

INVITATION TO BID

Proposals are invited by the owners for rehabilitation work on the property specified below:

Project Address: 156 Bradford Road
Torrington CT 06790

Proposals will be received until 9:00 a.m. on Thurs., Sept. 4, 2014 at which time they will be opened. Proposals will be delivered to:

City of Torrington
Purchasing Department
140 Main Street
Torrington CT 06790

Copies of the Project Specifications and further information may be obtained from City of Torrington, Purchasing Dept., Mon. – Fri., 9:00 A.M. - 4:00 P.M. or at the State of Conn. Dept. of Admin. Services (DAS) website, www.das.ct.gov, State Contracting Portal, City of Torrington, Solicitation Number 143-325.

For more information, contact Bob Caliolo at phone: 203-573-1188 x211 or email: bob@lwagnerassociates.com.

A mandatory pre-bid conference will be held at the following location and time:

PRE-BID Thursday, August 28, 2014
8:30 a.m.
156 Bradford Road
Torrington CT 06790

The above work includes: Roofing, gutters, windows, doors, siding, carpentry, heating, radon mitigation.

AN AFFIRMATIVE ACTION / EQUAL OPPORTUNITY EMPLOYER
WBE / MBE / SBE AND SECTION 3 DESIGNATED CONTRACTORS
ARE ENCOURAGED TO APPLY

INSTRUCTIONS TO BIDDERS

Mail or deliver this entire completed bid package in a sealed envelope to be received no later than 9:00 a.m. on Thursday, September 4, 2014

TO: City of Torrington
Purchasing Department
140 Main Street
Torrington CT 06790

To be noted on outside of envelope:

DO NOT OPEN UNTIL 9:00 a.m. on Thursday, September 4, 2014

Project No. 143-325
156 Bradford Road
Torrington CT 06790

THERE WILL BE A PRE-BID CONFERENCE AT THE ABOVE SITE AT:
8:30 a.m. on: Thursday, August 28, 2014

NOTE: CONTRACTOR IS TO SUBMIT THIS ENTIRE BID PACKAGE. ALL BIDS MUST BE FILLED OUT COMPLETELY. IT IS SUGGESTED THAT CONTRACTORS RETAIN A COPY OF THIS ENTIRE BID PACKAGE.

ALL BIDS SHALL REMAIN IN EFFECT FOR THIRTY (30) CALENDAR DAYS AFTER THE RECEIPT OF BIDS.

CONTRACTOR'S BUSINESS NAME: _____
(PLEASE PRINT)

**AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER
WBE / MBE / SBE AND SECTION 3 DESIGNATED CONTRACTORS
ARE ENCOURAGED TO APPLY**

PROBABILITY DISTRIBUTIONS

1. The probability that a randomly selected person is a member of the American Red Cross is 0.05. If 100 people are selected at random, what is the probability that exactly 5 are members of the American Red Cross?

$n = 100$
 $x = 5$
 $p = 0.05$
 $q = 0.95$

$P(X = 5) = \binom{100}{5} (0.05)^5 (0.95)^{95}$

≈ 0.00000377

$\approx 3.77 \times 10^{-6}$
 $\approx 0.000377\%$
 $\approx 3.77 \times 10^{-4}\%$

2. The probability that a randomly selected person is a member of the American Red Cross is 0.05. If 100 people are selected at random, what is the probability that at least 5 are members of the American Red Cross?

$P(X \geq 5) = 1 - P(X < 5)$
 $= 1 - P(X = 0) - P(X = 1) - P(X = 2) - P(X = 3) - P(X = 4)$
 $= 1 - \binom{100}{0} (0.05)^0 (0.95)^{100} - \binom{100}{1} (0.05)^1 (0.95)^{99} - \binom{100}{2} (0.05)^2 (0.95)^{98} - \binom{100}{3} (0.05)^3 (0.95)^{97} - \binom{100}{4} (0.05)^4 (0.95)^{96}$

$\approx 1 - 0.00000047 - 0.00676843 - 0.02731525 - 0.07081454 - 0.14757843$
 ≈ 0.75343132

3. The probability that a randomly selected person is a member of the American Red Cross is 0.05. If 100 people are selected at random, what is the probability that at most 5 are members of the American Red Cross?

$P(X \leq 5) = P(X = 0) + P(X = 1) + P(X = 2) + P(X = 3) + P(X = 4) + P(X = 5)$
 $= \binom{100}{0} (0.05)^0 (0.95)^{100} + \binom{100}{1} (0.05)^1 (0.95)^{99} + \binom{100}{2} (0.05)^2 (0.95)^{98} + \binom{100}{3} (0.05)^3 (0.95)^{97} + \binom{100}{4} (0.05)^4 (0.95)^{96} + \binom{100}{5} (0.05)^5 (0.95)^{95}$
 $\approx 0.00000047 + 0.00676843 + 0.02731525 + 0.07081454 + 0.14757843 + 0.00000377$
 ≈ 0.24656869

CITY OF TORRINGTON
SCOPE OF WORK, PART 1, GENERAL CONDITIONS

OWNER: John Tarter
ADDRESS: 156 Bradford Road
Torrington Ct 06790

PROJECT: 143-325

1. The Contractor, unless otherwise specified, shall provide all labor, materials, tools, equipment, and related items, and pay all necessary taxes, fees, and permits necessary to complete all of his work as detailed on the attached scope of work.
2. All rehabilitation, alterations, repairs, or extensions shall be in compliance with all applicable codes of the Municipality. 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.
3. 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.
4. The selected Contractor must, prior to contract signing, supply the City of Torrington and the Owner with the original certificates of insurance for general liability, auto liability, and worker's compensation, as applicable. General liability insurance shall be a broad form contractual endorsement with minimum limits of one million (\$1,000,000.00) dollars per occurrence for bodily injury and five hundred thousand (\$500,000.00) dollars per occurrence for property damage. Auto Liability insurance shall cover hired and non-hired autos in accordance with State law. Workers' Compensation Insurance shall have a minimum limit of one hundred thousand (\$100,000.00) dollars for each accident. The Contractor shall indemnify and save harmless the Owner and the City of Torrington under these policies. The contractor shall name the City of Torrington, its agents and the Owner as additional insured as their interests may appear on the General Liability Insurance.
5. The Contractor agrees that all services offered by the Municipality through L. Wagner & Associates, Inc. (hereinafter referred to as the "Consultant"), which may affect the Contractor, are offered by the Municipality in order to assist in the project implementation and the necessary program compliance. The Contractor agrees to, upon review and acceptance of such services provided, indemnify, defend, save and hold harmless the Municipality and Consultant, their officers, agents and employees from and against any and all damage, liability, loss, expense, judgment or deficiency of any nature whatsoever (including, without limitation, reasonable attorney's fees and other costs and expenses incident to any suit, action or proceeding) incurred or sustained by Municipality or consultant which shall arise out of or result from consultant's performance in good faith of services pursuant to the Professional Services Contract. The Contractor agrees that the Consultant shall not be liable to the Contractor, its heirs, successors or assigns, for any act performed within the duties and scope of employment pursuant to Professional Services Contract.

