addition to cleaning required by the General Conditions, perform the following:
1. Keep building, grounds, and public properties free from accumulations of waste materials and rubbish.
 2. Provide on-site containers for the collection of all waste materials, all debris and rubbish. Dispose of waste materials, debris and rubbish at reasonable intervals, legally off the site.
- D. At completion, for the purposes of final acceptance, in addition to leaving the work clean as required by General Conditions, perform the following:
1. Clean site and clean up any debris or dirt off site, which resulted from work under this contract, and dispose of legally off the site.
 2. When workmen call back for "punch list" or guarantee work, clean up afterwards.

1.4 – PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. General: Prior to requesting Certification Inspection for Substantial Completion, (for either entire work or portions thereof), complete the following and list know exceptions in the request.
- B. Submit written notice to Architect that Project, or a designated portion of Project, is complete, as required by General Conditions, and that the following items have been completed:
1. Contract documents have been reviewed.
 2. Project has been inspected for compliance with Contract Documents.

3. Work has been completed in accordance with Contract Documents and ready for inspection.
 4. Equipment and systems have been tested in presence of Owner's representative and are operational.
 5. Submission to the owner all required operating manuals, warranties and documentation.
 6. Request that Architect review the work completed.
 7. Submit payment request showing 100% completion for portion of work claimed as "substantially complete", or list the incomplete items, value of incomplete items, time to complete those items and reason for the incompleteness. Include supporting documents as required.
 8. Removal from the project site temporary facilities and services, along with construction tools and mock-ups.
- C. Inspection Procedures: Upon receipt of the Contractor's request for Substantial Completion Certification Inspection, the Architect will either proceed with the inspection or advise the Contractor of prerequisites not fulfilled. Following initial inspection, the Architect will note Substantial Completion or advise Contractor of work that must be performed and repeat inspection when requested and assured that work has been substantially completed. Results of completed inspection will form initial "punch-list" for final acceptance.
- D. Re-inspection Procedures: The Architect will re-inspect work upon receipt of notice from the Contractor that the work has been completed. The Architect will bill the owner directly for punch list items not accepted after the second inspection and requiring additional inspection. The dollar amount is to be agreed to with the owner. This amount is to be deducted from final payment to Contractor.
- E. When the Architect certifies that the Work is substantially complete, the Contractor shall immediately do the following:
1. Obtain Certificate of Occupancy, if required.
 2. Prepare and submit Closeout documents.

1.5 – PREREQUISITES TO FINAL ACCEPTANCE

- A. Prior to requesting Final Inspection for Certification of Final Acceptance and Final Payment as required by the General Conditions the following items must have been completed and/or submitted to the Owner or Owner's Representative:
1. Record Documents and related record information as outlined below.
 2. Submit final payment request with final releases and supporting documentation not previously submitted and accepted.
 3. Submit copy of final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.
 4. Deliver tools, spare parts, extra stocks of materials, and similar physical items.
 5. Operation and Maintenance Data.
 6. The guarantees, warranties and bonds.
 7. Parts and Maintenance Materials.
 8. Complete final clean-up requirements, including touch-up painting of marred surfaces.
 9. Evidence of Compliance with requirements of governing authorities, including:
 - a. Certificate of Occupancy, if required.
- B. Send Closeout submittals to Owner with transmittal letter in duplicate containing the following:

1. Date
2. Project title and number.
3. Contractor's name and address.
4. Certification that each Project Record Document, as submitted is complete and accurate.
5. Signature of the Contractor, or his authorized representative.

1.6 - RECORD DOCUMENTS

- A. As work progresses prepare and maintain record documents as specified below, including amendment and change order drawings, these shall be referred to as "Record Documents." Do not use record documents for construction purposes; protect from deterioration. The Contractor shall keep an up to date copy of all documents and have accessible to the Architect for reference during working hours. Upon completion of project turn record documents over to Owner.
1. Record Drawings: Maintain one (1) print set of contract drawings in clean, undamaged condition, with mark-up of actual installations which vary from the work as originally shown. Give particular attention to concealed work, which would be difficult to measure and record at a later date.
 2. Record Specifications: Maintain one (1) copy with mark-up of variations in actual work from that specified. Give particular attention to substitutions, option selections, etc.
 3. Record Shop Drawings: This includes Product Data, Certifications and Laboratory Test Reports: Maintain one (1) copy of each approved shop drawing and product data submittal, certification or report. Show all shop drawing items on the Record Drawings where the shop drawing item caused a change in the contract documents.

1.7 – OPERATION AND MAINTENANCE MANUALS

- A. Provide operation and maintenance manuals for each system or piece of equipment specified. Organize information into binder form with a table of contents and tabbed sections. The cover of the binder should read "Operations and Maintenance Manual" it should list the name of the project and project number and date of completion. The Manual's contents should include, but not be limited to the following:
1. Description of each system.
 2. Installation instructions.
 3. Maintenance instructions.
 4. Emergency instructions and safety requirements.
 5. Corrected shop drawings.
 6. Approved product data and system test procedure.
 7. Copies of approved certifications and laboratory test reports.
 8. Copies of Warranties.
 9. Parts list, including source of supply.
 10. Name, Address, and Phone number of each subcontractor who installed equipment and local system representative.

PART 2 - PRODUCTS
NOT USED

PART 3 - EXECUTION
NOT USED

END OF SECTION 01700

SECTION 020900
LEAD-BASED PAINT ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Supplementary Conditions and Division 1 Specifications Sections, of the Contract Documents apply to this Section.

1.2 PROJECT DESCRIPTION

- A. A lead-based paint abatement project is being undertaken at 20 Arthur Street in New Haven, Connecticut. The lead-based paint abatement work is being funded by a Community Development Block Grant (CDBG) under the Department of Housing Occupied Rehabilitation and Rebuilding Program (OORR).
- B. The site building consists of a three (3) dwelling unit residential building. At least one child under the age of six (6) years old resided in the site building at the time of the inspection. The presence of a child under the age of six (6) years old and the identification of defective lead-based paint triggers the State of Connecticut Childhood Lead Poisoning Prevention and Control Regulations. The lead-based paint abatement work must be performed by a State of Connecticut licensed Lead Abatement Contractor.
- C. A lead-based paint risk assessment was performed on the interior of the dwelling units along with the common areas and exterior areas. Toxic levels of lead dust and lead soil were also identified and the remediation of the affected surfaces is included in the Scope of Work. There are no known lead-based paint abatement orders on the inspected building.
- D. All lead-based paint abatement work shall be conducted in compliance with all Federal, State and local regulations. Specifically, work shall conform with The Department of Housing and Urban Development (HUD) Guidelines For the Control and Evaluation of Lead Based Paint in Housing, The United States Environmental Protection Agency (USEPA), The State of Connecticut Department of Public Health (DPH) Lead Poisoning Prevention and Control Regulations, The State of Connecticut Department of Energy and Environmental Protection (DEEP) Hazardous Waste Disposal regulations and the Department of Labor Occupational Safety and Health Administration (OSHA) Lead in Construction Final Rule 29 CFR 1926.62.

1.3 SCOPE OF WORK

- A. The general scope of work entails the following:
1. Paint removal in specified areas
 2. Paint stabilization in specified areas
 3. Enclosure of exterior components
 4. Replacement of specified windows and other various components
 5. Specialized cleaning throughout the building

6. Soil Abatement
7. Any surface that was not defective at the time of inspection or was not intended to be disturbed by renovations must be assumed to contain toxic levels of lead-based paint. If any surfaces are disturbed or uncovered during the renovation project, they must be treated as lead-based paint and either abated or left in intact condition at the completion of the job.

SEE ATTACHED TABLE A FOR SCOPE OF WORK.

REPAIRS PRIOR TO LEAD HAZARD REDUCTION					
Item #	Location	Component	Side	Quantity	Repair
NONE					

1.4 SITE EXAMINATION

- A. The Contractor shall visit the site and examine all structures located thereon. The specifications shall be compared with the existing field conditions. The Contractor will examine all parts of the existing structure to which new work will be connected, attached or applied, and notify Eagle Environmental of any conditions detrimental to the proper and timely completion of the work.
- B. The Contractor shall, as a part of their bid, notify Eagle Environmental of any discrepancies, errors, or omissions that might have been discovered in the specifications for the purpose of making such corrections or adjustments as may be necessary. Unless specifically noted otherwise in the bid, any additional work by other trades or by the contractor that is required in order for the Contractor to finish the job will be assumed to be included in the bid price. If it should appear that any work called for in the specifications is not in accordance with State, local or federal laws or ordinances, the Contractor shall immediately notify Eagle Environmental.

1.5 LEAD PLANNER/PROJECT DESIGNER INFORMATION

- A. Name of Planner/Project Designer: Kristen Liljehult
 Certificate Number: 002153
 Firm: Eagle Environmental, Inc.
 Address: 8 South Main Street
 City: Terryville State: Connecticut Zip: 06786
 Telephone Number: (860) 589-8257

1.6 INSPECTION REPORT INFORMATION

- A. Inspector Name: Hannah Hintz
 Title: Lead Inspector/Risk Assessor
 Certificate Number: 002244
 Firm Name: Eagle Environmental, Inc.
 Firm License Number: 001723
 Telephone Number: (860) 589-8257
- B. Inspector Name: Eltwaun Lawrence
 Title: Lead Inspector/Risk Assessor
 Certificate Number: 002250
 Firm Name: Eagle Environmental, Inc.
 Firm License Number: 001723
 Telephone Number: (860) 589-8257

- C. Inspector Name: Kristen Liljehult
Title: Lead Inspector/Risk Assessor
Certificate Number: 002206
Firm Name: Eagle Environmental, Inc.
Firm License Number: 001723
Telephone Number: (860) 589-8257

1.7 OWNER INFORMATION

- A. Name: Denise Hallums
Address: 20 Arthur Street
City: New Haven State: Connecticut Zip: 06512
Home Telephone:

1.8 CONTRACTOR INFORMATION

- A. Company Name: State of Connecticut Licensed Lead Abatement Contractor to be selected.
Contractor License Number: Not applicable at this time
Contact Person: Not applicable at this time
Address: Not applicable at this time
City: N/A State: N/A Zip: N/A
Telephone Number: N/A

1.9 APPLICABLE CODES

- A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner which will be in conformance with all federal, state and local regulations and guidelines pertaining to lead paint abatement. Specifically, the Contractor shall comply with the requirements of the following:
1. Occupational Safety and Health Administration: OSHA
 - a. 29 CFR 1910 General Industry Standards
 - b. 29 CFR 1910.1025 Lead Standard for General Inventory
 - c. 29 CFR 1910.134 Respiratory Protection
 - d. 29 CFR 1910.1200 Hazard Communication
 - e. 29 CFR 1910.245 Specifications for Accident Prevention (Sign and Tags)
 - f. 29 CFR 1926.62 Construction Industry Standard
 2. State of Connecticut Department of Energy and Environmental Protection: DEEP
 - a. Connecticut DEEP Regulations (Section 22a-209-8(I) and Section 22a-220 of the Connecticut General Statutes)
 3. State of Connecticut Department of Public Health: DPH
 - a. 19a-111-1 thru 19a111-11 Lead Poisoning Prevention and Control Regulations.
 4. USEPA
 - a. 40 CFR 745.100 - .119 Final Rule
 - b. 40 CFR Part 261 United States Environmental Protection Agency
 - c. 40 CFR 745 Subpart E

5. Department of Housing and Urban Development: HUD

- a. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, dated June 1995.
- b. 24 CFR Part 35 Lead-Based Paint Poisoning in Certain Residential Structures.

1.10 FEES, PERMITS AND LICENSES

- A. The Contractor shall comply with the provisions of all permits or applications required by the work specified, as well as make all submittals required under those auspices.

1.11 SEQUENCING AND SCHEDULING

- A. The Contractor shall extend full cooperation to Owner in all matters involving the use of Owner's facilities. At no time shall the Contractor cause or allow to be caused conditions which may cause risk or hazard to the general public or conditions that might impair safe use of the facility. The Contractor shall provide electricity, water and portable sanitary facilities for this project.
- B. The Contractor shall submit a time-line schedule, not date specific, to Owner and Consultant for integration into the overall project schedule. Coordinate the work of this section with the needs of the Owner. Phasing and scheduling of this project will be at the discretion of the Owner and shall not proceed in any area without the express consent of the Owner. The Contractor shall be available within 24 hours' notice for additional work or rework, if after acceptance of the work, it is found that full abatement was not achieved from the initial work effort as determined by the Owner.
- C. The proposed time line for the work in this Section, as noted above, shall show the time involved from start to finish of abatement operations, including preparation, removal, clean-up, and tear-down portions of the job.
- D. A final written schedule shall be prepared for approval by the Owner and the Consultant.
- E. The Contractor shall complete all work in a unit prior to proceeding to the next unit.

1.12 BUILDING OCCUPANCY

- A. The occupants shall be relocated during lead-based paint abatement work within the dwelling. The dwelling will not be re-occupied until lead clearance has been met.

1.13 NOTIFICATION TO CONNECTICUT COMMISSION ON CULTURE & TOURISM

- A. Notification to the Connecticut Commission on Culture & Tourism has been made and a response is pending.

1.14 NOTIFICATIONS

- A. The Contractor shall provide written notification to the Architect's representative a minimum of five (5) days prior to work at the site.
- B. The Owner shall notify the tenants a minimum of five (5) days prior to any lead renovation work.

- C. The Contractor is required to comply with the following information distribution requirements. No more than 60 days before beginning renovation activities in any residential dwelling unit of target housing, the firm performing the renovation must:
- D. Provide the owner or adult occupant of each unit the pamphlet titled Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools and comply with one of the following:
- E. Obtain, from the owner, a written acknowledgement that the owner has received the pamphlet (Each Unit).
- F. Obtain a certificate of mailing at least 7 days prior to the renovation.
- G. If the Contractor is unsuccessful in obtaining written acknowledgement from an adult occupant, certify in writing that the pamphlet has been delivered to the dwelling. The certification must include the date and method of delivery of the pamphlet, names of the persons delivering the pamphlet, reason for lack of acknowledgement, signature of the representative of the Contractor performing the lead renovation work and the date of signature.
- H. The Contractor shall have an adult occupant sign the Pre-Renovation Disclosure Form. A signed copy of the disclosure form shall be submitted to Architect's representative with the notice of the start date.

1.15 EPA RENOVATE, REPAIR AND REPAINTING RULE

- A. This project is a lead-based paint abatement project and the RRP rule is superseded by the State of Connecticut Childhood Lead Poisoning Prevention and Control Regulations.

1.16 INSURANCE

- A. The contractors shall carry per General Conditions the following insurances:
 - 1. Workman's Compensation
 - 2. Lead Abatement Liability Insurance
 - 3. Manufacturer's and Contractor's Liability Insurance

1.17 CONTRACT ASSIGNMENT

- A. The contractor shall not assign this contract without written consent of the Program's representative. A request for written consent shall be approved by DOH. Eagle Environmental, Inc. must be informed prior to the assignment of this contract.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. Damaged or deteriorating materials shall not be used and shall be removed from the premises.

