



# ROANOKE COUNTY

## FINANCE & MANAGEMENT SERVICES DEPARTMENT PURCHASING DIVISION

### INVITATION FOR BID

**IFB # 2022-015**  
**Brambleton Recreation Center Boiler Replacement**

**OPENING DATE: August 31, 2021**  
**OPENING TIME: 2:00 P.M.**

The Invitation to Bid and related documents may be obtained during normal business hours from the Purchasing Division, at the Roanoke County Administration Building, 5204 Bernard Drive, Suite 300F, Roanoke, VA 24018. This document may be viewed and/or downloaded from the County of Roanoke Purchasing Division's website at <https://www.roanokecountyva.gov/bids.aspx>. If you have any problems accessing the documents, you may contact Purchasing at (540) 772-2061.

**THIS PUBLIC BODY DOES NOT DISCRIMINATE  
AGAINST FAITH-BASED ORGANIZATIONS**

**DATE of IFB: August 18, 2021**

## INVITATION FOR BID (IFB)

IFB No. 2022-015

Issue Date: August 18, 2021

Title: Brambleton Recreation Center Boiler Replacement

Issued By: **County of Roanoke**  
**Roanoke County Administration Building**  
**Purchasing Division**  
**5204 Bernard Drive, SW, Suite 300-F**  
**Roanoke, VA 24018-0798**  
**Phone (540) 772-2061**  
**Email: KHoyt@roanokecountyva.gov**

Sealed Bids will be received on or before 2:00 P.M., August 31, 2021 for furnishing the services and/or items described herein. The time of receipt shall be determined by the time clock stamp in the Purchasing office.

All questions must be submitted before 5:00 p.m., **August 25, 2021**. If necessary, an addendum will be issued and posted to the County website on the Current Bids/RFP Requests tab at <https://www.roanokecountyva.gov/bids.aspx>.

**Site visits may be scheduled as needed, on the following dates: August 24-25, 1:00-4:00 PM.**  
Bidders interested in site visits must contact Kate Hoyt ([KHoyt@roanokecountyva.gov](mailto:KHoyt@roanokecountyva.gov)) no later than August 20, 2021 at 4:00 PM in order to request a visit during the above-mentioned time frame.

If proposals are hand delivered or mailed, send directly to the Purchasing Division at the address listed above. If the Roanoke County Administration Building is closed for business at the time scheduled for the proposal opening, the sealed proposal will be accepted and opened on the next business day of the County, at the originally scheduled hour.

THIS PUBLIC BODY DOES NOT DISCRIMINATE AGAINST FAITH-BASED ORGANIZATIONS.

The County reserves the right to cancel this IFB and/or reject any or all proposals and to waive any informalities in any proposal.

This section is to be completed by the Offeror and this page must be returned with the bid. In compliance with this Invitation For Bid and subject to all terms and conditions imposed herein, which are hereby incorporated herein by reference, the undersigned offers and agrees to furnish the services and/or items requested in this solicitation if the undersigned is selected as the successful Bidder. No Bid may be withdrawn within a period of sixty (60) days after Bid opening except for clerical errors, as set forth in part (1) of Section 2.2-4330(B), Virginia Code, 1950, as amended. Notices of bid withdrawal must be submitted in writing to the Purchasing Division.

My signature certifies that the bid as submitted complies with all requirements specified in this Invitation for Bid ("IFB"). If this Bid is accepted by the County, to provide the services and/or items in accordance with this Invitation for Bid and to execute a Contract/Purchase Order substantially similar to the attached Contract/Purchase Order Terms and Conditions for such services and/or items. My signature also certifies that by submitting a bid in response to this IFB, the Bidder represents that in the preparation and submission of this bid, the Bidder did not, either directly or indirectly, enter into any combination or arrangement with any person or business entity, or enter into any agreement, participate in any collusion, or otherwise take any action in the restraining of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1) or Sections 59.1-9.1 through 59.1-9.17 or Sections 59.1-68.6 through 59.1-68.8 of the Code of Virginia.

I hereby certify that I am authorized to sign as a legal representative for the business entity submitting this bid.

**Legal Name and Address of Firm:**

Date: \_\_\_\_\_

By: \_\_\_\_\_

(Signature in Ink)

Name: \_\_\_\_\_ (Please Print)

(Please Print)

Zip: \_\_\_\_\_ Title: \_\_\_\_\_

(Please Print)

Phone: \_\_\_\_\_ FAX: \_\_\_\_\_

Email: \_\_\_\_\_ Business License# \_\_\_\_\_

Virginia State Corporation Commission Identification Number: \_\_\_\_\_

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**Brambleton Recreation Center Boiler Replacement**

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**COUNTY OF ROANOKE, VIRGINIA  
INVITATION FOR BID NO. 2022-015  
Brambleton Recreation Center Boiler Replacement**

**SECTION 1. PURPOSE**

The purpose of this Invitation for Bid (IFB) is the procurement of qualified contractors for the removal and replacement of the building's boilers, and clean up of the zone pump area, per the project plans provided as Attachment E to this IFB.

The County of Roanoke invites any qualified Bidder to respond to this IFB by submitting a Bid for such work, service, and/or items consistent with the terms and conditions herein set forth.

**SECTION 2. BACKGROUND**

**NOT USED**

**SECTION 3. SERVICES AND/OR ITEMS REQUIRED**

**A description and/or listing of the services and/or items that the Successful Bidder will be required to provide to the County under this IFB are those that are set forth below and/or referred to in any way in the sample contract, any terms and conditions, and/or any attachments referred to in this IFB. Each Bidder should carefully read and review all such documents.**

**The following are the services and/or items that the Successful Bidder shall provide to the County of Roanoke:**

- A. Plans prepared by MDR Engineering dated 8/18/21 are to be utilized for all specifications and requirements (**Attachment E to this IFB**).
- B. Remove the existing six sectional boilers and prepare for new boilers.
- C. Provide and install two new 85% efficient non-condensing boilers with an output of 850 MBH each.
- D. Rework gas piping as required to suit the new boilers.
- E. Connect the new boiler vents to the existing flue.
- F. Provide and install a new variable speed circulating pump for each new boiler.
- G. Rework existing heating water piping as required to suit connection to the new boilers.
- H. Rework existing electrical connections as required to suit new boilers.
- I. Provide and install boiler controls that include cascade sequencing and BAS integration. Controls to be integrated with the existing Johnson Controls building management system.
- J. Clean up zone pump area. Work to include replacement of all gate valves with ball valves for five zone pumps, taping and doping of threaded fittings at the air separator and pumps, and cleaning up of the electrical conduit and pipe surfaces.
- K. Repair all existing pipe insulation to match existing.
- L. Plans have been submitted to the Roanoke County Department of Building Safety and are expected to be approved prior to bid day.
- M. Contractor is responsible for all permits required by state and local jurisdictions.

- N. A Bid Bond of five percent (5%) of the total amount of the Bid is required.
- O. A Performance Bond in the amount of the contract amount is required.
- P. A Payment Bond in the amount of the contract amount is required.
- Q. Work to be completed on or before October 15, 2021.