6. All materials shall be new and of acceptable quality. The property Owner shall select all colors, models, etc. 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. 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 for a one (1) year period from the date of the Certificate of Completion. This guarantee shall be in addition to and not in limitation of, in lieu of, or modify any other guarantee that is due the property Owner from any manufacturer.
7. 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.
8. The Contractor shall take all necessary measures and precautions to protect the surroundings from damage occurring due to performance of the work. If such damage occurs it will be repaired by the Contractor at no cost to the Owner.
9. 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.
10. All work shall be neat and accurate and done in a manner in accordance with customary trade practices.
11. The Contractor shall not make any changes to the scope of work unless a change order is processed and fully executed by the property Owner and the Program.
12. The Owner may cancel this contract by (to be determined) and not be liable to the Contractor or the Municipality. Should the Owner opt to cancel they must sign and send the attached cancellation notice, see Attachment A, to the Contractor, otherwise the Owner shall issue a Notice to proceed authorizing the contractor to commence with the proposed improvements. Should the Notice to Proceed not be issued prior to 10 consecutive calendar days from the date of the expiration date of the right to cancel then the Contract will become Null and void.
13. The Contractor shall commence work under this contract prior to (to be determined) and complete the work by (to be determined).

14. 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 causes 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 shall 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) calendar days. In the event that the Contractor does not commence or pursue the work as hereinafter stated, then the Owner 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 Owner in the event of termination shall be as follows:
15. 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.
16. 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, the Owner 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 Owner, be completed or not.
17. The Contractor may request a maximum of (to be determined) progress payments as work is completed in accordance with the attached specifications. The request shall be in the form of an itemized bill for that portion of work completed by the Contractor. All requests for payment shall be accompanied by a fully executed Lien Waiver, on a form provided by the Program. Final payment is contingent upon the receipt of a signature of the respective inspector for which each permit was issued. The Contractor shall be responsible for obtaining the signatures and presenting them upon final payment.
18. All claims or disputes between the Owner and Contractor arising out of or related to the work shall be resolved in accordance with Construction industry arbitration rules of the American Arbitration Association (AAA), unless the parties mutually agree otherwise. The Owner and Contractor shall submit all disputes or claims, regardless of the extent of the work's progress, to AAA. Notice of the demand for arbitration shall be filed in writing, with a copy to the other party to this Construction Agreement, and shall be made within a reasonable time after the dispute has arisen. The award rendered by the arbitrator shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. If the arbitrator's award is in a sum which is less than that which was offered in settlement by the Owner, the arbitrator may award costs and attorney's fees in favor of the Owner.

If the award of the arbitrator is in a sum greater than that which was offered in settlement by the Contractor, the arbitrator may award costs and attorney's fees in favor of the Contractor.

It is understood and agreed by the parties hereto that neither party will institute any form of legal action, including, but not limited to, attaching the assets of the other party, unless and until it has made a good faith attempt to have the dispute resolved in accordance with the provisions of this Section. Noncompliance with the conditions precedent constitutes a waiver of the right to assert said claim.

19. Section 3 of the Housing and Urban Development Act of 1968 applies to this contract if the amount of HUD assistance exceeds \$200,000 or the contract or subcontract exceeds \$100,000. The Contractor shall, to the maximum extent feasible, provide opportunities for training and employment in connection with this contract to low income persons residing in the PMSA relevant to the project location. The Contractor must make a good faith effort to fill any job vacancies and training opportunities with low income persons residing in the PMSA relevant to the project location. Where the preceding applies, contractors must comply with the following Section 3 Clause:
 - A. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1791u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
 - B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.
 - C. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference shall set for the minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking application for each of the positions; and the anticipated date the work shall begin.

- D. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.
- E. The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR part 135.
- F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
20. 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 for work covered by this agreement.
21. 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.
22. The following applies to all contracts of \$10,000.00 or more: SECTION 402 VETERANS OF THE VIETNAM ERA. AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM 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.

23. The premises herein shall be occupied during the course of the construction work.
24. No officer, employee or member of the Governing Body of the City of Torrington shall have any financial interest, direct or indirect, in this contract or the proceeds of this loan.
25. The Owner and/or City Torrington 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 Owner and/or City Torrington.
26. 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 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 unequal substituted material shall also be replaced, reworked, and reinstalled at no cost to the Owner.
27. Bids shall contain prices for general categories of work and/or items as specified on the attached sheets. In the event of a discrepancy between prices listed in the specifications and those on the cost summary sheet, the prices listed on the specification for that section shall prevail. In the case of a mathematical error by the Contractor, the correct sum of the individual line items in the specifications (not in the cost summary) shall be the Contractor's bid.
28. All bids shall remain in effect for thirty (30) calendar days.
29. 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.
30. OTHER PROVISIONS - LEAD BASED PAINT
 - A. 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.

Provided, however, that the Owner shall have sole responsibility for assuring that his property conforms to the Lead-Based Paint Removal Requirements and the Program shall not assume any liability whatsoever as a result of identifying volatile levels of Lead-Based Paint or its removal except insofar as to comply with applicable environmental regulations.