- C. Polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to job site with factory label indicating 6 mil.
- D. Polyethylene disposable bags shall be six (6) mil. Tie wraps for bags shall be plastic, five (5) inches long (minimum), pointed and looped to secure filled plastic bags.
- E. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions.
- F. Impermeable containers are to be used to receive and retain any lead containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with EPA and DOT standards.)
- G. HEPA filtered exhaust systems shall be used during any dust generating deleading operations.
- H. For manual scraping activities, Contractor shall supply each worker with multiple newly sharpened scrapers on a daily basis.
- I. Sanders, grinders, wire brushes and needle gun removal equipment shall be equipped with a HEPA filtered vacuum dust pick-up system.
- J. Other materials such as lumber, nails and hardware necessary to construct and dismantle the decontamination enclosures and the barriers that isolate the work area shall be provided as appropriate for the work.
- K. Machine Sanding Equipment - Sanders shall be of the dual action, rotary action, orbital or straight line system type, fitted with a high efficiency particulate air (HEPA) dust collection system.
- L. Air compressors utilized to operate this equipment shall be designed to continuously provide 90 to 100 psi or as recommended by the manufacturer.
- M. Heat Blower Gun Equipment: Any electric operated heat-blower gun used shall be a flameless electrical-paint-softener type. Heat-blower shall have electronically controlled temperature settings to allow usage below a temperature of 700 degrees Fahrenheit.
- N. Liquid encapsulants used on this project shall be an approved encapsulant by the State of Connecticut Department of Public Health.
- O. Paints and primers shall contain less than 0.06% lead in wet film.

2.2 REPLACEMENT AND COVERING MATERIALS

- A. Unless stated otherwise, all replacement materials/products, shall meet the minimum code requirements for such applications.
- B. All materials shall have Energy Star ratings where applicable.
- C. Paints and primers must be less than or equal to the following VOC levels: Flats 50 g/L; non-flats 50 g/L; floor paint 100 g/L. Grams per Liter (g/L) levels are based on a combination of the Master Painters Institute (MPI) and Green Seal standards.

- D. All caulks, sealants and adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks, sealants must comply with regulation8, rule 51 of the Bay Area Quality Management District.
- E. Unless stated otherwise, replacement windows, doors and other materials and products shall be of equal or better quality of those specified in this Lead-Based Paint Hazard Control Plan.
- F. Exterior Entrance Doors
1. Unless otherwise noted, new exterior doors must be 1 ¾" thick 24 gauge thermally broken galvanized and bonderized steel insulated core doors, with an adjustable sill, magnetic weather stripping, and 1 ½ pair 3 ½ x 3 ½ loose pin butt hinges, use Thermo-Tru Steel Foam Core Insulated Exterior Doors or approved equal.
 2. Install single cylinder deadbolt plus passage set as manufactured by Schlage or equivalent. Provide owner with 2 keys for each lock.
 3. Door shall be accurately cut and fitted to frames and must operate freely without binding. Insulate between doorjamb and rough opening with spun fiberglass prior to trimming the interior of the door.
- G. Storm Doors
1. Existing storm/screen doors are to be re-hung or replaced with similar units. If re-hung, they must be fully operational.
- H. Interior Doors
1. Unless otherwise noted, install 1 3/8" hollow core luan door manufactured by Brosco or equivalent.
 2. If a hollow core door doesn't meet building and/or CT Fire Safety Code, install a door to meet code.
 3. Shim doors plumb, level and square. New doors shall be installed in pine jambs with 1 pair of 3" loose pin butt hinges. Fasten doors to rough framing through shims with 10-penny finish nails. Trim out both sides of new doors with finger jointed casings to match existing. Glue miters before fastening trim to jamb and wall. Fasten trim to walls with 6-penny finish nails and to jambs with 4-penny nails. Set heads of nails below surface of wood and fill with putty. Install passage set as manufactured by Schlage, Kwikset, Harlock or approved equal.
- I. Wood Replacement Windows - Historic
1. Furnish and install new wooden sashes with full screens. Contractor must measure the bevel of the sill if it is different from 14 degrees. The bevel must be custom specified to manufacturer. Sashes shall have insulated double-glazing with non-corroding fiberglass screens in aluminum frames. Windows must have tilt in sashes, Low E glazing, and must comply with Emergency Escape requirement of the building code for all bedrooms. Grid pattern must match prior windows being replaced.

2. Windows shall be manufactured by Harvey, Weathershield, Marvin or equivalent. Submit for approval prior to ordering. Windows shall be installed in accordance with the manufacturer's recommendations.
3. Frames and sash shall be properly adjusted for tight closure and easy operation. Frames shall be thoroughly sealed at the interfaces with the walls prior to completion of finish work. Screw in and caulk edges to seal. Install jamb liners. Cut aluminum coil stock or vinyl to fit the window well.
4. Remove sashes from opening; disconnect weights and pullys from lower sash and salvage. Then scrape window glazing compound and remove glazing points and glass, use a mild paint removal product and conditioner for wood. Install glass panes and glazing with points as well as pully and weight system. Jamb liners and aluminum coil stock shall be installed in opening then window sashes. Window sashes shall not be installed until XRF testing is performed.

J. Vinyl Replacement Windows

1. Furnish and install new rigid vinyl replacement windows with 5/8" Low E double-pane insulating glass and non-corroding half-height lockable fiberglass screens in aluminum frames. Windows must have tilt in sashes, welded frames, cam and sash locks, and must comply with Emergency Escape requirement of the building code for all bedrooms.
2. Windows shall be manufactured by Harvey (Classic Series), Viking, Mercury-Excellum, NorthEast (DH 100) or equivalent. Windows shall be installed in accordance with the manufacturer's recommendations.
3. Frames and sash shall be properly adjusted for tight closure and easy operation. Frames shall be thoroughly sealed at the interfaces with the walls (inside & out) prior to completion of finish work.

K. Basement Vinyl Replacement Windows

1. Remove and discard as lead waste any leaded basement windows.
2. Furnish and install new vinyl replacement basement windows manufactured by Harvey, Viking, Mercury-Excellum or equivalent. Windows shall be installed in accordance with the manufacturer's recommendations.

L. Vinyl Siding

1. Siding shall be of first quality manufactured by Vipco, Certaineed, or equivalent. Color by Owner. Provide 50-year warranty. Apply Amocor XP38 fanfold insulation board or equivalent, following the manufacturer's instructions to enclose lead paint.
2. Replace lead-based paint containing components of attic vents or combination gable and soffit vents to meet ventilation requirements for roof and attic areas.
3. Install vinyl siding and aluminum or vinyl wrapped trim following manufacturer specifications.

M. Exterior Porch Flooring

1. Tongue & Groove flooring, if specified or requested as an Alternate, is to be 5/4" Fir or 3/4" Mahogany. When Plywood is specified, materials to be 1/2" Exterior Grade Plywood.
2. Include edge moldings to cover any exposed leaded materials. Caulk all seams. Prime & paint using sand or other non-slip additive.

N. Interior Porch Flooring

1. When specified, material to be 1/4" luan.
2. Include edge moldings to cover any exposed leaded materials. Caulk all seams.

O. Radiator Covers

1. Radiators must be restored to a sound substrate using high heat paint before the cover is installed.
2. Radiator covers must be removable (for example by unscrewing a bracket) in case repairs are necessary. The cover must be a professionally manufactured radiator cover or be made using metal grille mounted in a pine frame. Note that heat must be able to rise through the top as well. Plywood is not acceptable for use in radiator covers.

P. Sheetrock and wood enclosure materials shall meet current code requirements for such products and specified applications.

Q. Overhead Garage Doors

1. Furnish and install new overhead garage doors (number required to replace those removed) and any and all tracks, rails, springs, hardware, etc. to make operational. Hardware should include an outside handle and keyed lock for each door installed. The doors must be three-layer pressure bonded construction (steel + insulation + steel) construction. Standard Colors – Owner to choose any standard color available from Manufacturer. Warranty must be a minimum of 20 years from Manufacturer.
2. Manufacturer to be Clopay or equal and meet Clopay's Premium Series specifications or equal. No automatic openers are to be included. If, however, the existing Overhead door units being replaced have automatic openers, contractor to reuse and make operable or replace with new unit(s).
3. Submittal of Manufacturers catalog cuts with all pertinent information, including warranty information, to be submitted to Waterbury Health Department and Owner for approval prior to placing order.

PART 3 - EXECUTION

3.1 WORKER HYGIENE PRACTICES

- A. Workers shall don protective gear prior to entering work area including respirators, disposable coveralls, and footwear. No street clothes shall be permitted to be worn under protective clothing. The Lead Abatement Contractor shall provide a clean area for workers to store street clothes and personal belongings.

- B. Eye protection, head protection, and ear protection shall be provided to each worker.
- C. While leaving respirators on, workers shall remove all gross contamination, debris, and dust from disposable coveralls and remove coveralls and footwear and place in hazardous waste disposal bag prior to leaving work area.
- D. The Lead Abatement Contractor shall establish a wash station in close proximity to the work area where workers shall decontaminate their person. The wash station shall be supplied with warm water and soap and an ample supply of drying towels. Wash water shall be tested for proper disposal.
- E. All equipment used by workers inside the work area shall be wet wiped or bagged for later decontamination before removal from work area.
- F. The Lead Abatement Contractor is responsible for using safe procedures to avoid electrical hazards. All temporary electrical wiring will be protected by GFIs.

3.2 ABATEMENT AREA PREPARATION

- A. Interior
 - 1. The tenants are responsible for packing all personal items for removal out of proposed abatement area(s). The Lead Abatement Contractor shall move the personal belongings to an easily accessible area to maintain tenant access to their belongings.
 - 2. The Lead Abatement Contractor shall conduct pre-cleaning activities including HEPA vacuuming floors and horizontal surfaces in the proposed work area.
 - 3. The Lead Abatement Contractor shall remove all moveable objects from the proposed work area.
 - 4. The Lead Abatement Contractor shall cover all non-moveable objects with a single layer of six (6)-mil polyethylene sheeting.
 - 5. The Lead Abatement Contractor shall cover the floors with two (2) layers of six (6)-mil polyethylene sheeting.
 - 6. The Lead Abatement Contractor shall cover ducts, diffusers, exhausts, windows, door openings or other penetrations with a single layer of six (6)-mil polyethylene sheeting.
 - 7. The Lead Abatement Contractor shall post lead warning signs at all ingresses to the work area.
 - 8. The Lead Abatement Contractor shall establish a worker decontamination facility adjacent to the work area(s). The decontamination facility shall be equipped with warm running water, soap, and drying towels.
 - 9. The Lead Abatement Contractor may elect to construct mini-enclosures around the interiors of the windows or components scheduled for abatement. If mini-enclosures are not constructed, the entire room shall be treated as the work area and must be cleaned in accordance with this Specification.

10. Install six (6)-mil critical barriers over the interior of window openings if window will be removed from the exterior of the building.

B. Exterior

1. Cover all shrubbery, plantings, stoops, etc. with opaque tarps, which will prevent damage or burning from the sun.
2. Regulate the exterior work area with lead-warning tape. The lead warning tape shall extend around the perimeter of the work area creating a minimum of a ten (10)-foot buffer zone between abatement operations and the warning tape.
3. Post lead-abatement warning signs at conspicuous areas around the perimeter of the abatement area. Unauthorized personnel shall be prohibited from entering the abatement area.
4. Utilize six (6)-mil polyethylene sheeting on the ground and/or porch floors. The sheeting shall extend a minimum of ten (10) feet from the foundation of the building. Sheeting shall be secured to the foundation utilizing duct tape.
5. The edges of the sheeting shall be weighted to avoid blowing or lifting.

3.3 LEAD ABATEMENT PROCEDURES

A. Window Removal and Replacement Procedures

1. The Contractor shall conduct work area abatement preparation as specified in Sections 3.1 and 3.2 prior to conducting abatement activities.
2. The Contractor shall HEPA vacuum any loose or flaking paint from the component prior to removing the component.
3. The Contractor shall manually remove the window sashes in the following sequence:
 - a. Remove exterior window screens/storms where necessary and recycle
 - b. Remove interior window stops
 - c. Remove inner sash by cutting sash cords
 - d. Remove wood parting beads
 - e. Remove outer sash by cutting sash cords
4. Stabilize all loose paint on window jambs, wells and exterior sills. HEPA vacuum window jambs, wells and exterior sills.
5. Prior to installation of new vinyl windows, the Lead Abatement Contractor shall label the components containing lead-based paint with the warning "Danger: Lead-Based Paint" in permanent ink behind the enclosure.
6. The Lead Hazard Reduction Contractor shall Remove window sash weights from cavities and insulate the entire cavity of the window jambs and header with insulation prior to or after window installation. If the Lead Abatement Contractor chooses to use a spray foam insulation, the MSDS must be provided to the LAMPP program and consultant for approval prior to use.

7. Exterior blind window stops shall be about the new vinyl window. Exterior blind window stops shall be liquid encapsulated or enclosed with aluminum coil stock depending on the scope of work. Re-use interior stops. Replace at Contractor's cost broken or un-useable interior stops.
8. The Lead Abatement Contractor shall immediately place components into appropriate waste container. All components containing LBP that were removed during the abatement project shall be assumed to be hazardous waste until analytical results of the TCLP test are received. Metal components shall be recycled at an approved recycling facility.

B. Door Removal and Replacement Procedures

1. The Lead Abatement Contractor shall conduct work area abatement preparation as specified in Sections 3.1 and 3.2 prior to conducting abatement activities.
2. Where doors are to be replaced, remove the door from the hinges and remove the hinges from the jamb. Avoid damaging the existing jamb if it is to remain.
3. Reinstall the new door, hinges and appropriate hardware. Ensure the door is plumb and open and closes smoothly.
4. All doors shall be accurately cut and fitted to frames and must operate freely without binding.
5. Entry doors shall be insulated between the door jambs and rough opening with spun fiberglass prior to trimming the interior of the door.
6. Where door systems are to be replaced with pre-hung doors, remove the door, casing if necessary and avoid damage, then remove the door stop and door jamb.
7. Reinstall new pre-hung system, level and plumb. The door should open and close smoothly.
8. Re-install the door casing if removed. If the door casing was damaged during removal, install a new door casing to match existing trim.

C. Enclosure Procedures

1. The Lead Abatement Contractor shall conduct work area abatement preparation as specified in Sections 3.1 and 3.2 prior to conducting abatement activities.
2. The Lead Abatement Contractor shall stabilize all loose paint on components prior to enclosure.
3. The Lead Abatement Contractor shall label the components containing lead-based paint with the warning "Danger: Lead-Based Paint" in permanent ink behind the enclosure.
4. The Lead Abatement Contractor shall utilize materials that will provide a permanent enclosure designed to be effective for twenty (20) years.

5. Aluminum coil stock enclosures shall be fastened with manufacturer recommended materials. All seams shall be caulked with compatible non-asbestos caulk.
6. Rigid enclosure materials such as paneling, sheetrock and plywood shall be mechanically fastened in conjunction with a non-asbestos compatible adhesive. All seams shall be caulked and or compounded with a compatible non-asbestos material.

