REQUEST FOR BID # 08-1420

HVAC Materials & Labor

THIS IS NOT AN ORDER REV. 06/20/2017

CR – Social Development Commission
Weatherization Program
1730 West North Avenue
Milwaukee, WI 53205

Bid Due Date

Tuesday, September 1, 2020, 2:00 p.m. CT

All questions relating to this Request For Bid shall be submitted in writing to:

Terri Eckels-Nikoo, Procurement Coordinator
1730 W. North Avenue, Milwaukee, WI 53205
Fax #414-906-2719, Email tnikoo@cr-sdc.org

Quote Price and Delivery FOB

FOB Destination (also see Appendix A, 5.0.)

Note – Email and Fax bids not accepted.

Calendar of Events

Friday, August 14, 2020, 10:00 a.m. CT	RFB Issuance
Thursday, August 20, 2020, 2:00 p.m. CT	Deadline for Submitting Written Questions
Thursday, August 27, 2020, 8:00 a.m. CT	**Mandatory Bidders' Meeting**
Tuesday, September 1, 2020, 2:00 p.m. CT	**Bid Due Date**
Tuesday, September 1, 2020, 2:01 p.m. CT	Bid Opening

Bidder Name and Address (must be completed)

☐ We claim Wisconsin certified minority business or Wisconsin certified disabled veteran-owned business preference. Under Wisconsin Statutes, a 5% preference may be granted to a **CERTIFIED Minority Business Enterprise (MBE)** or a **CERTIFIED Disabled Veteran-owned Business (DVB)**. Bidder must be certified by the Wisconsin Department of Administration. If you have questions concerning the certification process, contact the Wisconsin Department of Administration, 101 E. Wilson St., 6th Floor, Madison, WI 53703, (608) 261-2510. **Does Not Apply to Printing Bids**.

ACKNOWLEDGEMENT OF ANY ADDENDA and/or REVISIONS and AGREEMENT TO ALL TERMS: In signing this Bid, Bidder acknowledges and affirms that its Bid complies with all terms, conditions and specifications of this RFB and any addenda, appendices or revisions thereto. If awarded a contract, Bidder shall comply with all terms of its Bid and all terms, conditions and specifications of this RFB and any addenda or revisions thereto.

DEBARMENT AND SUSPENSION: In signing this Bid, Bidder acknowledges it has not been suspended, debarred, declared ineligible or voluntarily excluded from eligibility by any Federal department or agency.

NON-COLLUSION: In signing this Bid, Bidder certifies it has not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a Bid; that this Bid has been independently arrived at without collusion with any other Bidder, competitor or potential competitor; that this Bid has not been knowingly disclosed prior to the opening of Bids to any other Bidder or competitor; that the above statement is accurate under penalty of perjury.

Name of Authorized Company Representative (Type or Print)	**Title**		**Date**
Signature of Authorized Company Representative Named Above	**Phone**	**Fax**	**Email**

CHECKLIST FOR SUBMITTING A BID

Understanding the Request for Bid (RFB)

- ☐ Thoroughly read and review this Request for Bids and all attachments, appendices, addenda, and/or revisions.
- ☐ Submit any written questions to the Procurement Coordinator by the deadline provided in the Calendar of Events.
- ☐ Determine if the agency will hold a Bidders' meeting (see Section 3.7) and check the date provided in the Calendar of Events (see cover page).
- ☐ Know when and where the Bid is to be delivered.

Completing Your Bid

- ☐ Complete the Cost Sheet(s) provided with the RFB. Make sure your prices and calculations are accurate. If required, provide a written statement of what volume of work or quantity or products your company can handle under the Bid requirements. Do not alter the format of the Cost Sheet.
- ☐ Complete the Vendor Information Form provided with the RFB.
- ☐ Complete the two (2) Vendor Reference Forms provided with the RFB.
- ☐ Assemble required data specification sheets for each appliance or product on which you are bidding.
- ☐ Complete and sign the Request for Bid sheet provided as the cover of this RFB package.
- ☐ This checklist is provided for the Bidder's convenience only and is not required to be submitted with the Bid package.

Submitting Your Bid

- ☐ Prepare one set of original documents marked "Original" in the following order:
  1. **Signed Request for Bid Sheet** (RFB cover page)
  2. **Vendor Information Form** (Attachment 1)
  3. **Vendor Reference Form (Client)** (Attachment 2A)
  4. **Vendor Reference Form (Financial)** (Attachment 2B)
  5. **Cost Sheet(s)** (Attachment 3)
  6. **Additional Information** See Section 8. for details
- ☐ Make one photocopy of the complete set of original documents. Mark the photocopied set "Copy."
- ☐ Place the original and copied set of documents in a sealed package (envelope or box). Make sure the following information is clearly marked on the outside of the envelope or box:
  1. Bidder's Name and Address
  2. Request for Bid Title (See upper left hand box of RFB cover page)
  3. Request for Bid Number (See upper left hand box of RFB cover page)
  4. Bid Due Date (See upper left hand box of RFB cover page and Calendar of Events)
- ☐ Ensure the sealed package is delivered to the correct address before the Bid Due Date and time in the Calendar of Events. **No emailed or faxed Bids are allowed**.

If You are Chosen for a Contract Award:

- ☐ Be prepared to provide any documents required by the agency — such as certificates of insurance, licenses, contractor credentials, training certificates, IRS Form W-9 (Request for Taxpayer Identification Number) or Affirmative Action plan/exemption (see Appendix A for more information).

1. INTRODUCTION

1.1 Scope

The purpose of this Request for Bids (RFB) is to provide interested parties with information needed to prepare and submit a Bid for the following:

HVAC Materials & Labor

CR-Social Development Commission (Agency) intends to use the results of this process to award a contract(s) to provide the goods or services described in this RFB, except for items identified as Informational Pricing. A detailed description of the commodities and/or services to be provided by the Lowest Responsible Bidder(s) is contained in the Cost Sheet and other parts of this RFB.

The SERVICE TERRITORY in which these services will be provided includes: City of Milwaukee

"The Agency may bid out specialized jobs, or procure specialized commodities, on an as-needed basis when deemed in the best interest of the Agency."

1.2 Procuring Agency

CR-Social Development Commission is a local administrative and executive weatherization service agency that works in conjunction with the State of Wisconsin Weatherization Assistance Program to provide residential weatherization services to eligible households. The State of Wisconsin Weatherization Assistance Program helps low-income residents reduce energy costs by decreasing home energy consumption through the installation of energy-saving measures and equipment.

1.3 Definitions

Words and terms in this RFB shall be given their ordinary and usual meanings, and all meanings shall be applicable to the singular and plural forms of the words and terms. For the purposes of this RFB, the following words and terms shall have the meanings indicated:

"Agency" means CR-Social Development Commission.
"Appeal" means a process whereby an aggrieved Bidder may appeal the denial of a Protest to the Administrator of the Division.
"Bid" or "Bid Document" means the complete response of a Bidder, including all required documentation, submitted on the approved forms and setting forth the Bidder's prices for providing the commodities and/or services described in the RFB.
"Bidder" means any individual, company, corporation or other entity that responds to this RFB.
"Calendar of Events" means the official schedule of events, deadlines and dates shown on the cover of this RFB.
"Callback" means work required as a result of a final inspection or complaint/concern and occurs prior to a dwelling unit being reported as completed within the WisWAP System.
"Commodity" means the products, materials, supplies or equipment described in this RFB.
"Contract" means a written agreement between the Agency and Contractor that covers the delivery of work and/or commodities to be performed subsequent to this RFB.
"Contractor" or "Vendor" means a Bidder that is awarded a Contract under this RFB.
"Department" means the Wisconsin Department of Administration.
"Division" means the Division of Energy, Housing and Community Resources (DEHCR), Wisconsin Department of Administration.
"DVB" means a disabled veteran-owned business certified by the Wisconsin Department of Administration under Wis. Stats. s. 16.75(3m).

"Good Faith Dispute" means a contention by an Agency that goods delivered or services rendered were of a lessor quantity or quality than ordered or specified by contract, were faulty or were installed improperly; or any other reason giving cause for the withholding of payment by the agency until the dispute is settled.
"Informational Pricing" means prices provided for informational purposes in Attachment 3. Informational Pricing is not used to calculate the Grand Total or determine the Lowest Responsible Bidder. Items with informational pricing are outside the Scope of the resulting contract, and may or may not be ordered by Agency. The Agency reserves the right to negotiate prices and/or obtain the item from another Bidder.
"Interested Bidder" means any individual, company, corporation or other entity that is included on a solicitation list, requested a Bid package or attended a Bidders' meeting (if a Bidders' meeting is scheduled as part of this RFB).
"Lowest Responsible Bidder" means the Bidder that submits the lowest dollar total appearing in combination with other elements of the RFB that best meets the requirements of the solicitation, and demonstrates their Bid is responsive to technical and administrative requirements as requested.
"MBE" means a minority business certified by the Department of Administration under §560.036 (2), Wis. Stats.
"Prime Contractor" means the Contractor when it has engaged subcontractors to perform work under the Contract.
"Procurement Coordinator**"** means the person identified on the cover of this RFB who has been designated by the Agency to manage this RFB.
"Protest" means a process whereby an aggrieved Bidder may protest this RFB or the resulting Notice of Intent to Award to the Chief Executive Officer of the Agency.
"Request for Bid (RFB)" means this document including appendices, addenda, revisions and/or attachments.
"State" means the State of Wisconsin.
"Vendor" or "Contractor" means a Bidder that is awarded a Contract under this RFB.
"WisWap System" means the centralized web-based application operated by the Division for the purposes of contracting with the Agency, project tracking, production monitoring, job costing, monthly invoicing, distribution of funds, and program reporting.
"Working Days" means each calendar day except Saturday, Sunday, and official Federal holidays. All other references to 'days' means calendar days. If 'working' is not included in the reference to number of days, the days are calendar days.

2. CONTRACT INFORMATION

2.1 Contract Term

The Contract shall be in effect for a period of Nine (9) Months from 10/01/2020. The Contract may be renewed for one (1), one (1) year period by mutual written consent.

2.2 Terms and Conditions

In addition to the terms, conditions and specifications contained in this RFB, the following documents govern this RFB and any resulting contracts:

- **Appendix A – Wisconsin Weatherization Assistance Program Terms and Conditions**

Bidders shall accept the terms and conditions referenced above in their entirety or submit point-by-point exceptions along with proposed alternative or additional language for each exception. The Agency may reject a Bid if it deems the proposed alternative or additional language to be unacceptable. Submission of the Bidder's standard terms and conditions as a substitute for language in the terms and conditions is not a

sufficient response to this requirement and may result in rejection of the Bid. Failure of the successful Bidder to accept the Agency's terms and conditions for a contract shall result in cancellation of the award.

2.3 Contract Modifications

Any alterations made to the Contract shall be rendered in writing and signed by both parties; no changes without such signed documentation shall be valid. No alterations outside of the general scope and intent of the original RFB or in excess of allowable and accepted price changes shall be made.

2.4 Entire Agreement

The Standard Terms and Conditions (Appendix A) shall apply to any Contract or order awarded as a result of this request except where special requirements are stated elsewhere in the request; in such cases, the special requirements shall apply. Further, the written Contract and/or order with referenced parts and attachments shall constitute the entire agreement and no other terms and conditions in any document, acceptance, or acknowledgment shall be effective or binding unless expressly agreed to in writing by the contracting authority.

3. BID PROCEDURES AND INSTRUCTIONS

3.1 Reasonable Accommodations

The Agency shall provide reasonable accommodations, including the provision of informational material in an alternative format, for individuals with disabilities upon request. If you need information in an alternative format or accommodations at a Bid opening or at a Bidder meeting, contact the Procurement Coordinator.

3.2 Bid Contents and Delivery Requirements

Bidders shall submit an original Bid document and one copy of the Bid document by the Bid Due Date in the Calendar of Events to:

USPS/Mailing Address	**OR**	**Address for Hand-Delivery**
Terri Eckels-Nikoo, Procurement Coordinator		Terri Eckels-Nikoo, Procurement Coordinator
CR-Social Development Commission		CR-Social Development Commission
1730 West North Avenue		1730 West North Avenue
Milwaukee, Wisconsin 53205		Milwaukee, Wisconsin 53205

All Bids shall be packaged (envelope or box), sealed and show the following information on the outside of the package:

1. Bidder's Name and Address
2. Request for Bid Title (See upper left hand box of RFB cover page)
3. Request for Bid Number (See upper left hand box of RFB cover page)
4. Bid Due Date (See upper left hand box of RFB cover page and Calendar of Events)

Bids shall be date and time stamped at the office indicated above on or before the date and time Bids are due. Late Bids shall be rejected. Bids dated and time stamped in another office may be rejected. Bids that are not properly sealed may be rejected. Receipt of a Bid by the mail system does not constitute receipt of a Bid by the Agency. Any Bid that is inadvertently opened as a result of not being properly and/or clearly marked may be rejected. Bids shall be submitted separately and may not be included with sample packages or other Bids. Emailed or faxed Bids are not allowed.

3.3 Calendar of Events

The Calendar of Events provides important dates and times by which actions related to this RFB shall be completed. In the event that the Agency finds it necessary to change any of these dates and times, it shall provide written notification of such changes per Section 3.4, Communication with Bidders.

3.4 Communication with Bidders

In the event it becomes necessary to make changes to the Calendar of Events, provide additional clarifying data or information, revise any part of this RFB, or provide a record of questions and answers, the Procurement Coordinator shall send written notification, electronically or in hard copy, to all Interested Bidders.

3.5 Format of Bid

Bidders responding to this RFB shall submit the following materials:

a) **Signed Request for Bid Sheet**: The Bid shall include the signed Request for Bid sheet provided as the cover of this RFB package. A Bid submitted in response to this RFB shall be signed by the person in the Bidder's organization who is responsible for decisions regarding prices offered in the Bid or by a person who has been authorized in writing to act as agent for the person responsible for the decision on prices.

b) **Vendor Information Form** (Attachment 1)

c) **Vendor Reference Form (Client)** (Attachment 2A)

d) **Vendor Reference Form (Financial)** (Attachment 2B)

e) **Cost Sheet** (Attachment 3): Provide cost information on the Cost Sheet(s) included in this RFB. All costs for furnishing the commodities and/or services, as set forth in the terms and conditions of this RFB, shall be included in the Bid. Please refer to Section 7. Cost Information, for information on Bid pricing, capacity and price adjustments.

f) **Additional Information**: Please refer to Section 8. Additional Information Requirements, for a listing of required additional documents.

The checklist included with this RFB is provided for the convenience of the Bidder. The Bidder is not required to submit the checklist with its Bid package.

3.6 Questions

Questions concerning this RFB shall be submitted in writing to the Procurement Coordinator on or before the Deadline for Submitting Written Questions provided in the Calendar of Events. Bidders are expected to raise any questions, exceptions or additions concerning the RFB document prior to this deadline. If a Bidder discovers any significant ambiguity, error, conflict, discrepancy, omission or other deficiency in this RFB, the Bidder shall immediately notify the Procurement Coordinator and request modification or clarification of the RFB document. All questions shall be recorded by the Agency. All questions and answers shall be provided per Section 3.4, Communication with Bidders.

3.7 Bidders' Meeting

The Agency will hold a public informational meeting for Bidders at the date and time provided in the Calendar of Events. The Bidders' meeting will be held at the following location:

CR-Social Development Commission
1730 West North Avenue
Milwaukee, WI 53205

The Bidder's meeting is mandatory. Bidders shall be required to register when attending the mandatory Bidders' meeting. Notwithstanding Section 3.4, a written record of questions asked and answered at the mandatory Bidder's meeting shall be created and sent electronically or in hard copy to only those Bidders that attend the mandatory Bidders' meeting. Only Bidders that attend the mandatory Bidders' meeting are permitted to submit a Bid; failure to attend the mandatory Bidders' meeting shall result in rejection of a Bid.

3.8 Multiple Bids

Multiple Bids from a Bidder are permitted. Each Bid shall conform fully to the requirements of this RFB. Each Bid shall be separately submitted and labeled as Bid #1, Bid #2, etc., on each page included in the response.

Each Bid shall offer different manufacturers and/or models of products for items identified in the RFB. Multiple Bids identifying the same manufacturers and/or models of products shall be deemed non-responsive, and only the lowest Bid price by the Bidder shall be deemed the Lowest Responsible Bid.

If the Agency awards multiple contracts, a Bidder may receive only one award based upon its Lowest Responsible Bid. A Bidder's succeeding responsible Bids shall be rejected for the purposes of awarding to multiple vendors.

3.9 Incurring Costs

Neither the Agency nor the State of Wisconsin is liable for any cost incurred by a Bidder for responding to this RFB.

3.10 Contact with the Agency

From the date of issuance of this RFB until a Letter of Intent to Award a Contract is issued, all contacts with the Agency regarding this RFB shall be made only through the Procurement Coordinator. Any information provided by a source other than the Procurement Coordinator shall be deemed unofficial and nonbinding. Violation of this condition may be considered sufficient cause for rejection of a Bid, irrespective of any other considerations.