PUBLIC LAW 91-695 "LEAD-BASED PAINT POISONING PREVENTION ACT"
The Contractor shall adhere strictly to the provisions of the "Lead-Based Paint Poisoning Prevention Act". Specifically, the Contractor will not utilize lead-based paint as a finish or undercoat or any other use in or out of residential dwellings funded in whole and/or part by the Federal Government.

31. The specifications and drawings, if any, are complimentary. Work described in the specifications does not necessarily have to appear on the drawings, nor does work described on the drawings necessarily have to appear in the specifications. The Contractor is responsible for estimating all work whether described in the specifications, the drawings, or both. If there is a discrepancy between the drawings and the specifications, the specifications shall prevail. All work, whether described in the specifications, or the drawings is to be included in the bid summary sheet by appropriate line item. The contract will only be awarded to general Contractors bidding on ALL line items.

ATTACHMENT A

Notice of Cancellation

«Date»

You may cancel this transaction without any penalty or obligation, within three business days from the above date.

If you cancel, any property traded in, any payments made by you under the contract or sale, and any negotiable instrument executed by you will be returned within ten business days following receipt by the seller of your cancellation notice, and any security interest out of the transaction will be canceled.

If you cancel, you must make available to the seller at your residence, in substantially as good condition as when received, any goods delivered to you under this contract or sale; or you may, if you wish, comply with the instructions of the seller regarding the return shipment of the goods at the seller's expense and risk. If you do make the goods available to the seller and the seller does not pick them up within twenty days of the date of the cancellation, you may retain or dispose of the goods without any further obligation. If you fail to make the goods available to the seller, or if you agree to return the goods to the seller and fail to do so, then you remain liable for performance of all obligations under the contract.

To cancel this transaction, mail or deliver a signed and dated copy of this cancellation notice or any other written notice, or send a telegram to (Contractor Name) at (Contractor Address), (Contractor City, State, Zip), not later than midnight of (Contract Cancel Date).

I hereby cancel this transaction.

Signed

Date

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

GENERAL CONSTRUCTION NOTES

1. The Contractor shall perform the work to accommodate to the greatest extent reasonable the normal use of the premises by the Owner during the construction period.
2. It is the Owners intention to proceed with the dwelling occupied during the entire construction project. Coordinate with the Owner in all construction operations to minimize conflict, and to facilitate the Owner usage of the dwelling, parking, and access to the building.
3. The Contractor shall maintain containment within the work area when performing lead based paint reduction activities as required, until such time-as clearance is received.
4. The Contractor shall coordinate any and all short-term interruptions or shutdowns with the Owner prior to commencing.
5. The Contractor shall take every precaution to ensure the safety of the occupants during all phases of construction. The Contractor shall to the greatest extent reasonable maintain a least one exit for access. Coordinate restrictions and closures with Owner.
6. The Contractor shall be responsible for protecting the dwelling and contents from weather and damage during construction, and shall be responsible for the repair and or replacement of any damage to the building and or contents until completion of the contract.
7. The Contractor shall assume full responsibility for the protection and safekeeping of his materials and products under this Contract stored on the site. The Contractor shall move any stored products under the Contractor's control which interfere with operations of the owner.

PROJECT MEETINGS

1. The selected Contractor shall attend a contract signing meeting as scheduled by the Owner, and Consultant.
2. The selected Contractor shall attend periodic job meetings during the course of construction, on site, as required.

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PRODUCT AND EXECUTION

1. Workers shall be experienced and skillful in performing the work assigned to them.
2. Contractor shall verify critical dimensions, operations and functions in the field before ordering or fabricating items which must fit adjoining construction. The Contractor shall verify all existing conditions and dimensions prior to the work. Any and all discrepancies shall be reported to the Owner and Consultant prior to ordering any materials or performing the work.
3. The Contractor shall follow manufacturer's instructions for assembly, installation and product adjustment. In the event of conflicting specifications the specifications of the manufacturer shall prevail.
4. In the event unforeseen circumstances the Contractor shall notify the Owner and Consultant within 24 hours of discovery. If the work is deemed additional or extra by the Consultant then a change order will be negotiated, executed and authorized by the Contractor, Owner and Consultant prior to the commencement of the work. Any work performed prior to the execution of a change order may or may not be considered for payment.
5. The specifications do not attempt to detail every task and procedure required to perform the work in full. The Contractor shall perform the work as required to complete the work in a professional manner using customary trade practices and standard work practices.

REMOVAL OF DEBRIS AND SITE MAINTENANCE

1. The contractor shall include in their bid the cost of trash containers and the removal and lawful disposal of said debris off site.
2. The Contractor shall coordinate with the Owner for the placement of trash containers if necessary prior to the start of demolition.
3. The Contractor shall be responsible for the daily clean up and maintenance of the site. All debris, construction materials, scrap, rubbish etc. shall be placed in a trash container or dumpster on a daily basis. Sidewalks, driveways and pedestrian ways shall be broom swept and policed with a nail bar magnet at the end of each day.

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MATERIAL DELIVERY, STORAGE AND HANDLING

1. The Contractor shall determine and comply with manufacturer's recommendation on product handling, storage installation and protection.
2. Products shall be delivered to the job site in their manufacturers' original containers, with labels intact and legible. Do not deliver materials to job site until they can be properly protected. Owner will provide storage of materials (to the best of his ability) if notified in advance of material delivery.
3. Maintain packaged materials with seals unbroken and labels intact until time of use.
4. The Owner and or Consultant may reject materials and products which do not bear identification satisfactory to the Owner or Consultant

SUBMITTAL

The following list of submittals is for the convenience of all parties concerned it is not necessarily a complete list of all submittals required.

1. Submit the following before the start of work:
 - a. Copy of building permit.
 - b. Construction schedule.
 - c. Material submittals if not using materials as specified.
2. Submittals before Certificate of Completion and final payment.
 - a. Acceptance of work from local Building Official.
 - b. All warranty and guarantee information
 - c. Signed and notarized lien waivers from first tier subcontractors and suppliers.