It is not the intent of the specifications to be proprietary, nor to exclude any manufacturer or dealer. Deviations will be given consideration if they are considered suitable and acceptable for comparison. Any deviations must be submitted in writing by August 25, 2021. An Addendum will be issued identifying the deviation as accepted or rejected. It is the responsibility of the Bidder to prove a deviation equal to the product/service specified.

#### **SECTION 4. REQUIRED QUALIFICATIONS FOR BIDDERS /OR NOT USED**

##### **NOT USED**

#### **SECTION 5. TERM OF CONTRACT OR TIME OF PERFORMANCE OR NOT USED**

- A. The Successful Bidder shall start the performance of any resultant Contract as fixed by a notice to proceed given by the County to the Successful Bidder and fully and completely perform the Contract on or before October 15, 2021, all in accordance with the Contract provisions.

It is expected that the Contractor will expedite the project so that the Work is performed in the shortest time possible. The Contractor shall submit a construction schedule to Roanoke County. The schedule shall describe the work areas and associated work dates.

- B. All terms and conditions shall remain in force for the term of the Contract and for any renewal period unless modified by mutual agreement of both parties. Prices shall not be increased during the initial term of the Contract. Prices for any renewal periods will be subject to the mutual agreement of both parties.

#### **SECTION 6. PAYMENT FOR SERVICES**

Payment(s) to the Successful Bidder shall be made in accordance with the provisions of the resultant Contract, subject to final approval by the County.

#### **SECTION 7. GENERAL INSTRUCTIONS TO BIDDERS**

- A. Bids, to be considered, must be received by the County of Roanoke Purchasing Division, at the Roanoke County Administration Building, 5204 Bernard Drive, Suite 300F, Roanoke, VA 24018, at or before 2:00 p.m., local time, on August 31, 2021, at which time all Bids received will be publicly opened and read. **Bids received after 2:00 p.m. will NOT be accepted or considered.** The time of receipt shall be determined by the time clock stamp in the Purchasing Office, or if it is not working, such time shall be determined by the Purchasing official who is to open the bids.

Each Bid, one (1) **original, marked as such** and two (2) **copies, marked as such**, must be appropriately signed by an authorized representative of the Offeror, and must be submitted in a **SEALED** envelope or package. A removable media storage device containing two (2) digital copies of the proposal, one as submitted, and one **redacted to remove all confidential and proprietary material**, must be included in the proposal packet. The notation “**Brambleton Recreation Center Boiler Replacement**”, IFB No. **2022-015**, and the specified opening time and date must be clearly marked on the front of that sealed envelope or package.

**FAXED OR E-MAILED BIDS ARE NOT ACCEPTABLE.**

The Invitation for Bid and related documents may be obtained during normal business hours from the Purchasing Division, at the Roanoke County Administration Building, 5204 Bernard Drive, Suite 300F, Roanoke, VA 24018. This document may be viewed and/or downloaded from the County of Roanoke Purchasing Division's website at <https://www.roanokecountyva.gov/bids.aspx>.

If you have any problems accessing the documents, you may contact Purchasing at (540) 772-2061.

If proposals are hand delivered or mailed, send directly to the Purchasing Division at the address listed above. If the Roanoke County Administration Building is closed for business at the time scheduled for the Bid opening, the sealed bid will be accepted and opened on the next business day of the County, at the originally scheduled hour.

All questions must be submitted before 5:00 P.M. on August 25, 2021. If necessary, an addendum will be issued and posted to the County website on the Current Bids/RFP Requests tab at <https://www.roanokecountyva.gov/bids.aspx>.

**SITE VISITS**

Site visits may be scheduled as needed, on the following dates: **August 24-25, 1:00-4:00 PM.** *Bidders interested in site visits must contact Kate Hoyt ([KHoyt@roanokecountyva.gov](mailto:KHoyt@roanokecountyva.gov)) no later than August 20, 2021 at 4:00 PM in order to request a visit during the above-mentioned time frames.* Site visits are not mandatory for participation in this solicitation.

C. If you download this IFB from the County website and intend to submit a proposal, you should notify Purchasing that you have done so. However, each Bidder is solely responsible for ensuring that such Bidder has the current, complete version of the IFB documents, including any addenda, before submitting a bid. Receipt by the bidder of such addendum should be acknowledged on the Bid Form and/or addendum. The County Purchasing Division or its designee will issue Addenda that will be posted to the County website on the Current Bid Opportunities tab at <https://www.roanokecountyva.gov/bids.aspx>.

**IMPORTANT NOTICE - ADDENDUMS AND NOTICES OF AWARD**

Vendors may visit <http://roanokecountyva.gov/list.aspx> to sign up to receive emails or text message notices about bids, proposals, addendums, bid tabulation and awards. Vendors can sign up to receive notification in selected commodity/service categories. It is the vendor's responsibility to keep information current in the system in order to

receive the notifications. The sign up only requires an email address and/or a cell phone number for receiving text messages (if your phone is capable) and your choice of categories.

Although '**Notify Me**' will be the only way to receive automatic notification, all BIDS/RFP Information will continue to be posted on our website, and can be picked up at the Purchasing Division, 5204 Bernard Drive, Suite 300F, Roanoke, VA 24018. Phone # (540) 772-2061.

The County is not responsible for any IFB obtained from any source other than the County. Contact Kate Hoyt, by phone at 540-283-8149, or by email at [KHoyt@roanokecountyva.gov](mailto:KHoyt@roanokecountyva.gov).

- E. Payment terms and delivery date(s) must be shown on the submitted Bid, if applicable.
- F. All Bids are to be submitted in accordance with all terms, conditions, rules, regulations, requirements and specifications identified in and by this IFB.
- G. Bids are to be on the Form if provided, OR as otherwise specified in this IFB. If a Bid Form is provided, no changes are to be made to the Bid Form. Any changes to Bid amounts must be initialed.
- H. All Bids shall be signed by a person on behalf of the responding Bidder who is appropriately authorized to do so. The printed name of that authorized person should be shown as well. Any Bid submitted should be in the complete legal name of the Bidder responding. No Bid will be considered from any Bidder not properly licensed as may be required by law.
- I. Except in cases of emergency, all bids for construction contracts shall be accompanied by a bid bond from a surety company selected by the bidder, which is legally authorized to do business in Virginia.
  - (1) A bid, payment or performance bond for contracts for goods or services other than construction may be required if provided in the Invitation for Bid.
  - (2) The amount of the bid bond shall not exceed five percent (5%) of the total amount of the bid.
  - (3) In lieu of a bid bond, a bidder may furnish a certified check or cash escrow in the face amount required for the bond.
  - (4) Upon award of any public construction contract exceeding \$100,000 awarded to any prime contractor, such contractor shall furnish:
    - i. Performance bond in the sum of the contract amount.
    - ii. Payment bond in the sum of the contract amount.
  - (5) Performance and/or payment bonds may be required for construction contracts below \$100,000 at the discretion of the County.
  - (6) In cases of emergency performance bonds/payment bonds are required within ten (10) calendar days of notice to proceed or project commencement.
- J. Bids that have been appropriately opened cannot be changed, adjusted, corrected or modified in any way other than complete withdrawal. The County's procedures for withdrawal of bids (whether construction or other than construction) is that set forth in Code of Virginia, §2.2-4330(A)&(B)(1), which allows withdrawal of a Bid due to an error

such as an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a Bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the Bid. Withdrawal must be requested within two days of the Bid opening by delivering to the County original work papers, documents, and materials used in preparation of the Bid.