3.11 News Releases

News releases pertaining to the RFB or to the acceptance, rejection or evaluation of Bids shall not be made without the prior written approval of the Agency and the State of Wisconsin.

4. BID ACCEPTANCE, VERIFICATION AND AWARD

4.1 Bid Opening

Bids shall be opened on the Bid Opening date and time specified in the Calendar of Events. Names of the Bidders may be read aloud at the Bid opening. The Bid opening will be held at the following location:

CR-Social Development Commission
1730 West North Avenue
Milwaukee, WI 53205

4.2 Bid Review and Verification

The Agency shall review each Bid to verify that it meets all specified requirements in this RFB. This verification may include requesting reports on the Bidder's financial stability, conducting demonstrations of the Bidder's proposed products and/or service, and reviewing results of past awards to the Bidder by the Agency.

a) Capability and Performance History: Before the award of any contract(s), the Agency shall be satisfied that the Bidder has sufficient capability and performance history to perform the work described in the RFB. It is the Bidder's responsibility to provide information to the RFB Procurement Coordinator that demonstrates these qualifications by submitting clear, concise and complete documentation and thorough references.

b) References: Bidders shall provide the information required in the vendor reference forms by supplying with their Bid:

1. A client list of no less than three (3) and no more than six (6) references for which similar products and/or services have been provided during the past three (3) years. See Attachment 2A.
2. Contact information for no less than one (1) and no more than four (4) credit reference(s). See Attachment 2B.

If contacted, information received from such references may be used to determine whether the Bidder meets the State's requirements.

4.3 Bid Acceptance

Bids that do not comply with instructions contained in this RFB may be rejected by the Agency. The Agency reserves the right to waive a particular specification if no Bidder meets that specification. The Agency may request reports on a Bidder's financial stability. The Agency may reject a Bid if the Bidder is determined to have inadequate financial means to provide the product or service being Bid. The Agency retains the right to accept or reject any or all Bids, or accept or reject any part of a Bid, deemed to be in the best interest of the Agency and the State of Wisconsin. The Agency shall be the sole judge as to compliance with the instructions contained in this RFB. Bids shall be firm for acceptance for ninety (90) days from date of Bid opening unless otherwise noted. A Bidder may withdraw its Bid at any time prior to the issuance of an Intent to Award.

4.4 Minority Business Enterprises and Disabled Veteran Businesses

The Agency, in its sole discretion, may provide up to a five percent (5%) Bid preference to certified Minority Business Enterprises and Disabled Veteran Businesses in accordance with §16.75(3m), Wis. Stats. See https://wisdp.wi.gov/ for information on these certifications.

4.5 Method of Award

The award shall be made in the best interest of the Agency, as determined by the Agency, to the Lowest Responsible Bidder(s) that meet(s) the requirements listed in this RFB. In the interest of promoting small business economic development, the agency intends to make multiple awards based on the capacity of each Vendor beginning with the lowest responsible bidder(s). In such case, the next-lowest bidder(s) will also be given the opportunity to be an awardee at their bid price, until the needs of the Agency are met. Vendors must provide a written statement of the Volume (quantity) of work they can successfully complete to meet contract conditions (see cost sheet**).**

4.6 Intent to Award a Contract

Any Bidders that submit a Bid shall be notified in writing of the Agency's Intent to Award a Contract as a result of this RFB. After the notice of intent to award is issued, the public may inspect and copy RFB records during the Agency's normal business hours. Please contact the Agency in advance of Bid inspections to ensure the availability of space and staff.

4.7 Protest and Appeal Procedures

A written notice of a party's intent to protest an Award(s) (Intent to Protest) shall be received by the Agency's Chief Executive Officer no later than five (5) working days after issuance of the Intent to Award. A written protest shall be received by the Agency no later than ten (10) working days after issuance of the Intent to Award. Notices of an Intent to Protest and Protests shall be made in writing. Protests shall be as specific as possible and identify statutes, Wisconsin Administrative Code provisions, Wisconsin Weatherization Assistance Program policies and/or Department of Energy regulations that are alleged to have been violated. An Intent to Protest or Protest shall be submitted in writing to:

USPS Address
George Hinton, CEO
CR-Social Development Commission
1730 W. North Avenue
Milwaukee, Wisconsin 53205

Address for Hand-Delivery
George Hinton, CEO
CR-Social Development Commission
1730 W. North Avenue
Milwaukee, Wisconsin 53205

5. TECHNICAL PERFORMANCE REQUIREMENTS

5.1. All commodities and services purchased through this RFB shall meet standards and specifications set forth in the Wisconsin Weatherization Field Guide and/or Wisconsin Weatherization Program Manual. Relevant portions of the Guide and/or Manual are identified in this RFB as Attachment 4.

5.2. All proposed commodities shall be capable of performing all operations in accordance with manufacturer's advertised data sheets and technical publications. Please refer to Section 8. Additional Information Requirements, for a listing of required data sheets and technical publications that shall be submitted with this Bid.

5.3. When a commodity is required to meet the current Energy Star® standard it shall be labeled and listed on the Energy Star® website (http://www.energystar.gov/), and the following requirements apply:

- **a)** It shall conform to the set of criteria used by ENERGY STAR® to rate products.
- **b)** Products listed on the Energy Star® website are considered to meet current Energy Star® standards.
- **c)** Products shall conform to the standards scheduled to be in effect on October 1, 2020
- **d)** If the RFB requires a product that is not readily available, a bidder shall notify the Procurement Coordinator immediately (see section 3.6).
- **e)** If a standard changes during the life of the contract and a product change is required, section 7 shall apply and a price adjustment may be negotiated.

5.4. All items Bid shall be the manufacturer's current production products and materials shall be first quality. Items that are used, floor models or demonstrators, obsolete or discontinued are unacceptable.

5.5. All debris related to installation including appliances and major mechanicals shall be removed and properly disposed of following applicable federal, state and local regulations.

5.6. The Contractor shall have available the following minimum diagnostic testing equipment for performance of this contract:

- **a)** Combustion analyzer
- **b)** CO analyzer
- **c)** Duct air flow measuring equipment
- **d)** Draft gauge or manometer
- **e)** Gas leak detector
- **f)** Personal CO monitor (monitor ambient CO)

5.7. The Contractor is required to have available a digital camera capable of meeting the following requirement for photographs: Photographs shall be provided upon request (electronically or a digital scan of hard copy) to the Agency that document existing equipment or condition, installed equipment including manufacturer's nameplate or completed repairs. Photographs must be submitted for all call backs and State reworks.

6. CONTRACTOR PERFORMANCE REQUIREMENTS

6.1. Prime Contractor

The Prime Contractor shall be responsible for contract performance when subcontractors are used. When subcontractors are used, they shall abide by the terms and conditions of the contract. If subcontractors are used, the Contractor shall clearly explain their participation. The Agency shall reserve the right to approve the use of subcontractors in the fulfillment of the contract. (See Appendix A, Part A, Assignment).

6.2. Work Order, Work Flow and Job Completion

a) The Contractor shall take receipt of work orders via email, fax, USPS or personal pickup at the Agency.

b) The Contractor is responsible for contacting and arranging with the customer to provide the services that are part of performance under this contract.

c) The Contractor shall complete the required work within (25) days of receipt of the Agency's job order unless otherwise agreed to in writing by the Agency.

d) The Contractor shall notify the Agency of job completion within (5) days by email, fax, telephone or personal delivery to the Agency.

6.3. Invoices, Required Documentation and Payment

a) The Contractor shall ensure that a valid invoice is received by the Agency within (5) days of job completion. A valid invoice shall include all required forms and other required information, provide cost information as required and shall be submitted after job completion. Failure to provide all required information creates an exception to prompt payment (good faith dispute).

b) Invoices presented for payment shall be submitted in accordance with Agency instructions). See Attachment 5.

c) The Agency shall make payment to the Contractor within thirty (30) days of receipt of a valid invoice providing goods and/or services have been delivered, installed (if required), and accepted as specified.

d) Any callback work shall be satisfactorily addressed before issuance of payment.

e) A good faith dispute creates an exception to prompt payment. The Agency shall provide written notification to the Contractor.

f) The Contractor shall provide the Agency with a copy of any and all documentation regarding problems or issues regarding job site performance, commodity performance and/or client issues.

g) The Contractor shall not, under any circumstances, seek payment from the owner or occupant of the premises improved under the Contract. The only recourse for payment for the work performed under the Contract is through the Agency.

h) The Contractor shall notify the Agency in writing of any changes to the list of subcontractors and suppliers providing materials and/or labor for weatherization services within ten (10) business days of the effective date.

6.4. Lien Waivers, Lien Notice Action and Recourse for Payment

By agreeing to perform weatherization work the Vendor agrees to the following terms and agrees to pass along the following requirements to their suppliers and any subcontractors:

a) The Vendor agrees that they will not, under any circumstances, seek payment from the owner or occupant of the premises improved.

b) The Vendor shall not file, suffer or permit any lien or other encumbrance of record as a claim against any site of a weatherization project in recognition that the only recourse for payment is from the weatherization agency.

c) Any lien notice action by a Vendor, and/or any of their subcontractors and/or material suppliers, against a property owner shall be considered non-performance by the terms and conditions of this contract, and the Vendor may be removed from the statewide weatherization agency bidder's list for a period of 2 to 5 years, as may any subcontractors and suppliers that take such action.

d) **PAYMENTS OWED BY VENDOR:** By engaging in a contract with the weatherization agency, the Vendor agrees that if they do not pay for materials and labor taking place through this weatherization contract, the weatherization agency has the option to use payments owed to the Vendor to pay such subcontractors and suppliers.

e) The Agency reserves the right to cancel this Contract in whole or in part without penalty, upon written notice to the Contractor if any lien notice action is taken by the Contractor, and/or any of their subcontractors and/or material suppliers, against a property owner.

f) Signed lien waivers for each individual work location/property are required (when the property to receive the improvement is identified) from all parties providing any labor and materials, including the Vendor. When lien waivers are required, the Vendor agrees to inform any party supplying labor and/or material to an identified property, prior to engaging such parties in providing weatherization services, that lien waivers are required in order for the Vendor to invoice the weatherization agency for the job. This applies whenever a specific property or properties to be improved is identified to the Vendor and any of their suppliers and/or subcontractors.

6.5. Warranties and Repairs

a) The Contractor shall provide the manufacturer's standard warranties on all items. In addition, a one (1) year service contract on commodities and labor is required for all work performed under this RFB. The one (1) year service contract shall commence on the date of installation completion or completion of any work required as a result of the installation inspection.

b) The Contractor shall furnish all warranty repairs or provide alternate source of local warranty repair at no extra cost to the Agency, the State of Wisconsin or the owner or occupant of the premises. Warranty repairs shall be performed within (10) working days of notification.

c) The Contractor shall, at the direction of the Agency, correct or have corrected any work determined by the Agency or the State of Wisconsin to be substandard. Such corrective work shall be at no extra cost to the Agency, the State of Wisconsin or the owner or occupant of the premises. Corrective work shall be performed within (5) working days of notification.

6.6. Failure to Perform

The Contract may be terminated for the Contractor's failure to comply with any of the specifications or conditions of the RFB or the Contract.

If the Contractor fails to provide commodities or services at a level of capacity (either volume or quantity) or quality acceptable to the Agency, the Agency may, at its discretion, (1) direct a corrective action plan, (2) suspend the Contract pending resolution of quality problems or (3) terminate the Contract for cause. If the Contract is terminated for cause, the Contractor may be removed from the statewide weatherization agency Bidder's list for a period of two to five years.

Failure to comply with Affirmative Action/Non-Discrimination conditions (Appendix A) may result in the Contractor becoming declared an "ineligible" contractor with the State (§16.765, Wis. Stats.), termination of the contract, or withholding of payment.

In the event a Contractor is (1) not able to meet the capacity (either volume or quantity) requirements of the Agency, (2) suspended or (3) terminated, the Agency may award a Contract under this RFB to the next Lowest Responsible Bidder or complete an alternate procurement.

6.7. Permits, Insurance and Other Requirements

a) The Contractor shall meet the insurance requirements specified in the terms and conditions. In addition, the Contractor shall provide a certificate of insurance listing CR-Social Development Commission as additional insured. Certificates of insurance shall be provided to the Agency within ten (10) working days of Notice of Intent to Award.

b) For all services contracts with the potential to exceed $149,999 annually and where wholesaler or subcontractor partnerships will be utilized to deliver weatherization services, a payment bond is required on the part of the contractor in the amount of $150,000 or the anticipated amount of the contract, whichever is greater. The anticipated amount of the contract shall be based upon the historical spend of the Agency, adjusted for any conditions in the best judgment of the Agency. The contractor shall provide proof of payment bond within thirty (30) business days of the receipt of the award letter. No work shall be awarded to a contractor until this proof is provided and verified by the local agency. A payment bond is one executed in connection with a contract to ensure payment to all wholesalers and subcontractors performing work under the contract.

c) The Contractor shall complete all required forms and return same to the Agency attached to the invoice, or as directed by the Agency. (See attachment 5 Valid Invoice Requirements)

d) Following the Intent to Award notification, the Contractor shall provide to the Agency its IRS Form W-9 (Request for Taxpayer Identification Number and Certification) and Affirmative Action plan/exemption Vendor Application Form (if not already an established Vendor), MBE and/or DBE certificates (if applicable), City of Milwaukee Contractor License, Asbestos O/M Certification for Field Staff, Lead Safe Company Certificate, Lead Safe Renovator Certifications for Field Staff, Safety Data Sheets (SDS), copy of written safety plan, Certificate of Insurance (see Appendix A for more information).

e) Any change in material of equal or superior quality or installation standards shall be specifically approved in writing by the Agency. Any deviation or exceptions to the terms, conditions and/or specifications shall be submitted in writing and approved by the Agency with a signed change order. No minimum fee is allowed on change orders.

f) Unless otherwise directed by the Agency, the Contractor is responsible for obtaining required state or local licenses and permits to perform work identified in this RFB. The Contractor shall be reimbursed for the actual cost of the permit only (no processing fee is allowed to be added on to the invoice). Therefore, do not include estimated permit costs when calculating bid price for each replacement.

g) The Contractor shall participate in any training required by the Agency. Depending upon the cost of such training, a retention agreement may be required.

h) If performance of the work provided through this RFB requires training and/or certification, the Contractor shall be required to demonstrate compliance as directed by the Agency within (60) days of a signed contract award. Performance of work under this contract requires the following training and/or certifications:

- Asbestos O&M Certificate for Field Staff
- Lead Safe Company Certificate
- Lead Safe Renovator Certificates for Field Staff

6.8. Customer Education and Other Contractor Requirements

a) The Contractor shall review proper operation and maintenance of all appliances (including filter replacement on forced air units) with the customer upon completion of the installation.

b) The Contractor shall place all installation and warranty information packets and material with the installed appliance.

c) The Contractor shall affix a clearly visible sticker identifying the Contractor's name, phone number and date of installation on each new mechanical appliance (e.g., furnace, boiler, water heater). The Contractor shall provide a document providing the Contractor's name, phone number and date of installation to the customer for other non-mechanical appliances (e.g., refrigerator).

6.9. Health and Safety

a) The Contractor shall comply with all applicable federal, state and local regulations affecting worker and customer safety.

b) The Contractor shall supply Safety Data Sheets (SDS) as directed by the Agency.

c) If the work provided through this RFB is subject to the requirements for Lead Safe and/or Asbestos requirements, see Appendix A, Part B, 14 and 15.

7. COST INFORMATION

7.1. Bid Pricing

a) The Bidder shall complete the Cost Sheets (Attachment 3) following the instructions provided on the Cost Sheets. Failure to submit unit pricing as instructed for any item listed in the Cost Sheets shall result in rejection of the Bid. Failure to submit required capacity information (volume or quantity) as instructed may result in rejection of the Bid. Do not alter the format of the Cost Sheets or it may result in rejection of the Bid.

b) The Bidder shall submit one fixed price per unit for the entire Contract period. If the Contract is renewed, the Contractor shall hold the fixed price per unit during the renewal period. Unit prices shown on the Bid or Contract shall be the price per unit of sale (e.g., gal., doz., ea.) as stated in the RFB or Contract. Price adjustments may be authorized by the Agency under limited circumstances (see Paragraph 7.3 Price Adjustments).

c) Bidders may not impose a markup or service charge on licenses or permits. Do not include the price of permits or payment bonds in the unit bid price. The Contractor is reimbursed for the actual cost of permits through the invoice process.

d) Bid prices include delivery of any installed products, installation, clean-up and removal of replaced product(s), and labor/material cost for any other tasks/items identified in the RFB or Attachments, unless specifically excluded.

7.2. Capacity

If required in the RFB cost sheet(s), the Bidder shall identify in writing as part of its Bid the volume of work and/or quantity of products it is able to handle in accordance with the Bid requirements.

7.3. Price Adjustments

The Contractor may lower a price at any time due to general market conditions or other considerations. Prices shall not be subject to any increase for ninety (90) calendar days from the date of the award. Any price increase proposed shall be submitted in writing to the Agency thirty (30) calendar days before the proposed effective date of the price increase, and shall be limited to fully documented cost increases to the contractor which are demonstrated to be industry wide. The Agency shall be the sole judge of whether a price increase shall be permitted, and shall either grant or reject the proposed increase in writing. The Agency reserves the right to reject any price increase that is deemed to be excessive.