WARRANTIES AND GUARANTEES

1. The Contractor shall issue the Owner a written Notice of Guarantee after the date of receipt of Certificate of Completion. Submit to the Owner on letterhead in the following form:
Name of Project and date
I/We, (FIRM NAME), hereby warrant, and guarantee workmanship on labor for the renovations performed at (OWNER'S ADDRESS), as per contract signed on (DATE OF CONTRACT) for a period of one (1) year from the date of the Certificate of Completion.
Signed

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ROOFING AND VENTILATION

GENERAL

1. Work in this section shall be governed by the Contract Documents. Contractor shall provide all materials, labor, equipment and services necessary, to perform and complete the work specified herein and or as required by job conditions.

INTENT

1. The intent of the proposed work is to remove and dispose of all roofing materials from the house roof.
2. Provide and install 30 year rated, architectural, strip type shingles including but not limited to metal rake and drip edging, ice & water shield, shingle underlayment, ridge vents, plumbing boots, and flashings.

REFERENCES

1. ASTM D 224 - Standard Specifications for Smooth Surfaces Asphalt Roll Roofing
2. ASTM D226 - Standard Specifications for Asphalt Saturated Organic Felt used in Roofing & Waterproofing
3. ASTM D 3018 - Standard Specification for Class A Shingles Surfaced with Mineral Granules.
4. ASTM 3161 - Standard Test Method for Wind Resistance of Asphalt Shingles (Fan Induced Method)
5. ASTM 3462 - Standard Specification for Asphalt Shingles Made from Glass felt and Surfaced with Mineral Granules.
6. ASTM 4586 - Standard Specification for Asphalt Roof Cement, Asbestos Free
7. ASTM D4869 - Standard Specification for Asphalt – Saturated Organic Felt Shingle Underlayment used in roofing.
8. ASTM D 6757 - Standard Specifications for Inorganic Underlayment for Use with Steep Slope Roofing
9. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.

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MATERIALS

1. Rake & Drip Edge – White aluminum rake & drip. Drip edge shall be 5” wide.
2. Underlayment - . GAF “Shingle Mate” or approved equal for strip type shingles and GAF “Roof Pro” for SBS roofing application. Underlayment shall conform to ASTM - D226, Type 1 or ASTM D4869 type 1.
3. Leak Barrier - GAF “Weather Watch” mineral surfaced leak barrier or approved equal. Material shall conform to the requirements of ASTM D 1970. Thickness to be min. 40 mils. Tensile strength MD (lbf/in) minimum 25.
4. Starter Strip Shingles shall be Pro Start eave and rake starter strip as manufactured by GAF or approved equal.
5. Laminated fiberglass – shall be GAF Timberline HD Shingles or approved equal. Shingles shall carry Underwriter's Laboratories labels, UL® 790 Class A Fire Resistance, UL® 997, Wind Resistance and ASTM D3462. Shingles shall be Class A, strip type, self sealing
6. Hip and ridge shingles shall be Seal – A – Ridge, ridge cap shingles as manufactured by GAF or approved equal
7. Ridge Vent - GAF “Cobra Ridge Vent, or approved equal.
8. Fasteners - Aluminum or galvanized sharp pointed conventional roofing nails with smooth shanks, minimum 3/8” diameter head and of sufficient length to penetrate 3/4” into solid decking or penetrate through plywood sheathing. Provide 6 nails per full shingle. Staples are not acceptable.
9. Roof boots/ Flashing Vents - EPDM rubber-aluminum boots.
10. Flashing cement - trowel grade non asbestos mineral- fibered roofing mastic ASTM D-2822 Type 1 and ASTM D-4586 Type 1, equivalent to Karnak.
11. Step and roll flashing - Aluminum 0.040” thick, color mill finish.
12. Chimney flashing – step and counter flashing, lead flashing.

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SHINGLE REMOVAL

1. Remove and legally dispose of existing roofing materials such as but not limited to, roof boots, roof vents, plumbing boots, flashing materials, rake and drip edge, felt paper and fasteners from roof.
2. Contractor shall remove only as much material as can be replaced in a single work day. Contractor shall be responsible for any water damage to the structure and to Owners' property as a result of inadequate protection.
3. Removal work shall be done in a manner and by such means as is necessary to protect the buildings from damage; to cause minimum interruption to activities; to avoid hazard or injury to persons or property during the entire construction project.
4. Inspect roof sheathing, if after shingle removal decking surfaces are determined to be inappropriate for installation of new roofing, Contractor shall notify the Owner & Consultant of any decking which requires replacement.

Unit Price #1: Remove existing damaged or rotted decking and install new ½" plywood decking. Provide APA exterior exposure plywood. Include all required labor and materials in cost per 4' X 8' sheet. Do not include in base bid

\$ _____ / 4 x 8 sheet

PREPARATION OF ROOF DECK

1. The contractor shall inspect the entire area to be roofed and verify it is clean and free of debris, nails, or any other item which may cause interference with the installation of the new roofing materials.
2. Install a minimum of two (2) courses of ice & water shield along all eaves extending a minimum of 24" beyond heated wall. Install full coverage ice & water barrier on any roof with less than a 4"/12" pitch.
3. Install full sheet of ice & water barrier centered in valleys allowing for 18" overlap onto either roof deck. Overlap minimum of 6" at head laps.
4. Install (18") eighteen inch wide strip of ice & water barrier along the rakes. Overlap and seal joints a minimum of 6".
5. Install a minimum of 18" x 18" piece of ice & water shield around any roof penetrations such as vent, hoods, plumbing stacks etc.
6. Install new metal rake and drip edge on all rakes and eaves. Fasten new metal edging every 8" on center using approved fasteners.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

7. Install roofing underlayment over all roof decks to receive new roofing. Lap each course a minimum of 6" over lower course, and side lapping 4" at all joints.
8. Install underlayment on remaining areas of roof upon completion of installing ice & water barrier.

SHINGLE ROOFING

1. Install roofing as follows:
2. Install starter course along eaves per manufacturer's written instructions.
3. Install shingles per manufacturer's written instructions. Apply six nails per full shingle. Fasten shingles at or below nailing line. Maintain six inch (6") clearance from butt end of proceeding course with any fasteners. Install shingles to meet wind zone requirements per the local building code.
4. Contractor shall provide one additional unbroken bundle of shingles identical to those installed for the Owners usage in the event of future need.