- K. All Bids, appropriately received, will be evaluated by considering the requirements set forth in the IFB, the quality, workmanship, economy of operation, suitability for intended purpose, delivery, payment terms and price of product or service being requested in this Bid.
- L. Bids are to be submitted on the type, brand, make, and/or kind of product and/or service requested or its approved equal, to be solely determined by the County, unless otherwise specified. Should a Bid be for a product and/or service as an equal, the name, make, model and type of that which is being Bid must be clearly stated. The Bid must also be accompanied by descriptive literature of the product or service Bid to allow for evaluation. Failure to provide this information may result in the Bid being considered non-responsive and may not be considered.

It is not the intent of the specifications to be proprietary, nor to exclude any manufacturer or dealer. Deviations will be given consideration if they are considered to be suitable and acceptable for comparison. Any deviations must be submitted, in writing, with your bid. Deviations discovered after bid award or material receipt, not stated in your bid, shall be grounds for disqualification and nullification of order. It is the responsibility of the Offeror to prove that the deviation is equal to the product/service specified. The County of Roanoke will make the final determination as to whether the product is equivalent.

- M. If an award is made for the item(s) and/or services requested, a notice of award will be made which will be posted for public review on the County of Roanoke Purchasing Division's website under Current Bid Opportunities at <https://www.roanokecountyva.gov/bids.aspx> or you may contact Purchasing directly at (540) 772-2061 to request a copy of the award notification.

Upon completion of the Contract, payment will be made only to the Successful Bidder at the address as shown on the Contract. If the remittance address is other than the address on the Bid, it must be clearly noted and explained in the Bid. Contract will be paid only when the items and/or services have been supplied to and approved by the County.

- N. All items, identified in this IFB, are to be quoted and provided F.O.B. DESTINATION-INSIDE DELIVERY, unless otherwise stated in this IFB. All furniture items, if any, are to be put together and set in place.
- O. The County reserves the right to cancel this IFB or reject any or all Bids, to waive any informalities in any Bid and to purchase any whole or part of the items and/ or services listed in the IFB.

M. Each Bidder is to notify in writing the Purchasing Division if any of Bidder's owners, officers, employees, or agents, or their immediate family members, is currently or has been in the past year, an employee of the County of Roanoke or has any responsibility or authority with the County that might affect the procurement transaction or any claim resulting therefrom. If so, please provide the Purchasing Division with the complete name and address of each such person and their connection to the County of Roanoke. Each Bidder is advised that the Ethics in Public Contracting and Conflicts of Interests Act of the Code of Virginia, as set forth in this IFB, apply to this IFB. Such information should be provided in writing before the Bid opening date or may also be provided with the Bid response.

N. The attention of each Bidder is directed to VA Code Sections 54.1-1100 *et seq.* which requires certain licenses for contractors, tradesmen and others. Each Bidder is required to determine which license, if any, it is required to have under such sections. Each Bidder shall so state on the Bid Form, or in its response, if no Bid Form is provided, whether it has a VA license under such sections and, if so, the type of license and/or license number. Failure to include this information may result in the Bid being rejected as non-responsive.

O. **Bid Submittals shall include:**

1. **Page 2-3, Invitation for Bid Signature Page**
2. **Attachment A, the Bid Form**
3. **Attachments B, C**
4. **Bid Bond**
5. **Acknowledgement of any Addenda issued (Attachment A)**

**Failure to do so may result in the Bid being determined as non-responsive.**

Questions or concerns may be addressed by contacting Kate Hoyt by phone at 540-283-8149, or by email at [KHoyt@roanokecountyva.gov](mailto:KHoyt@roanokecountyva.gov).

P. Ethics in Public Contracting. The provisions, requirements, and prohibitions as contained in Sections 2.2-4367 through 2.2-4377, of the Virginia Code, pertaining to bidders, offerors, contractors, and subcontractors are applicable to this IFB.

Q. Conflict of Interests Act. The provisions, requirements, and prohibitions as contained in Sections 2.2-3100, *et seq.*, of the Virginia Code are applicable to this IFB.

R. The procurement provisions of the Virginia Public Procurement Act as well as the County Procurement Manual, apply to this RFP, unless specifically modified herein. The County's Procurement Manual can be reviewed on the County's electronic procurement website.

S. The County may request clarification from any of the Bidders after review of the Bids received.

T. The County is not liable for any costs incurred by any Bidder in connection with this IFB or any response by any Bidder to this IFB. The expenses incurred by a Bidder in the preparation, submission, and presentation of the Bid are the sole responsibility of the Bidder and may not be charged to the County.

- U. General and/or technical questions regarding the Scope of Services and/or items required, or procurement questions under this IFB may be directed to Kate Hoyt, Buyer, by phone at 540-283-8149, or by email at [KHoyt@roanokecountyva.gov](mailto:KHoyt@roanokecountyva.gov).
- V. Each Bidder is required to state if it has ever been debarred, fined, had a contract terminated, or found not to be a responsible bidder or Offer or by any federal, state, or local government and/or private entity. If so, please give the details of each such matter and include this information with Bidder's response.
- W. **Data on Convictions for Certain Crimes and Child Abuse and Neglect Certification of Contractor:** The Consultant certifies that none of the persons who will provide services requiring direct contact with students on school property during school hours or during school-sponsored activities has been convicted of any of the following felony or misdemeanor offenses: felony sex or violence offenses, other felony offenses or misdemeanor sex offenses within the past ten years.  
  
The Consultant further understands and acknowledges (1) that if he makes a materially false statement regarding any of the above offenses, he will be guilty of a Class 1 misdemeanor and may forfeit profits derived from the contract. Further, the Consultant understands and acknowledges that before any person is permitted to provide such services subsequent to this certification, he must complete a new certification regarding such person in a form satisfactory to Roanoke County and the Roanoke County School Board. **Data and Convictions information will be requested before the County of Roanoke/Schools enters into a contract when required.**
- X. Each Bidder who is a stock or Nonstock Corporation, Limited Liability Company, business trust, or a limited partnership or other business entity shall be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity if required by law. Each such Bidder shall include in its bid response the Identification Number issued to it by the Virginia State Corporation Commission (SCC) and should list its business entity name as it is listed with the SCC. Any Bidder that is not required to be authorized to transact business in the Commonwealth as a domestic or foreign business entity as required by law shall include in its bid response a statement describing why the Bidder is not required to be so authorized. (See Va. Code Section 2.2-4311.2).
- Y. Direct contact with any County employee without the permission of the Purchasing Manager or her designated representative, on the subject of this bid, is strictly forbidden. Violation of this Instruction may result in disqualification of Bid.