8. ADDITIONAL INFORMATION REQUIREMENTS

8.1. Per Section 3.5 f), the Bidder shall include the following additional documents as part of its Bid package:

- Product data specification sheets are required to be submitted.
- A written list of subcontractors and suppliers, if any, providing materials and/or labor for weatherization services. The list shall include the company name, address, contact information, and a description of the materials and/or services that will be provided.

Attachment 1 - Vendor Information Form (rev. 02.03.2014)

AGENCY NAME _____ Bid # *08-1420*
HVAC Materials & Labor

1. **BIDDING / PROPOSING COMPANY NAME** _____
FAX _____
Phone _____ Toll Free Phone _____
Address _____
City _____ State _____ Zip + 4 _____

2. Name the person we may contact in the event there are questions about your bid / proposal.
Name _____ Title _____
Phone _____ Toll Free Phone _____
FAX _____
Address _____
City _____ State _____ Zip + 4 _____

3. Services/installation contracts only: Any Vendor/Contractor awarded over $50,000 on this contract must submit affirmative action information to the Agency. Please name the Personnel / Human Resource and Development or other person responsible for affirmative action in the company to contact about this plan.
Name _____ Title _____
Phone _____ Toll Free Phone _____
FAX _____
Address _____
City _____ State _____ Zip + 4 _____

4. Mailing address where Agency purchase orders are to be mailed and person the Agency may contact concerning orders and billings.
Name _____ Title _____
Phone _____ Toll Free Phone _____
FAX _____
Address _____
City _____ State _____ Zip + 4 _____

Attachment 2A - Vendor Reference Form (Client) (rev. 11.17.2011)

AGENCY NAME _____

Bid # *08-1420*
HVAC Materials & Labor

References for Bidder/Vendor:			
Provide company or client information on the product(s) and/or service(s) installed/provided within the past three (3) years for three (3) or more installations or contracts with requirements similar to those included in this RFB. If a third party/sub-contractor(s) will be used, duplicate this page to provide required information for such parties.			
Product(s)/Service(s) (describe)			
#1 Company Name			
Address (include Zip + 4)			
Contact Person		Phone No.	
Product(s)/Service(s) (describe)			
#2 Company Name			
Address (include Zip + 4)			
Contact Person		Phone No.	
Product(s)/Service(s) (describe)			
#**3 Company Name**			
Address (include Zip + 4)			
Contact Person		Phone No	
Product(s)/Service(s) (describe)			
#**4 Company Name**			
Address (include Zip + 4)			
Contact Person		Phone No	
Product(s)/Service(s) (describe)			
#**5 Company Name**			
Address (include Zip + 4)			
Contact Person		Phone No	

Attachment 2B - Vendor Reference Form (Financial) (rev. 11.17.2011)

AGENCY NAME _____ Bid # *08-1420*
HVAC Materials & Labor

References for Bidder/Vendor:			
Financial information: Provide contact information for credit reference(s) (financial institution, equipment wholesaler, etc.) that may be contacted to verify financial stability.			
#1 Company Name			
Address (include Zip + 4)			
Contact Person		Phone No.	
Description			
#2 Company Name			
Address (include Zip + 4)			
Contact Person		Phone No.	
Description			
#**3 Company Name**			
Address (include Zip + 4)			
Contact Person		Phone No	
Description			
#4 Company Name			
Address (include Zip + 4)			
Contact Person		Phone No	
Description			

<u>Attachment 4</u> – RFB# 08-1420 HVAC Materials & Labor

Technical Specifications for Heating System Work for the Wisconsin Weatherization and Home Energy Plus (HE+) Furnace Programs

This document contains the standards for heating system work performed as part of the Wisconsin Weatherization Program and the HE+ Furnace Program (including Emergency Furnace services). It is based, in part, on the Wisconsin Weatherization Field Guide, chapters 3 and 7, and applicable requirements from the Wisconsin Weatherization Program Manual.

2	A. As part of every assessment that results in repair or replacement
2	B. Leak-Testing Gas Piping
2	C. New-Heating-System Sizing Requirements
3	D. Specifications
3	2. GENERAL HEATING SYSTEM REPLACEMENT
3	A. General Heating-System Replacement - All Types
4	B. Forced-Air Furnace Replacement Standards - General
5	C. Boiler Replacement Standards - General
7	D. Gas-Fired Heating Installation
7	E. Oil-Fired Heating Installation
8	3. REPLACING SPACE HEATERS
9	4. REPLACING WOOD HEATERS
9	5. VENTING COMBUSTION GASES
10	A. Improving Inadequate Draft
11	6. ELECTRIC FURNACES AND ELECTRIC BASEBOARD HEAT
11	7. FORCED-AIR DISTRIBUTION WORK - GENERAL
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12	A. Hot-Water Space-Heating Distribution – Safety Checks and Improvements
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14	14. COMBUSTION AIR

Tables

3	Table 1	Required Annual Fuel-Utilization Efficiency
7	Table 2	Typical Ranges for Gas Burning Appliances
8	Table 3	Typical Ranges for Oil Burning Appliances
10	Table 4	Guide to Venting Standards
11	Table 5	Draft Problems and Solutions

1. INTRODUCTION

The primary emphasis of the following sections is on the repair or replacement of heating systems and general technical specifications. The decision to repair versus replace the system is based on other policies and is not included in this document.

Some standards differ between heating-system work completed as part of a weatherization job and work completed within the HE+ Furnace Program (HE+FP) Non-Emergency and Emergency Furnace services (in which the primary emphasis is to address a "no-heat" or unsafe heat situation). Where standards differ, they are identified as "**HE+FP EXCEPTION(S)**" at the end of each section. All of the Exceptions apply only to the HE+ Furnace Program – Non-Emergency and Emergency Furnace services. *For purposes of this document, all references to HE+ Furnace Program – Non-Emergency and Emergency Furnace services will be referred to as **HE+ Furnace Program services.***

References to Chapter 3 refer to the Weatherization Field Guide, which is available at: http://homeenergyplus.wi.gov/category.asp?linkcatid=494&linkid=122&locid=25

The **heating system replacement check lists** referred to in this document are available at: http://homeenergyplus.wi.gov/category.asp?linkcatid=494&linkid=122&locid=25 (under Field Forms, Required Forms). The most current copy is required. Suppliers and installers should check the site at the beginning of each heating season, and regularly during the heating season to check for updates. Note that the "Heating System Repair or Clean and Tune Check List" is required for weatherization jobs that do not involved a system replacement, but not for HE+ Furnace Program work.

A. As part of every assessment that results in repair or replacement:

1. Assess all heating systems for safety. Leak-testing of all gas piping is required.
2. A qualified professional shall complete all mechanical-systems work. Contractors providing services shall be licensed and/or registered to provide those services as required by the authority having jurisdiction at the address where work is completed.

B. Leak-Testing Gas Piping

Natural gas and propane piping systems may leak at their joints and valves. Find gas leaks with an electronic combustible-gas detector, often called a "gas sniffer". A gas sniffer will find all significant gas leaks if used carefully. Remember that natural gas rises from a leak and propane falls, so position the sensor accordingly.

1. Check all valves and joints with the gas sniffer.
2. If the sniffer detects a leak, verify the leak with a non-corrosive bubbling liquid designed for finding gas leaks.
3. Repair all gas leaks verified with bubbling liquid.
4. Replace kinked or corroded flexible gas connectors.
5. Replace spring style gas valves with ball style gas valves, if a valve leak is detected and verified with test fluid.

C. Heating-System Sizing Requirements

Install properly sized units following REScheck®, ACCA Manual J or equivalent industry-accepted sizing procedures. Base the heat load calculations on planned post-weatherization conditions. The Agency shall provide the post-weatherization condition information to the Contractor.

Document the heat-load calculations, and provide a copy of the sizing calculations to the Agency.

HE+FP EXCEPTION: For an HE+ Furnace Program job, the Contractor shall size the new heating system based upon existing conditions, unless directed otherwise by the Agency.

D. Specifications

The specifications in Table 1 apply to all replacement heating systems except wood-burning units. The minimum efficiency standards as listed in the AHRI Directory of Certified Product Performance (https://www.ahridirectory.org/) apply as listed below.

Table 1 Required Annual Fuel-Utilization Efficiency

Replacement heating unit	Required AFUE	AHRI Certification Required	Comments
Natural Gas/LP Furnaces	≥ 95%	Yes	Non-weatherized, condensing, sealed combustion.
Natural Gas/LP Furnaces, FER-compliant	≥ 95%	Yes	Non-weatherized, condensing, sealed combustion, FER-compliant air handler with ECM constant-torque motor.
Oil Furnaces	≥ 83%	Yes	
Oil Furnaces, FER-compliant	≥ 83%	Yes	FER-compliant air handler
Oil Boilers	≥ 83%	Yes	
Gas Boilers - **High Efficiency**	≥ 90%	Yes	Condensing, sealed combustion, modulating boiler.
Gas Boilers - **Standard Efficiency**	≥ 84%	Yes	Allowed only when a high-efficiency boiler installation is not possible.
Manufactured housing – Natural Gas/LP Furnaces	≥ 95%	Yes	Condensing, sealed combustion; shall fit footprint of existing system; furnace closet door shall close fully.
Manufactured housing – Natural Gas/LP Furnaces, FER-compliant	≥ 95%	Yes	Condensing, direct vent; shall fit footprint of existing system; furnace closet door shall close fully. FER-compliant air handler with ECM constant-torque motor.
Manufactured housing Furnaces – Oil	≥ 79%	Yes	Shall fit footprint of existing system, and existing furnace closet door shall close fully.
Manufactured housing – Oil Furnaces, FER-compliant	≥ 79%	Yes	Shall fit footprint of existing system, and existing furnace closet door shall close fully. FER-compliant air handler with ECM constant-torque motor.
Direct Vent Gas Space Heaters	≥ 80%	Yes	Air circulating fan required. Electronic Intermittent Pilot or Electric Ignition required; no standing pilot lights. No vent-free units
"B" Vent/Inside Wall Gas Space Heaters	≥ 75%	Yes	Air circulating fan required. Electronic Intermittent Pilot or Electric Ignition required; no standing pilot lights. No vent-free units
Condensing Gas Space Heaters	≥ 90%	Yes	Installer shall implement a means to drain condensate (or deliver condensate to an approved drain). An evaporator pan is not an acceptable condensate management system. Air circulating fan required.

			Electronic Intermittent Pilot or Electric Ignition required. No standing pilot lights. No vent free units
Oil Space Heaters	NA	No	Air circulating fan required.

- All replacement heating systems for manufactured housing shall be rated for manufactured housing.
- Gas-Fired Furnaces shall conform to ANSI Z21.47–1990 with Addendum Z21.47a–1990 and Z21.47b–1992. Oil Fired Furnaces shall conform to UL4 727, Eighth Edition, 1994 and NFPA 31-2001.

2. GENERAL HEATING SYSTEM REPLACEMENT

A. General Heating System Replacement — All Types

1. Replace heating systems for health and safety reasons when the heating unit is totally disabled or is in a life-threatening condition.
2. Provide photographs to the Agency to document the furnace conditions that existed prior to the provision of services. The photographs shall include manufacturer's nameplate, furnace conditions, and any problem(s).
3. Install new heating appliances to manufacturer's specifications (per manufacturer's instructions; PMI) following all applicable local, state and national codes.
4. Assess all heating systems for safety. Monitor ambient CO levels during combustion and draft testing. An ambient CO level above 35 ppm is a safety hazard – cease testing immediately. The combustion appliance zone (CAZ) should be ventilated before the resumption of testing and diagnosis of CO problems.
5. Test the gas-piping system for leaks, following the protocol in Section 1(B).
6. Use existing distribution system and fuel supply line to the greatest extent possible, except where they present a hazard.
7. Properly remove and dispose of existing unit.
8. Install the replacement furnace to a dedicated electrical circuit rated or fused to match the amperage of the new system's requirements for overcurrent protection.
9. Install condensate tubing or piping, or a condensate pump, where needed to reach an appropriate drain (not a sump). Condensate pipes generally may drain to 1) The laundry stand pipe; 2) A new standpipe, indirect or local waste pipe; or 3) A floor drain, when the condensate line can be properly secured to the drain grate and does not pose a tripping hazard to the occupants. Installing a "trip strip", with the customer's approval, may be useful to prevent occupants from tripping over the piping. All installations require an air break. Condensate lines cannot be drilled directly into any drain pipe. For more information, see Wisconsin Safety and Professional Standards (SPS), 382.33. Local jurisdictions may vary on acceptable options.
10. Condensate pumps may be installed using an existing (non-GFCI) receptacle accessible without an extension cord, a new GFCI receptacle installed as part of the work, or directly wired per manufacturer's recommendations.
11. Seal openings in chimneys where natural-draft appliances are eliminated. Seal shall be air tight. Indicate with a written notice on the chimney, where sealed, that the chimney is no longer in use.
12. If asbestos abatement is necessary when replacing a heating unit, required protocols shall be followed by appropriately trained and/or certified persons (see OSHA requirements and Department of Health Services regulations in DHS 159, http://www.dhs.wisconsin.gov/asbestos/).
13. If the work is performed in a pre-1978 dwelling and more than six square feet of interior paint per room will be disturbed, or more than 20 square feet of exterior paint will be disturbed, or any windows are to be replaced or demolished, such work shall comply with DHS Chapter 163 requirements.
14. Provide an owner's manual with heating-system replacements. Attach the manual to or near the heating system for repeated access.
15. Provide customers with in-home operation and maintenance instructions and a review of safety precautions.
16. Affix to the heating unit a tag, displayed prominently, that identifies who the customer should call for service. The tag information shall have the name, address and telephone number of the service organization.

HE+ FP EXCEPTIONS: For an HE+ Furnace Program job, the Contractor shall assess all heating systems for safety as identified in 2.A.4, above. However, monitoring ambient CO levels during combustion and draft testing is not required.

Forced-Air Furnace Replacement Standards — General

Replacement furnaces shall meet the minimum efficiency shown in Table 1. Observe the following standards in furnace installation and document on the appropriate heating system replacement check list.

1. Add ductwork to address client comfort or airflow issues only with Agency approval. Add return or supply ductwork as part of furnace replacement to improve airflow to an acceptable level or to establish an acceptable value for temperature rise (measured supply temperature minus return temperature).
2. Mechanically fasten installed ductwork with screws. Seal the ductwork to the furnace cabinet with mastic and fabric mesh tape, or other UL 181-approved material, to form an airtight connection on all sides.
3. Provide the occupant with one of the following filter packages, rated at MERV 6 or higher:
   a. One deep-pleated (3" depth or more) disposable furnace filter; or
   b. Six 1"-2" disposable filters (one installed, five replacements); or
   c. One permanent cleanable filter.
4. All forced-air systems shall have a sealing filter cover. The filter shall be easy to access and replace. Magnetic filter covers are allowable only if they provide an adequate seal to the ductwork to prevent air leakage.
5. Confirm that temperature rise meets manufacturer's specifications as indicated on the furnace label, at highest and lowest firing rates.
6. Set fan control for optimal efficiency without negatively impacting customer comfort.
7. Measure and document draft on non-condensing furnaces.
8. Test for and document carbon monoxide levels in exhaust gas.
9. Seal holes in the furnace jacket of the air handler with mastic or foil tape. Filters shall be held firmly in place and provide complete coverage of blower intake or return register. Filters shall be easy to replace.
10. Set existing thermostat's heat anticipator to the amperage measured in the control circuit, or follow thermostat manufacturer's instructions for adjusting cycle length. Replace thermostat only if necessary.

HE+FP EXCEPTIONS: None.

B. Boiler Replacement Standards — General

Replacement boilers shall meet the minimum efficiency shown in Table 1. Follow other applicable requirements when replacing boilers. Replacement boilers shall meet the installation requirements shown on the "Hot Water Boiler Replacement Check List". *A completed copy of the Hot Water Boiler Replacement Check List is required prior to payment of any invoice.*

Boiler piping and controls present many options for zoning, boiler staging, and energy-saving controls. Dividing homes into zones, with separate thermostats, can significantly improve energy efficiency over operating as a single zone. Modern hydronic controls can provide different water temperatures to different zones with varying heating loads.