VALLEY

1. Valleys shall be constructed using a closed cut style installation. Install shingles as per shingle manufacturer's written instructions. Install shingles on smaller area of roof and extend a minimum of 24" beyond center of valley. Contractor shall not nail within the valley. Over lay shingles from larger area of roof over new valley shingles and cut to form straight line centered in valley.

ROOF BOOTS

1. Replace existing roof boots and install EPDM rubber-aluminum roof boots on all plumbing vents as existing. Boot shall have soft rubber gasket.

RIDGE VENT

1. Cut through roof sheathing parallel with ridge down approximately 1" on either side of ridge board.
2. Provide and install Cobra-Roll Vent or approved equal in accordance with manufacturer's installation instructions.
3. Cap over new vent with roofing manufacturers ridge cap shingles. Fasten with appropriate sized galvanized roofing nails.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

FLASHING

- 1. Provide and install aluminum 5” x 7” step flashing as required at gable walls. Contractor may re-use existing flashing to greatest extent possible.

CHIMNEY FLASHING & CAPPING

- 1. Remove and dispose of existing step flashing at chimney. Provide and install new lead step flashing as required for water tight installation.
- 2. Remove and (store per owner’s instructions) existing blue stone cap and supporting bricks. Patch in cement eap and install stainless steel chimney cap (Forever Cap model FASC1321 or approved equal.

Cost: \$ _____

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

GUTTERS

GENERAL: This specification includes all labor, materials, taxes and permits required to perform the gutter work described below. All work must conform to applicable building codes. Coordinate with the work of other trades specified elsewhere.

INTENT

1. The intent of the proposed work is to remove and dispose of all existing house gutters and leaders.
2. Provide and install new gutters and leaders as specified below.

GUTTERS

1. Provide and install new aluminum gutters and leaders on all eaves of the house and garage. Owner to choose from stock gutter colors.
2. Gutters shall have a minimum wall thickness of .032, Pitch gutter 1/8" per foot towards downspouts.
3. Provide and install aluminum leaders, at each down spout. Leaders shall have a minimum wall thickness of .019.
4. Fasten gutters 24" on center maximum to fascia or roofing with concealed brackets or hangers. If hangers are used, hangers shall be installed under the first course of roofing and not face nailed. Elbow drain pipes back to side wall of building and fasten leaders using concealed brackets. Fasten 6'-8' maximum spacing.

Cost: \$ _____

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

WINDOWS

GENERAL

1. Work in this section shall be governed by the Contract Documents. Contractor shall provide all materials, labor, equipment and services necessary, to perform and complete the work specified herein and or as required by job conditions.

INTENT

1. The intent of the proposed work is to remove and dispose existing windows as listed below and provide and install new construction, double hung windows, with factory applied nailing flange and J-channel.

WINDOW LOCATION (TOTAL OF 6 - WINDOWS)

- 1 - A Bedroom.
- 2 - B/D Bedroom.
- 2 - C/D Bedroom
- 1 - Bathroom (only bathroom)

MANUFACTURERS

1. Harvey Building Product. Waltham, MA 1-800-598-5400 www.harveyind.com or approved equal.
2. Mercury Excelum, East Windsor, CT 1-800-292-1802 www.mercuryexcelum.com or approved equal.

QUALITY ASSURANCE

1. Manufacturer Qualifications: Minimum ten (10) years producing vinyl (PVC) windows.
2. Source Limitations: Obtain window units from one manufacturer through a single source.
3. Provide window units independently tested and found to be in compliance with ANSI/AAMA/NWDA 101/I.S.2-97 and current A440-05 performance standards listed above.
5. Code Compliance: Provide windows that are labeled in compliance with the jurisdiction having authority over the project. Energy Star Rated- windows shall carry Energy Star Rating.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

VINYL NEW CONSTRUCTION WINDOW FEATURES

1. Provide and install new construction windows as specified below.
2. Window frames shall be nominal 0.070 inch (1.8mm) thick polyvinyl chloride (PVC) with miter cut and fusion welded corners. Contoured sash design shall be a nominal 0.070 inch (1.7mm) thickness with fusion welded corners. Color: White.
3. Glazing: Low E, 5/8 inch (22mm) nominal thickness, insulated glass units are silicone glazed with an exterior glazing bead.
4. - Weather Stripping: In compliance with AAMA 701.2.
5. Screens: Half screen, with extruded aluminum frame and 18 x 16 charcoal finished fiberglass mesh screening.
6. No window grills are not to be included in the window configuration.

INSTALLATION

1. Remove existing draperies and reinstall upon window installation as required.
2. Provide and install windows in accordance with manufacturer's installation instructions.
3. Install windows plumb, level and square so as to operate freely and latch securely.
4. Install spun fiberglass insulation within window header and under sill prior to installing window. Insulate between window jambs and vinyl replacement window using spun fiberglass insulation.
5. Trim out interior of each window, matching original configuration and material. Finish stain/paint interior trim, match original.

Cost: \$ _____

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

DOORS

GENERAL

1. Work in this section shall be governed by the Contract Documents. Contractor shall provide all materials, labor, equipment and services necessary, to perform and complete the work specified herein and or as required by job conditions.

INTENT

1. The intent of the proposed work is to remove and dispose of the existing storm doors and install new storm doors as specified below.

Door Schedule

<i>Location</i>	<i>Type</i>	<i>Size</i>	<i>Swing</i>	<i>Lockset</i>	<i>Hardware</i>
A - Side House Entry Storm	2/3 height self-storing	Match Original	VIF	Push button	As supplied by manufacturer
B - Side House Entry Storm	2/3 height self-storing	Match Original	VIF	Push button	As supplied by manufacturer

STORM DOORS MANUFACTURER

1. Gerkin Storm Door Model 902, as manufactured by Gerkin Doors & Windows, Sioux City, IA, 1-800-475-5061 with Dakota painted pull handle. Color - White
2. Tuff Core Series Model 133, as manufactured by Mercury Excellum Inc., 215 South Main Street, East Windsor, CT 06086 1-860-292-1800. Color - White

STORM DOOR INSTALLATION

1. Remove and dispose of existing doors.
2. Door shall be measured to fit existing opening. Swing to match existing. Door shall be installed plumb and square so as to fit tightly, operate freely and latch securely.
3. New door shall be equipped with external expander with soffit vinyl sweep at bottom. All hardware such as push button latch, pneumatic door closer and hurricane chain are required. Glazings to be in accordance with State and Local regulations.