## **SECTION 8. MISCELLANEOUS**

- A. Ownership of all data, materials, and documentation originated and prepared for the County pursuant to the IFB shall belong exclusively to the County and be subject to public inspection in accordance with the *Virginia Freedom of Information Act*. The trade secrets or proprietary information submitted by the Bidder shall not be subject to public disclosure under the *Freedom of Information Act*, unless otherwise required by law or a court. **However, the Bidder must invoke the protection of Section 2.2-4342(F) of the Code of Virginia, in writing, either before or at the time the data or other material is submitted.** The written notice must SPECIFICALLY identify the data or materials to be protected and state the reason why protection is necessary. The proprietary or trade

secret material submitted must be identified by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information. The classification of an entire proposal document, line item prices, and/or total proposal prices as proprietary, or trade secrets, is NOT ACCEPTABLE and may result in REJECTION of the Bid.

- B. All Bidders shall be solely responsible for making sure that they have the most current and complete version of this IFB and all addenda that may have been issued for this IFB and that such Bidder has examined all such documents and data. Any interpretation, correction, or change of the IFB will be made by an addendum. Interpretations, corrections or changes of this IFB made in any other manner will not be binding and Bidders must not rely upon such interpretations, corrections, or changes. The County Purchasing Division or its designee will issue Addenda that will be posted to the County website on the Current Bid Opportunities tab at <https://www.roanokecountyva.gov/bids.aspx>.
- C. No Bidder shall confer on any public employee having official responsibility for a purchasing transaction any payment, loan, subscription, advance, deposit or money, service, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is exchanged.
- D. The County may make investigations to determine the ability of the Bidder to perform the work and/or provide the services and/or items as described in this IFB. The County of Roanoke reserves the right to reject any Bid if the Bidder fails to satisfy the County of Roanoke that it is qualified to carry out the obligations and requirements requested in this IFB.
- E. The Successful Bidder must comply with the nondiscrimination provisions of Virginia Code Section 2.2-4311, which are incorporated herein by reference.
- F. The Successful Bidder must comply with the drug-free workplace provisions of Virginia Code Section 2.2-4312, which are incorporated herein by reference.
- G. It is the policy of the County of Roanoke to maximize participation whenever possible by minority and women owned business enterprises in all aspects of County contracting opportunities.
- H. The Successful Bidder shall comply with all applicable County, State, and Federal laws, codes, provisions, and regulations. The successful Bidder shall not during the performance of any resultant contract knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.
- I. Providers of any outside services and/or items shall be subject to the same conditions and requirements as the Successful Bidder in regards to law, code, or regulation compliance. The County reserves the right of approval for any subcontract work, including the costs thereof.

## **SECTION 9. EVALUATION FOR LOWEST RESPONSIVE AND RESPONSIBLE BIDDER**

To determine the lowest responsive and responsible Bidder with respect to this Bid, the following factors, among such others as will protect and preserve the interest of the County may be considered:

- A. Total extended Bid price as set forth on the Bid Form;
- B. The specified terms and discounts, if any, of the Bid;
- C. The ability, capacity and skill of the Bidder to perform the Contract and/or provide the services and/or items required;
- D. Whether the Bidder can perform the Contract and/or perform the services and/or provide the items promptly, or within the time specified, without delay or interference;
- E. The character, integrity, reputation, judgment, experience and efficiency of the Bidder;
- F. The quality of performance on previous contracts or services;
- G. The previous and existing compliance by the Bidder with laws and ordinances relating to other contracts, purchase orders, items and/or services provided by Bidder in other matters;
- H. The equipment and facilities available to the Bidder to perform the Contract and/or provide the services and/or items requested in the IFB;
- I. The sufficiency of the financial resources and ability of the Bidder to perform the Contract and/or provide the services and/or items requested in the IFB;
- J. The quality, availability, and adaptability of the supplies, materials, equipment and/or services the Bidder can provide for the particular use and/or work requested in the IFB; and
- K. The ability of the Bidder to provide future maintenance, parts, and service for the items requested in the IFB.

## **SECTION 10. CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE**

Successful Bidder, and any of its subcontractors, shall, at its sole expense, obtain and maintain during the life of the resulting Contract the insurance policies and/or bonds required. Any required insurance policies and/or bonds shall be effective prior to the beginning of any work or other performance by Successful Bidder, or any of its subcontractors, under any resultant Contract. All such insurance shall be primary and noncontributory to any insurance or self-insurance the County may have. The policies and coverages required are those as may be referred to in the sample contract and/or the terms and conditions attached to this IFB, but shall include workers' compensation coverage regardless of the number of employees, unless otherwise approved by the County's Risk Manager.

## **SECTION 11. NEGOTIATIONS WITH LOWEST RESPONSIVE AND RESPONSIBLE BIDDER**

If the bid by the lowest responsive and responsible bidder exceeds available funds, the County reserves the right to negotiate with the apparent lowest responsible bidder pursuant to County

Code Chapter 17 (Ord. No. 3350, S2-30,12-14-82). State Code 2.2.4318. The conditions and procedures under which such negotiation may be undertaken are that the appropriate County officials shall determine that the lowest responsive and responsible bid exceeds available funds and notify such bidder in writing of its desire to negotiate. Thereafter, negotiations with the apparent low bidder may be held to obtain a Contract within available funds involving discussions of reduction of quantity, quality, or other cost saving mechanisms. Any such negotiated Contract shall be subject to final approval of the County, in the sole discretion of the County.

## **SECTION 12. BID AWARD**

If an award of a Contract is made, it will be awarded to the lowest responsive and responsible bidder. If an award of a contract is made, notification of such award will be posted for public review on the County of Roanoke Purchasing Division's website under Current Bid Opportunities at <https://www.roanokecountyva.gov/bids.aspx> or you may contact Purchasing directly at (540) 772-2061 to request a copy of the award notification.

## **SECTION 13. FAITH BASED ORGANIZATIONS**

Pursuant to Virginia Code Section 2.2-4343.1, be advised that the County does not discriminate against faith-based organizations.

## **SECTION 14. HOLD HARMLESS AND INDEMNITY**

Successful Bidder shall indemnify and hold harmless the County and its officers, agents, and employees against any and all liability, losses, damages, claims, causes of action, suits of any nature, costs, and expenses, including reasonable attorney's fees, resulting from or arising out of Successful Bidder's or its employees, agents, or subcontractors actions, activities, or omissions, negligent or otherwise, on or near County's property or arising in any way out of or resulting from any of the work or items to be provided under the Contract, and this includes, without limitation, any fines or penalties, violations of federal, state, or local laws or regulations, personal injury, wrongful death, or property damage claims or suits. Successful Bidder agrees to and shall protect, indemnify, and hold harmless all the parties referred to above from any and all demands for fees, claims, suits, actions, causes of action, settlement or judgments based on the alleged or actual infringement or violation of any copyright, trademark, patent, invention, article, arrangement, or other apparatus that may be used in the performance of the Contract.

## **SECTION 15. PROTESTS**

Any Bidder who wishes to protest or object to any award made or other decisions Pursuant to this IFB may do so only in accordance with the provisions of Sections 2.2-4357, 4358, 4359, 4360, 4363, and 4364 of the Code of Virginia, and only if such is provided for in such Code section. Any such protest or objection must be in writing signed by a representative of the entity making the protest or objection and contain the information required by the applicable Code Sections set forth above. Such writing must be delivered to the County Manager within the required time period.