D. Liquid Encapsulation Procedures

1. The Lead Abatement Contractor shall conduct work area abatement preparation as specified in Sections 3.1 and 3.2 prior to conducting abatement activities.
2. HEPA vacuum and wet scrape all loose and flaking paint from each component to be encapsulated. The surface shall be rendered intact prior to de-glossing activities.
3. Clean each component to be encapsulated. Cleaning solutions shall be compatible to the liquid encapsulant that will be applied. Ensure that encapsulants are not applied over dirt, grease, mildew, rust, oil or chalk. Measures shall be taken to remove dirt, grease, mildew, rust, oil or chalk prior to encapsulation.
4. De-gloss each surface prior to encapsulation in accordance with the manufacturer's recommended procedures for de-glossing.
5. Conduct patch tests on each type of architectural component to be encapsulated. Where feasible, the size of the patch test shall be a minimum of fifteen (15) inches by fifteen (15) inches on each component. The surface shall be rendered intact, cleaned and de-glossed prior to performing the patch test. The encapsulant shall be allowed to dry and cure as required by manufacturer specifications.
6. Cut an "X" into the center of the patch test area ensuring that the cut goes entirely through the encapsulant to the substrate. Each cut shall be a minimum of two (2) inches long. Use the cutting tool to lift the encapsulant from the substrate at the intersection of the cutting points. If greater than one-half (1/2) inch of encapsulant is removed, the patch test fails.
7. Failure of a patch test shall require a second patch test to be performed. The same procedures shall be followed for the second patch test.
8. Fill gouges, holes, gaps, or other imperfections or damage, which may result in failure of the encapsulant. The damaged areas shall be repaired with materials compatible to the encapsulant.
9. Encapsulants shall not be applied when the air temperature of the room where encapsulants are to be applied is below forty (40) degrees F or above ninety-five (95) degrees F. In addition, relative humidity is not to be above eighty-five (85) percent or the temperature of the target surface is above the dew point. Document temperature, relative humidity and the temperature of the target surface on a daily basis. Encapsulation procedures may not be conducted when the temperature, relative humidity or target surface temperature are not in compliance with this section or with the manufacturer's specification, whichever is more stringent.

10. All encapsulants shall be applied in accordance with the manufacturer's specifications, including but not limited to temperature requirements, humidity requirements, mil thickness requirements, number of coats, application methods, surface preparation requirements, dry time, cure time, and tinting.
11. Encapsulants used for this project shall be an encapsulant that has been approved by the State of Connecticut Department of Public Health for use in the State of Connecticut.
12. All lead-based painted components and surfaces that are liquid encapsulated shall be placed on a Lead-Based Paint Management Plan for continual surveillance.

E. Paint Stabilization Procedures

1. The Contractor shall conduct work area abatement preparation as specified in Sections 3.1 and 3.2 prior to conducting abatement activities.
2. Lightly mist the surface to be stabilized with water. Wet scrape the surface with a drag scraper or putty knife to remove the loose paint. Continuously mist during scraping. Do not dry scrape.
3. Feather paint edges as necessary to remove high spots in paint that may be subject to future peeling.
4. Remove all raised paint edges that may be present on surfaces or components.
5. Surface contaminants that prevent adhesion should be removed by cleaning with a five (5) percent trisodium phosphate (TSP) and water solution. These contaminants generally include dirt, grease, and soap films.
6. Once all loose paint is removed, clean the surface with a five (5) percent TSP and water solution.
7. Wet wipe the surface with clean water. Allow to dry, prime and repaint.

F. Paint Removal Procedure

1. Complete all necessary work area preparation in each area prior to commencing abatement in that area.
2. Conduct on-site paint removal utilizing one (1) of the following approved methods or combinations thereof:
 - a. Heat gun (not to be operated over seven hundred (700) degrees F).
 - b. Power equipment with attached HEPA dust collection device
 - c. Chemical removal agent
3. Remove all layers of paint and or primers down to a bare substrate. The contractor is responsible for reducing lead levels below the toxic level on components where paint removal is specified.

4. Eagle Environmental, Inc. shall conduct on site XRF testing of abated components to determine completeness of paint removal. The component(s) shall not be considered completely abated until XRF measurements are below the toxic level as defined by State regulations.

G. Specialized Cleaning Procedures

1. Complete all necessary work area preparation in each area prior to commencing abatement in that area.
2. Follow the cleaning procedure described below for hard smooth or semi-porous surfaces:
 - a. Conduct a thorough HEPA vacuuming of the surface.
 - b. Wash the floor with a string mop equipped with wringer. Use a five (5) percent phosphate and water solution. Wring the mop into an empty bucket after each cleaning and before dipping the mop back into the cleaning solution.
 - c. Conduct a clean rinse mopping on the floor.
 - d. Conduct a second HEPA vacuuming of the surface.
3. Follow the cleaning procedure described below for area rugs:
 - a. HEPA vacuum the top side of the rug for one (1) minute per ten (10) square feet.
 - b. Fold the rug in half and HEPA vacuum the back side of the rug and underlying floor at a rate of one (1) minute per ten (10) square feet.
 - c. Repeat Step 2 for the other half of the rug.
 - d. Unfold the rug and HEPA vacuum the top at a rate of two (2) minutes per ten (10) square feet.
4. Follow the cleaning procedure described below for carpet:
 - a. HEPA vacuum the carpet at a rate no faster than two (2) minutes per ten (10) square feet. Vacuum in a side-to-side motion.
 - b. HEPA vacuum the carpet in the opposite direction at a rate no faster than two (2) minutes per ten (10) square feet. Vacuum in a side-to-side motion.

H. Soil Abatement Procedures

1. Complete all necessary work area preparation in each area prior to commencing abatement in that area.
2. Where soil is to be covered, perform the following:
 - a. HEPA vacuum and or rake surface soil to remove loose paint chips.
 - b. Remove small and large debris through raking or manual pick-up.
 - c. Install rolled weed guard material where specified.
 - d. Install the following covering materials at the specified depths:
 - 1) Bark Mulch – four (4) inch minimum depth.
 - 2) Top Dressing Topsoil – two (2) inch minimum depth.
 - 3) Gravel, Pea Stone, etc. – four (4) inch minimum depth.

3. Where soil is to be removed, perform the following:
 - a. Regulate work area around soil removal location(s).
 - b. Remove visible surface paint chips prior to soil removal.
 - c. Manually remove soil to specified depth. Lightly mist soil with water to reduce dust.
 - d. Place soil in appropriate waste container.
 - e. Apply replacement soil or materials as specified. Replacement soil must contain less than two hundred (200) mg/kg of lead.

4. Where ground cover is to be applied, perform the following:
 - a. Perform steps specified in 3.3 and/or 3.3.
 - b. Where grass seed is to be planted, utilize a K31 Fescue or equivalent hearty seed.
 - c. Prepare soil for planting by lightly raking and loosening soil.
 - d. Apply seed at manufacturer's recommended covering rate.
 - e. Cover with straw mulch and water.
 - f. Install temporary caution tape around planted areas.
 - g. Caution tape to be removed by Owner once grass is established.

3.4 CLEANING

A. Interior

1. The Contractor shall ensure that all tools and materials are adequately cleaned at the completion of each shift.
2. The Contractor shall remove all gross waste from the lead abatement area prior to conducting final cleaning operations. All waste shall be treated as hazardous until the analytical results from the TCLP tests are received.
3. The Contractor shall thoroughly HEPA vacuum all flat surfaces and components including polyethylene sheeting within and/or adjacent to the lead abatement work area.
4. The Contractor shall remove polyethylene sheeting from floors and non-moveable objects following the initial cleaning. Polyethylene sheeting shall be folded inwards from the corners and folded upon itself.
5. The following final cleaning shall be conducted following removal of polyethylene sheeting:
 - a. HEPA vacuum floors and horizontal surfaces.
 - b. Wet clean floors and horizontal surfaces with a five (5) percent phosphate solution
 - c. Conduct second HEPA vacuuming on floors and horizontal surfaces.
 - d. Wait twenty-four (24) hour for dust settlement period.
 - e. Repeat steps a, b and c.

3.5 FINISH WORK AND WORKMANSHIP

- A. The Lead Abatement Contractor shall be responsible for all finish work, unless specified otherwise, including but not limited to: sanding, caulking, puttying, nail head filling, screw head filling, capping, cleaning, priming and painting.

- B. All newly installed surfaces and or components, including but not limited to: wood trim, wood doors, wood enclosures, wood windows, sheetrock, paneling, luan and all components and surfaces that were stripped of lead-base paint shall be primed and painted with one coat of finish paint. Color to be selected by Owner.
- C. Workmanship shall be of the highest quality and all installations, applications, repairs, removals, etc. shall be made to fit and blend with the existing surfaces to the best extent feasible.
- D. The finish work shall be approved at the discretion of the Owner or their designated representative Owner. Re-work shall be performed at no additional cost to the Owner.

3.6 DISPOSAL OF WASTE MATERIALS

- A. The Contractor shall perform the following:
 - 1. Work with Owner to see that waste is disposed of according to local, state and federal law and regulations and at the minimum practical cost.
 - 2. All waste should be considered hazardous lead waste. The Contractor is responsible for proper disposal of all waste generated during the project.
 - 3. All primary waste materials generated during lead hazard reduction, i.e. windows, doors, wood components, plaster, etc. shall be characterized for proper disposal utilizing the TCLP method. The cost associated with the TCLP sampling and analysis shall be the responsibility of the Contractor.
 - 4. All secondary waste materials generated during lead hazard reduction, i.e. disposable clothing, polyethylene sheeting, waste water, etc., shall have confirmatory TCLP testing to determine waste characterization. This testing shall be performed and paid for by the Contractor.
 - 5. The Lead Abatement Contractor shall comply with the requirements for small quantity generators (generates between one hundred (100) kg and one thousand (1000) kg of hazardous waste in a month or accumulates no more than one thousand (1000) kg of hazardous waste on-site at any one time and stores waste for no greater than ninety (90) days).
 - 6. The Contractor shall ensure that all hazardous waste generated is sent off-site to permitted hazardous waste treatment, storage, or disposal facilities (TSDF).
 - 7. The Contractor shall use DEEP permitted transporters for transport of hazardous waste.
 - 8. The Contractor shall apply for a temporary EPA identification number, where applicable. Hazardous waste manifests must be utilized which bear this I.D. number.
 - 9. The Contractor must comply with hazardous waste containerization requirements including but not limited to maintaining the containers in good condition, keeping containers closed and locked while in storage, properly labeling and dating containers, and using containers which are DEEP approved for over the road use.
 - 10. The Contractor shall develop a written inspection schedule to inspect any containers of hazardous waste at least weekly.

11. The Contractor must designate an emergency coordinator who will be responsible for coordinating emergency response measures. Basic emergency information must be listed in writing, and posted next to the on-site telephone. This information must include the name and number of the emergency coordinator.
 12. The Contractor must develop a written contingency plan for the site, which describe actions personnel will take in response to fires or other emergencies that may result in a release of hazardous waste constituents. The plan must meet certain content requirements and copies of the plan must be submitted to certain local emergency response officials.
 13. The Contractor must provide written notification to local fire departments and/or police regarding the location, nature, and duration of the lead-removal project, and regarding the type and quantity of hazardous waste that may be stored at the site.
 14. The Contractor must train their employees in hazardous waste management. They must maintain certain documentation regarding their training program, including the names, job titles, and job descriptions of the employees involved with hazardous waste management, a written description of the training that is given, and records documenting that employees have been trained. Annual updates of training must also be given.
 15. The Contractor may not store hazardous waste on-site for greater than ninety (90) days without a TSDF permit.
 16. Before leaving the site for the last time, the Contractor must remove any remaining hazardous waste and must decontaminate any equipment, storage areas, structures, soil, etc. contaminated as a result of the removal or storage of the hazardous waste generated at the site.
- B. Contractor and Owner shall comply with the following:
1. Contractor agrees to assume responsibility of all waste. However, if total project waste is ten (10) cubic yards or less, Owner may agree to assume responsibility for all lead containing waste by signing an agreement to accept and properly dispose of the waste. Contractor agrees to place the lead containing waste in a location designated by Owner and under conditions that do not contaminate the ground or area around the lead containing waste.
 2. The Owner shall promptly remove waste from site and dispose of in accordance with all applicable laws.
 3. The Owner shall designate a secure area where waste can be stored and is not subject to exposure to inclement weather, tampering or contamination of surrounding area(s).

3.7 POST RENOVATION CLEANING VERIFICATION

- A. The Certified Renovator must perform a visual inspection to determine whether dust, debris or residue is still present. If present, the renovation area shall be re-cleaned following the specified cleaning procedures.
- B. Contractor cleaning verification cloths will not be used for this project. Dust sampling by the Program's Consultant shall be performed in each interior area where lead-hazard reduction work was performed. This includes specialized cleaning procedures.

- C. The following criteria must be met for final clearance dust wipe samples where renovation work is performed:
1. Floors: 40ug/ft²
 2. Window Sills: 250ug/ft²
 3. Window Wells: 400ug/ft²
- D. Clearance dust wipe samples that fail shall be re-cleaned at the Contractor's expense until dust wipe sampling meets the applicable criteria.

3.8 RECORDKEEPING

- A. The Contractor must retain and, if requested, make available to EPA all records necessary to demonstrate compliance with the RRP Rule for a period of 3 years following completion of the renovation.
- B. The Contractor must retain the following records and provide a copy to Architect's representative at the completion of the project:
1. Records or reports certifying that a determination had been made that lead-based paint was not present on components affected by the renovation including reports by a State of Connecticut licensed Lead Inspector, records by a Certified Renovator after using EPA-recognized test kits, including an identification of the manufacturer and model of any test kits used, a description of the components that were tested including their locations, and the results of each test kit used.
 2. Signed and dated acknowledgement of receipt of notification dissemination of pamphlet.
 3. Certifications of attempted delivery of pamphlet.
 4. Certificates of mailing of pamphlet.
 5. Records of notification activities performed regarding common area and child occupied facilities renovations.
 6. Documentation of compliance that a certified renovator was assigned to the project, the certified renovator provided on-the-job training for workers used on the project, the certified renovator performed or directed worker who performed all the tasks, the certified renovator performed the post-renovation cleaning verification.