Cost: \$ _____

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

VINYL SIDING

GENERAL: This specification includes all labor, material, equipment, insurance, taxes and permits required to perform the work as specified below. Coordinate with the work of other trades as specified elsewhere.

INTENT

1. The intent of the proposed work is to remove and dispose of the existing house wood clapboard siding. Provide and install new vinyl siding, wrap all exterior trim with coil stock aluminum, install vinyl soffits.

REFERENCES

1. ASTM D 635 Standard Method for Rate of Burning of Self Supporting Plastics in a Horizontal Position
2. ASTM D 638 Standard Methods for Tensile Properties of Plastics.
3. ASTM D 648 Test Method for Deflection Temperature of Plastics under Flexural Load.
4. ASTM D 696 Standard Test Method for Coefficient of Linear Thermal Expansion of Plastic Between -30 degree C and 30 degrees C.
5. ASTM D 1435 Standard Practice Method for Outdoor Weathering of Plastics.
6. ASTM D 1929 Standard Test Method for Ignition Properties of Plastics.
7. ASTM D 2843 Standard test Method for Density of Smoke from Burning or Decomposition of Plastics.
8. ASTM D 3679 Standard Specification for Rigid Poly Siding.
9. ASTM D 4101 Standard Specification for Propylene Plastic Injection and Extrusion.
10. ASTM D 4216 Standard Specification for Rigid Poly Compounds and Related Plastic Building Product Compounds.
11. ASTM D 4226 -- Standard Test Methods for Impact Resistance of PVC Building Products.
12. ASTM D 4477 Standard Specification for Rigid Poly Soffit.
13. ASTM D 5206 Standard Windload Resistance Test.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

14. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
15. ASTM E 119 Standard Test Methods for Fire Test of Building Construction and Materials.

MANUFACTURER

1. Provide one of the following manufacturers of siding:
 - a. Alcoa, Silhouette Classic, double 4", brushed, .044 thickness
 - b. CertainTeed, Monogram double 4", brushed, .044 thickness
 - c. Mastic, Quest 3, double 4", brushed, .044 thickness
 - d. Vipco, Market Square, double 4", brushed .044 thickness
2. Provide one of the following manufacturers of coil stock:
 - a. Alcoa, PVC coated one side .019 thickness.
3. Provide one of the following manufacturers of soffit and ceiling material:
 - a. Alcoa / Mastic Soffit, Pro-Tech Plus triple 4 center vent.
 - b. CertainTeed / Wolverine Soffit, Universal triple 4 center vent
 - c. Vipco Soffit, Triple 4, center vent
4. Polystyrene Insulation
 - a. Dow-Corning

ACCESSORIES

1. Provide coordinating accessories for complete and proper installation whether specified or not.
2. Schedule of accessories:
 - a. Starter strip, metal
 - b. Corner posts
 - c. Under sill
 - d. F-channel
 - e. J-channel
 - f. Light blocks
 - g. Sill cock / split blocks
 - h. Vinyl shutters (15" wide x full height of window trim) front house only.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

FASTENERS

1. Provide 1 ½" minimum galvanized or corrosion resistant nail as recommended by manufacturer of siding products for the installation of the siding, soffit and ceiling material.
2. Provide 1" – 1 ¼" color coated nails to match aluminum coil stock.

CAULKING

1. Provide 100 % silicone based caulking material. Caulking material shall be color matched to the material where being applied.

DEMOLITION

1. Remove and dispose of existing siding.
2. Examine substrate and notify the Owner of any conditions which must be addressed prior to the installation of the new siding. Any items which are deemed to require repair or replacement shall be performed through a change order. Any unauthorized work performed without prior authorization will not be considered valid for payment.

INSTALLATION

1. All products shall be installed in accordance to the latest printed installation instruction of the manufacturer
2. Provide and install Tyvek (or equal) house wrap and 3/8" extruded polystyrene foam backer board. Install underlayment on all areas to be sided. Cut underlayment tight to openings.
Tape house wrap seams per manufacturer's instructions.
3. All components shall be installed true, plumb and square, in accordance to customary trade practices. Fasten siding panels by placing nail centered in nailing slot. Fasten siding every 16" on center. Drive nails straight leaving space between head of the nail and the panel to allow for expansion and contraction. Allow spacing at both ends of the panels and trim for expansion and contraction.
4. Any accessories that can be removed and remounted on new siding shall be removed and remounted including exterior lights, motion sensors, door bells etc. Any item which cannot be removed shall be equipped with a split light block, such as water spigots. The siding contractor shall review the items with the Consultant that can and cannot be removed and remounted prior to commencing work.
5. Splice new siding around electrical conduit penetrating building.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

6. Cut a slot in the house wood soffits as to create a channel of venting with the roof ridge vent. Install white triple 4 soffit materials on all eaves, soffits and porch ceilings. Soffit panels on eaves shall be triple 4" center vented; all other soffit panels shall be triple 4" solid soffit material. Provide and install Proper Vent in each roof rafter bay to create a channel of ventilation. Staple venting per manufacturer's instructions.

ALUMINUM CLADDING

1. Install .019" aluminum coil stock over the following items including but not limited to, all exterior door and window casings, rakes, fascias, returns, trims, posts, and headers.
2. Coil stock shall be formed and fashioned to follow existing design and contour of material being covered.
3. Where any piece of coil stock is wider than 8" create a false bend to minimize cupping.

CLEANING

1. The contractor shall clean up the job site on a daily basis. All nails, screws, metal and vinyl scraps shall be raked, or swept from sidewalks and grass areas.
2. Upon completion of work the Contractor shall wipe clean the siding material of all finger prints smudges or other markings.

Cost: \$ _____

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

CARPENTRY

GENERAL: This specification includes all labor, materials, taxes and permits required to perform the carpentry work described below. All work must conform to applicable building codes. Coordinate with the work of other trades specified elsewhere.