Follow these specifications when replacing boilers:

1. Size boilers using REScheck®, ACCA Manual J or equivalent calculation. Boiler seasonal efficiency is more sensitive to proper sizing than is furnace efficiency. Also see Section 1(C), “New-Heating-System Sizing Requirements”.
2. Inspect radiators. Repair or replace as necessary.
3. Flush the distribution system per manufacturer’s instructions or until the water runs clean and is free of sediment.
    a. Modify the distribution system as necessary to work properly with the replacement boiler.
    b. Confirm that the distribution system *has no leaks.* Repair water leaks in the system.
    c. Stop valves shall be located at accessible points in the supply and return pipe connections and as near to the boiler as is convenient and practical, to permit draining the boiler without emptying the system.
4. With a zoned system, flush each zone separately.
5. Locate new zone valves by the boiler. Each zone shall have its own shut-off valves.
6. The boiler shall have a pressure-relief valve (PRV) rated and sized correctly for the boiler BTU input and maximum operating pressure and installed according to the manufacturer’s specifications.
7. Install a pressure-reducing, automatic fill valve if none is present. The automatic fill valve shall have a purge valve or bypass piping with a shut-off valve.
8. The feed-water (inlet) side of the pressure-reducing, automatic fill valve shall have a backflow preventer with a shut-off valve installed upstream from the backflow preventer. The boiler (outlet) side of the pressure-reducing feed valve shall have a shut-off valve to allow for maintenance or replacement of the fill valve without draining the boiler system.
9. The backflow preventer shall have a drain facing below horizontal.
10. The system shall have automatic or manual air-bleed valves to eliminate air at all high points in the distribution-piping system.
11. The system shall have an expansion tank sized for the volume of water in the heating system.
12. Install the circulating pump near the downstream side of the expansion tank.
13. Extend new piping and radiators to conditioned areas, like additions and finished basements that are heated by space heaters, as directed by Agency.
14. Install thermostatically controlled radiator valves on the major radiators or zone controls.
15. Bleed or purge air from radiators and from the entire system.
16. FOR HIGH-EFFICIENCY BOILERS:
    a. Equip the boiler with an outdoor reset installed on a north-facing exterior wall.
    b. Program the boiler’s heating curve (outdoor reset) in line with the dwelling’s heat loss and radiation capacity.
    c. Per manufacturer’s instructions, install condensation-resistant venting with condensate drains.
    d. Treat the boiler distribution water pH level PMI.
17. FOR STANDARD-EFFICIENCY BOILERS:
    a. Confirm that the stack temperature is at least 300°F, to minimize condensation in the chimney.
    b. Verify that return-water temperature is above 130°F, to prevent acidic condensation within the boiler.
    c. Install piping bypasses, mixing valves, primary-secondary piping, or other strategies as necessary to prevent condensation.
    d. Consider installing a two-stage thermostat, outdoor reset and/or warm-weather shutdown to improve efficiency.

18. Insulate all supply piping outside conditioned spaces. For hot-water systems, install 1½- inch fiberglass insulation on all pipes less than or equal to 1½ inches in diameter, and 2-inch fiberglass insulation on all pipes greater than 1½ inches in diameter. For steam systems, install 1½-inch fiberglass insulation on all pipes less than or equal to 1½ inches in diameter, and 3-inch fiberglass insulation on all pipes greater than 1½ inches in diameter.
19. On a floor below grade, install the new boiler above known flood levels and as high as practical, to avoid damage in case of flooding.
20. Inspect chimney for deterioration and correct sizing. If this is a health and safety issue, provide to the Agency a separate cost estimate to repair and/or reline the chimney as necessary.
21. Install a full-closure electric vent damper where feasible for standard-efficiency boilers.
22. Also see Section 8 of this document, "Hot-Water Space Heating Distribution".

HE+FP EXCEPTIONS: None.

C. Gas-Fired Heating Installation

Replacement heating systems shall meet the minimum efficiency shown in Table 1. Follow other applicable requirements when replacing a gas furnace. Replacement natural-gas and propane furnaces shall meet the installation requirements shown on the "Replacement Gas Furnace Check List". *A completed copy of the Replacement Gas Furnace Check List is required prior to payment of any invoice.*

1. Check clearances of heating unit and its vent connector to nearby combustible materials, according to the International Fuel Gas Code (IFGC).
2. Verify and make adjustments, if necessary, so that flue-gas oxygen, stack temperature, draft, and carbon-monoxide levels are within manufacturer's specifications.
3. If manufacturer's specifications are not available, adjust to meet specifications in Table 2.

Table 2 – Typical Ranges for Gas Burning Appliances

Performance Indicator	**SSE 80+**	**SSE 90+**
Carbon Monoxide - parts per million (ppm) as-measured specifications, or within documented manufacturer specifications	≤ 100	≤ 100
Stack temperature (°F)	325 - 450°	90 - 120°
Temperature heat rise (°F)	40 - 70°	30 - 70°
Oxygen (O_2)	4 – 9%	4 – 9%
Gas pressure output at manifold – inches of water column (IWC)	3.2 – 3.9	3.2 – 3.9
Propane pressure output at manifold (IWC)	10 – 11	10 – 11
Steady state efficiency (SSE)	82 – 86%	92 – 97%
Supply temperature	120 - 140°	95 - 140°

4. Clock gas meter to troubleshoot oxygen, temperature, or carbon monoxide problems. Adjust gas input if necessary to correct the fuel-air mixture.
5. Test and set the gas manifold pressure to meet the manufacturer's specifications.
6. Follow manufacturer's venting instructions (and the International Fuel Gas Code) to establish a proper venting system.
7. Follow manufacturer's instructions for proper removal of condensate.

8. Check input gas pressure on furnace when all gas-fired appliances are operating in the house, to assure there is no drop-off in required gas pressure at full load.
9. Ensure proper sediment trap on gas line.
10. When required, an approved gas-pipe type will be installed, supported, and electrically bonded in accordance with National Fire Protection Association (NFPA) 54 or the Wisconsin Uniform Dwelling Code. Follow the manufacturer's specifications for installation. For more information see NFPA 54.

HE+FP EXCEPTIONS: None.

D. Oil-Fired Heating Installation

Replacement heating systems shall meet the minimum efficiency shown in Table 1. Follow all other applicable requirements when replacing an oil furnace. Replacement oil furnaces shall meet the installation requirements shown on the Oil Replacement Furnace Check List. *A completed copy of the Oil Replacement Furnace Check List is required prior to payment of any invoice.*

1. Properly size the nozzle using REScheck®, Manual J, or an equivalent industry-accepted sizing formula. Also see above Section 1(C), "Heating-System Sizing Requirements."
2. Examine existing chimney and vent connector for suitability as venting for new appliance. The vent connector may need to be re-sized or the chimney may need to be re-lined. Provide to the Agency a separate cost estimate to repair and/or reline the chimney or vent connector as needed.
3. Provide clearances of heating unit and its vent connector to nearby combustibles in accordance with NFPA 31.
4. Measure draft, adjust flue damper PMI, and test for carbon monoxide.
5. Test oil pressure to verify compliance with manufacturer's specifications.
6. Test thermostat amperage and adjust thermostat heat anticipator to meet manufacturer's specifications.
7. Adjust unit as needed so that oxygen, flue-gas temperature, and smoke number meet or exceed manufacturer's specifications. If manufacturer's specifications are not available, refer to table 3.
8. Install new fuel filter and purge fuel lines as part of new installation.
9. Visually inspect chimney for safe operation in accordance with NFPA 211.
10. Repair tank and oil lines for safe operation in accordance with NFPA 31.

Table 3 – Typical Ranges for Oil Burning Appliances

Performance Indicator	**SSE 80+**	**SSE 90+**
Carbon Monoxide - parts per million (ppm) as-measured specifications, or within documented manufacturer specifications	≤ 100	≤ 100
Stack temperature (°F)	325 - 550°	300 - 450°
Oxygen (O_2)	6 – 9%	5 – 9%
Smoke number (1-9)	≤ 2	≤ 1
Excess air	≥ 80%	≥ 35%
Oil pressure – pounds per square inch (psi)	≥ 100	100 - 150
Over-fire draft – inches of water column (IWC) negative	.02 IWC or 5 Pa	.02 IWC or 5 Pa

Flue draft (IWC negative)	.04 - .05 IWC or 10 – 15 Pa	.04 - .05 IWC or 10 – 15 Pa
Steady state efficiency (SSE)	≥ 75%	≥ 80%

HE+FP EXCEPTIONS: None.

3. REPLACING SPACE HEATERS

1. The program does not allow or fund replacement of portable space heaters.
2. Follow all applicable requirements when replacing space heaters.
3. Follow manufacturer's venting instructions carefully. Don't vent sealed-combustion, power-vented space heaters into chimneys serving atmospheric-draft appliances.
4. Verify that flue-gas oxygen and stack temperature are within manufacturer's specifications. If manufacturer's specifications are not available, refer to the ranges in Table 2.
5. If manufacturer's specifications require a fire-rated floor protector, size it to the width and length of the space heater, as required.
6. Replacement space heaters shall have an air-circulating blower.
7. Replacement space heaters shall have an Electronic Intermittent Pilot or Electronic Ignition.
8. Replacement space heaters shall not have a standing pilot light.
9. Replacement space heaters shall not be vent-free.
10. Space heater shall be provided with a properly grounded duplex receptacle for electrical service.
11. Provide customers with in-home operation and maintenance instructions and a review of safety precautions.

HE+FP EXCEPTIONS: The following applies only to an HE+ Furnace Program job where full weatherization will not occur:

When there are two or more existing space heaters that are each greater than 15 years old, consider replacing those units with a forced-air heating system. This installation requires prior approval. To obtain prior approval, the Agency shall submit a request to the Home Energy Plus Help Desk. The following information shall be included in the request, and the Contractor shall provide this information to the Agency:

1. The measured steady-state efficiency of the existing space heaters (or estimated efficiency, for units that are non-functional.)
2. The cost of replacing both space heaters.
3. The AFUE rating (per AHRI) of the replacement space heaters.
4. The total cost of installing a forced-air heating system.
5. The AFUE rating (per AHRI) of the replacement forced-air heating system.

4. REPLACING WOOD HEATERS

All replacement wood space heaters shall be listed appliances. All wood heaters shall meet applicable local codes and EPA requirements. Mobile-home wood space heaters shall be listed and HUD-approved appliances. All other applicable requirements shall be followed when replacing a wood stove.

Follow these guidelines for replacing wood heaters:

1. All installations shall meet manufacturer's specifications and conform to NFPA 211.
2. All wood heating units shall be certified to meet the EPA emission standards or local standards, whichever are most restrictive.
3. Installed units shall be certified and labeled by:
    a. NFPA 211; or
    c. Other equivalent listing organization.
4. Visually inspect chimney for safe operation, in accordance with NFPA 211.
5. Install a stack thermometer where appropriate on all wood-space-heater installations. Follow the manufacturer's recommendation for proper installation.
6. Follow the manufacturer's recommendations for providing outdoor combustion air.
7. Provide customers with in-home operation instructions, to include proper wood-burning practices and proper maintenance and safety recommendations, including the need for fire extinguishers.
8. It is important that customers understand the potential impact of exhaust ventilation on wood-heater operation.

HE+FP EXCEPTIONS: Prior approval from DEHCR is required before installing outdoor wood boilers using HE+ Furnace Program funds.

5. VENTING COMBUSTION GASES

Proper venting is essential to the operation, efficiency, safety and durability of combustion heaters. NFPA standards and the International Fuel Gas Code (IFGC) are the authoritative information sources on material choice, sizing, and clearances for chimneys and vent connectors, as well as for combustion air. Applicable codes from the following NFPA and ICC documents shall apply (see Table 4):

- The International Fuel Gas Code (IFGC) (ICC)
- NFPA 31: Standard for the Installation of Oil-Burning Equipment
- NFPA 211: Standard for Chimneys, Fireplaces, Vents, and Solid-Fuel-Burning Appliances

Table 4 – Guide to Venting Standards

Topic	Code Reference
Vent Sizing	IFGC, Section 504
Clearances	IFGC, Section 308 and Tables 308.2I NFPA 31, Section 4-4.1.1 and Tables 4-4.1.1 and 4-4.1.2 NFPA 211, Sections 6.5, 4.3, 5
Combustion Air	IFGC, Section 304 NFPA 31, Section 1-9; NFPA 211, Section 8.5 and 9.3

A. Improving Inadequate Draft

If measured draft is below minimum draft pressures, investigate the reason for the weak draft. Open a window, exterior door, or interior door to observe whether the addition of combustion air will improve draft. If this added air strengthens draft, the problem usually is depressurization. If opening a window has no effect, inspect the chimney. The chimney could be blocked or excessively leaky. Also see Table 5, Draft Problems and Solutions.

i. Duct improvements to solve draft problems

a. Seal all return-duct leaks near furnace.
b. Unless it is a finished living area, seal or remove all return-air registers in the combustion appliance zone.
c. Improve balance between supply and return air by installing new return ducts, transfer grills, or jumper ducts, with Agency approval and the homeowner's consent.
d. All remaining natural-draft appliances in the combustion appliance zone shall be properly drafting after the replacement heating system is installed.

ii. Chimney improvements to solve draft problems

a. Remove chimney obstructions.
b. Repair disconnections or leaks at joints and where the vent connector joins a masonry chimney.
c. Measure the size of the vent connector and chimney and compare with vent-sizing information listed in Section 504 of the International Fuel Gas Code. A vent connector or chimney liner that is either too large or too small can result in poor draft.
d. If wind is causing erratic draft, consider installing a wind-damping chimney cap, with Agency approval.
e. If the masonry chimney is deteriorated, consider installing a new chimney liner, with Agency approval.
f. Increase the pitch of horizontal sections of vent.

Table 5 – Draft Problems and Solutions

Draft Problems and Solutions

Problem	Possible Solutions
Adequate draft never established	Remove chimney blockage, seal chimney air leaks, or provide additional combustion air as necessary.
Blower activation weakens draft	Seal leaks in the furnace and in nearby return ducts. Isolate the furnace from nearby return registers.
Exhaust fans weaken draft	Provide make-up or combustion air if opening a door or window to outdoors strengthens draft during testing.
Closing interior doors during blower operation weakens draft	Add return ducts, grills between rooms, or jumper ducts.

HE+FP EXCEPTIONS: None.

6. ELECTRIC FURNACES AND ELECTRIC BASEBOARD HEAT

Note: ***Replacement of an electric heating unit with an electric system is not allowed as part of HE+ Furnace Program services.***

If an electric furnace will remain in the building, follow the requirements regarding forced-air distribution work, temperature rise, and other applicable requirements. In addition:

1. Check and clean thermostat.
2. Clean and lubricate blower, if present.
3. Clean or replace all filters.
4. Vacuum and clean blower and housing around electric elements, if dirty.
5. Clean fins on electric-baseboard systems, if applicable.
6. Take extra care in duct sealing and duct airflow improvements for electric furnaces because of the high cost of electricity.
7. Verify that safety limits, temperature rise, and static pressure conform to manufacturer's specifications.

Caution: Disconnect power from electric furnaces before performing any maintenance.

HE+FP EXCEPTIONS: Replacement of an electric heating unit with an electric system is not allowed as part of the HE+ Furnace Program services.

7. FORCED-AIR DISTRIBUTION WORK — GENERAL

1. Inspect and test ductwork for acceptable temperature rise, and for health and safety concerns.
2. Seal all major return and supply leaks. Remove (patch openings) all grilles installed in plenums.
3. Install dampers where supply ductwork is added, and adjust as necessary to balance the system.
4. Perform ductwork modifications as necessary, as approved by Agency, to ensure client comfort and to ensure that temperature rise meets manufacturer's specifications.
5. As directed by the Agency and with the owner's permission, in rooms other than kitchens and bathrooms with limited or no return air, add a return duct, undercut the door, or install a transfer grille or jumper duct to improve the return airflow
6. Note: Return grills are not allowed in the combustion appliance zone (CAZ), unless the CAZ is a finished living area. Do not install return grills in unconditioned areas or unintentionally conditioned areas.
7. Do not add supply registers to the CAZ unless it is an intentionally heated part of the home. Consult with customers about the removal of existing supply grilles in the CAZ. To replace supply plenum grilles, a new supply register may be installed at a location where conditioning is needed (e.g., a laundry area or work bench).

   When applicable, for additional information regarding forced-air distribution work, see the Weatherization Field Guide, Chapter 3.

HE+FP EXCEPTIONS: None.

8. HOT-WATER SPACE-HEATING DISTRIBUTION — GENERAL

Hydronic distribution systems consist of the supply and return piping, the circulator, expansion tank, air separator, air vents, and heat emitters. A properly designed and installed hydronic distribution system can operate for decades without service. However, many systems have installation flaws or need service.

A. Hot-Water Space-Heating Distribution – Safety Checks and Improvements

1. Confirm the existence of a 30-psi-rated pressure-relief valve. Replace a malfunctioning valve or add one if none exists. Note signs of leakage or PRV discharges, and correct conditions causing the relief valve to discharge.
2. Make sure that the expansion tank isn't waterlogged or too small for the system. This could cause the pressure-relief valve to discharge when the water is heated. Test expansion tank for acceptable air pressure — usually 12 to 22 psi.
3. If rust is observed in venting, verify that return water temperature is above 130° F for non-condensing gas boilers and above 150° F for oil boilers, to prevent acidic condensation.
4. The high-limit control shall deactivate burner at a water temperature of 180° F or less.
5. Lubricate circulator pump(s) if necessary.