TABLE A
SCOPE OF WORK
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT

Item #	Room	Component	Side	Quantity	Abatement Method
FIRST FLOOR - INTERIOR					
1	Bedroom 1 (001)	Window casings, window sills, window aprons, window stops, window panels and trim	A	2 Openings	Paint removal of window trim, liquid encapsulate panel and panel trim
1A		Window casings, window sills, window aprons, window stops, window panels and trim	A	2 Openings	Liquid encapsulate
2		Door casings	C, D	2 Openings	Paint removal
2A		Door casings	C, D	2 Openings	Liquid encapsulate
3		Baseboard	A, B, C, D	All	Liquid encapsulate
4	Living Room (002)	Window casings, window sills, window aprons, window stops, window panels and trim	A, B	3 Openings	Paint removal of window trim, liquid encapsulate panel and panel trim
4A		Window casings, window sills, window aprons, window stops, window panels and trim	A, B	3 Openings	Liquid encapsulate
5		Door casings	A, C, D	3 Openings	Paint removal
5A		Door casings	A, C, D	3 Openings	Liquid encapsulate
6		Door jamb, door jamb stop	D	1 Opening	Paint removal
7		Baseboard	A, B, C, D	All	Liquid encapsulate
8		Kitchen (003)	Window casings, window sills	B	2 Openings
8A	Window casings, window sills		B	2 Openings	Liquid encapsulate
9	Door casings		A, D	2 Openings	Paint removal
10	Door casing, door jamb, door jamb stop		C-Center	1 Opening	Paint removal
10A	Door casing, door jamb, door jamb stop		C-Center	1 Opening	Liquid encapsulate
11	Bathroom (004)		Window casing and window stop	C	2 Openings
11A		Window casing and window stop	C	2 Openings	Liquid encapsulate
12		Door casing	A	1 Opening	Paint removal
12A		Door casing	A	1 Opening	Liquid encapsulate
13	Den (005)	Window casings, window sills, window aprons, window stops, window panels and trim	C, D	2 Openings	Paint removal of window trim, liquid encapsulate panel and panel trim
14		Baseboard	A, B, C, D	All	Liquid encapsulate
15		Doors, door casings, door jambs, door jamb stops	A, B, C	3 Openings	Paint removal
16		Closet walls, ceiling and baseboard	A, B, C, D	All	Patch and liquid encapsulate
17	Office (006)	Window casing, window sill, window apron, window stop, window panel and trim	D	1 Opening	Paint removal of window trim, liquid encapsulate panel and panel trim
17A		Window casing, window sill, window apron, window stop, window panel and trim	D	1 Opening	Liquid encapsulate
18		Door, door casing, door jamb, door jamb stop	A, C	2 Openings	Paint removal
18A		Door, door casing, door jamb, door jamb stop	A, C	2 Openings	Paint removal on friction points of doors, jambs and stops, liquid encapsulate remaining
19		Baseboard	A, B, C, D	All	Liquid encapsulate
20		Closet shelf support	A	All	Liquid encapsulate
21	All Rooms	Window sills, window wells, horizontal surfaces and all floors	A, B, C, D	Dust hazards	Specialized cleaning
Item #	Room	Component	Side	Quantity	Abatement Method

**TABLE A
SCOPE OF WORK
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT**

SECOND FLOOR - INTERIOR					
22	Bedroom 1 (001)	Window casings, window sills, window aprons, window stops, window panels and trim	A	3 Openings	Paint removal of window trim, liquid encapsulate panel and panel trim
22A		Window casings, window sills, window aprons, window stops, window panels and trim	A	3 Openings	Liquid encapsulate
23		Baseboard and closet baseboard	A, B, C, D	All	Liquid encapsulate
24		Door casing, door jamb, door jamb stop	C, D	2 Openings	Paint removal
24A		Door casing, door jamb, door jamb stop	C, D	2 Openings	Paint removal on friction points of doors, jambs and stops, liquid encapsulate remaining
25	Living Room (002)	Window casings, window sills, window aprons, window stops, window panels and trim	A, B	3 Openings	Paint removal of window trim, liquid encapsulate panel and panel trim
25A		Window casings, window sills, window aprons, window stops, window panels and trim	A, B	3 Openings	Liquid encapsulate
26		Door Casings	A, C, D	3 Openings	Paint removal
26A		Door Casings	A, C, D	3 Openings	Liquid encapsulate
27		Radiator	B	1 Each	Paint with high heat paint
28		Baseboard	A, B, C, D	All	Liquid encapsulate
29		Kitchen (003)	Window casings, window sills, window aprons, window stops, window panels and trim	B	2 Openings
29A	Window casings, window sills, window aprons, window stops, window panels and trim		B	2 Openings	Liquid encapsulate
30	Door casings		A, C, D	4 Openings	Paint removal
30A	Door casings		A, C, D	4 Openings	Liquid encapsulate
31	Walls		A, B, D	All	Patch and liquid encapsulate
32	Bathroom (004)	Window casings, window sills, window aprons, window stops, window panels and trim	C	2 Openings	Paint removal of window trim, liquid encapsulate panel and panel trim
32A		Window casings, window sills, window aprons, window stops, window panels and trim	C	2 Openings	Liquid encapsulate
33		Door casing and non-friction jamb	A	1 Opening	Liquid encapsulate
34	Bedroom 2 (005)	Window casings, window sills, window aprons, window stops, window panels and trim	C, D	2 Openings	Paint removal of window trim, liquid encapsulate panel and panel trim
34A		Window casings, window sills, window aprons, window stops, window panels and trim	C, D	2 Openings	Liquid encapsulate
35		Closet baseboard	A, B, C, D	All	Liquid encapsulate
36		Wall	C	All	Liquid encapsulate
37		Radiator	D	1 Each	Paint with high heat paint
38		Stored wood trim components	-	All	Remove and dispose
39		Closet Walls, baseboard, shelf support	C	All	Patch and liquid encapsulate

**TABLE A
SCOPE OF WORK
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT**

Item #	Room	Component	Side	Quantity	Abatement Method
SECOND FLOOR - INTERIOR Continued					
40	Bedroom 3 (006)	Window casing, window sill, window apron, window stop, window panel and trim	D	1 Opening	Paint removal of window trim, liquid encapsulate panel and panel trim
40A		Window casing, window sill, window apron, window stop, window panel and trim	D	1 Opening	Liquid encapsulate
41		Baseboard	A, B, C, D	All	Liquid encapsulate
42		Door casings	A, C	2 Openings	Paint removal
42A		Door casings	A, C	2 Openings	Liquid encapsulate
43		Door jamb, door jamb stop	A	1 Opening	Paint removal
44	All Rooms	Window sills, window wells, horizontal surfaces and all floors	A, B, C, D	Dust hazards	Specialized cleaning
THIRD FLOOR - INTERIOR					
45	Bedroom 1 (001)	Door stop	C-Right	1 Opening	Replace with new wood
46		Closet shelf support	C	All	Liquid encapsulate
47	Kitchen (003)	Window casing and window stop	C	1 Opening	Liquid encapsulate
48		Stair stringer	-	All	Liquid encapsulate
49		Stair treads, stair risers	-	All	Enclose with luan, vinyl treads to cover entire surface, install metal nosing and caulk seams
50	Bedroom 2 (005)	Closet door, door casing, door jamb, door jamb stop	C	1 Opening	Replace with new pre-hung interior door system and liquid encapsulate door casing
51		Closet baseboard	C	All	Liquid encapsulate
52	All Rooms	Window sills, window wells, horizontal surfaces and all floors	A, B, C, D	Dust hazards	Specialized cleaning
COMMON AREAS					
53	Front Stair (001)	Window casing, window sill, window apron, window stop	D	1 Opening	Paint removal
53A		Window casing, window sill, window apron, window stop	D	1 Opening	Liquid encapsulate
54		Door casings, Door jambs	A, B, C	5 Openings	Paint removal
54A		Door casings, door jambs	A, B, C	5 Openings	Paint removal on friction points of jambs and liquid encapsulate casings
55		Stair stringers, stair header, stair bullnose	-	All	Liquid encapsulate
56		Stair treads, stair risers	-	All	Replace stair treads with new wood. Enclose risers with luan and caulk seams
57		Cornerguards	-	All	Liquid encapsulate

**TABLE A
SCOPE OF WORK
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT**

Item #	Room	Component	Side	Quantity	Abatement Method
COMMON AREAS (Continued)					
58	Rear Stair (002)	Ceiling	-	All	Repair water damaged area and liquid encapsulate
59		Lower wainscoting walls	A, B, C, D	All	Liquid encapsulate
60		Stair risers	-	All	Enclose with luan, install metal nosing at edges and caulk seams
61		Door casings, door jambs, door jamb stops	A, C, D	3 Openings	Paint removal
61A		Door casings, door jambs, door jamb stops	A, C, D	3 Openings	Liquid encapsulate
62		Door, door casing, door jamb, door jamb stop (Entry door up to 3rd floor, basement door, door to 1st floor unit, door to rear entry)	A, C, D	4 Openings	Replace with new pre-hung interior door system and perform paint removal on door casings
62A		Door, door casing, door jamb, door jamb stop (Entry door up to 3rd floor, basement door, door to 1st floor unit, door to rear entry)	A, C, D	4 Openings	Replace with new pre-hung interior door system and liquid encapsulate door casings
63		Rear Entry (003)	Walls	A, B	All
64	Shelf Support		B	All	Liquid encapsulate
65	Door casing, door jamb, door jamb stop		A	1 Opening	Paint removal
65A	Door casing, door jamb, door jamb stop		A	1 Opening	Liquid encapsulate
66	Basement (004)	Stone walls	A, B, C, D	All	Liquid encapsulate
67		Hatchway walls, ceiling, door casing and door lintel	A	All	Liquid encapsulate
68		Door frame (by front section)	C-Right	1 Opening	Liquid encapsulate
69	Front Stair, Rear Stair and Rear Entry	Window sills, window wells, horizontal surfaces and all floors	A, B, C, D	Dust hazards	Specialized cleaning
EXTERIORS					
70	Facades	Wood shingles, cornerboards, skirtboards	A, B, C, D	All	Enclose with vinyl siding
70A		Wood shingles, cornerboards, skirtboards	A, B, C, D	All	Liquid encapsulate
71		Wood window sashes	A, B, C, D	14 Openings	Replace with new vinyl window replacement windows and enclose blindstops with aluminum coil stock
72		Window casings, window sills, window blindstops	A, B, C, D	32 Openings	Enclose with aluminum coil stock
72A		Window casings, window sills, window blindstops	A, B, C, D	32 Openings	Liquid encapsulate
73		Door casings, door jamb stops	A, C	4 Openings	Enclose with aluminum coil stock
74		Upper trim, soffits, fascias	A, B, C, D	All	Replace any rotted wood and enclose upper trim and fascias with aluminum coil stock. Enclose soffits with vented vinyl soffits.
74A		Upper trim, soffits, fascias	A, B, C, D	All	Replace any rotted wood and liquid encapsulate.
75		Foundation	A, B, C, D	All	Liquid encapsulate
76		Metal columns	A	All	Paint with rustoleum paint

**TABLE A
SCOPE OF WORK
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT**

Item #	Room	Component	Side	Quantity	Abatement Method
EXTERIORS Continued					
77	Facades	Basement window components	B, C, D	7 Openings	Liquid encapsulate
78		Porch ceiling, soffits, decorative trim	A	All	Enclose with vinyl soffit
78A		Porch ceiling, soffits, decorative trim	A	All	Liquid encapsulate
79		Porch box beams	A	All	Replace rotted wood and enclose with aluminum coil stock
79A		Porch box beams	A	All	Replace rotted wood and liquid encapsulate
80		Second floor porch box beams, columns	C	All	Replace with existing with new construction
81	Soils	Bare soil along fence	C/D	30 SF	Install 2 inches of new loam, grass seed and straw
82		Base soil along brick garage dripline	C	400 SF	Install 2 inches of new loam, grass seed and straw
83		Bare soil along fence	B/C	100 SF	Install 2 inches of new loam, grass seed and straw
A= Alternate Bid. Total all alternate bids identified by "A" in Item # column					

CAPITAL STUDIOS ARCHITECTS

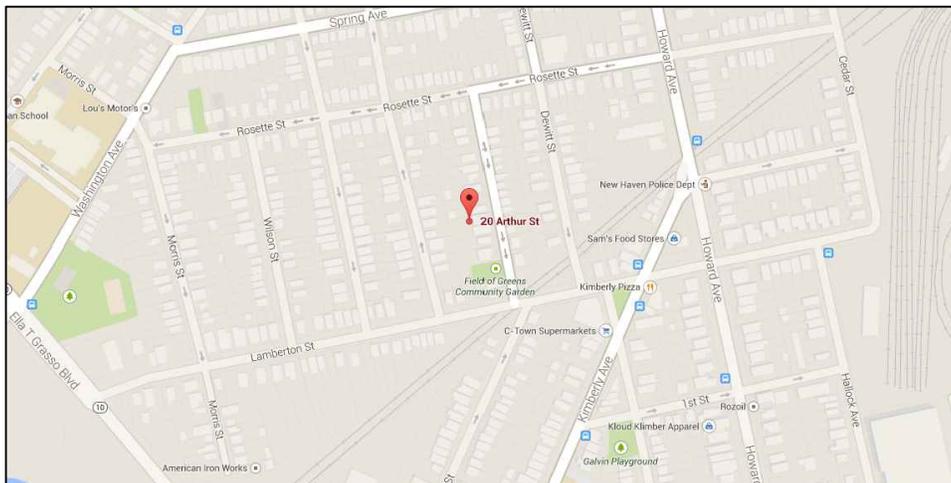
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT

EAGLE PROJECT NUMBER: 14-028.12T12

INDEX OF DRAWINGS

SP-1 SITE PLAN WITH SOIL SAMPLE LOCATIONS
FP-1 BASEMENT PLAN
FP-2 FIRST FLOOR PLAN WITH SAMPLE LOCATIONS
FP-3 SECOND FLOOR PLAN
FP-4 THIRD FLOOR PLAN