INTENT

The intent of the proposed work is to:

1. Install guard rails on both sides of basement stairs.
2. Remove and dispose of existing rear deck and install new 8' x 16' pressure treated deck with rails and stairs.
3. Replace rakes, fascias, and soffits as listed below.

BASEMENT

1. Provide and install guardrail consisting of #2 pine, or comparable material, to enclose both open sides of basement stairs. Guard rail to be a minimum of 36" height, measured from the stair nosing, and gapping to be less than 4" diameter.

LANDING & STAIRS

1. Remove and dispose of existing rear entry stairs and landing, including existing ledger.
2. Install one pier on center between existing piers for main deck support beam. Excavate for piers to 42" below grade. Form and pour with 3000 psi concrete minimum. Piers ARE to be a minimum of 12" in diameter, extending 8" above ground level. Verify with the Building Official that the two existing piers are code compliant; owner has photo documentation of original installation.
3. Frame new landing, stairs, and railings, with pressure treated dimensional lumber as follows:

Floor joists and blocking at landing	2x8 PT at landing spaced 16" O.C.
Stair Stringers	2x12 PT
Stair Treads	2x12 PT
Risers	1x8 PT ripped to fit
Rail posts	4x4 PT
Railing cap	2x6 PT
Guard rails	2x4 PT w/ 2x2 PT baluster
Hand rail	1 ½ diameter wood

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

4. Frame new 8' x 16' landing with the lumber as specified. Securely fasten new landing framing to existing house foundation with anchors equal to Simpson TITEN HD heavy duty screw anchors. Through bolt both ends of ledger (within 3' of each end).
5. Supply and install galvanized joist hangers of the proper size. Fasten to ledger board and box joist with galvanized joist hanger nails or Simpson brand structural screws. Install 4 x 4 PT posts with post bases and fasteners equal to Simpson ABU44. Anchor to concrete piers with ½" galvanized anchor bolts.
6. Frame new stairs with the lumber specified. Stairs to be a minimum of 36" wide in clear width. Stairway to have 3 stringers. Anchor 4X4 posts to concrete piers with post bases equal to Simpson ABU44.
7. Stair treads shall have a minimum depth of 11 inches and a riser height of between 7 and 7 ½ inches. Provide nosing of between ¾" and 1 ¼" at all treads. Round over leading edge of nosing. Close in all risers with pressure treated 1X material.
8. Install guard rail system along open sides of stairway and landing. Use 2x4 PT for top and bottom rails and 2x2 balusters spaced no more than 4" apart. Guards to be a minimum of 36" in height at landing and 34" in height measured vertically from the nosing of the treads.
9. Install circular handrail on one side of stairs. Handrail to measure between 1 ¼ and 2" in diameter. Return handrail to wall at top and bottom of run. Maintain a minimum of 1 ½" spacing between handrail and wall.

Note: All deck dimensions, railing heights, tread dimensions, etc. are to be code compliant, and is the general contractor's responsibility. Verify all aspects of proposed work with the Cities Building Official before constructing.

RAKES, FASCIAS, SOFFITS

1. Replace fascias and rakes on entire house and garage before wrapping with aluminum. Use finger jointed pine matching original dimension.
2. Replace wood soffits with in-king material: approx. 23 lineal feet rear house C/D corner, approx. 20 lineal feet at A - side of house above bow window. Verify locations at pre bid.

Cost: \$ _____

**John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325**

HEATING

GENERAL

1. Work in this section shall be governed by the Contract Documents. Contractor shall provide all materials, labor, equipment and services necessary, to perform and complete the work specified herein and or as required by job conditions.
2. The furnace shall be installed in accordance with National, State and Local plumbing codes. If codes and regulations differ from the manufactures installation instructions the Contractor shall consult the authority having jurisdiction prior to installation.

INTENT

1. The intention of this section of the specifications is to replace the existing gas fired warm air furnace and condenser with specified models, including all required piping, and connections.

GAS FIRED WARM AIR FURNACE

1. Remove (and store per owners direction) existing furnace. Remove and dispose of piping, gauges, valves, fittings and controls which would interfere with the installation of the new furnaces.
2. Provide and install a Heil VC97, natural gas fired, 120,000 BTU, high efficiency, with multi stage variable speed blower WARM air condensing furnace. Provide and install a Heil 3-1/2 ton, high efficiency, SER 15, multi stage compressor. The owner conducted the heat loss calculation and is responsible for the sizing of the specified furnace and compressor. It is recommended that the heating contractor verify with the owner that the calculations are correct before installing the units.
3. Adapt, modify or install new all required piping, wiring, duct work etc as required so new furnace is installed in accordance with manufacturer's instructions and all local and state code requirements.
4. Install R-6 duct wrap on all supplies and returns within basement area.
5. Position the furnace so as to facilitate maintenance, cleaning, adjustment, etc. Examine flue and advise owner of any necessary repairs, cleaning, etc. New unit is to be installed on a platform of 4" x 8" x 16" concrete block. Locate and orient the furnace so as to facilitate maintenance, cleaning, adjustment, etc.
6. Replace each existing thermostat with programmable thermostats equal to Honeywell Model RTHL2310B or approved equal.

Cost: \$ _____

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

RADON MITIGATION

General: This specification includes all labor, material, taxes, insurance, permits and equipment necessary to perform the radon mitigation being proposed.

INTENT

1. The intention of this section of the specifications is to provide and install an active Sub Slab Depressurization System (SSD) to reduce the airborne radon levels to levels below 4 pCi/l in the basement.

CONDITIONS

1. The Contractor shall include in their bid any and all costs associated with the work being performed.
2. The Contractor shall perform all work in accordance with OSHA, State and Local standards as well as the Radon Mitigation Standards requirements for Worker Health and Safety as applicable.
3. The proposed mitigation system shall be designed as a permanent and integral addition to the building
4. The contractor shall obtain local building permits for electrical or plumbing work if applicable.
5. All work shall be performed by skilled tradesman trained in their field. Work shall be performed in a workman like manner in accordance to customary trade practices.
6. Any alteration or deviation to the proposal must be addressed through a written change order prior to commencing with the additional work. All change orders must be signed by the Contractor, Owner and Consultant to be valid.