## **SECTION 16. COOPERATIVE PROCUREMENT**

**NOT USED**

## **SECTION 17. INFORMATION ON CONTRACT/PURCHASE ORDER TO BE AWARDED**

The Sample Contract marked as Attachment D to IFB No. 2022-015 contains terms and conditions that the County will include in any Contract that may be awarded, but such terms and conditions may be added to, deleted, or modified as may be agreed to between the County and the Successful Bidder. However, if a Bidder has any objections to any of the terms or conditions set forth in the Sample or any changes or additions thereto that the Bidder wants to discuss before submitting a bid, the Bidder should set forth such objections, changes, or additions in written correspondence to the Purchasing Division at least five (5) days before the bid opening date for this IFB. Otherwise, submission of a bid by a Bidder will obligate such Bidder, if it is the Successful Bidder, to enter into a Contract containing the same or substantially similar terms and conditions as contained in such Attachment, and to comply with such terms and conditions. Also, such terms and conditions, together with the requirements of this IFB, shall be deemed to be a part of any resultant Contract/Purchase Order that may be issued by the County to the Successful Bidder.

**END.**

**IFB # 2022-015**  
**ATTACHMENT A: BID FORM/SPECIFICATIONS**

**Roanoke County will award based on Lump Sum pricing.**

County of Roanoke  
Purchasing Division  
5204 Bernard Drive, SW, Suite 300-F  
Roanoke, VA 24018-0798

**The County reserves the right to add, delete, or adjust quantities as deemed necessary by the County.**

Bids containing any conditions, omissions, unexplained erasures, alterations or items not called for in the bid, or irregularities of any kind, may be rejected by the County as being nonresponsive. No changes are to be made to the Bid Form. Any changes to a Bid Amount must be initiated by the person signing the Bid Form.

I/We hereby propose to furnish and provide, in accordance with the enclosed general terms, conditions and specifications contained in IFB No. **2022-015**. The Bid Form must be completed in blue or black ink. Discrepancies in the multiplication of units of work and the unit prices will be resolved in favor of the correct multiplication of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. My/Our prices are as follows:

PRICES QUOTED SHALL BE FOB DESTINATION. Freight charges shall be included in the bid price.

**Lump Sum/Turnkey Project Cost:** \_\_\_\_\_  
(total cost to include all products and services, and any relevant fees or charges, per the plans provided as Attachment E to this IFB.)

\_\_\_\_\_ (initial) **I/We can furnish and deliver all items on or before October 15, 2021.**

Payment terms are: Net 30. If Bidder offers a cash discount for prompt payment, it will only be considered in determining the lowest responsible Bidder if the Bidder allows at least twenty (20) days for the prompt payment after the goods or services are received or after the invoice is rendered, whichever is later.

To aid in the evaluation of bids, bidders must submit the original Bid Form and two (2) copies of the Bid Form, Attachments, and detailed specification sheets, if applicable. If you fail to do so, your bid may be considered non-responsive and rejected.

Have you complied with this requirement? Yes / No.

Indicate whether your business \_\_\_\_\_ IS or \_\_\_\_\_ IS NOT located in Roanoke County. If it is, please include a copy of your Roanoke County business license with your bid.

I/We acknowledge the receipt of:

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_.

IFB#: 2022-015

Revised 4/2019

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_.

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_.

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_.

**ATTACHMENT B: Virginia State Corporation Commission (SCC) Registration Information**

**The attention of each Bidder is directed to VA Code sections 54.1-1100, et seq. which requires certain licenses for contractors, tradesmen, and others. Each Bidder is required to determine which license, if any, it is required to have under such sections. Complete the following:**

Bidder    does have or    does not have a Virginia Contractor's License. (Check appropriate block)

If Bidder has a Virginia Contractor's License, circle the class Bidder has and list the number.

Licensed "Class A", "Class B", or "Class C" Virginia Contractor Number: \_\_\_\_\_

If Bidder has another type of Virginia License, please list the type and number:

Type of license: \_\_\_\_\_ and number: \_\_\_\_\_.

Bidder is a    resident or    nonresident of Virginia. (Check appropriate blank.) See VA Code Sections 54.1-1100, et seq.

The attention of each Bidder is directed to Virginia Code Section 2.2-4311.2 which requires a bidder organized or authorized to transact business in the Commonwealth of Virginia pursuant to Title 13.1 or Title 50 of the Code of Virginia, as amended, or as otherwise required by law, shall include in its bid the Identification Number issued to such bidder by the Virginia State Corporation Commission (SCC). Furthermore, any bidder that is not required to be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid a statement describing why the bidder is not required to be so authorized. Please complete the following by checking the appropriate line that applies and providing the requested information:

A.\_\_\_\_\_ Bidder is a Virginia business entity organized and authorized to transact business in Virginia by the SCC and such bidder's/officer's Identification Number issued to it by the SCC is: \_\_\_\_\_.

B.\_\_\_\_\_ Bidder is an out-of-state (foreign) business entity that is authorized to transact business in Virginia by the SCC and such bidder's Identification Number issued to it by the SCC is: \_\_\_\_\_.

C.\_\_\_\_\_ Bidder does not have an Identification Number issued to it by the SCC and such bidder is not required to be authorized to transact business in Virginia by the SCC for the following reason(s):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please attach additional sheets of paper if you need more space to explain why such bidder is not required to be authorized to transact business in Virginia.

**Signature page required with submittal of bid**

**ATTACHMENT C: NOTICE OF PROPRIETARY INFORMATION FORM**

Confidentiality References Protection in Accordance with the Code of Virginia, Section 2.2-4342

Section Title	Page #	Reason(s) for Withholding from Disclosure

**INSTRUCTIONS:** Identify the data or other materials to be protected and state the reasons by using the codes listed below. Indicate the specific words, figures, or paragraphs that constitute trade secrets or proprietary materials. The classification of an entire bid or proposal document, line item prices, and/or total bid or proposal prices as proprietary or trade secret is not acceptable and will result in rejection of the bid or proposal.

- A) This page contains information relating to "trade secrets", and "proprietary information" including processes, operations, style of work, or apparatus. Identify confidential statistical data. Amount or source of any income...of any person (or) partnership. See Virginia Public Procurement Act. Section 2.2-4342. Unauthorized disclosure of such information would violate the Trade Secrets Act 18 U.S.C. 1905.
- B) This page contains proprietary information including confidential, commercial or financial information, which was provided to the Government on a voluntary basis and is of the type that would not customarily release to the public. See Virginia Public Procurement Act, Section 2.2-4342; 5 U.S.C. 552 (b) (4); 12 C.F.R. 309.5(c) (4).
- C) This page contains proprietary information including confidential, commercial or financial information. The disclosure of such information would cause substantial harm to competitive position and impair the Government's ability to obtain necessary information from contractors in the future. 5 U.S.C. See Virginia Public Procurement Act. Section 2.2-4342; 552 (b) (4)12 C.F.R. 309.5(c) (4).

**ATTACHMENT D: SAMPLE CONTRACT and TERMS AND CONDITIONS OR PO**  
**TERMS AND CONDITIONS**



**COUNTY OF ROANOKE, VIRGINIA**  
**SAMPLE CONTRACT BETWEEN COUNTY OF ROANOKE AND**  
**OR BRAMBLETON RECREATION CENTER BOILER REPLACEMENT**

This Contract # 2022-015 is dated \_\_\_\_\_, between the County of Roanoke, Virginia, hereinafter referred to as the "County" or "Owner", and legal name/address of contractor, hereinafter referred to as the "Contractor," Choose an item. .