LOCATION MAP



JUNE 23, 2014



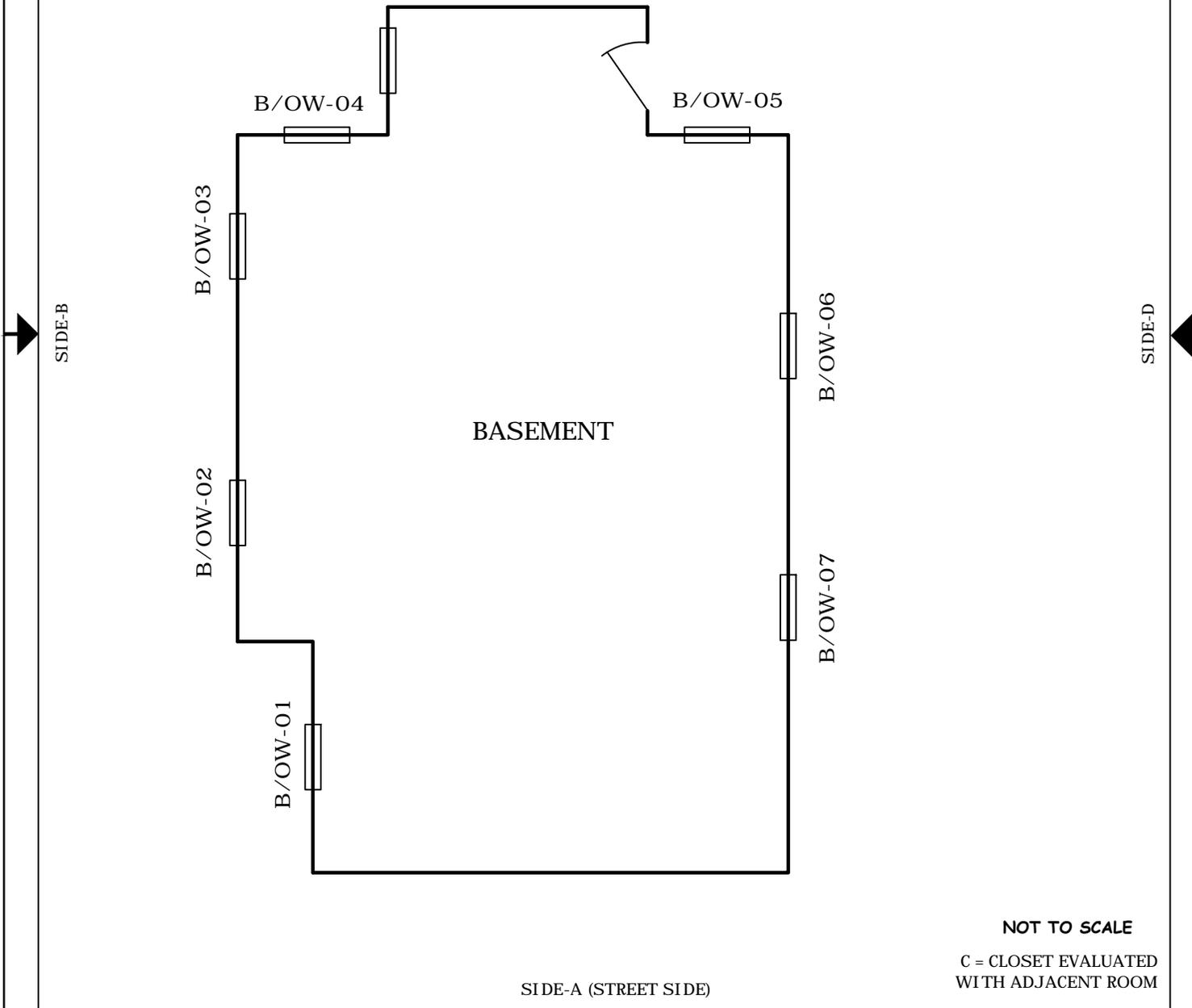
8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

BASEMENT

SIDE-C

WINDOW KEY:

- B = BASEMENT
- DC = DECORATIVE
- OW = OLDER OR ORIGINAL WOOD SASH (TESTED POSITIVE FOR LEAD-BASED PAINT)
- V = VINYL SASH



BASEMENT

NOT TO SCALE

C = CLOSET EVALUATED WITH ADJACENT ROOM

SIDE-A (STREET SIDE)



EAGLE
Environmental, Inc.

8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

DATE: 06/23/14
PROJECT NO.: 14-028.12T12
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL REVIEW
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT
BASEMENT PLAN

SHEET NO.

FP-1

SHEET 2 OF 5

FIRST FLOOR

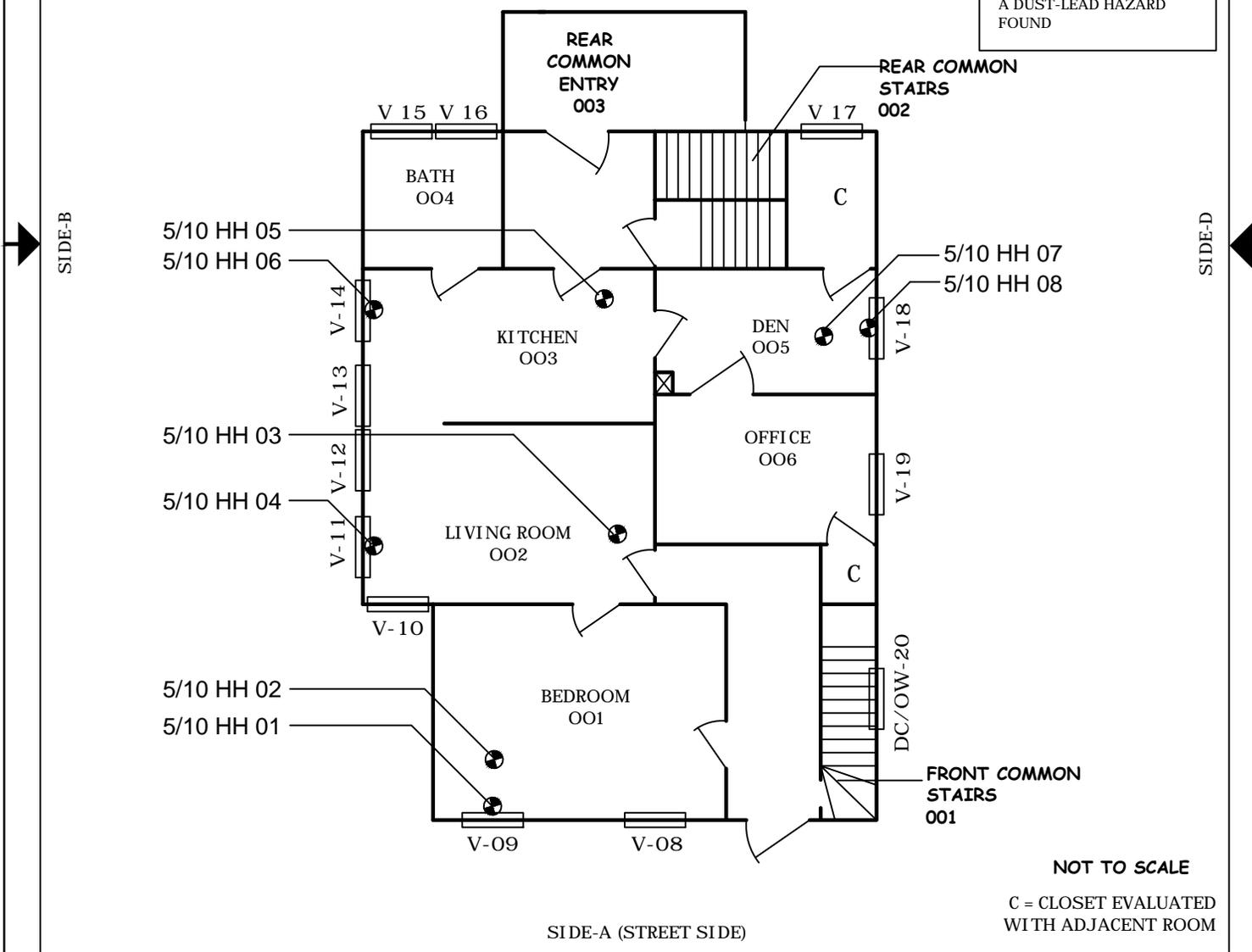
SIDE-C

WINDOW KEY:

- B = BASEMENT
- DC = DECORATIVE
- OW = OLDER OR ORIGINAL WOOD SASH (TESTED POSITIVE FOR LEAD-BASED PAINT)
- V = VINYL SASH

SAMPLE KEY:

- ⊙ = NUMBER AND LOCATION OF DUST SAMPLES
- 05/10 KHH-01
- BOLD TEXT INDICATES A DUST-LEAD HAZARD FOUND**



NOT TO SCALE

C = CLOSET EVALUATED WITH ADJACENT ROOM

SIDE-A (STREET SIDE)



8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

SHEET NO.

FP-2

SHEET 3 OF 5

DATE: 06/23/14
PROJECT NO.: 14-028.12T12
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL REVIEW
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT
FIRST FLOOR PLAN WITH SAMPLE LOCATIONS

SECOND FLOOR

SIDE-C

WINDOW KEY:

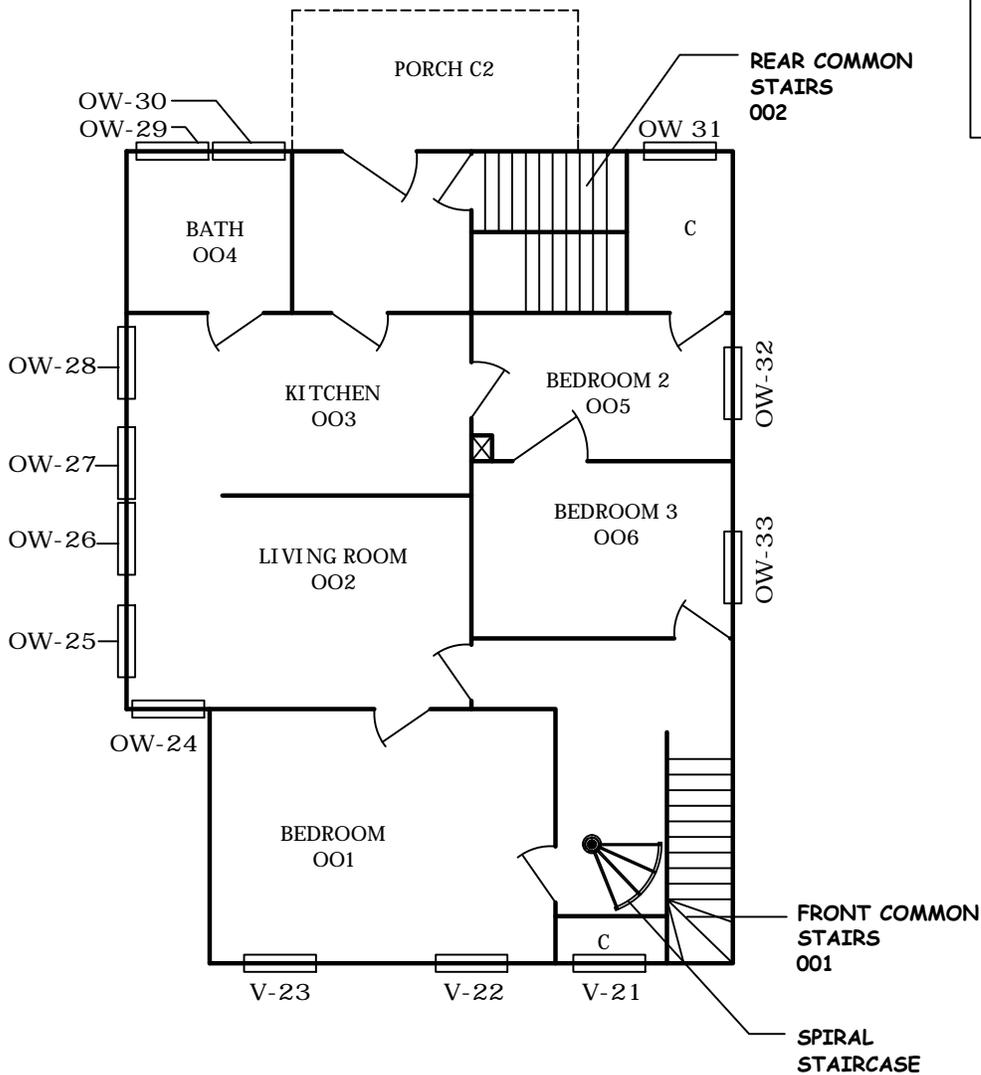
- B = BASEMENT
- DC = DECORATIVE
- OW = OLDER OR ORIGINAL WOOD SASH (TESTED POSITIVE FOR LEAD-BASED PAINT)
- V = VINYL SASH

SAMPLE KEY:

-  = NUMBER AND LOCATION OF DUST SAMPLES
- 05/10 KHH-01
- BOLD TEXT INDICATES A DUST-LEAD HAZARD FOUND**

SIDE-B

SIDE-D



SIDE-A (STREET SIDE)

NOT TO SCALE

C = CLOSET EVALUATED WITH ADJACENT ROOM



EAGLE
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8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

SHEET NO.

FP-3

SHEET 4 OF 5

DATE: 06/23/14
PROJECT NO.: 14-028.12T12
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL REVIEW
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT
SECOND FLOOR PLAN

THIRD FLOOR

SIDE-C

WINDOW KEY:

- B = BASEMENT
- DC = DECORATIVE
- OW = OLDER OR ORIGINAL WOOD SASH (TESTED POSITIVE FOR LEAD-BASED PAINT)
- V = VINYL SASH

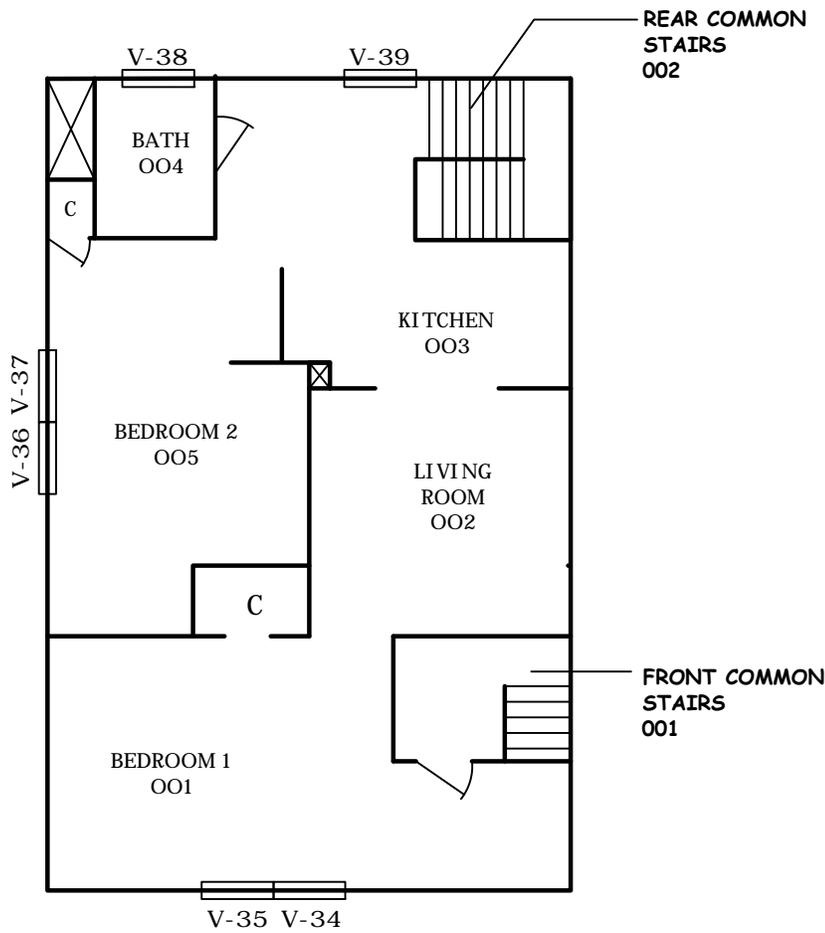
SAMPLE KEY:

-  = NUMBER AND LOCATION OF DUST SAMPLES

BOLD TEXT INDICATES A DUST-LEAD HAZARD FOUND

SIDE-B

SIDE-D



NOT TO SCALE

C = CLOSET EVALUATED WITH ADJACENT ROOM

SIDE-A (STREET SIDE)



8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

SHEET NO.