B. Hot-Water Space-Heating Distribution – General

1. Remove corrosion, dust, and dirt on the fire side of the heat exchanger.
2. Check for excess air during combustion from air leaks and incorrect fuel-air mixture.
3. Boiler shall not have a low-limit control for maintaining a minimum boiler-water temperature, unless the boiler is heating domestic water in addition to space heating.
4. Most systems have an automatic fill valve. If there is a manual fill valve for refilling system with water, it shall be open during air purging, to push water in and air out.
5. Consider installing a two-stage thermostat or timer control to increase circulator on-time compared to burner on-time.
6. Consider installing outdoor reset controls on boilers, to regulate supply water temperature according to outdoor temperature.
7. After control improvements like two-stage thermostats or reset controllers, verify that return-water temperature is high enough to prevent condensation and corrosion in the chimney, as noted previously.
8. Vacuum and clean fins of fin-tube convectors to remove visible dust and dirt there.
9. Insulate all supply piping that passes through unheated areas, using pipe insulation at least 1½-inch thick and rated for temperatures up to 200° F.
10. Consider installing electric vent dampers on natural-draft gas- and oil-fired high-mass boilers.

HE+FP EXCEPTIONS: None.

9. HEATING-UNIT REPLACEMENT IN MANUFACTURED HOUSING

Replacement gas furnaces shall be sealed-combustion, downflow, condensing furnaces, approved for use in mobile homes. Unit shall fit footprint of existing space and furnace closet door should close fully. Replacement oil furnaces shall have a minimum AFUE rating of 79% and be approved for use in a mobile home. Follow all other applicable requirements when replacing a furnace.

Follow these procedures when installing new mobile-home furnaces:

1. Install properly sized units according to REScheck®, Manual J or an equivalent industry-accepted sizing formula.
2. Size the heating unit so that the existing compartment can accommodate it without major retrofitting, and ensure that the fit and finish is appropriate for the compartment. An installation that involves compartment retrofitting requires prior approval from the Agency.

3. Order and install a new furnace base, unless you are sure that the existing base matches the new furnace.
4. Support the main duct underneath the furnace with additional strapping if necessary to hold it firmly in place.
5. Attach the furnace base firmly to the duct connector. Seal all seams between the base, the duct connector, and main duct with mastic and fabric mesh tape.
6. Before installing the furnace, carefully seal the base plate to the floor prevent air leakage through the belly and floor.
7. Convert a belly-return system to a living-space-return system by rerouting returns to furnace-cabinet door.
8. Ensure that there is adequate return air.
9. Provide a complete air seal and weather seal around the new chimney and combustion-air pipe where it penetrates the roof, ceiling, wall, or floor.
10. Provide a completely watertight weather seal at the roof penetration. Reinforce the area underneath the roofing with plywood or other strong material if necessary to create a strong patch and to prevent a low spot in the roof at the penetration. It is best for any roof patch to be slightly elevated from the surrounding roof, to prevent water collection at the patch.
11. Conduct a combustion test and compare test results with the specifications in Table 2 or Table 3. Take action to correct non-conforming specifications.
12. Install a condensate pump if necessary to convey the furnace's condensate to a suitable drain. Install condensate lines in a manner that guards against freezing.
13. Use existing distribution system and gas-supply line.
14. Properly remove and dispose of existing unit.
15. Provide an owner's manual with heating-system replacements.
16. Provide all clients with in-home operation and maintenance instructions and a review of safety precautions.

HE+FP EXCEPTION: When full weatherization work will not be performed, disregard Item 7 above.

10. PROGRAMMABLE THERMOSTATS

Install a programmable thermostat with a forced-air system when the existing thermostat must be replaced and the occupant is willing and able to program the replacement thermostat. Relocate thermostats to interior walls and instruct occupants regarding the operation of setback thermostat. Properly recycle any thermostat that has been replaced.

Setback thermostats are not recommended for some boiler systems — this is because following the setback period, the boiler may take too long to reheat the dwelling.

HE+FP EXCEPTIONS: None.

11. DUCT INSULATION AND DUCT SEALING

Refer to the Wx Field Guide, Chapter 3.4, "Forced-Air Furnace Distribution", for specifications and guidance regarding duct insulation and duct sealing.

HE+FP EXCEPTION: When full weatherization work will not be performed, there is no requirement to insulate ducts. For duct-sealing requirements, see Section 7, "Forced-Air Distribution Work – General", of this document.

12. CLEANING & TUNING GAS AND OIL FURNACES

Refer to the Wx Field Guide, Chapter 3.8.3, "Testing and Servicing Gas Combustion Systems", for specifications and guidance regarding the cleaning and tuning of gas combustion appliances. Refer to the Wx Field Guide, Chapter 3.9.2, "Testing and Servicing Oil-Fired Systems", for specifications and guidance regarding the cleaning and tuning of oil furnaces.

HE+FP EXCEPTION: When full weatherization will not be completed, a full clean and tune is not required. Perform only those services necessary to have the system running properly or to extend the expected useful life of the system.

13. WORST-CASE DRAFT PROTOCOL

Refer to the Wx Field Guide, Chapter 5.5, "Worst-Case Draft Protocol".

HE+FP EXCEPTION: Test remaining natural-draft appliances for draft under natural conditions, not under worst-case (depressurization) conditions.

14. COMBUSTION AIR

Refer to the Wx Field Guide, Chapter 3.14, "Combustion Air", for specifications and guidance regarding combustion air. The Agency shall determine whether the combustion-appliance zone requires additional combustion air.

HE+FP EXCEPTION: When full weatherization will not be performed, the Contractor shall determine whether the combustion-appliance zone has sufficient combustion air. Only add combustion air with Agency approval.

Attachment 5 – RFB# 08-1420 HVAC Materials & Labor
Valid Invoice Requirements for Heating System Work for the Wis. Wx Program (rev. 12/16/2016)

The purpose of this document is to provide bidders with a list of items required for a valid invoice as identified in the RFB, Section 6, **Invoices, Required Documentation and Payment.** Also see the RFB, Section 6, and/or Attachment 4 for other specific requirements related to a valid invoice and required documents. Invoices presented for payment shall be submitted in accordance with the RFB requirements and the following Agency instructions. Some documentation (such as #1-#4) may be required prior to contractor invoice submittal. ***A "Yes" in the column means the requirement applies to all heating system work (repair and replacement).***

	Required documentation –following information or items shall be provided to the Agency (with, or prior to, the invoice) when applicable:	***Wx Furnace*** repair or replacement
1	Pre-approval of all additional work to be performed outside the original scope of work, a description of the work and the associated cost.	Yes
2	Explanation of any deviations from normal procedure.	Yes
3	A copy of all documentation regarding problems or issues regarding job site performance, commodity performance and/or customer issues.	Yes
4	Photographs as specified in RFB section 5. (Photos for repair work may be required by the Agency.)	Yes
5	Heating system sizing calculation documentation as specified in RFB section 5.	Replacements only
6	Lien Waiver(s) – contractor, appliance supplier, subcontractors (section 6).	Yes
7	A completed **Heating System Checklist** (available under **Field forms** at: http://homeenergyplus.wi.gov/category.asp?linkcatid=494&linkid=122&locid=25).	Yes
8	Copy of Permit(s) – see RFB section 6 (unless directed otherwise)[1].	Yes
9	Provide total cost of replacement/repair and identify individual costs for any collateral and/or items with separate costs (e.g., permits). (This should match cost sheet price, if item was bid.)	Yes
10	Lead Safe Work Form*	Yes
11	Renovation Recordkeeping Checklist (if part B is completed on the Lead Safe Work Form)*	Yes
12	Completed Building Diagnostic and Combustion Safety Reporting Form when Worst Case Depressurization with Draft Testing is performed as specified in Attachment 9 of RFB 05-1019.**	Yes
13	Before, during, and after photos of asbestos abatement activities when asbestos abatement is required to perform work scope.	Yes
14	Copy of invoice(s) of subcontracted asbestos abatement including DHS Asbestos Project Notification, Hazardous Material Disposal Manifest.	Yes

* See attached documents: Lead Safe Work Form and Renovation Recordkeeping Checklist.

** Required documentation when service is requested on work order and is to be submitted with invoice.

[1] Copy of building permit is required, except when a permit is not issued by the local jurisdiction; in this case, supply a copy of the receipt for payment.

Attachment 6 RFB# 08-1420 HVAC Materials & Labor
Clean and Tune Requirements

(Gas and Oil)

1. Perform Steady State Efficiency testing.

2. Brush and vacuum dirt, rust, and debris from heat exchanger and burner surfaces and inspect the heat exchanger after removing burner assembly. Clean and adjust the burners and controls.

3. Clean and adjust pilot assembly. Test pilot safety system.

4. Test, reset or replace any and all safety and control devices as necessary, necessary replacements part are billed at cost plus bid mark-up percentage. Check limit control, igniter, and flame sensor. Replacement parts need authorization from the Agency prior to their installation.

5. Clean/replace air filters as needed. Install one filter in the unit and leave five (5) extra disposable filters, instruct customer on furnace filter changing and educate on the frequency of inspection and replacement. A single washable filter may be substituted for disposable filters with customers consent, submit customer signature of approval with invoice. If a media filter is in place, install a replacement media filter if needed but leave no extra, if not needed leave one (1) extra.

6. All forced air heating systems which accommodate a filter must have a filter rack cover which provides a proper seal, if none present one is to be installed. Filter rack cover should have no sharp edges and be easily removed or opened for easy filter replacement. If filter rack replacement is required, approval from the Agency needs to be given prior to its replacement.

7. Check the following for general safe operation of the heating unit:
    a. Ensure vent connectors for all combustion appliances to the chimney are free of rust, deterioration, contain (3) mechanical fasteners per connection and have adequate slope to maintain minimum draft requirements.
    b. Draft diverters for proper draft and possible spillage (see Infiltration Section for more information)
    c. Heating system wiring.
    d. Check thermo coupling for proper operation and replace if necessary.

8. Inspect, adjust and calibrate thermostat as needed. Using an ammeter at thermostat, set heat anticipator. Add .25 to the amperage reading on high efficiency furnaces.

9. Perform C.O. test on gas furnaces. Set burners, using a combustion analyzer to determine peak efficiency. (100 PPM maximum for gas.)

10. On oil-fired units, perform smoke test. Levels should be in the range of 0 to 2, photo of smoke test results to be submitted with invoice. Nozzles should be replaced and electrodes should be set. Oil filters should be replaced.

11. Lubricate moving parts.

12. Check chimney or flue for blockage.

13. Check all atmospheric combustion appliances for proper draft; perform Worst Case Depressurization and draft testing and document results when directed by the Agency.

Clean and Tune Requirements (continued)

14. Check for fuel leaks on **all** accessible lines. The first 5 leaks must be repaired at NO COST to the agency. Call office if more than 5 leaks per unit exist. You must follow the gas leak protocol listed below:
    a. Gas leak test must be done prior to the start of any repair or replacement work.
    b. Additional leaks requiring repair, identified beyond the 5 included, must be approved for repair by the Project Manager or Field Supervisor prior to their completion.
    c. Contractor must repair all gas leaks prior to leaving job.
    d. Gas leaks located by the Final Inspector or during a Quality Control Inspection must be addressed immediately upon notification if directed to do so.

15. Clean blower fan and blower compartment. Remove and clean blower motor, and check blower speeds.

16. Inspect blower belt, adjust tension, and replace as necessary.

17. Measure temperature rise.

18. Post inspection SSE test.

19. A/C coil cleaning if needed; pre authorization and pre and post photo documentation is required.

20. Test and adjust gas pressure.

21. Fill out the Clean and Tune Check list completely. Post a copy on the return air of a furnace or the cabinet of a boiler in an appropriate sleeve mechanically fastened, submitting another with the invoice.

Wisconsin Weatherization

Replacement Gas Furnace Checklist

Customer: _____ Contractor: _____

Brand: _____ Model #: _____

Date Installed: _____ Serial #: _____

WisWAP BID: _____ **OR** WHEAP App#: _____

Check box, enter test results or requested number as item is inspected or completed. Indicate "N/A" if not applicable.

PMI = Per Manufacturer's Instructions. **Fuel Type:** ☐ **Natural Gas or** ☐ **Propane**

INSPECTION & ADJUSTMENTS

Documents:
- ☐ Photos documenting furnace conditions and manufacturer nameplate provided to Agency
- ☐ Installation information sticker (installer name, phone number, date)
- ☐ Warranty and manual in envelope attached to furnace ☐ Agency given copy of sizing calculation
- ☐ Design temperature heat loss: _____ BTU per hour @ _____ degrees F. design temp

Electrical:
- ☐ Service disconnect is present and operational ☐ Dedicated circuit and breaker properly rated
- ☐ Set thermostat heat anticipator (thermostat) PMI ☐ Not applicable

Gas Piping:
- ☐ Sized for BTUs of all appliances ☐ No leaks ☐ Shut off present
- ☐ Sediment trap present ☐ CSST bonded

Air Filter:
- ☐ Filter opening covered/sealed ☐ Filter removes easily with no obstructions
- Filter Size: _____ x _____

General:
- ☐ Furnace elevated off basement floor. Note: If not in basement, can be on floor if approved PMI
- ☐ Combustion air and exhaust piping properly installed, terminated and supported
- ☐ Distribution plenums sealed and all major duct leaks properly sealed per specifications
- ☐ Condensate properly drained per local code and PMI ☐ Test holes sealed
- ☐ Orphaned water heater has proper draft (see p. 2) ☐ Permit required

Installed and Measured BTUs of New Furnace:

BTUs (high input): _____ Measured Input (2 cu. ft. of gas): _____ Minutes: _____ Seconds: _____

BTUs (low input): _____ (if applicable) Measured Input (2 cu. ft. of gas): _____ Minutes: _____ Seconds: _____

Measured Gas Pressure in Inches of Water Column(IWC):

Input (High): _____ Input (Low) – if applicable: _____ Manifold (High): _____ Manifold (Low): _____

Enter test result. Indicate "N/A" if installation is a space heater.

PERFORMANCE TESTING

Steady State Efficiency Test

Adjust to Achieve Typical Ranges for Gas Burning Appliances (see page 2)

SSE %	O2%	CO PPM	Intake Air °F	Flue °F	PMI AFUE%

Distribution Static Pressure

☐ IWC or ☐ Pa

	Return	Supply	Total Pressure
High Input			
Low Input			

Temperature Rise

Supply °F	Return °F	(Supply – Return)	PMI Min	PMI Max

Variable Speed Furnaces	Heating CFM*	Fan Speed Setting
High Input		
Low Input (if applicable)		

*CFM Measurement Method: ☐ Plate Method ☐ Fan Tables ☐ Other: _____

I certify the visual inspection and performance tests were completed as indicated.

Installer Signature: _____

Printed Name: _____

Date: _____

I certify the heating system was installed to my satisfaction on the date indicated.

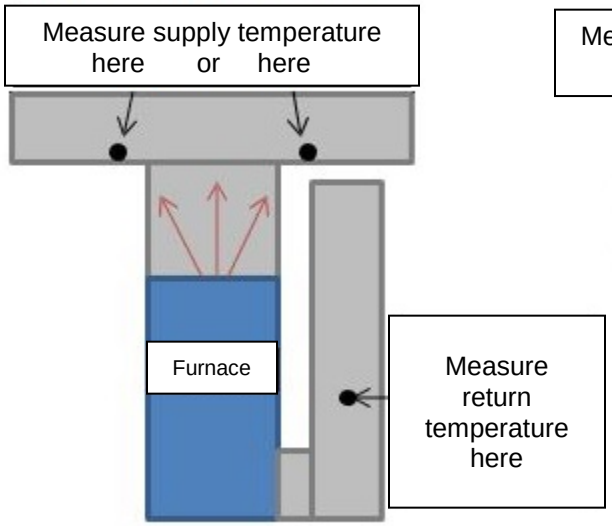
Customer Signature: _____

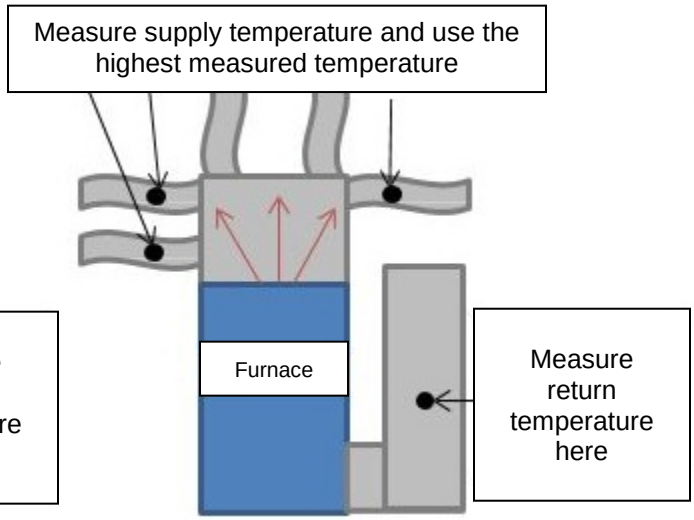
Printed Name: _____

Date: _____

Natural Gas and Propane Specifications

Generally accepted ranges, excerpted from the Weatherization Field Guide. Always follow manufacturer's instructions if they differ from listed typical specifications. Examples of temperature rise testing procedures below.