SUBMITTAL

1. Prior to entering into a contract the Contractor shall submit technical information on proposed equipment. Information shall include independent test results listing effectiveness of equipment in the reduction of radon. Informational package shall include warranty and patent information on proposed equipment.
2. All mitigation system electrical components shall carry Underwriter Laboratory listing and approval. Contractor shall be responsible to provide UL listing information prior to contract signing.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

3. Contractor shall submit a plan detailing location of routing of proposed system(s) prior to contract signing.
4. All submittal are subject to the review and acceptance of the Owner and Town

SCOPE OF WORK - AIR

1. Provide and install an active Sub Slab Depressurization System (SSD) to reduce the airborne radon levels to levels below 4 pCi/l.
2. The contractor shall conduct a thorough visual inspection of the building prior to initiating any radon mitigation work.
3. The proposed mitigation system shall be designed as a permanent and integral addition to the building.
4. Where portions of structural framing must be removed to accommodate the radon vent pipes, materials removed shall be no greater than that permitted for plumbing installations as applicable by code. Any penetration of a fire wall or other fire resistance rated wall or floor; penetrations shall be protected in accordance with applicable building, mechanical fire and electrical codes.
5. All joints and connections shall be permanently sealed with adhesives as specified by the manufacturer of the piping. Protect piping from sub freezing conditions. Vent piping shall be fastened to the structure at least every 6' on horizontal runs. Vertical runs shall be secured either above or below points of penetration through floors, ceilings and roofs, or at least every 8' on runs that do not penetrate floors, ceilings or roofs.
6. Radon vent pipes shall be installed in a configuration that pitched back to the ground beneath the slab. Vent pipes shall not block access to any areas requiring maintenance or inspection.
7. To prevent re-entrainment of radon the discharge points shall be located as stated in the Radon Mitigation Standards section 14.2.8, (1) be above the eave of the roof, (3) be ten feet or more above ground level, (2) be ten feet or more from any window, door or other opening into conditioned space that is less than two feet below the exhaust point, (4) ten feet or more from any adjacent building.
8. Vent fans shall be sized to provide the pressure difference and air flow necessary to achieve the radon reduction goals.
9. Fans shall be installed in the vertical runs to prevent condensation build up. Vents installed on the exterior of buildings shall be rated for outdoor use or installed in a water tight protective housing. Fans shall be mounted in a manner to minimize the transfer of vibration. Fans shall be installed with two removable couplings.

John Tarter
156 Bradford Road
Torrington CT 06790
Project # 143-325

10. The contractor shall remove an adequate amount of material from the area directly below the slab penetration point to achieve optimum pressure field extension
11. The contractor shall seal all accessible cracks, holes, perimeter drains, and other openings in the foundation walls and slab with compatible caulks or other sealant materials. The opening around the vent pipe at slab penetration shall be sealed as specified above.
12. All electrical wiring shall conform to applicable National, State and Local Electrical Codes and RMS 14.6.1- 14.6.7
13. All plastic vent pipes shall be made of Schedule 20 PVC, ABS or equivalent. Schedule 40 or equal should be used in garages or other areas subject to physical damage. Fittings shall be of the same manufacturer as the vents pipes. Cleaning solvents and adhesives shall be recommended by the pipe manufacturer
14. The contractor shall install appropriate monitors and labels on the radon mitigation system. Monitors and labels shall be in accordance to RMS 16.1-16.5
15. The contractor shall perform back draft testing in buildings containing natural draft combustion appliances. Any back drafting condition that results from the installation of the radon mitigation system shall be corrected
16. Contractor shall perform post mitigation testing to determine the levels of radon present upon completion of the installation of the mitigation system. Testing shall be performed in accordance to the Radon Mitigation Standards. Testing devices shall be sent to an independent accredited laboratory for analysis and reporting.. Final payment and acceptance of the mitigation system is contingent upon receipt of the test results proving successful mitigation.
17. Copies of the test results shall be submitted to the Owner and Town as a condition for final payment.
18. The contractor shall provide a close out package to the Owner as require in the RMS section 18.1- 18.5

CONTRACTORS NOTES

Contractor shall list below any special conditions or circumstances noted during the pre bid inspection as a condition to their bid.

Cost: \$ _____

PROPERTY OWNER VERIFICATION

, the undersigned Owner(s) acknowledge that I have fully read and understand the attached project specifications. I understand this to be the scope of work and the extent of the renovations to be performed at the property location shown below.

156 Bradford Road
Torrington Ct 06790
Project #: 143-325

understand that any revisions to these specifications changing the scope of work can be made only or unforeseen circumstances. This is for my protection and for providing a clear understanding to be contractor who will provide a quote for the proposed work.

DATE: 9/11/2014 OWNER: John Tarter
John Tarter

Small, Minority, Women-Owned Business Concern Representation

The bidder represents and certifies as part of its bid/ offer, that it –

(a) Is, Is not a small business concern. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR 121.

(b) Is, Is not a women-owned business. "Women-owned business enterprise," as used in this provision, means a business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

(c) Is, Is not a minority business enterprise. "Minority business enterprise," as used in this provision, means a business which is at least 51 percent owned or controlled by one or more minority group members or, in the case of a publicly owned business, at least 51 percent of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more such individuals. For the purpose of this definition, minority group members are:

(Check the block applicable to you)

- | | | |
|---|--|---|
| <input type="checkbox"/> Black Americans | <input type="checkbox"/> Asian Pacific Americans | <input type="checkbox"/> Hispanic Americans |
| <input type="checkbox"/> Asian Indian Americans | <input type="checkbox"/> Native Americans | <input type="checkbox"/> Hasidic Jewish Americans |

I, the undersigned Contractor agree to provide all labor, material, permits, taxes, insurance, equipment and related fees, necessary to complete the work as specified above for the property located at:

*156 Bradford Road
Torrington Ct 06790
Project #: 143-325*

All work will be performed in accordance to applicable Building and Fire Code(s).

Company Name: _____

Address: _____

Phone: _____ Fax: _____ Email: _____

FEIN or SSAN#: _____ Contractor License # _____ Exp. Date: _____

Date: _____ Print Name: _____

Signature: _____

Total Bid Amount: \$ _____

Amount Written: _____

(This information must be submitted in order to have your bid considered responsive)