FP-4

SHEET 5 OF 5

DATE: 06/23/14
PROJECT NO.: 14-028.12T12
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL REVIEW
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT
THIRD FLOOR PLAN

SITE PLAN

SIDE-C

5/10 HH SOIL 02

5/10 HH SOIL 03

5/10 HH SOIL 01

FENCE

RESIDENCE

FRONT PORCH

DRIVEWAY

SIDE-B

SIDE-D

SAMPLE KEY:

☒ = NUMBER AND LOCATION OF SOIL SAMPLES
5/10 HH SOIL-01

BOLD TEXT INDICATES A SOIL-LEAD HAZARD FOUND

NOT TO SCALE

SIDE-A (STREET SIDE)



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8 SOUTH MAIN STREET, SUITE 3
TERRYVILLE, CONNECTICUT 06786
860-589-8257

SHEET NO.

SP-1

SHEET 1 OF 5

DATE: 06/23/14
PROJECT NO.: 14-028.12T12
DRAWN BY: VB
REVIEWED BY: AH

ENVIRONMENTAL REVIEW
20 ARTHUR STREET
NEW HAVEN, CONNECTICUT
SITE PLAN WITH SOIL SAMPLE LOCATIONS

The State of Connecticut
Department of Housing (DOH)
Community Development Block Grant
Disaster Recovery Program (CDBG-DR)
DOH Occupied Rehabilitation and Rebuilding Program (OORR)

Bid Package for
Hallums Residence
20 Arthur Street
New Haven, Connecticut 06512
Project # 2135

-END OF SECTION-

\\Eaglesvr\public\2014 Files\2014 Specs\CSA - Capital Studio Architects\Hurricane Sandy\20 Arthur St, New Haven\020900 HALLUMS \$5K-\$25K - LBP Hazard Control.docx

SECTION 06100
ROUGH CARPENTRY

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 - WORK INCLUDED

- A. All contractors are to review specifications and drawings for complete scope of work regarding their trade. This work is to include Base Bid items and Unit Price items.
- B. Provide wood, nails, bolts, screws, framing anchors and other rough hardware, and other items needed, and perform rough carpentry, including sheathing installation, for the construction shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.3 - RELATED WORK SPECIFIED ELSEWHERE

- A. Section 07300: Fiberglass Based Asphalt Roof Shingles and accessories
B. Section 07900: Sealants

1.4 - REFERENCE STANDARDS

- A. Codes and Standards:
1. In addition to complying with pertinent codes and regulations of governmental agencies having jurisdiction, unless otherwise specifically directed or permitted by the Architect comply with:
 - a. "Product Use Manual" of the Western Wood Products Association for selection and use products included in that manual;
 - b. "Plywood Specification and Grade Guide" of the American Plywood Association.
 - c. State of Connecticut Basic Building Code-Appendix M, Recommended Nailing Schedule.
 - d. Framing methods shall comply with the "Wood Frame Construction Manual for One- and Two-Family Dwellings" as published by the American Forest & Paper Association.
- B. Requirements for all lumber:
1. Lumber shall be surfaced all four sides (S4S).
 2. Maximum moisture content of rough framing lumber, 2" or less nominal thickness, shall be 19% at the time of delivery to the site.
 3. All lumber exposed to weather, or within 12" of ground shall be pressure treated. Comply with AWPB LP 2.

1.5 - SUBMITTALS

- A. Submit manufacturer's product data for non-wood materials and accessories. Submit samples if requested by the Architect. Approved samples may be incorporated into the work.

1.6 - DELIVERY, STORAGE & HANDLING

- A. Except as otherwise approved by the Architect, determine and comply with manufacturer's recommendation on product handling, storage, and protection.

B. Deliveries:

1. Stockpile materials sufficiently in advance of need to assure their availability in a timely manner for this Work.
2. Make as many trips to the job site as are needed to deliver materials of this Section in a timely manner to ensure orderly progress of the Work.

C. Compliance:

1. Do not permit materials not complying with the provisions of this Section to be brought onto or to be stored at the job site.
2. Promptly remove non-complying materials from the job site and replace with materials meeting the requirements of this Section.

D. Protection:

1. Deliver the materials to the job site and store, in a safe area, out of the way of traffic, and shored up off the ground surface.
2. Identify framing lumber as to grades, and store each grade separately from other grades.
3. Protect metals with adequate waterproof outer wrapping.
4. Use extreme care in off loading of lumber to prevent damage, splitting, and breaking of materials.

PART 2 - PRODUCTS

2.1 - GRADE STAMPS

- A. Identify framing lumber by a grade-marked in accordance with The Western Wood Products Association, or such other grade stamp as is approved in advance by the Architect.
- B. Identify plywood as to species, grade, and glue type by the stamp of the American Plywood Association.
- C. Identify other materials of this Section by the appropriate stamp of the agency approved in advance by the Architect.

2.2 - MATERIALS

- A. Provide materials in the quantities needed for the Work shown on the Drawings, and meeting or exceeding the following standards of quality:
1. Sheathing Plywood: C-C Ext-APA Group 1 with exterior glue, thickness as shown on the drawings or to match existing.
 2. Sheathing tongue and groove - match existing for dimension and species.
 3. Blocking, nailers, and other non-structural uses: Any species of structural lumber, construction grade or better.
 4. Fasteners: (Install per manufacturer's recommendation where applicable)
 - a. Nails:
 - (1) Use common except as otherwise noted.
 - (2) Comply with Fed Spec FF-N-1.
 - (3) Use galvanized at exterior locations.
 - (4) For power activated nail guns use 300 headed pin fasteners or approved equal.

2.3 - OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.1 - SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 - WORKMANSHIP

- A. Produce joints which are tight, true, and well nailed, with members assembled in accordance with the Drawings and with pertinent codes and regulations.
- B. Selection of lumber pieces:
1. Carefully select the members.
 2. Select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing, and will allow making of proper connections.
 3. Cut out and discard defects which render a piece unable to serve its intended function.
 4. Lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.
- C. Do not shim any framing component.

3.3 - GENERAL FRAMING

A. General:

1. In addition to framing operation normal to the fabrication and erection indicated on the Drawings, install wood blocking and backing required for the work of other trades.
2. Set horizontal and sloped members with crown up.
3. Do not notch, cut, or bore members for pipes, ducts, or conduits, or for other reasons except as shown on the Drawings or as specifically approved in advance, in writing by the Architect.

B. Bearings:

1. Make bearings full unless otherwise indicated on the Drawings.
2. Finish bearing surfaces on which structural members are to rest so as to give sure and even support.
3. Where framing members slope, cut or notch the ends as required to give uniform bearing surface.
4. Where roof rafters are to be replace or assist existing deteriorated rafters, install new rafter the full length of the span of the existing rafter. At the direction of the Architect or the Structural Engineer, install adjacent to and in contact with the existing rafter.

3.4 - BLOCKING AND BRIDGING

- A. Install blocking as required to support items of finish and to cut off concealed draft openings, both vertical and horizontal, between ceiling and floor areas.

3.5 - ALIGNMENT

- A. On framing members to receive a finished surface, align the finish subsurface to vary not more than 1/8" from the plane of surfaces of adjacent furring and framing members.

3.6 - INSTALLATION OF SHEATHING

A. Placement:

1. Place sheathing with face grain perpendicular to supports and continuously over at least two supports, except where otherwise shown on the Drawings.
2. Center joints accurately over supports, unless otherwise shown on Drawings.

- B. Protect sheathing from moisture by use of waterproof coverings until the sheathing in turn has been covered with the next succeeding component or finish.

3.7 - FASTENING

A. Nailing:

1. Use only common wire nails or spikes of the dimension shown on the Fastening Schedule given in Table 2304.9.1 of the State of Conn. Basic Building Code, except where otherwise specifically noted on the Drawings.
2. For conditions not covered in the Nailing Schedule provide penetration into the piece Receiving the point of not less than 1/2 the length of the nail or spike, provided, however, that 16d nails may be used to connect two pieces of 2" (nominal) thickness.
3. Nail without splitting wood.
4. Pre-bore as required.
5. Remove split members and replace with members complying with the specified requirements.

B. Screws:

1. For lag screws and wood screws, pre-bore holes same diameter as root of threads, enlarging holes to shank diameter for length of shank.

END OF SECTION 06100

SECTION 07300
ASPHALT SHINGLE ROOFING SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Granule surfaced asphalt shingle roofing.
- B. Ice and water shield.
- C. Shingle underlayment
- D. Metal Drip Edges at eaves and rakes.
- E. Pipe Vent Boot Replacement.
- F. Attic vent cap and bathroom exhaust vent cap replacement.

1.2 RELATED SECTIONS

- A. Section 01270 – Unit Prices
- B. Section 06100 – Rough Carpentry.
- C. Section 07600 – Sheet Metal Flashing and Trim
- D. Section 07630 – Gutters and Leaders
- E. Section 07900 – Sealants.

1.3 REFERENCES

- A. ASTM A 653/A 653M - Standard Specification for Steel Sheets, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- C. ASTM D 226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- D. ASTM D 1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
- E. ASTM D 3018 - Standard Specification for Class A Shingles Surfaced with Mineral Granules.
- F. ASTM D 3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
- G. ASTM D 3462 - Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules.
- H. ASTM D 4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
- I. ASTM D 4869 - Standard Specification for Asphalt-Saturated Organic Felt Shingle Underlayment Used in Roofing.
- J. ASTM D 6757 – Standard Specification for Inorganic Underlayment for Use with Steep Slope Roofing Products.
- K. ASTM D 7158 – Standard Test Method for Wind Resistance of Sealed Asphalt Shingles (Uplift Force/Uplift Resistance Method)
- L. E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
- M. UL 2218 - Impact Resistance of Prepared Roofing Materials.
- N. UL 2390/ASTM D 6381 – Test Method for Wind Resistant Shingles with Sealed Tabs
- O. ARMA – Asphalt Roofing Manufacturers Association, Residential Asphalt Roofing Manual (latest edition), for standards of materials, manufacturing and installation.

1.4 SUBMITTALS

- A. Within ten (10) calendar days after the Contractor has received the Owner's Notice to Proceed, submit the following:
 - 1. Product Data: Provide manufacturer's printed product information indicating material characteristics, performance criteria, and product limitations.
 - 2. Manufacturer's Installation Instructions: Provide published instructions that indicate preparation required and installation procedures.
 - 3. Necessary data that demonstrates that material complies with requirements of all materials specified.
 - 4. Product samples required for all items.

1.5 QUALITY ASSURANCE

- A. Maintain one copy of manufacturer's application instructions on project site.
- B. Verify that manufacturer's label contains reference to specified ASTM standards.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Take special care when applying WinterGuard Waterproofing Shingle Underlayment and shingles when ambient or wind chill temperature is below 45 degrees F. Tack WinterGuard in place if it does not adhere immediately to the deck.

1.7 EXTRA MATERIALS

- A. Furnish under provisions of Section 01700.
- B. Provide 100 square feet (1 square) of extra shingles of color specified.

1.8 WARRANTY

- A. Asphalt Fiber Glass Shingles.
 - 1. Landmark TL, 50 year warranty.
- B. Warranty Supplement: Provide manufacturer's supplemental warranty ("CertainTeed SureStart") to cover labor and materials in the event of a material defect for the following period after completion of application of shingles:
 - 1. First ten years.
- C. The Contractor shall provide to the Owner a ten (10) year (NDL) "No Dollar Limit" for labor and material. Period of guarantee is from date of Owner's final acceptance.

1.9 HAZARDOUS MATERIALS

- A. No asbestos materials evident. Report available upon request from owner.

1.10 PROJECT COMPLETION

- A. Final Payment will not be approved until all items as outlined in Section 01700 have been completed.

- B. All guarantees and warranties for new materials shall commence at date of written Final Acceptance of the Work, by the Owner, or its designated agent.
- C. Upon completion of the project, the roofing manufacturer shall provide installation and material inspection warranties and certification of the roof system.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Roof Shingles, Rolled Roofing, Underlayments, Ice & Water Shield: For a standard of quality, material, testing and warranty, provide products as manufactured by CertainTeed Corporation, Architectural Support Group, P.O. Box 860, Valley Forge, PA 19482. Tel: (800) 233-8990, Fax: (610) 341-7940.
- B. Gable End Wall Vents: Provide products as manufactured by Air Vent, Inc., Dallas, TX
- C. Substitutions: Products meeting the quality, availability and specifications of the items specified will be considered at time of Shop Drawing Submittals only.

2.2 ASPHALT FIBER GLASS SHINGLES – (ARCHITECTURAL STYLE)

- A. CertainTeed Landmark: UL Certification of ASTM D3462; Conforms to ASTM D3018 Type I – Self-Sealing; ASTM D3161-08b, Class “F” Wind Resistance; ASTM D3161-03b, Class “F” Wind Resistance (Regional); ASTM D3161-99a Wind Resistance; UL997 Wind Resistance; UL 2390/ASTM D6381 Class “H” and ASTM D7158 Class “H” Wind Resistance; UL 790 Class A Fire Resistance; glass fiber mat base, ceramically colored/UV resistant mineral surface granules across entire face of shingle; two-piece laminated shingle.
 - 1. Weight: 235-245 pounds per square (100 square feet).
 - 2. Color: As selected by Architect from manufacturer’s standards.
 - 3. Algae resistant.

2.3 Self-adhering Modified Bitumen Roof System.

- A. Sheathing Paper: Red-rosin type, minimum 3 lb/100 sq. ft.
- B. Base Sheet: ASTM D 4601, Type II, SBS-modified asphalt-impregnated and -coated sheet, with glass-fiber-reinforcing mat, dusted with fine mineral surfacing on both sides.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide CertainTeed Corporation; Flintlastic SA NailBase
 - 2. Weight: 40lb/100sf minimum.
- C. Roofing Membrane Sheet: ASTM D 6164, Grade S, Type I, SBS-modified asphalt sheet smooth surfaced; suitable for application method specified.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide CertainTeed Corporation Flintlastic SA MidPly

- D. Granule-Surfaced Roofing Cap Sheet: [ASTM D 6164, Grade G, Type I or II, SBS-modified asphalt sheet; granule surfaced; suitable for application method specified.
1. Basis-of-Design Product: Subject to compliance with requirements, provide CertainTeed Corporation; Flintlastic SA Cap
 2. Granule Color: Selected by Architect from Manufacturer's full range.

2.4 SHEET MATERIALS

- A. Eaves and Roof Penetration Protection: CertainTeed "WinterGuard"; ASTM D 1970 sheet barrier of self-adhering rubberized asphalt membrane shingle underlayment having internal reinforcement, and "split" back plastic release film; provide material with warranty equal in duration to that of shingles being applied.
1. CertainTeed WinterGuard Sand
- A. Underlayment: CertainTeed "Roofers' Select", ASTM D 6757; asphalt-impregnated fiberglass-reinforced organic felt designed for use on roof decks as a water-resistant layer beneath roofing shingles. Roofing felt shall be 15 lb. minimum.
- B. Waterproofing Underlayment: CertainTeed "WinterGuard"; ASTM D 1970 sheet barrier of self-adhering rubberized asphalt membrane shingle underlayment having internal reinforcement, and "split" back plastic release film; Use in 'low-slope' areas (below 4:12, but no less than 2:12); provide material with warranty equal in duration to that of shingles being applied.
1. CertainTeed WinterGuard Sand

2.5 ACCESSORY SHINGLES

- A. Accessory ridge shingles shall be "Shadow Ridge" specifically designed for use with "Landmark TL" Series.