**WITNESSETH:**

WHEREAS, Contractor has been awarded this Contract by the County for furnishing all equipment, materials, goods, labor, and services necessary for the removal and replacement of the Brambleton Recreation Center's boilers, and cleanup of the zone pump area, and associated work in accordance with this Contract and the documents referred to herein, all such items or services also being referred to hereinafter as the Work or Project.

**NOW, THEREFORE, THE COUNTY AND THE CONTRACTOR AGREE AS FOLLOWS:**

**SECTION 1. WORK/ SERVICES TO BE PROVIDED AND DOCUMENTS.**

For and in consideration of the money hereinafter specified to be paid by the County to the Contractor for the Work provided for in this Contract to be performed by the Contractor, the Contractor hereby covenants and agrees with the County to fully perform the services, provide any materials called for to construct, and complete the Work called for by this Contract in a good and workmanlike manner in accordance with this Contract and the documents referred to herein in order to fully and properly complete this Contract within the time stipulated, time being made of the essence for this Contract. It is also agreed by the parties hereto that the documents to this Contract consist of this Contract and the following documents listed below (Contract Documents), all of which are and constitute a part of this Contract as if attached hereto or set out in full herein, viz:

1. Insurance Requirements (Exhibit 1).
2. Scope of Work/Fee Schedule (Exhibit 2).
3. Bid Form Completed by Contractor and dated \_\_\_\_\_ (Exhibit 3).
4. Invitation for Bid No. 2022-015, which is incorporated herein by reference.

The parties agree that if there are any differences between the provisions of the above referenced documents, the provisions of the County documents and this Contract will control over any Contractor supplied documents or information.

## **SECTION 2. CONTRACT AMOUNT.**

The County agrees to pay the Contractor for the Contractor's complete and satisfactory performance of the Work/ Service, in the manner and at the time set out in this Contract, but the total amount for all such requests will not exceed \$\_\_\_\_\_ , as provided for in this Contract and that this Contract amount may be increased or decreased by additions and/or reductions in the Work as may be authorized and approved by the County, and the Contract amount may be decreased by the County's assessment of any damages against the Contractor, as may be provided for in this Contractor or by law, and the County retains the right of setoff as to any amounts of money the Contractor may owe the County. However, Contractor further acknowledges and agrees that any request for Contractor to perform Work under this Contract is in the sole discretion of the County and that there is no guarantee of any minimum amount of Work that may be requested by the County and that no Work may be requested.

## **SECTION 3. TERM OF CONTRACT.**

**NOT USED.**

## **SECTION 4. TIME OF PERFORMANCE.**

The Contractor shall commence the Work to be performed under this Contract on such date as is established and fixed for such commencement by written notice (which may be initially given verbally in an emergency situation) to proceed given by the County representative to the Contractor, and the Contractor covenants and agrees to fully construct, perform, and complete the Work and/or provide the goods called for by this Contract established by such notice. The Contractor further agrees that the Work shall be started promptly upon receipt of such notice and shall be prosecuted regularly, diligently, and uninterrupted at a rate of progress that will ensure full completion thereof in the shortest length of time consistent with the Contract Documents and that Contractor will cooperate and coordinate with the other County contractors or employees doing other work or using the area where Contractor is working.

## **SECTION 5. PAYMENT.**

- A. The County agrees to pay Contractor for the Contractor's complete and satisfactory performance of the Work, in the manner and at the time set out in this Contract. The County retains the right to setoff as to any amounts of money Contractor may owe the County. A written progress report may be requested by the County to accompany payment request and, if so, such progress report shall detail the work completed. Also, sufficient documentation of all costs, expenses, materials supplies, and/or hours worked may be requested by the County and, if so, may be required prior to the processing of any such request for payment. Payment will only be made for work actually performed, services actually supplied, and/or materials or goods furnished to the County, all of which need to be approved and accepted by the County prior to such payment, unless otherwise provided for in the Contract documents. Once a payment request has been received the County, the County will process such payment request. If there are any objections or problems with the payment request, the County will notify the Contractor of such matters. If the payment

request is approved and accepted by the County, payment will be made by the County to the Contractor not more than 30 days after such request has been approved.

B. The services the Contractor may be requested to provide the County are those items set forth in Exhibit 2 (Scope of Work) and/or Exhibit 3 (Bid Form), which list of services may be amended by the mutual agreement of the parties. The prices to be paid to the Contractor for such services provided to and accepted by the County under the provisions of this Contract shall be the current price(s) as set forth in Exhibit 3 (Bid Form). Unless otherwise stated in this Contract, the price(s) shall include all applicable charges such as pick up, delivery, printing, packaging, shipping, and other charges.

## **SECTION 6. SALES TAX EXEMPTION.**

The County is exempt from payment of State Sales and Use Tax on all tangible personal property purchased or leased for the County's use or consumption. The Virginia Sales and Use Tax Certificate of Exemption number is 217-074292-9. The County's tax-exempt status shall not inure to the benefit of Vendor. Vendor shall be liable for all applicable local, state and federal taxes that may arise or be due under this Agreement.

## **SECTION 7. FREE ON BOARD, RISK OF LOSS, AND TITLE.**

All prices include F.O.B Destination, inside delivery, unless otherwise noted in this Contract. The risk of loss from any casualty, regardless of cause, shall be on the Contractor until the items have been delivered to County personnel making the request and accepted by the County. The risk of loss shall also be on the Contractor during the return of any items to the Contractor. Title to the items shall pass to the County upon receipt and acceptance of such items by the County.

## **SECTION 8. INSPECTION.**

The County shall have a reasonable time after receipt of items / services provided and before payment to inspect all items for conformity to this Contract. If all or some of the items delivered to the County do not fully conform to the provisions hereof, the County shall have the right to reject and return such nonconforming items, at the sole cost of the Contractor.

## **SECTION 9. WARRANTY OF MATERIAL AND WORKMANSHIP.**

Contractor agrees that all items provided to the County will be new, or if an item is refurbished or remanufactured, such item will meet the industry standards for such item and the item shall be clearly labeled as refurbished or remanufactured, and that all such items include such warranties as may be provided by Virginia law together with any warranties provided by the manufacturer of the item. Contractor shall use reasonable commercial efforts to assist the County in processing warranty claims against a manufacturer. Contractor also agrees that the services provided under this Contract shall be completed in a professional, good and workmanlike manner, with the degree of skill and care that is required by like contractors in Virginia. Further, Contractor warrants that such services shall be completed in accordance with the applicable requirements of this Contract and shall be correct and appropriate for the purposes contemplated in this Contract. Contractor

agrees that Contractor shall repair or replace, at Contractor's sole expense, and to the satisfaction of the County, any items, material, equipment, or part of the item that is found by the County to be defective or not in accordance with the terms of this Contract.