Typical Ranges for Gas Burning Appliances

Acceptable Draft Test Readings for Gas Appliances with Respect to Outdoor			
	<10° F.	**10°-90° F.**	**>90° F.**
Draft (Pa)	-2.5	(°F Out / 40) - 2.75	-0.5
Draft (IWC)	-.010	(°F Out / 10,000) - 0.011	-.002

Performance Indicator	**SSE 80+**	**SSE 95+**
Carbon monoxide (CO) ppm as-measured	≤ 100	≤ 100 or PMI
Stack temperature °F	325°- 450°	90°- 120°
Temperature Heat Rise °F	40° - 70°	45° - 70° or PMI
Oxygen (O_2) %	4 - 9%	4 - 9%
Natural gas pressure output at manifold - Inches of Water Column (IWC)	3.2 - 3.9 IWC	3.2 - 3.9 IWC
Propane pressure output at manifold (IWC)	10-11 IWC	10 – 11 IWC
Steady-state efficiency (SSE)	82 - 86%	95 - 97%
Supply temperature °F	120° - 140°	95° - 140°

Comments:

Wisconsin Weatherization
Replacement Oil Furnace Checklist

Customer: _____ Contractor: _____

Brand: _____ Model #: _____

Date Installed: _____ Serial #: _____

WisWAP BID: _____ **OR** WHEAP App#: _____

Check box, enter test results or requested number as item is inspected or completed. Indicate "N/A" if not applicable.

PMI = Per Manufacturer's Instructions.

INSPECTION & ADJUSTMENTS

Documents:	☐ Photos documenting furnace conditions and manufacturer nameplate provided to Agency	
	☐ Installation information sticker (installer name, phone number, date)	
	☐ Warranty and manual in envelope attached to furnace	☐ Agency given copy of sizing calculation
	☐ Design temperature heat loss calculation: _____ BTU per hour	
Electrical:	☐ Service disconnect is present and operational	☐ Dedicated circuit and breaker properly rated
	☐ Set thermostat heat anticipator (thermostat) PMI	☐ Not applicable
Fuel Supply:	☐ New fuel filter	☐ Tank and lines comply with NFPA 31
	☐ No leaks	☐ Purged fuel lines
Air Filter:	☐ Filter opening covered/sealed	☐ Filter removes easily with no obstructions
	Filter Size: _____ x _____	
General:	☐ Furnace elevated off basement floor	
	☐ Acceptable clearances of heating unit and vent connector to nearby combustibles per NFPA 31	
	☐ Distribution plenums sealed; all major duct leaks properly sealed per specifications	
	☐ Chimney inspected for compliance with NFPA 211	☐ Test holes sealed
	☐ Barometric damper control operates properly	☐ Permit required

Measured BTUs of New Furnace:

BTUs (input): _____ Nozzle GPH: _____ Nozzle Angle: _____ ° Nozzle Spray Type: _____

Note: The oil nozzle information is required to be posted on the furnace with the date of installation.

Measured Oil Pressure:

PMI _____ PSI Measured _____ PSI

PERFORMANCE TESTING

Draft Measurements		
Flue Draft		Before barometric damper 10 – 15 Pa or 0.04-0.06 IWC or PMI
Overfire Draft		Must be a minimum of 5 Pa. or 0.02 IWC or PMI

Measured Smoke Number	
Smoke Spot Scale #:	

Steady State Efficiency Test

Adjust to Achieve Typical Ranges for Oil Burning Appliances (see page 2)

SSE %	O2%	CO PPM	Intake Air °F	Flue °F	PMI AFUE%

Distribution Static Pressure

☐ IWC / ☐ Pa	Return	Supply	Total Pressure

Temperature Rise

Supply °F	Return °F	(Supply – Return)	PMI Min	PMI Max

Air Flow Rate Testing	Heating CFM*	Fan Speed Setting
High Input		

*CFM Measurement Method: ☐ Plate Method ☐ Fan Tables ☐ Other: _____

I certify the visual inspection and performance tests were completed as indicated.

Installer Signature: _____

Printed Name: _____

Date: _____

I certify the heating system was installed to my satisfaction on the date indicated.

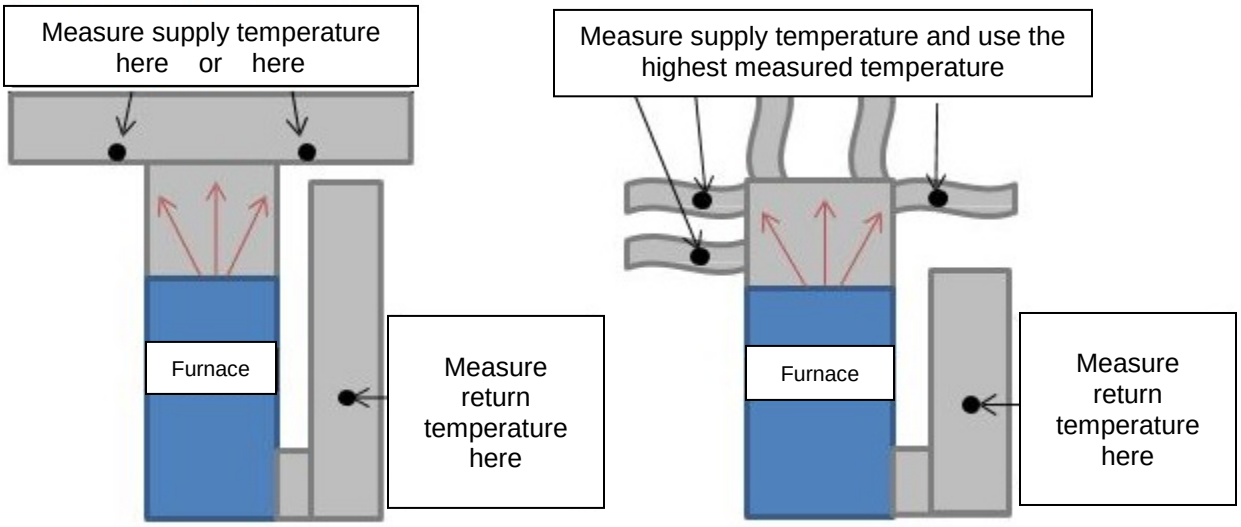
Customer Signature: _____

Printed Name: _____

Date: _____

Fuel Oil Heating System Specifications

Generally accepted ranges, excerpted from the Weatherization Field Guide. Always follow manufacturer's instructions if they differ from listed typical specifications. Examples of temperature rise testing procedures below.



Typical Ranges for Oil Burning Appliances

Performance Indicator	Flame Retention
Carbon Monoxide (CO) ppm as-measured	≤ 100
Stack Temperature °F	300°- 450°
Oxygen (O_2) %	5 - 9%
Smoke Number (0-9)	< 1
Oil Pressure Pounds per Square Inch (psi)	PMI or 100 – 150
Over-fire Draft (Inches of Water Column	-0.02 IWC or -5 Pa
Flue Draft (IWC)	-0.04 to -0.06 IWC -10 to -15 Pa
Steady-State Efficiency (SSE)	≥ 80%

Comments:

Wisconsin Weatherization
Replacement Boiler Checklist

homeenergy+

Customer: _____ Contractor: _____
Brand: _____ Model #: _____
Date Installed: _____ Serial #: _____
WisWAP BID: _____ **OR** WHEAP App#: _____

Check box, enter test results or requested number as item is inspected or completed. Indicate "N/A" if not applicable.
PMI = Per Manufacturer's Instructions. **Fuel Type:** ☐ **Natural Gas** ☐ **Propane** ☐ **Oil**

INSPECTION & ADJUSTMENTS

Documents:	☐ Photos documenting boiler conditions and manufacturer nameplate provided to Agency. ☐ Installation information sticker (installer name, phone number, date) ☐ Warranty and manual in envelope attached to boiler ☐ Agency given copy of sizing calculation ☐ Design temperature heat loss: _____ BTU per hour @ _____ degrees F. design temp
Electrical:	☐ Service disconnect is present and operational ☐ Dedicated circuit and breaker properly rated ☐ Set heat anticipator (thermostat) PMI ☐ Not applicable
Gas Piping:	☐ Sized for BTUs of all appliances ☐ No leaks ☐ Shut off present ☐ Sediment trap present ☐ CSST bonded
Fuel Oil:	☐ New Fuel Filter ☐ No leaks ☐ Tank/Lines comply with NFPA 31 ☐ Purged Fuel Lines
General:	☐ Boiler elevated off basement floor. Note: If not in basement, can be on floor if approved PMI. ☐ Check clearances of heating unit and vent connector to nearby combustibles (Gas IFGC; Oil NFPA 31) ☐ Combustion air and exhaust piping properly installed, terminated and supported ☐ Installed Pressure Relief Valve PMI ☐ Test holes sealed ☐ Barometric controls operate properly PMI (if applicable) ☐ Permit Required ☐ Bled air from entire system ☐ Distribution Flushed PMI ☐ Condensate properly drained per code and PMI ☐ Distribution Water Treated PMI ☐ Orphaned water heater has proper draft (see p. 2)

Existing Load Terminals and Capacity:
Radiation Type: ☐ Fin Tube ☐ Radiator ☐ Baseboard ☐ Other: _____
Linear Feet: _____ (Fin Tube or Cast Iron Baseboard) Square Feet: _____ (Radiators)

Measured BTUs of New Boiler:
Modulating Boiler Turndown Ratio (if applicable): _____ :
Rated BTUs (input): _____ Measured Btu Input (2 cu. ft. of gas): _____ Minutes: _____ Seconds: _____
Nozzle GPH: _____ Nozzle Angle: _____ ° Nozzle Spray Type: _____

Measured Gas Pressure in Inches of Water Column(IWC) or Oil PSI:
Input: _____ Manifold (High): _____ Manifold (Low): _____ Oil (PSI): _____

Installed Devices: Indicate what was installed. Steps must be taken to prevent condensation in non-condensing units.
☐ Air Excluding Device ☐ Mixing Valves ☐ Automatic Fill Valve ☐ Backflow Preventer ☐ Other: _____
☐ Wye Strainer ☐ Outdoor Sensor (install on North wall) ☐ Circulator Pump HP _____ GPM _____ W _____
Size Speed Setting Watts

PERFORMANCE TESTING

Combustion and Draft Testing
Adjust to achieve typical ranges for applicable appliance (see page 2)

	☐CO_2 ☐O_2	CO PPM	Draft	Intake Air °F	Flue Temp °F	SSE %	AFUE %
High Input							
High Input PMI							
Low Input							
Low Input PMI							
Oil Boilers Only:		Overfire Draft:			Smoke Test #:		

Outdoor Reset Setup	Warm Weather Shut Down		Design Temp
Outdoor Temp °F			
Boiler Supply °F			
Measured Temps °F	Supply	Return	Outdoor
Primary Loop (High Input)			

I certify the visual inspection and performance tests were completed as indicated.

I certify the heating system was installed to my satisfaction on the date indicated.

Installer Signature _____ Date _____ Customer Signature _____ Date _____

Replacement Boiler Specifications (Natural Gas, Propane (LP) and Fuel Oil)

Generally accepted ranges, excerpted from the Weatherization Field Guide. Always follow manufacturer's instructions if they differ from listed typical specifications. Examples of temperature rise testing procedures below.

Typical Ranges for Gas Burning Appliances

Acceptable Draft Test Readings for Gas Appliances with Respect to Outdoor			
	<10° F.	**10°-90° F.**	**>90° F.**
Draft (Pa)	-2.5	(°F Out / 40) - 2.75	-0.5
Draft (IWC)	-.010	(°F Out / 10,000) - 0.011	-.002

Gas: Measure draft halfway between collar and chimney.

Performance Indicator	**SSE 80+**	**SSE 95+**
Carbon monoxide (CO) ppm as-measured	≤ 100	≤ 100 or PMI
Stack temperature °F	325°- 450°	90°- 120°
Oxygen (O_2%)	4 - 9%	4 - 9%
Natural gas pressure output at manifold - Inches of Water Column (IWC)	3.2 - 3.9 IWC	3.2 - 3.9 IWC
Propane pressure output at manifold (IWC)	10 - 11 IWC	10 – 11 IWC
Steady-State Efficiency (SSE)	82 - 84%	95 - 97%
Supply temperature °F	120° - 140°	95° - 140°
Return Water Temperature-Non-condensing °F	> 120	N/A

Typical Ranges for Oil Burning Appliances

Performance Indicator	**Flame Retention**
Carbon Monoxide (CO) ppm as-measured	≤ 100
Stack Temperature °F	300°- 450°
Oxygen (O_2) %	5 - 9%
Smoke Number (0-9)	< 1
Oil Pressure Pounds per Square Inch (psi)	PMI or 100 – 150
Over-fire Draft (Inches of Water Column (IWC))	-0.02 IWC or -5 Pa
Flue Draft (IWC)	-0.04 to -0.06 IWC or -10 to -15 Pa
Steady State Efficiency (SSE)	≥ 80%
Return Water Temp (Non-condensing boiler) °F	> 120

Oil: Measure draft between barometric damper and collar and at over fire.

Comments:

Wisconsin Weatherization
Repair or Clean and Tune Checklist

Customer: _____ Contractor: _____

Work Date: _____ Serial #: _____

WisWAP BID: _____ **OR** WHEAP App#: _____

Fuel Type: ☐ Natural Gas ☐ Propane ☐ Oil ☐ Other: _____

System Type: ☐ Forced Air ☐ Boiler ☐ Space Heater ☐ Other: _____

Clean, inspect, test, and repair: Perform the following inspection procedures and maintenance practices on heating systems as necessary. The goal of these measures is to reduce carbon monoxide (CO), adjust fuel-air mixture, improve steady-state efficiency and verify the operation of safety controls. All drilled holes should be properly sealed after completion of testing.

Check box, enter test results or requested number as item is inspected or completed.

ALL SYSTEMS	Emergency shut off	☐	Service disconnect is present and is operational
	Electrical service	☐	Inspect circuit; Rated for application; Note problems & make recommendations
	Fuel lines/storage tanks	☐	No leaks present; Shut off present; Filter or sediment trap is present and clean
	Blower	☐	Clean
	Air Handler	☐	Clean
	Air Filter	☐	Clean or replace
	Heat Exchanger	☐	Clean surface & inspect for leaks; Inform customer & agency if exchanger is cracked
	Filter Slot/Filters	☐	Filter slot with cover is present; Replacement filters/permanent filter present
	Thermostat	☐	Set heat anticipator to amperage measured in control circuit or PMI
OIL HEATING UNIT	Oil Filter	☐	Replace filter
	Nozzle	☐	Replace nozzle Nozzle GHP: _____ Nozzle Angle: _____ ° Spray Type: _____
	Electrodes	☐	Adjust gap and position in burner tube PMI
	Transformer	☐	Clean contacts; Measure voltage & replace if voltage is not within PMI
	Burner/Burner Tube Assembly	☐	Clean; Inspect for over burning; Replace flame retention head if damaged
	Combustion Chamber	☐	Clean; If necessary repair combustion chamber or replace
	CAD/Stack Control Cell	☐	Test; Verify that burner shut off, PMI, when the cad cell is blocked from flame
	Flame Ignition	☐	Test; Ignition must be instantaneous; Pre-purge type unit, blower on prior to ignition
	Barometric Damper	☐	Plumb, level, swings freely
	Flue Draft (before damper)	☐	Measure and adjust as needed (see page 2)
	Over Fire Draft	☐	Measure and adjust as needed (see page 2)
	High Limit Control	☐	Measure shut off temperature & adjust or replace if >250° (furnace) or >180° (boiler)
	Oil Pump Pressure	☐	Measure and adjust to PMI; Measured Pressure: _____ PSI
NG/LP	Burners	☐	Check for dust, debris, misalignment, flame impingement & other flame-interference problems; Clean, vacuum and adjust as needed
	Burner/Manifold	☐	No soot, melted wire insulation or rust in burner and manifold area outside of firebox
	Pilot (if equipped)	☐	Burning, good ignition, check safety control for gas valve shut-off when pilot is out
	Gas Pressure (IWC)	☐	Input: _____ Manifold: _____

PERFORMANCE TESTING

Input on Label:		**Output on Label:**		**Measured Input: (Clock Meter)**	

Steady State Efficiency Test

Adjust to Achieve Typical Ranges for Gas Burning Appliances (see page 2)

SSE %	O2%	CO PPM	Smoke #	Flue °F

Distribution Static Pressure

☐ IWC or ☐ Pa

Return	Supply	Air Flow	Total Pressure

Temperature Rise

Supply °F	Return °F	Total Rise

PMI Range

Minimum	Maximum

I certify the visual inspection and performance tests were completed as indicated.

Installer Signature: _____

Printed Name: _____

Date: _____

I certify the heating system was installed to my satisfaction on the date indicated.