2.6 VENT PIPE BOOTS

- A. Replace all vent pipe flashing with new flashing and boots with new collar and sleeve unit FB31 by IPS Corporation Roofing Products, Compton, CA or approved equal.

2.7 FLASHING MATERIALS

- A. Sheet Flashing: ASTM B 209; minimum 0.040 inch thick aluminum with mill finish.

2.8 ACCESSORIES

- A. Nails: Standard round wire type roofing nails, corrosion resistant; hot dipped zinc coated steel, aluminum, or chromated steel; minimum 3/8 inch (9.5 mm) head diameter; minimum 11 or 12 gage (2.5 mm) shank diameter; shank to be of sufficient length to penetrate through roof sheathing or 3/4 inch (19 mm) into solid wood, plywood, or non-veneer wood decking.

- B. Asphalt Roofing Cement: ASTM D 4586, Type I or II.

2.9 FLASHING FABRICATION

- A. Form flashing to profiles indicated on Drawings, and to protect roofing materials from physical damage and shed water.
- B. Form sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions under provisions of other Specification Divisions.
- B. Verify that roof penetrations and plumbing stacks are in place and flashed to deck surface.
- C. Verify roof openings are correctly framed prior to installing work of this section.
- D. Provide Ice & Water Shield around all roof penetrations.
- E. Verify deck surfaces are dry and free of ridges, warps, and voids.
- F. Report damaged or deteriorated roof sheathing to the Architect immediately.

3.2 ROOF DECK PREPARATION

- A. Follow shingle manufacturer's recommendations for acceptable roof deck materials.
- B. Broom clean deck surfaces under eave protection and underlayment prior to their application.

3.3 INSTALLATION – ICE AND WATER SHEILD

- A. Place eave edge and gable edge metal flashing tight with fascia boards. Weather-lap joints 2 inches. Secure flange with nails spaced 8 inches on center.
- B. Apply CertainTeed "WinterGuard" Waterproofing Shingle Underlayment as eave protection in accordance with manufacturer's instructions and per drawings. Starting from the drip edge apply width necessary to provide eave protection to a minimum of 24" horizontally beyond the interior face of the exterior wall, this item must be verified in the field prior to shop drawing submittal.
- C. Apply 36" square CertainTeed "WinterGuard" Waterproofing Shingle Underlayment around all roof penetrations.

3.4 INSTALLATION - VALLEY PROTECTION

- A. For "closed-cut," valleys place one ply of WinterGuard, minimum 36 inches wide, centered over valleys, lap joints 6" minimum. Follow instructions of shingle and waterproofing membrane manufacturer.

3.5 INSTALLATION - PROTECTIVE UNDERLAYMENT

- A. Roof Slope 4:12 or Greater: Install one layer 15 lb. minimum asphalt felt shingle underlayment perpendicular to slope of roof and lap minimum 4 inches over eave protection.
- B. Weather-lap and seal watertight with asphalt roofing cement items projecting through or mounted on roof. Avoid contact of solvent-based cements with WinterGuard.

3.6 INSTALLATION - METAL FLASHING

- A. Weather-lap joints minimum 2 inches.
- B. Seal work projecting through or mounted on roofing with asphalt roofing cement and make weather-tight.

3.7 INSTALLATION – DRIP EDGES

- A. Apply aluminum drip edge at eaves and anchor securely into sheathing. Verify that sheathing at eave is not rotted and will accept nails.
- B. Apply aluminum drip edge strip at all roof edges over the shingle underlayment and anchor to roof sheathing.

3.8 INSTALLATION - ASPHALT SHINGLES

- A. Install shingles in accordance with manufacturer's instructions for product type and application specified.
- B. Unless required otherwise by the manufacturer, install all shingles as follows: Place one (1) nail 1 inch from each end of shingle and 12 inches from each end; four (4) nails are required in each shingle. All (4) nails must be placed on a line 5-5/8" above the butt edge of the shingle and just below the self-sealing strip. Nails shall penetrate a minimum of 3/4" into sheathing. Note: Fastening of shingles with staples will not be allowed.

3.9 INSTALLATION – VENT STACKS

- A. Remove existing flashing and deposits off site as debris.
- B. Examine existing roof sheathing for rot. Document damaged sheathing with the Owner's Representative or Architect prior to sheathing replacement.
- C. Install Ice & Water Shield around all pipe penetrations.
- D. Install new one piece prefabricated metal flashing over existing vent stack. Anchor flange into roof sheathing with roofing nails, and weave into shingles to make watertight.

3.10 FIELD QUALITY CONTROL

- A. Field inspection will be performed by the Architect with photographs of the Work in Progress.
- B. Visual inspection of the Work will be provided by the Architect.

3.11 PROTECTION OF FINISHED WORK

- A. Protect finished work under provisions of Section 01700.
- B. Replace shingles which have become damaged as a result of the Contractor's execution of the work.
- C. Do not permit traffic over finished roof surface.

END OF SECTION 07300

SECTION 07600
SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 - DESCRIPTION OF THE WORK

- A. The extent of each type of flashing and sheet metal work is indicated on the drawings and as listed, but not limited to that shown below. Contractors are to review all specifications and drawings for full extent of Base Bid work and Unit Price work.
 - 1. Roof edge trim.
 - 2. Metal flashing.
- B. All existing flashing to be cut away and removed prior to new base flashings as may be required to complete the intended scope of work.

1.2 - RELATED WORK SPECIFIED ELSEWHERE

- A. Section 06100 – Rough Carpentry
- B. Section 07300 – Asphalt Shingle Roofing systems

1.3 - JOB CONDITIONS

- A. Coordinate work of this Section with interfacing and adjoining work for proper sequencing of each installation. Ensure best possible weather resistance and durability of the work and protection of materials and finishes.

1.4 - HAZARDOUS MATERIALS

- A. Existing flashing cement has been found to have hazardous material. A report is available from the owner. It is not the intention that this project requires abatement of such hazardous materials by this contractor. It is intended that the scope of work be completed in coordination with the hazardous materials and be done within the quantities allowed, as specified by state and local authorities regulating abatement of these materials. If the contractor suspects that certain building materials may contain hazardous materials, he shall notify the owner in writing and the owner will test the suspect materials

1.5 – SUBMITTALS

- A. Submit each item in this section in accordance to the Conditions of the General Contract.
- B. Product Data: Include manufacturer's material and finish data, installation instructions and general recommendations for each specified flashing material and fabricated product.
- C. Shop Drawing: Each item specified to show layout, profile, methods of joining, and anchorage details.
- D. Samples: Submit samples of all sheet metal flashing, trim and accessory items, in the specified finish. Where finish involves normal color and texture variations, include sample sets composed of two (2) or more units showing the full range of variations expected.
 - 1. 8" square samples of specified sheet materials to be exposed as finished surfaces formed in field.

2. 12" long sample of factory-fabricated products exposed as finished work. Provide complete with specified factory finish.

1.6 - WARRANTY

- A. Provide two (2) year warranty on materials and workmanship.

PART 2 - PRODUCTS

2.1 - FLASHING AND SHEET METAL MATERIALS

- A. Sheet metal flashings, hook strips, concealed splice plates as indicated on the drawings: Minimum 0.040 min. inch thick aluminum with mill finish.
- B. Color - Finish shall be Kynar as selected from manufacturer's standard color selection. Where flashing and sheet metal systems cannot be seen mill finish is acceptable. Flashing and sheet metal items that are visible will match the color of the gutter and leader system. The Architect shall approve all color selections, materials and thickness.

2.2 - ACCEPTABLE MANUFACTURERS

- A. Sheet Metal Aluminum Flashing and Counterflashing: Minimum 0.040 min. inch thick aluminum. Color: As selected from manufacturer's full standard palette.
 1. Fry Reglet
 2. Cheney
 3. Keystone
- B. Formed-Aluminum Fascia: Minimum 0.040 inch thick aluminum. Color: As selected from manufacturer's full standard palette. Include water dams formed from galvanized steel, anchor plates, cleats or other attachment devices, concealed splice plates and trim or other accessories needed for complete installation with no exposed fasteners.
 1. Metal Era
 2. W.P. Hickman Co.
 3. Merchant and Evans, Inc.

2.3 - ACCESSORIES

- A. Exposed Fasteners: Stainless steel, nonmagnetic, of manufacturer's standard type and size for product and application indicated. Match finish of exposed heads with material being fastened to.
- B. Concealed Fasteners: Same metal as item fastened or other noncorrosive metal as recommended by manufacturer.
- C. Asphalt Mastic: SSPC-Paint 12, solvent-type asphalt, mastic, nominally free of sulfur and containing no asbestos fibers, compounded for 15-mil dry film thickness per coat.
- D. Mastic Sealant: Polyisobutylene; nonhardening, nonskinning, nondrying, nonmigrating sealant.
- E. Foam-Rubber Seal: Manufacturer's standard foam.

3.1 - INSTALLATION REQUIREMENTS

- A. All sheet metal work to be installed in conformance with the Architectural Sheet Metal Manual,

latest edition, as produced by Sheet Metal and Air Conditioning National Association, Inc. (SMACNA).

3.2 - CLEANING AND PROTECTION

- A. Protection: Protect flashings during construction to ensure that work will be without damage or deterioration, other than natural weathering at time of substantial completion.

END OF SECTION 07600

SECTION 07630
GUTTERS AND LEADERS

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 - RELATED WORK SPECIFIED ELSEWHERE

- A. Fiberglass based asphalt shingles are specified in Section 07310.
- B. Flashing and sheet metal are specified in Section 07600.

1.3 - REFERENCES

- A. Unless shown otherwise, standard details shall conform to the recommendations of "Architectural Sheet Metal Manual", published by Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA)

PART 2 - PRODUCTS

2.1 – GUTTERS

- A. Gutters shall be an "OGEE" or "K" style gutter fabricated from 0.032" thick aluminum. Finish shall be baked on enamel. Color shall be selected by Owner from manufacturer's full line.
- B. All miscellaneous items shall be the manufacturer's standard including end caps, corners, fasteners, gutter straps, and support brackets.

2.2 – LEADERS

- A. Leaders shall be a rectangular, corrugated leaders fabricated from 0.027" thick aluminum. Finish shall be baked on enamel. Color shall be selected from manufacturer's standard colors.

PART 3 - EXECUTION

3.1 - GENERAL REQUIREMENTS

- A. All metal work shall be fabricated and installed in accordance with details shown on the Drawings unless otherwise recommended by the gutter and leader manufacturers. Details shown on the Drawings shall be considered typical and shall apply for all similar conditions or features where not otherwise shown. Where details are not shown and typical details do not apply, details of the work shall comply with reference standard stated in 1.3 above.
- B. Adequate provisions shall be made in all metal work to compensate for thermal expansion and

contraction. Provide expansion joints where required as directed by the material's manufacturer.

- C. Wherever metal comes in contact with dissimilar metals, insulation shall be provided between same consisting of a layer of 15 lb. saturated roofing felt bonded in mastic, or the surfaces in contact shall be given a coat of bituminous base paint or elastic cement.
- D. Surfaces upon which metal will be applied shall be made smooth, free from projections and depressions, and surface irregularities.
- E. All fasteners proposed shall be corrosion and rust resistant and electrolytically compatible with material being fastened.

3.2 – INSTALLATION

- A. Install gutters at all roof eaves and elsewhere as indicated. Slope all gutters not less than 1/16" per foot toward downspouts locations. Place gutter to allow snow and ice to slide clear; vary with roof pitch. Install gutters with adjustable hangers fastened directly to the roof sheathing under the shingles. Typical spacing to be 3'-0" o.c., maximum. Reduce spacing to 2'-0" o.c. maximum on north exposure and other areas where ice and snow may accumulate. In all instances, hangers shall be uniformly spaced.
- B. Secure leaders plumb by use of matching strap anchors. Fasten strap anchors using corrosion resistant machine driven screws of sufficient length to fully penetrate exterior sheathing. Secure at top, bottom, and at a maximum spacing of 8'-0" o.c. or minimum of two anchors per piece. Provide eave offsets and drainage shoes where required.
- C. Provide expansion joints at 40'-0" maximum. At expansion joints, provide concealed joint covers. Prior to installing joint covers, provide a bead of caulking on each side of the expansion joint. Expansion joints shall not be located over exterior doors.
- D. All work shall be installed so that it is water-tight and free from visible waves, buckles, cracks, tool marks, dirt, stain and other defects of materials and workmanship which would affect its strength, durability and appearance.

END OF SECTION 07630

SECTION 07900
SEALANTS

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS:

- A. Drawings and general provisions of the Contract, including General and Supplementary conditions, and Division 1 Specification sections, apply to work specified in this section.

1.2 - DESCRIPTION OF THE WORK

- A. The required application of sealant work includes, but is not necessarily limited to the following general locations:
 - 1. All perimeter joints, control joints and between new construction to existing construction.

1.3 - RELATED WORK SPECIFIED ELSEWHERE

- A. Section 06100 – Rough Carpentry
- B. Section 07600 – Sheet Metal Flashing and Trim

1.4 - SUBMITTALS

- A. See Section 01700.
- B. Submit manufacturer's product data, shop drawings and samples.

1.5 - PROJECT/SITE CONDITIONS

- A. Apply sealants only to dry surfaces.
- B. Do not apply sealants when temperature is below 40 F. or less than 46 F. and falling

PART 2 - PRODUCTS

2.1 - MATERIALS

- A. One or two part urethane sealant.
 - 1. Acceptable Manufacturers:
 - a. Pecora-Dynatrol II
 - b. Sonneborn – Ultra.
 - c. Tremco-Vulkem 116
- B. Single component silicone sealant
 - 1. Dow Corning Corporation 795
 - 2. Acceptable Manufacturers
 - a. GE Silicones
 - b. Tremco
 - c. Pecora Corporation
 - d. Sonneborn

- C. In all applications, provide and install sealants which are designed specifically for the particular application and guaranteed by the manufacturer for such use.
- D. Joint Backer: Closed cell polyurethane rod stock, size as required.

PART 3 - EXECUTION

3.1 - INSPECTIONS

- A. Prior to application of sealants, the Contractor shall examine the surfaces of the work to which sealants will be applied. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 - PREPARATION

- A. Bonding surfaces on both new and remedial jobs must be clean, dust and frost free. Solvent wipe the surfaces using a clean oil-free rag saturated with solvent compatible with surface being cleaned, as recommended by sealant manufacturer. Do not flood surfaces with more solvent than necessary.
- B. Do not clean surfaces with soap, detergent or any water-based cleaner. Make sure that apparently clean surfaces are not covered with a thin film of construction dust.

3.3 APPLICATION

- A. Apply joint backing to joints open in back or over 1/2" deep. Compress backing so as to form a firm stop which will resist sealant pressure.
- B. Sealants shall be installed with either a hand operated or air-operated caulking gun with sufficient pressure to completely fill voids and joints solidly. Extreme care shall be taken to prevent smearing onto adjacent surfaces. Material shall be heated as recommended by the manufacturer. Joints shall have a neat, uniform, slightly concave appearance.
- C. All sealant work shall strictly conform to the sealant manufacturer's technical instructions for surface preparation and application procedures to accomplish a weathertight seal.
- D. Tool joints within 10 minutes of application. Remove masking tape before a surface skin begins to form.
- E. After applying the sealant and after a "skin" has formed, do not disturb the joint for 48 hours.