## **SECTION 10. PAYMENTS TO OTHERS BY CONTRACTOR.**

The Contractor agrees that Contractor will comply with the requirements of Section 2.2-4354 of the Virginia Code regarding Contractor's payment to other entities and the Contractor will take one of the two actions permitted therein within 7 days after receipt of amounts paid to Contractor by the County. Contractor further agrees that the Contractor shall indemnify and hold the County harmless for any lawful claims resulting from the failure of the Contractor to make prompt payments to all persons supplying the Contractor equipment, labor, tools, or material in connection with the work provided for in the Contract. In the event of such claims, the County may, in the County's sole discretion, after providing written notice to the Contractor, withhold from any payment request or final payment the unpaid sum of money deemed sufficient to pay all appropriate claims and associated costs in connection with the Contract and make such payment, if the County determines it to be appropriate to do so.

## **SECTION 11. HOLD HARMLESS AND INDEMNITY.**

Contractor shall indemnify and hold harmless the County and its officers, agents, and employees against any and all liability, losses, damages, claims, causes of action, suits of any nature, costs, and expenses, including reasonable attorney's fees, resulting from or arising out of Contractor's or its employees, agents, or subcontractors actions, activities, or omissions, negligent or otherwise, on or near County's property or arising in any way out of or resulting from any of the work or items to be provided under this Contract, and this includes, without limitation, any fines or penalties, violations of federal, state, or local laws or regulations, personal injury, wrongful death, or property damage claims or suits. Contractor agrees to and shall protect, indemnify, and hold harmless all the parties referred to above from any and all demands for fees, claims, suits, actions, causes of action, settlement or judgments based on the alleged or actual infringement or violation of any copyright, trademark, patent, invention, article, arrangement, or other apparatus that may be used in the performance of this Contract.

## **SECTION 12. COMPLIANCE WITH LAWS AND REGULATIONS, AND IMMIGRATION LAW.**

Contractor agrees to and will comply with all applicable federal, state, and local laws, ordinances, and regulations, including, but not limited to all applicable licensing requirements, environmental regulations, and OSHA regulations. Contractor further agrees that Contractor does not and shall not during the performance of its Contract; knowingly employ an unauthorized alien as defined in the Federal Immigration Reform & Control Act of 1986.

## **SECTION 13. INDEPENDENT CONTRACTOR.**

The relationship between Contractor and the County is a contractual relationship. It is not intended in any way to create a legal agency or employment relationship. Contractor shall, at all times, maintain its status as an independent contractor and both parties acknowledge that neither is an

agent, partner or employee of the other for any purpose. Contractor shall be responsible for causing all required insurance, workers' compensation (regardless of number of employees) and unemployment insurance to be provided for all of its employees and subcontractors. Contractor will be responsible for all actions of any of its subcontractors, and that they are properly licensed.

#### **SECTION 14. REPORTS, RECORDS, AND AUDIT.**

Contractor agrees to maintain all books, records, electronic data, and other documents relating to this Contract for a period of five (5) years after the end of each fiscal year covered by this Contract. The County, its authorized employees, agents, representatives, and/or state auditors shall have full access to and the right to request, examine, copy, and/or audit any such materials during the term of the Contract and such retention period, upon prior written notice to Contractor. This includes the County's right to audit and/or examine any of the Contractor's documents and/or data as the County deems appropriate to protect the County's interests.

#### **SECTION 15. INSURANCE REQUIREMENTS.**

Contractor and any of its subcontractors involved in this Contract shall maintain the insurance coverage's set forth in Exhibit 1 to this Contract and provide the proof of such insurance coverage as called for in Exhibit 1, including workers' compensation coverage regardless of the number of Contractor's employees. Such insurance coverage shall be obtained at the Contractor's sole expense and maintained during the life of the Contract and shall be effective prior to the beginning of any work or other performance by the Contractor under this Contract. Additional insured endorsements, if required, must be received by the County within 30 days of the execution of this Contract or as otherwise required by the County's Risk Manager.

#### **SECTION 16. DEFAULT.**

If Contractor fails or refuses to perform any of the terms of this Contract, including poor services, work or materials, the County may, by written notice to Contractor, terminate this Contract in whole or in part. In addition to any right to terminate, the County may enforce any remedy available at law or in equity in connection with such default, and Contractor shall be liable for any damages to the County resulting from Contractor's default. The County further reserves the right to immediately obtain such work or services from other entities in the event of Contractor's default.

#### **SECTION 17. NONWAIVER.**

Contractor agrees that the County's waiver or failure to enforce or require performance of any term or condition of this Contract or the County's waiver of any particular breach of this Contract by the Contractor extends to that instance only. Such waiver or failure is not and shall not be a waiver of any of the terms or conditions of this Contract or a waiver of any other breaches of the Contract by the Contractor and does not bar the County from requiring the Contractor to comply with all the terms and conditions of the Contract and does not bar the County from asserting any and all rights and/or remedies it has or might have against the Contractor under this Contract or by law.

## **SECTION 18. FORUM SELECTION AND CHOICE OF LAW.**

This Contract shall be governed by, and construed in accordance with, the laws of the Commonwealth of Virginia, without application of Virginia's conflict of law provisions. Venue for any litigation, suits, and claims arising from or connected with this Contract shall only be proper in the Roanoke County Circuit Court, or in the Roanoke County General District Court if the amount in controversy is within the jurisdictional limit of such court, and all parties to this Contract voluntarily submit themselves to the jurisdiction and venue of such courts, regardless of the actual location of such parties. The provisions of this Contract shall not be construed in favor of or against either party, but shall be construed according to their fair and customary meaning as if both parties jointly prepared this Contract.

## **SECTION 19. SEVERABILITY.**

If any provision of this Contract, or the application of any provision hereof to a particular entity or circumstance, shall be held to be invalid or unenforceable by a court of competent jurisdiction, the remaining provisions of this Contract shall not be affected and all other terms and conditions of this Contract shall be valid and enforceable to the fullest extent permitted by law.

## **SECTION 20. NONDISCRIMINATION.**

- A. During the performance of this Contract, Contractor agrees as follows:
  - i. Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state or federal law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
  - ii. Contractor in all solicitations or advertisements for employees placed by or on behalf of Contractor will state that Contractor is an equal opportunity employer.
  - iii. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- B. Contractor will include the provisions of the foregoing Section A (i, ii, and iii) in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

## **SECTION 21. DRUG-FREE WORKPLACE.**

- A. During the performance of this Contract, Contractor agrees to (i) provide a drug-free workplace for Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the workplace and specifying the actions that will

be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of Contractor that Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

B. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

## **SECTION 22. FAITH BASED ORGANIZATIONS.**

Pursuant to Virginia Code Section 2.2-4343.1, be advised that the County does not discriminate against faith-based organizations.

## **SECTION 23. DATA ON CONVICTIONS FOR CERTAIN CRIMES**

The Vendor certifies that none of the persons who will provide services requiring direct contact with students on school property during school hours or during school-sponsored activities has been convicted of any of the following felony or misdemeanor offenses: felony sex or violence offenses, other felony offenses or misdemeanor sex offenses within the past ten years. Upon request by the Schools, Vendor shall provide specific documentation to verify that it has conducted requisite criminal conviction checks on its employees, agents, sub-contractors, and assigns. Schools reserve the right to remove or deny entrance to any employee, agent, sub-contractor, or assign of Vendor when School determines, in its sole discretion, that such person poses a risk to health or safety of others on School property.