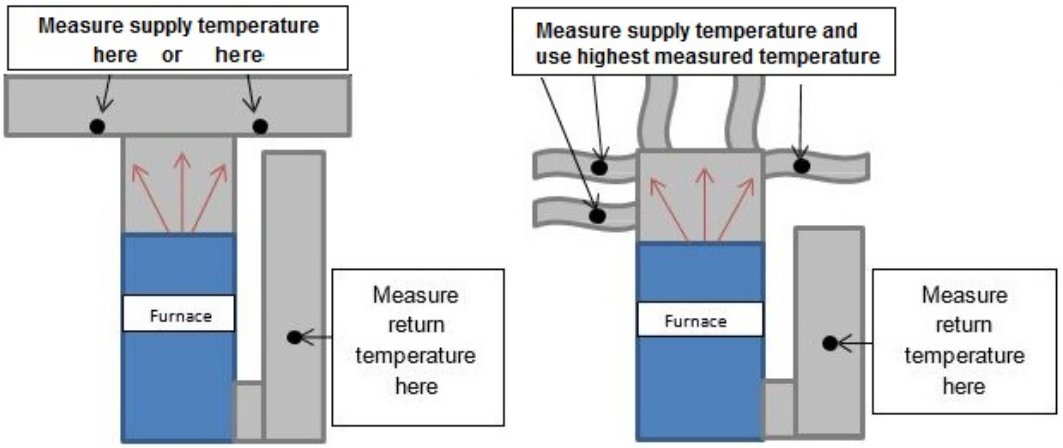
Customer Signature: _____

Printed Name: _____

Date: _____

Natural Gas and Propane Specifications

Generally accepted ranges, excerpted from the Weatherization Field Guide. Always follow manufacturer's instructions if they differ from listed typical specifications. Examples of temperature rise testing procedures below.



Acceptable Draft Test Readings for Gas Appliances with Respect to Outdoor			
	<10° F.	**10°-90° F.**	**>90° F.**
Draft (Pa)	-2.5	(°F Out / 40) - 2.75	-0.5
Draft (IWC)	-.010	(°F Out / 10,000) - 0.011	-.002

Typical Ranges for Gas Burning Appliances		
Performance Indicator	**SSE 80+**	**SSE 95+**
Carbon monoxide (CO) ppm as-measured	≤ 100	≤ 100 or PMI
Stack temperature °F	325°- 450°	90°- 120°
Temperature Heat Rise °F	40° - 70°	45° - 70° or PMI
Oxygen (O_2) %	4 - 9%	4 - 9%
Natural gas pressure output at manifold - Inches of Water Column (IWC)	3.2 - 3.9 IWC	3.2 - 3.9 IWC
Propane pressure output at manifold (IWC)	10-11 IWC	10 – 11 IWC
Steady-state efficiency (SSE)	82 - 86%	95 - 97%
Supply temperature °F	120° - 140°	95° - 140°

Typical Ranges for Oil Burning Appliances	
Performance Indicator	**Flame Retention**
Carbon monoxide (CO) ppm as-measured	≤ 100
Stack temperature °F	300°- 450°
Oxygen (O_2) %	5 - 9%
Smoke Number	< 1
Oil pressure pounds per square inch (psi)	PMI or 100 - 150
Over-fire draft	-0.02 IWC or 5 Pa
Flue draft	-0.04 to -0.06 IWC or -10 to -15 Pa
Steady State Efficiency (SSE)	≥ 80%

Comments:

Attachment 8 – RFB # 08-1420 HVAC Materials & Labor

Wisconsin Weatherization Field Guide – August 2018 – excerpt on **CONDENSATE REMOVAL**

3.8.2 Condensate Removal

Condensate is routed away from the furnace in one of two ways:

1. Running condensate tubing or piping directly from the furnace to an appropriate drain (Preferred Method); or
2. Pumping the condensate from the furnace to an appropriate drain using an electric **condensate pump**.

Whenever feasible, pipe directly from the furnace to the floor drain, without installing a condensate pump. Mechanically fasten the piping, either to the floor-drain strainer or to the floor itself. Ensure the piping will not pose a tripping hazard to the occupants. Installing a "trip strip," with the customer's approval, may be useful to prevent occupants from tripping over the piping.

Sometimes, a direct-piping strategy will not be feasible. There may not be a drain near the furnace, or perhaps the piping would pose a tripping hazard to the occupants. In these situations, installing a condensate pump is likely a better option. See the next section for information about condensate pumps.

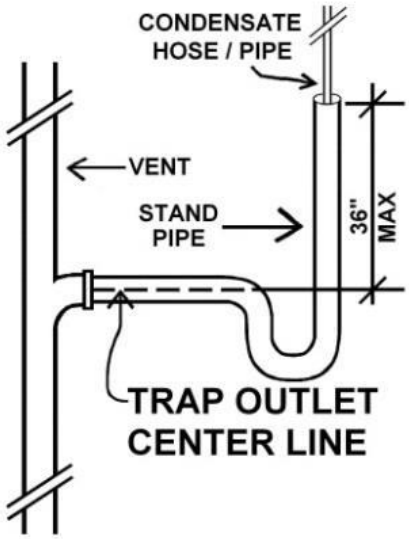
Condensate Pumps

A condensate pump is installed when direct piping to an approved drain is not feasible. Condensate pumps may be installed using existing receptacles, new ground-fault circuit interrupter (GFCI) receptacles, or directly wired in accordance with pump manufacturer's requirements. Inspect the entire condensate system for leaks after installation. Insulate the condensate drain system when it is located in an unconditioned area or has the potential to form condensation. If a condensate pump is installed in a finished area, a secondary drain pan should be installed with a safety feature to disable the heating system if the pump fails. Condensate is a slightly acidic byproduct of combustion. Plumbing code requires it to be drained to the sanitary sewer system, and not to the ground or to a sump pump. Code allows condensate to go to a floor drain, a stand pipe, or an indirect or local waste pipe served by a stand pipe or the laundry tray tail piece. An air gap is required where the condensate line enters the receptor. The condensate line cannot go directly into any drainpipe. See SPS 382.33 for Wisconsin code provisions regarding condensate drains.

Floor drain: The floor drain is the most common method for discharging condensate. Condensate lines that run to the drain must be secured to the floor to keep them in place. This method works best when the drain is not in a typical path of foot traffic.

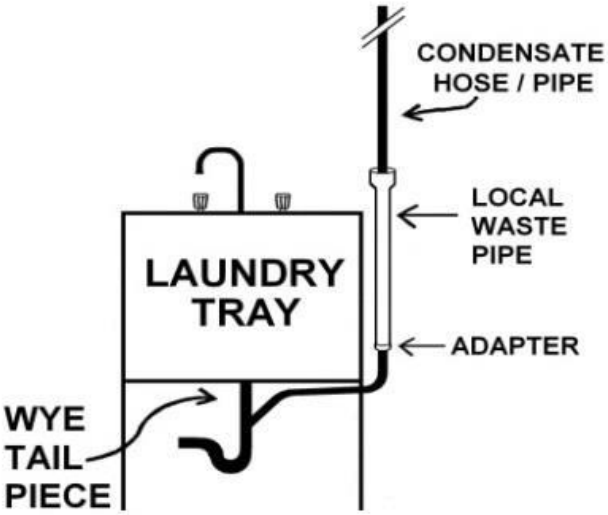
Wisconsin Weatherization Field Guide – August 2018 – excerpt on **CONDENSATE REMOVAL**

Stand pipe: The laundry stand pipe is often the best place to discharge condensate. If the opening is not large enough for the washing machine hose and the condensate line, an adapter can be added to enlarge the top of the pipe. A stand pipe cannot exceed 36 inches in height above the centerline of the horizontal drainpipe. If an existing standpipe is not an option, a new stand pipe, trapped and vented, is acceptable. This option should be the last choice, as the trap can dry out if the heating system does not discharge condensate over an extended time. If a washing machine could be discharged into the stand pipe, extend the standpipe at least 18 inches above the centerline of the horizontal drainpipe.



STAND PIPE

Indirect or local wastepipe: A vertical pipe that uses the trap of a stand pipe or laundry tailpiece is considered an indirect or local wastepipe. It needs to be higher than the flood line of the laundry tray or stand pipe. This method can also be used if the existing standpipe is full of other hoses.



Social Development Commission
Pathways from poverty to success

SDC Home Energy Plus Weatherization & Emergency Furnace Program
Gas Leak Test Protocol

Test for gas leaks by following these steps:

1. Gas leak test must be done prior to the start of any repair or replacement work.

2. Inspect all gas piping, CSST and connectors from the meter to all connected combustion appliances using an electronic gas detector. Include connections to all gas appliances and gas stove valves.

3. If the detector identifies a leak, verify the leak with a non-corrosive bubbling liquid designed for confirming gas leaks.

4. Repair all gas leaks verified with bubbling liquid.

5. Replace kinked or corroded flexible gas connectors, prior authorization required if not on original work order.

6. The first 5 leaks must be repaired at NO COST to the agency, each additional leak is repaired at a fixed rate of $50/ea. Additional leaks requiring repair, identified beyond the first 5 included, must be approved for repair by the Project Manager or Field Supervisor prior to their completion.

7. No verified gas leaks are allowed in the building on the customer side of the gas meter, contractor must repair all gas leaks prior to leaving job. The customer is to be notified of any gas leaks identified on the street of the meter so they are able to contact the gas company for repair.

Note:

Gas leaks located by the Final Inspector or during a Quality Control Inspection must be addressed immediately upon notification.

Building Diagnostics and Combustion Safety Reporting Form

Worst Case Draft, Spillage, and CO Readings

Building ID Number

Agency: **SDC Weatherization**

Electric Range

CAZ wrt Outside Pressure Differentials

Pre-WX Delta P			Was DG-700 Baseline Feature Used?		Post-WX Delta P	
Primary	Secondary				Primary	Secondary
		Baseline Depressurization (Interior doors open, CAZ door closed, exhaust appliances off, record ΔP)				
		Turn on All Exhaust Appliances in the Building Including Power Vented Appliance(Record ΔP)				
		Forced Air Distribution Impact on Delta P **Turn On Furnace Air Handler** (Record ΔP)				
		Position Interior Doors (Smoke door; if smoke drawn into room, open door, if smoke pushed out or neutral, close door. Record ΔP.)				
		Open Door to CAZ (Record Pressure)				
		Worst Case Depressurization Adjusted for Baseline: DG3-subtract baseline; DG700: use the baseline feature to adjust.				

Pre-WX Gas Range CO Testing

	PPM		PPM
Left Rear Burner		Right Rear Burner	
Left Front Burner		Right Front	
Oven		ppm air free	

Post-WX Gas Range CO Testing

Left Rear Burner		Right Rear Burner	
Left Front Burner		Right Front	
Oven		ppm air free	

Draft, Spillage, and CO Measurements

[Under Worst Case Draft conditions. Draft test in flue(s). CO test before appliance draft diverter or barometric damper.]

Outdoor Temp **Pre-WX**

Recreate at WCD (greatest negative ΔP)

	Draft	Spillage	CO PPM	Pass/ Fail
Water Heater Fuel Type: _____				
Required Draft				
Heating System Fuel Type: _____				
Required Draft				
Other Appliance Fuel Type: _____				
Required Draft				

Outdoor Temp **Post-WX**

Recreate at WCD (greatest negative ΔP)

	Draft	Spillage	CO PPM	Pass/ Fail
Water Heater Fuel Type: _____				
Required Draft				
Heating System Fuel Type: _____				
Required Draft				
Other Appliance Fuel Type: _____				
Required Draft				

COMMENTS:

WI Division of Energy Services
Revision July 20, 2011

Social Development Commission – Weatherization & HE+

Asbestos Operations and Maintenance Subcontractor Protocol

If your SDC project has a discovery of (PACM) Possible Asbestos Containing Material, (ACBM) Asbestos Containing Building Materials or Vermiculite the following SDC protocol should be put into place. Remember, Asbestos Operations & Maintenance (O&M) protocols are determined per activity (not per home). Multiple O&M level activities can be performed at one jobsite. Just because a measure involves a step that is repetitive does not mean it automatically exceeds O&M.

1. If the suspect material disturbance is less than a 60" X 60" disposable bag, Operations & Maintenance procedures would apply and may be performed by a certified trained O&M card carrying worker.
2. If the suspect material exceeds the 60" X 60" disposable bag, and can NOT be handled by O&M trained personnel, the following would apply:
   - Notify the appropriate SDC Project Manager (PM) at (414) 906-2700 you **must** receive approval **prior** to having any abatement work performed. Pictures should be taken of the condition(s) in question.
   - Bids on the abatement project need to be completed by a Certified Asbestos Company, the cost and work scope must be approved by the Project Manager.
   - If the PM is unable to respond in a timely manner, notify the SDC HAZMAT Coordinator (Greg DiSalvo) at (414) 906-2844, the coordinator will review the project with the PM or decide the next step, a site visit may take place prior to an abatement determination. Site work will be reviewed by the Project Manager & HAZMAT Coordinator to ensure compliance.
   - Do not eliminate blower door diagnostics **without approval by the PM.** The discovery of suspect material requires diagnostics to be completed using the Pressurization of the home using the Blower Door Tool.
   - When approved abatement projects are completed, **you must include:**
     1. An invoice from the abatement company.
     2. Proof of DHS notification.
     3. A copy of the disposal manifest.
     4. Photo's documenting the process of the project, including **Before, During and After Photos, Containment and PPE**. Abatement invoices **will not** be paid by SDC without PROPER DOCUMENTATION and **prior approval by the Project Manager.**

Questions, concerns! **Call the Project Manager prior to proceeding**.

Standard Terms and Conditions
(Request for Bids / Proposals)

1.0 SPECIFICATIONS: The specifications in this request are the minimum acceptable. When specific manufacturer and model numbers are used, they are to establish a design, type of construction, quality, functional capability and/or performance level desired. When alternates are bid/proposed, they must be identified by manufacturer, stock number, and such other information necessary to establish equivalency. The State of Wisconsin shall be the sole judge of equivalency. Bidders/proposers are cautioned to avoid bidding alternates to the specifications which may result in rejection of their bid/proposal.

2.0 DEVIATIONS AND EXCEPTIONS: Deviations and exceptions from original text, terms, conditions, or specifications shall be described fully, on the bidder's/proposer's letterhead, signed, and attached to the request. In the absence of such statement, the bid/proposal shall be accepted as in strict compliance with all terms, conditions, and specifications and the bidders/proposers shall be held liable.

3.0 QUALITY: Unless otherwise indicated in the request, all material shall be first quality. Items which are used, demonstrators, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the State of Wisconsin.

4.0 QUANTITIES: The quantities shown on this request are based on estimated needs. The state reserves the right to increase or decrease quantities to meet actual needs.

5.0 DELIVERY: Deliveries shall be F.O.B. destination freight prepaid and included unless otherwise specified.

6.0 PRICING AND DISCOUNT: The State of Wisconsin qualifies for governmental discounts and its educational institutions also qualify for educational discounts. Unit prices shall reflect these discounts.

6.1 Unit prices shown on the bid/proposal or contract shall be the price per unit of sale (e.g., gal., cs., doz., ea.) as stated on the request or contract. For any given item, the quantity multiplied by the unit price shall establish the extended price, the unit price shall govern in the bid/proposal evaluation and contract administration.

6.2 Prices established in continuing agreements and term contracts may be lowered due to general market conditions, but prices shall not be subject to increase for ninety (90) calendar days from the date of award. Any increase proposed shall be submitted to the contracting agency thirty (30) calendar days before the proposed effective date of the price increase and shall be limited to fully documented cost increases to the contractor which are demonstrated to be industrywide. The conditions under which price increases may be granted shall be expressed in bid/proposal documents and contracts or agreements.

6.3 In determination of award, discounts for early payment will only be considered when all other conditions are equal and when payment terms allow at least fifteen (15) days, providing the discount terms are deemed favorable. All payment terms must allow the option of net thirty (30).

7.0 UNFAIR SALES ACT: Prices quoted to the State of Wisconsin are not governed by the Unfair Sales Act.

8.0 ACCEPTANCE-REJECTION: The State of Wisconsin reserves the right to accept or reject any or all bids/proposals, to waive any technicality in any bid/proposal submitted, and to accept any part of a bid/proposal as deemed to be in the best interests of the State of Wisconsin.

Bids/proposals MUST be date and time stamped by the soliciting purchasing office on or before the date and time that the bid/proposal is due. Bids/proposals date and time stamped in another office will be rejected. Receipt of a bid/proposal by the mail system does not constitute receipt of a bid/proposal by the purchasing office.

9.0 METHOD OF AWARD: Award shall be made to the lowest responsible, responsive bidder unless otherwise specified.

10.0 ORDERING: Purchase orders or releases via purchasing cards shall be placed directly to the contractor by an authorized agency. No other purchase orders are authorized.

11.0 PAYMENT TERMS AND INVOICING: The State of Wisconsin normally will pay properly submitted vendor invoices within thirty (30) days of receipt providing goods and/or services have been delivered, installed (if required), and accepted as specified.

Invoices presented for payment must be submitted in accordance with instructions contained on the purchase order including reference to purchase order number and submittal to the correct address for processing.

A good faith dispute creates an exception to prompt payment.

12.0 TAXES: The State of Wisconsin and its agencies are exempt from payment of all federal tax and Wisconsin state and local taxes on its purchases except Wisconsin excise taxes as described below.