3.4 - REMEDIAL WORK AND LIMITATIONS

- A. Should sealant not completely fill or fully adhere to intended surfaces on first pass, remove bead and re-apply. Do not apply successive beads to fill opening to obtain adhesion.
- B. If cleaning solvent stain, abrade, or otherwise damage adjacent materials or surfaces, all repair, replacement, etc. shall be performed at no cost to the Owner.

3.5 - CLEAN UP

- A. Completely remove excesses, spillage, "tails", and properly dispose of same; use solvents

recommended by manufacturer of sealant being applied.

B. Select solvents that are compatible with surfaces being cleaned.

END OF SECTION 07900

SECTION 08520
WOOD REPLACEMENT WINDOWS

1.1 Section Includes

- A. Wood Insert Double Hung, Single Hung, and related picture, transom window complete with hardware, glazing, weather strip, insect screen, removable grille, simulated divide lite, authentic divided lite, grille-between-the-glass, and standard or specified anchors, trim and attachments.

1.2 Related Sections

- A. Section 01400 – Submittals
- B. Section 01700 – Project Close-out
- C. Section 07900 – Joint Sealant: Sill sealant and perimeter caulking
- D. Section 09900 – Painting and Coasting: Paint and stain other than factory applied finish

1.3 References

- A. American Society for Testing Materials (ASTM):
 - 1. E283: Standard Test method for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors
 - 2. E330: Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Door by Uniform Static Air Pressure Difference
 - 3. E547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential
 - 4. E2190: Specification for Sealed Insulated Glass Units
 - 5. C1036: Standard Specification for Flat Glass
- B. American Architectural Manufacturer's Association/Window and Door Manufacturer's Association (AAMA/WDMA/CSA):
 - 1. American Architectural Manufacturer's Association / Window and Door Manufactures Association (AAMA / WDMA): AAMA/WDMA/CSA 101/I.S.2/A440-05.
 - 2. AAMA/WDMA/CSA 101/I.S.2/A440-08, North American Fenestration, Standard/Specification for window, doors and skylights
 - 3. AAMA/WDMA/CSA 101/I.S.2/A440-11,NAFS 2011 – North American Fenestration, Standard/Specification for windows, doors and skylights
- C. WDMA I.S.4: Industry Standard for Water Repellent Preservative Treatment for Millwork
- D. Window and Door Manufactures Association (WDMA): 101/I.S.2 WDMA Hallmark Certification Program
- E. Sealed Insulating Glass Manufactures Association/Insulating Glass Certification Council (SIGMA/IGCC)
- F. American Architectural Manufacturer's Association (AAMA): 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels
- G. National Fenestration Rating Council (NFRC):

1. 101: Procedure for Determining Fenestration Product thermal Properties
2. 200: Procedure for Determining Solar Heat Grain Coefficients at Normal Incidence

1.4 System Description

A. Design and Performance Requirements:

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure (DP)	Overall Width		Overall Height	
						in	mm	in	mm
Wood Insert Double Hung	1.57	6	60	LC-PG40-H	40	35 3/8	(899)	81	(2057)
Wood Insert Double Hung	1.57	6	60	LC-PG40-H	40	45 3/8	(1153)	61	(1549)
Wood Insert Double Hung	1.57	6	45	LC-PG30-H	30	45 3/8	(1153)	81	(2057)
Wood Insert Double Hung 1 5/8" Picture	1.57	6	60	LC-PG40-FW	40	61 3/8	(1559)	57	(1448)
Wood Insert Double Hung 2" Picture	1.57	6	60	LC-PG40-FW	40	69 3/8	(1762)	81	(2057)
Wood Insert Double Hung Transom	1.57	6	60	LC-PG40-TR	40	73 3/8	(1864)	26 1/2	(673)

1.5 Submittals

- A. Shop Drawings: Submit shop drawings under provision of Section 01400
- B. Product Data: Submit catalog data under provision of Section 01400
- C. Samples:
 - 1. Submit corner section under provision of section 01400
 - 2. Include glazing system, quality of construction and specified finish
- D. Quality Control Submittals: Certificates: submit manufacture's certification indicating compliance with specified performance and design requirement under provision of section 01400

1.6 Quality Assurance

- A. Requirements: consult local code for IBC International Building Code and IRC International residential Code, including CT State Building Code and ALL amendments with adoption year and pertinent revisions for information on:
 - 1. Egress, emergency escape and rescue requirements
 - 2. Basement window requirements
 - 3. Windows fall prevention and/or window opening control device requirements

1.7 Delivery

- A. Deliver in original packaging and protect from weather

1.8 Storage and Handling

- A. Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation
- B. Store window units in an upright position in a clean and dry storage area above ground to protect from weather.

1.9 Warranty

- A. Clear insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years from the original date of purchase. Glass is warranted against stress cracks caused by manufacturing defects from ten (10) years from the original date of purchase.
- B. Factory applied interior finish is warranted to be free from finish defects for a period of five (5) years from the original date of purchase.
- C. Hardware and other non-glass components are warranted to be free from manufacturing defects for ten (10) years from the original date of purchase.

1.10 Substitutions

- A. Substitution requests shall be considered post contract signing. For the purpose of bidding, the products included in Part 2 of these specifications shall be included.

Part 2 Products

2.1 Manufactured Units

- A. Standard of design: Wood Insert Double Hung, Single Hung, Stationary unit as manufactured by Marvin Windows and Doors, Warroad, Minnesota. Subject to compliance with the requirements of the Contract, equal products by Harvey or Weathershield may also be acceptable.

2.2 Frame Description

- A. Clear pine or finger jointed core with clear pine veneer.
 - 1. Kiln dried to moisture content no greater than 12 percent at the time of fabrication
 - 2. Water repellent, preservative treated in accordance with ANSI/WDMA I.S.4.
- B. Frame thickness: 1 1/16" (17mm) head and side jambs
- C. Frame depth: The overall frame depth is 5 21/32" (144mm). The depth from the inside of nailing fin to inside face of jamb is 4 9/16" (116mm)
- D. Frame bevel: 8 degree bevel
- E. Sill: 1" (26mm) sill or 1 7/16" (37mm) flat sill

2.3 Sash Description

- A. Interior: Clear pine or finger jointed core with clear pine veneer
 - 1. Kiln dried to moisture content no greater than twelve (12) percent at the time of fabrication
 - 2. Water repellent preservative treated with accordance with WDMA I.S.4.
- B. Sash thickness: 1 5/8" (41mm) for operable, 1 5/8" (41mm) or 2" (51mm) for picture units
- C. Interior Sash Sticking
 - 1. Standard is: Ovolo
 - 2. Optional Interior Square sticking

2.4 Glazing

- A. Select quality complying with ASTM C1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E2190.
- B. Glazing method: Insulating glass
- C. Glazing seal: silicone bedding, exterior and interior
- D. Glass Type: Clear LoE2 272® with argon

2.5 Finish

- A. Interior/Exterior: Treated bare wood
 - 1. Prime: factory-applied enamel primer. Available on pine product only.
- B. Interior Finish options:
 - 1. Painted Interior Finish. Available on pine product only.

2.6 Hardware

- A. Balance system: coil spring block and tackle with nylon cord and fiber filled nylon clutch
- B. Jamb track: vinyl extrusion
 - 1. Color: beige
- C. Lock: High pressure zinc die-cast (solid brass) cam lock and keeper
 - 1. Finish: To be selected by Architect from manufacturer's standard line.
- D. Optional Window Operating Control Device

2.7 Weather Strip

- A. Jamb weather strip is a foam type weather strip which seals against both the bottom sash and top sash stiles
- B. Top sash has a weather strip on the check rail that seals to the bottom sash and top sash stiles
- C. Top rail seals against a weather strip on the head jamb parting stop
- D. Stationary units: Continuous, bulb weather strip at perimeter of sash, concealed clotted bulb weather strip on exterior of sash, pile weather strip on interior of blind stop, dual durometer bulb weather strip at bottom rail

2.8 Insect Screen

- A. Field installed half screen or full screen
 - 1. Half screen covers bottom sash opening
- B. Screen mesh:
 - 1. Charcoal fiberglass; charcoal aluminum wire, black aluminum wire, bright aluminum wire, bright bronze wire, Hi-Trans fiberglass screen mesh
- C. Aluminum frame:
 - 1. Fluoropolymer modified acrylic topcoat applied over primer. Meets or exceeds AAMA 2605 requirements.
 - 2. Colors: Pebble Gray, Bahama Brown, Evergreen, Bronze, Stone White, Ebony, Wineberry, Coconut Cream, Hampton Sage, Cashmere, Arctic White, Cumulus Gray, Desert Beige, Sierra White, Cadet Gray, Cascade Blue, French Vanilla, Bright Silver (pearlescent), Copper (pearlescent) To be selected by Architect.
- D. Optional Magnum Screen:
 - 1. Extruded aluminum surround with charcoal hi-transparency fiberglass mesh

2.9 Removable Interior Grilles

- A. 3/4" by 15/32" (19mm x 12mm), 1 1/8" x 15/32" (29mm x 12mm) wide – pine only
 - 1. Pattern: Rectangular, Diamond, Custom lite layout. To be selected by Architect.
 - 2. Finish: match interior sash finish

2.10 Simulated Divided Lites (SDL)

- A. 5/8" (16mm) wide, 7/8" (22mm) wide, 1 1/8" (29mm), 1 3/4" (44mm), 2 13/32" (61mm) wide with or w/out internal spacer bar
- B. Muntins: pine, mahogany, or vertical grain Douglas fir

- C. Muntins adhere to glass with closed-cell copolymer acrylic foam tape
- D. Sticking:
 - 1. Standard: Ovolo
 - 2. Optional Interior Square sticking
- E. Pattern: Rectangular, diamond, custom lite cut
- F. Finish: Match panel finish

2.11 Grilles-Between-the-Glass (GBG)

- A. 11/16" (17mm) contoured aluminum bar
 - 1. Exterior Colors: Stone White. The exterior GBG color is designed to best match the Marvin clad color when used with LoE glass. The use of different types of glazing may alter the exterior GBG color appearance.
 - 2. Standard Interior Color: Stone White
 - 3. Optional Interior Colors: Bronze, Pebble Gray, Sierra, White
- B. Optional flat aluminum spacer bar. Contact your Marvin representative.
- C. Pattern: Rectangular, Cottage, Custom lite layout

2.12 Authentic Divided Lites (ADL)

- A. 1 11/16" (43mm) insulating pine, mahogany, vertical grain Douglas fir muntins or 7/8" (22mm) single glaze ADL with energy panel.
 - 1. Pattern: Rectangular; Custom lite layout
 - 2. Finish: Match sash finish

2.13 Accessories and Trim

- A. Package of installation hardware consisting of:
 - 1. Two 5/16" - #10 + 2 1/2" jamb jack screws
 - 2. Four #7 x 2" Phillips pan head installation screws
 - 3. Two jamb liner check rail pads
 - 4. Four wood flat head plus (interior)
 - 5. Screen grommet(s)
- B. Sash lifts:
 - 1. High pressure zinc die-cast.
 - 2. Color: Satin Taupe, Bronze, White, Brass, Satin Chrome
- C. Exterior Trim

Part 3 Execution

3.1 Examination

- A. Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions. Report frame defects or unsuitable conditions to the General contractor before proceeding.
- B. Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

3.2 Installation

- A. Assemble and install window/door unit(s) according to manufacturer's instruction and reviewed shop drawing.
- B. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07900 Joint Sealants. Do not use expansive foam sealant.
- C. Install accessory items as required.
- D. Use finish nails to apply wood trim and mouldings.

3.3 Cleaning

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Leave windows and glass in a clean condition. Provide final cleaning of windows.

3.4 Protecting Installed Construction

- A. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section

SECTION 09911
EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes surface preparation and the application of paint systems on the following exterior substrates:
1. Wood.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each finish and for each color and texture required.
- C. Product List: Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

1.3 QUALITY ASSURANCE

- A. MPI Standards:
1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.
- B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
 - b. Other Items: Architect will designate items or areas required.
 2. Final approval of color selections will be based on benchmark samples.
 - a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Architect at no added cost to Owner.

1.4 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
 - 1. Quantity: Furnish an additional 5 percent, but not less than 1 gallon of each material and color applied.

1.5 Hazardous Materials

- A. An Environmental Assessment has been provided and outlines procedures for Lead Based Paint remediation. Refer to Section 02090 for requirements.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with the requirements of the Contract, provide products by one of the following:
 - 1. PPG Industries, Pittsburgh Paints
 - 2. Benjamin Moore Co.
 - 3. Sherwin-Williams Co.

2.2 PAINT, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. Colors: As selected by Architect from manufacturer's full range.

2.3 BLOCK FILLERS

- A. Interior/Exterior Latex Block Filler: MPI #4.
 - 1. VOC Content: 50 g/L (grams per Liter) max.

2.4 PRIMERS/SEALERS

- A. Bonding Primer (Water Based): MPI #17.
 - 1. VOC Content: 50g/L max.
- B. Wood-Knot Sealer: Sealer recommended in writing by topcoat manufacturer for use in paint system indicated.

2.5 WOOD PRIMERS

- A. Exterior Latex Wood Primer: MPI #6.
 - 1. VOC Content: 50 g/L max.

2.6 EXTERIOR LATEX PAINTS

- A. Exterior Latex (Flat): MPI #10 (Gloss Level 1).
 - 1. VOC Content: 50 g/L max.

2.7 FLOOR COATINGS

- A. Interior/Exterior Latex Floor and Porch Paint (Low Gloss): MPI #60 (maximum Gloss Level 3).
 - 1. VOC Content: 100 g/L max.
 - 2. Environmental Performance Rating: EPR 3.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Wood: 15 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.

1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION AND APPLICATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- D. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- E. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.3 EXTERIOR PAINTING SCHEDULE

- A. Wood Shingle and Shake Substrates (Excluding Roofs):
 1. Latex System: MPI EXT 6.6E.
 - a. Prime Coat: Exterior latex wood primer.
 - b. Intermediate Coat: Exterior latex matching topcoat.
 - c. Topcoat: Exterior latex
- B. Dimension Lumber Substrates, Nontraffic Surfaces: Including board siding.
 1. Latex System: MPI EXT 6.2M.
 - a. Prime Coat: Exterior latex wood primer.
 - b. Intermediate Coat: Exterior latex matching topcoat.
 - c. Topcoat: Exterior latex. Submit for finish

C. Dimension Lumber Substrates, Traffic Surfaces: Including decking and stairs.

1. Latex System: MPI EXT 6.5E.

- a. Prime Coat: Exterior latex wood primer.
- b. Intermediate Coat: Interior/exterior latex floor and porch.
- c. Topcoat: Interior/exterior latex floor and porch (low gloss).

- 1) With additive to increase skid resistance of painted surface.

END OF SECTION 09911