The State of Wisconsin, including all its agencies, is required to pay the Wisconsin excise or occupation tax on its purchase of beer, liquor, wine, cigarettes, tobacco products, motor vehicle fuel and general aviation fuel. However, it is exempt from payment of Wisconsin sales or use tax on its purchases. The State of Wisconsin may be subject to other states' taxes on its purchases in that state depending on the laws of that state. Contractors performing construction activities are required to pay state use tax on the cost of materials.

13.0 GUARANTEED DELIVERY: Failure of the contractor to adhere to delivery schedules as specified or to promptly replace rejected materials shall render the contractor liable for all costs in excess of the contract price when alternate procurement is necessary. Excess costs shall include the administrative costs.

14.0 ENTIRE AGREEMENT: These Standard Terms and Conditions shall apply to any contract or order awarded as a result of this request except where special requirements are stated elsewhere in the request; in such cases, the special requirements shall apply. Further, the written contract and/or order with referenced parts and attachments shall constitute

the entire agreement and no other terms and conditions in any document, acceptance, or acknowledgment shall be effective or binding unless expressly agreed to in writing by the contracting authority.

15.0 APPLICABLE LAW AND COMPLIANCE: This contract shall be governed under the laws of the State of Wisconsin. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this contract and which in any manner affect the work or its conduct. The State of Wisconsin reserves the right to cancel this contract if the contractor fails to follow the requirements of s. 77.66, Wis. Stats., and related statutes regarding certification for collection of sales and use tax. The State of Wisconsin also reserves the right to cancel this contract with any federally debarred contractor or a contractor that is presently identified on the list of parties excluded from federal procurement and non-procurement contracts.

16.0 ANTITRUST ASSIGNMENT: The contractor and the State of Wisconsin recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the State of Wisconsin (purchaser). Therefore, the contractor hereby assigns to the State of Wisconsin any and all claims for such overcharges as to goods, materials or services purchased in connection with this contract.

17.0 ASSIGNMENT: No right or duty in whole or in part of the contractor under this contract may be assigned or delegated without the prior written consent of the State of Wisconsin.

18.0 WORK CENTER CRITERIA: A work center must be certified under s. 16.752, Wis. Stats., and must ensure that when engaged in the production of materials, supplies or equipment or the performance of contractual services, not less than seventy-five percent (75%) of the total hours of direct labor are performed by severely handicapped individuals.

19.0 NONDISCRIMINATION / AFFIRMATIVE ACTION: In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s. 51.01(5), Wis. Stats., sexual orientation as defined in s. 111.32(13m), Wis. Stats., or national origin. This provision 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. Except with respect to sexual orientation, the contractor further agrees to take affirmative action to ensure equal employment opportunities.

19.1 Contracts estimated to be over fifty thousand dollars ($50,000) require the submission of a written affirmative action plan by the contractor. An exemption occurs from this requirement if the contractor has a workforce of less than fifty (50) employees. Within fifteen (15) working days after the contract is awarded, the contractor must submit the plan to the contracting state agency for approval. Instructions on preparing the plan and technical assistance regarding this clause are available from the contracting state agency.

19.2 The contractor agrees to post in conspicuous places, available for employees and applicants for employment, a notice to be provided by the contracting state agency that sets forth the provisions of the State of Wisconsin's nondiscrimination law.

19.3 Failure to comply with the conditions of this clause may result in the contractor's becoming declared an "ineligible" contractor, termination of the contract, or withholding of payment.

19.4 Pursuant to s. 16.75(10p), Wis. Stats., contractor agrees it is not, and will not for the duration of the contract, engage in a prohibited boycott of the State of Israel as defined in s. 20.931(1)(b). State agencies and authorities may not execute a contract and reserve the right to terminate an existing contract with a company that is not compliant with this provision. This provision applies to contracts valued $100,000 or over.

19.5 Pursuant to 2019 Wisconsin Executive Order 1, contractor agrees it will hire only on the basis of merit and will not discriminate against any persons performing a contract, subcontract or grant because of military or veteran status, gender identity or expression, marital or familial status, genetic information or political affiliation.

20.0 PATENT INFRINGEMENT: The contractor selling to the State of Wisconsin the articles described herein guarantees the articles were manufactured or produced in accordance with applicable federal labor laws. Further, that the sale or use of the articles described herein will not infringe any United States patent. The contractor covenants that it will at its own expense defend every suit which shall be brought against the State of Wisconsin (provided that such contractor is promptly notified of such suit, and all papers therein are delivered to it) for any alleged infringement of any patent by reason of the sale or use of such articles, and agrees that it will pay all costs, damages, and profits recoverable in any such suit.

21.0 SAFETY REQUIREMENTS: All materials, equipment, and supplies provided to the State of Wisconsin must comply fully with all safety requirements as set forth by the Wisconsin Administrative Code and all applicable OSHA Standards.

22.0 WARRANTY: Unless otherwise specifically stated by the bidder/proposer, equipment purchased as a result of this request shall be warranted against defects by the bidder/proposer for one (1) year from date of receipt. The equipment manufacturer's standard warranty shall apply as a minimum and must be honored by the contractor.

23.0 INSURANCE RESPONSIBILITY: The contractor performing services for the State of Wisconsin shall:

23.1 Maintain worker's compensation insurance as required by Wisconsin Statutes, for all employees engaged in the work.

23.2 Maintain commercial liability, bodily injury and property damage insurance against any claim(s) which might occur in carrying out this agreement/contract. Minimum coverage shall be one million dollars ($1,000,000) liability for bodily injury and property damage including products liability and completed operations. Provide motor vehicle insurance for all owned, non-owned and hired vehicles that are used in carrying out this contract. Minimum coverage shall be one million dollars ($1,000,000) per occurrence

combined single limit for automobile liability and property damage.

23.3 The state reserves the right to require higher or lower limits where warranted.

24.0 CANCELLATION: The State of Wisconsin reserves the right to cancel any contract in whole or in part without penalty due to nonappropriation of funds or for failure of the contractor to comply with terms, conditions, and specifications of this contract.

25.0 VENDOR TAX DELINQUENCY: Vendors who have a delinquent Wisconsin tax liability may have their payments offset by the State of Wisconsin.

26.0 PUBLIC RECORDS ACCESS: It is the intention of the state to maintain an open and public process in the solicitation, submission, review, and approval of procurement activities. Bid/proposal openings are public unless otherwise specified. Records may not be available for public inspection prior to issuance of the notice of intent to award or the award of the contract. Pursuant to §19.36 (3), Wis. Stats., all records of the contractor that are produced or collected under this contract are subject to disclosure pursuant to a public records request. Upon receipt of notice from the State of Wisconsin of a public records request for records produced or collected under this contract, the contractor shall provide the requested records to the contracting agency. The contractor, following final payment, shall retain all records produced or collected under this contract for six (6) years.

27.0 PROPRIETARY INFORMATION: Any restrictions on the use of data contained within a request, must be clearly stated in the bid/proposal itself. Proprietary information submitted in response to a request will be handled in accordance with applicable State of Wisconsin procurement regulations and the Wisconsin public records law. Proprietary restrictions normally are not accepted. However, when accepted, it is the vendor's responsibility to defend the determination in the event of an appeal or litigation.

27.1 Data contained in a bid/proposal, all documentation provided therein, and innovations developed as a result of the contracted commodities or services cannot be copyrighted or patented. All data, documentation, and innovations become the property of the State of Wisconsin.

27.2 Any material submitted by the vendor in response to this request that the vendor considers confidential and proprietary information, and which qualifies as a trade secret, as provided in s. 19.36(5), Wis. Stats., or material which can be kept confidential under the Wisconsin public records law, must be identified on a Designation of Confidential and Proprietary Information form (DOA-3027). Bidders/proposers may request the form if it is not part of the Request for Bid/Request for Proposal package. Bid/proposal prices cannot be held confidential.

28.0 DISCLOSURE: If a state public official (s. 19.42, Wis. Stats.), a member of a state public official's immediate family, or any organization in which a state public official or a member of the official's immediate family owns or controls a ten percent (10%) interest, is a party to this agreement, and if this agreement involves payment of more than three thousand dollars ($3,000) within a twelve (12) month period, this contract is voidable by the state unless appropriate disclosure is made according to s. 19.45(6), Wis. Stats., before signing the contract. Disclosure must be made to the State of Wisconsin Ethics Board, 44 East Mifflin Street, Suite 601, Madison, Wisconsin 53703 (Telephone 608-266-8123).

State classified and former employees and certain University of Wisconsin faculty/staff are subject to separate disclosure requirements, s. 16.417, Wis. Stats.

29.0 RECYCLED MATERIALS: The State of Wisconsin is required to purchase products incorporating recycled materials whenever technically and economically feasible. Bidders are encouraged to bid products with recycled content which meet specifications.

30.0 MATERIAL SAFETY DATA SHEET: If any item(s) on an order(s) resulting from this award(s) is a hazardous chemical, as defined under 29CFR 1910.1200, provide one (1) copy of a Material Safety Data Sheet for each item with the shipped container(s) and one (1) copy with the invoice(s).

31.0 PROMOTIONAL ADVERTISING / NEWS RELEASES: Reference to or use of the State of Wisconsin, any of its departments, agencies or other subunits, or any state official or employee for commercial promotion is prohibited. News releases pertaining to this procurement shall not be made without prior approval of the State of Wisconsin. Release of broadcast e-mails pertaining to this procurement shall not be made without prior written authorization of the contracting agency.

32.0 HOLD HARMLESS: The contractor will indemnify and save harmless the State of Wisconsin and all of its officers, agents and employees from all suits, actions, or claims of any character brought for or on account of any injuries or damages received by any persons or property resulting from the operations of the contractor, or of any of its contractors, in prosecuting work under this agreement.

33.0 FOREIGN CORPORATION: A foreign corporation (any corporation other than a Wisconsin corporation) which becomes a party to this Agreement is required to conform to all the requirements of Chapter 180, Wis. Stats., relating to a foreign corporation and must possess a certificate of authority from the Wisconsin Department of Financial Institutions, unless the corporation is transacting business in interstate commerce or is otherwise exempt from the requirement of obtaining a certificate of authority. Any foreign corporation which desires to apply for a certificate of authority should contact the Department of Financial Institutions, Division of Corporation, P. O. Box 7846, Madison, WI 53707-7846; telephone (608) 261-7577.

34.0 WORK CENTER PROGRAM: The successful bidder/proposer shall agree to implement processes that allow the State agencies, including the University of Wisconsin System, to satisfy the State's obligation to purchase goods and services produced by work centers certified under the State Use Law, s.16.752, Wis. Stat. This shall result in requiring the successful bidder/proposer to include products provided by work centers in its catalog for State agencies and campuses or to block the sale of comparable items to State agencies and campuses.

35.0 FORCE MAJEURE: Neither party shall be in default by reason of any failure in performance of this Agreement in accordance with reasonable control and without fault or negligence on their part. Such causes may include, but are not restricted to, acts of nature or the public enemy, acts of the government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions,

strikes, freight embargoes and unusually severe weather, but in every case the failure to perform such must be beyond the reasonable control and without the fault or negligence of the party.

Lead Safe Work Form

Agency: _____ WisWAP BID: _____

Address: _____

PART A or B (or both) must be completed for every unit weatherized. If PART B is completed, one or more Renovation Recordkeeping Checklists must accompany this form in the customer file. Changes to planned work may require completion of a new form; in such cases, retain both completed forms in the customer file.

Any work disturbing painted surfaces will be performed using Lead Safe Work practices. Include photos of safe work practices and containment (if applicable) at each paint disturbance area in the customer file.

PART A

☐	There will be no disturbance of any painted surface during weatherization work.
☐	This property was built in 1978 or later and is not subject to Lead Safe Work requirements.
☐	The following painted surfaces/components that will be disturbed have been tested by a Certified Renovator and results were negative for lead (*owner permission obtained*).
☐	The following work will disturb no more than 6 ft^2 of interior painted surfaces per room, or 20 ft^2 of exterior painted surfaces, and will not involve window or door replacement or any demolition work.
Brief work or tested surfaces description:	

PART B

The following planned work requires an assigned Certified Lead Safe Renovator to complete a Renovation Recordkeeping Checklist and to ensure lead safe renovation practices are followed:

Brief Work Description	Agency/Contractor Name	Checklist Received
		☐
		☐
		☐

Form Completed By (Print): _____

(Energy Auditor Part A / Final Inspector Part A-B)

Signature: _____ Date: _____

WisWAP BID#_____

Wisconsin Weatherization Assistance Program
RENOVATION RECORDKEEPING CHECKLIST

Name of Company/Agency: _____ Date(s) of Renovation: _____

Address of Renovation: _____

Brief Description of Renovation: _____
_____
_____

Name of Assigned Certified Lead Safe Renovator: _____

Name(s) of Trained Lead Safe Workers used:

_____

☐ Steps taken to notify occupants of planned work when required: Written notice ☐ or Sign(s) posted ☐
☐ Certified renovator provided training to workers on (check all that apply):
- ☐ Posting warning signs ☐ Setting up plastic containment barriers
- ☐ Maintaining containment ☐ Avoiding spread of dust to adjacent areas
- ☐ Waste handling ☐ Post-renovation cleaning

☐ Warning signs posted at entrance to work area.
☐ Work area contained to prevent spread of dust and debris:
- ☐ All objects in the work area removed or covered (interiors)
- ☐ HVAC ducts in the work area closed and covered (interiors)
- ☐ Windows in the work area closed (interiors)
- ☐ Windows in and within 20 feet of the work area closed (exteriors)
- ☐ Doors in the work area closed and sealed (interiors)
- ☐ Doors in and within 20 feet of the work area closed and sealed (exteriors)
- ☐ Doors that must be used in the work area covered to allow passage but prevent spread of dust
- ☐ Floors in the work area covered with taped-down plastic (interiors)
- ☐ Ground covered by plastic extending 10 feet from work area—plastic anchored to building and weighted down by heavy objects (exteriors)
- ☐ If necessary, vertical containment installed to prevent migration of dust and debris to adjacent property (exteriors)

☐ Waste contained on-site and while being transported off-site
☐ Work site properly cleaned after renovation
- ☐ All chips and debris picked up, protective sheeting misted, folded dirty side inward, and taped for removal
- ☐ Work area surfaces and objects cleaned using HEPA vacuum and/or wet cloths or mops (interiors)

☐ Certified Renovator performed post-renovation cleaning verification (describe results, including the number of wet and dry cloths used):
_____
_____

☐ I certify under penalty of law that the above information is true and complete.

_____ _____
Signature of Assigned Certified Lead Safe Renovator Date

Hazardous Material Photograph Checklist
Social Development Commission
Weatherization Program

The following photographs are required when any painted surfaces are disturbed if a building constructed prior to 1978 and/or jobs in which a disturbance may occur with Presumed Asbestos Containing Material or Vermiculite. Return this checklist and photographs along with the invoice for each job.

SDC Job #:_____ Date:_____

Customer Name:_____

Customer Address:_____

Check Appropriate Box/es:

Lead ☐ Asbestos (PACM) ☐

Initial the following boxes showing photographs have been taken & submitted:

- Hazardous Sign Posting (lead & asbestos) ☐
- Complete Containment Setup ☐
- Personal Protective Equipment ☐
- HEPA Vac ☐
- Hazardous cleanup ☐

Printed Name of Certified Personel: _____

Signature of Certified Personel: _____

1730 West North Avenue, Milwaukee, WI 53205 • Phone: 414.906.2700 • Fax: 414.906.2719 • cr-sdc.org

Social Development Commission
Pathways from poverty to success

home energy+

Payment Bond Policy

Effective as stated in the PY2019 – 2020 Weatherization Program Manual (June 2019); 6.15 Bonding - A payment bond is required for every weatherization and HE+ Furnace program services contract exceeding $149,999 annually and where wholesaler or subcontractor partnerships are utilized to deliver services. Agencies, at their discretion, may require payment bonds for weatherization and HE+ Furnace Program services contracts up to $149,999. Program funds may be used to reimburse a contractor for payment bond premium costs as described below. If the Agency chooses not to require a bond for contracts up to $149,999, the Agency shall complete weatherization contract Attachment I prior to entering into an agreement with the contractor.

The anticipated amount of the contract shall be based upon the historical spending of the Agency, adjusted for any conditions in the best judgment of the Agency. At the close of each annual contract term or in the event of a contract termination, any refund of the bond premium that was reimbursed by the Agency shall be returned to the Agency.

The Agency reserves the right to request a payment bond from any company if it is the best interest of the Agency. The decision to require a payment bond by a company not meeting the $150,000 requirement, will be reviewed on an individual basis by the Agencies Weatherization Program management team once the notification of intent to award has been announced to bidders.

Within 30 business days of the contract award or renewal, the contractor shall provide the following to the Agency:

- Proof of payment bond
- A written list of subcontractors and suppliers (if any), providing materials and/or labor for weatherization services

The list shall include the company name, address, contact information, and a description of the materials and/or services that will be provided.

For the remainder of the contract term, the Contractor shall notify the Agency in writing of any changes to the list of subcontractors and suppliers providing materials and/or labor for weatherization services within ten (10) business days of the effective date.

The contractor must provide payment bond to the Agency before any work can be issued. The Agency will then provide a signed receipt. Contractors will be reimbursed within 30 days from the date of the receipt.