The Consultant further understands and acknowledges (1) that if he makes a materially false statement regarding any of the above offenses, he will be guilty of a Class 1 misdemeanor and may forfeit profits derived from the contract. Further, the Consultant understands and acknowledges that before any person is permitted to provide such services subsequent to this certification, he must complete a new certification regarding such person in a form satisfactory to Roanoke County and the Roanoke County School Board. Data and Convictions information will be requested before the County of Roanoke/Schools enters into a contract / when required.

## **SECTION 24. ASSIGNMENT.**

Contractor may not assign or transfer this Contract in whole or in part except with the prior written consent of the County, which consent shall not be unreasonably withheld. If consent to assign is given, no such assignment shall in any way release or relieve the Contractor from any of the covenants or undertakings contained in this Contract and the Contractor shall remain liable for the Contract during the entire term thereof.

## **SECTION 25. CONTRACTUAL DISPUTES.**

Contractual claims, whether for money or for other relief, including any disputes as to change orders or extra work, shall be submitted, in writing, no later than sixty (60) calendar days after final payment or payment designated as a final payment; however, written notice of the Contractor's intention to file such claim must be given at the time of the occurrence or beginning of the work upon which the claim is based. Such notice is a condition precedent to the assertion of any such claim by the Contractor. A written decision upon any such claims will be made by Board of Supervisors or designee (hereafter BOS) within thirty (30) calendar days after submittal of the claim and any practically available additional supporting evidence required by the BOS. The Contractor may not institute legal action prior to receipt of the County's decision on the claim unless the BOS fails to render such decision within one hundred twenty (120) calendar days from submittal of its claim. The decision of the BOS shall be final and conclusive unless the Contractor within six (6) months of the date of the final decision on a claim or from expiration of the 120 day time limit, whichever occurs first, initiates legal action as provided in Section 2.2 -4364, of the Code of Virginia. Failure of the County to render a decision within said one hundred twenty (120) calendar days shall not result in the Contractor being awarded the relief claimed nor shall it result in any other relief or penalty. The sole result of the County's failure to render a decision within said one hundred twenty (120) calendar days shall be Contractor's right to immediately institute legal action. No administrative appeals procedure pursuant to Section 2.2 -4365, of the Code of Virginia, has been established for contractual claims under this Contract.

## **SECTION 26. SUCCESSORS AND ASSIGNS.**

The terms, conditions, provisions, and undertakings of this Contract shall be binding upon and inure to the benefit of each of the parties hereto and their respective successors and assigns.

## **SECTION 27. HEADINGS.**

The captions and headings in this Contract are for convenience and reference purposes only and shall not affect in any way the meaning and interpretation of this Contract.

## **SECTION 28. COUNTERPART COPIES.**

This Contract may be executed in any number of counterpart copies, each of which shall be deemed an original, but all of which together shall constitute a single instrument.

## **SECTION 29. AUTHORITY TO SIGN.**

The persons who have executed this Contract represent and warrant that they are duly authorized to execute this Contract on behalf of the party for whom they are signing.

## **SECTION 30. NOTICES.**

All notices must be given in writing and shall be validly given if sent by certified mail, return receipt requested, or by a nationally recognized overnight courier, with a receipt, addressed as

follows (or any other address that the party to be notified may have designated to the sender by like notice):

To County: County of Roanoke  
General Services  
Attn: Josh Campbell  
1206 Kessler Mill Rd  
Roanoke, Virginia 24153  
Email: [@roanokecountyva.gov](mailto:@roanokecountyva.gov)

Copy to: County of Roanoke  
Purchasing Division  
Attn: Kate Hoyt  
5204 Bernard Drive, SW, Suite 300-F  
Roanoke, Virginia 24018  
Email: [KHoyt@roanokecountyva.gov](mailto:KHoyt@roanokecountyva.gov)

If to Contractor:  
Attn: \_\_\_\_\_, President/CEO  
\_\_\_\_\_  
\_\_\_\_\_

Email Address: \_\_\_\_\_  
Phone: \_\_\_\_\_

Notices shall be deemed to be effective one day after sending if sent by overnight courier or three (3) days after sending it by certified mail, return receipt requested.

### **SECTION 31. PROTECTING PERSONS AND PROPERTY.**

The Contractor expressly undertakes both directly and through its subcontractors, to take every reasonable precaution at all times for the protection of all persons and property at the location of the Work or in the vicinity of the Work or that may be affected by the Contractor's operation in connection with the Work. The Contractor will maintain adequate protection of all Contractor's Work to prevent damage to it and shall protect the County's property from any injury or loss arising in connection with this Contract and to protect adjacent property to prevent any damage to it or loss of use and enjoyment by its owners. Contractor agrees to be responsible for the entire Work and will be liable for all damages to the Work, including, but not limited to, damages to any property of the County or to any property in the vicinity or adjacent to the Work. All damage with respect to the Work caused by vandalism, weather, or any other cause, other than resulting from the sole negligence of the County shall be the responsibility of the Contractor. Contractor shall also be responsible for any inventory shortages and discrepancies of any type.

## **SECTION 32. CONTRACT SUBJECT TO FUNDING.**

This Contract is subject to funding and/or appropriations from federal, state, and/or local governments and/or agencies. If any such funding is not provided, withdrawn, or otherwise not made available for this Contract, the Contractor agrees that the County may terminate this Contract on seven (7) days written notice to Contractor, without any penalty or damages being incurred by the County. Contractor further agrees to comply with any applicable requirements of any grants and/or agreements providing such funding.

## **SECTION 33. SUSPENSION OR TERMINATION OF CONTRACT BY COUNTY.**

The County, at any time, may order Contractor to immediately stop work on this Contract, and/or by seven days (7) written notice may terminate this Contract, with or without cause, in whole or in part, at any time. Upon receipt of such notice, the Contractor shall immediately discontinue all services affected (unless the notice directs otherwise), and deliver to the County all data (including electronic data), drawings, specifications, reports, project deliverables, estimates, summaries, and such other information and materials as may have been accumulated by the Contractor in performing this Contract whether completed or in process (unless otherwise directed by the notice).

1. If the termination or stop work order is due to the failure of the Contractor to fulfill any of its Contract obligations, the County may take over the Work and prosecute the same to completion by contract or otherwise. In such case, the Contractor shall be liable to the County for any damages allowed by law, and upon demand of County shall promptly pay the same to County.
2. Should the Contract be terminated or work is stopped not due in any way to the fault of the Contractor, the Contractor shall only be entitled to compensation for services actually performed and materials actually supplied prior to notice of termination or to stop work and which are approved by the County and any applicable federal or state approving agency. No profit, overhead, or any other costs of any type are allowed after the date of such notice of termination or stop work order.
3. The rights and remedies of the County provided in this Section are in addition to any other rights and remedies provided by law or under this Contract and County may pursue any and all such rights and remedies against Contractor as it deems appropriate.

## **SECTION 34. ETHICS IN PUBLIC CONTRACTING.**

The provisions, requirements, and prohibitions as contained in Sections 2.2-4367 through 2.2-4377, of the Va. Code, pertaining to bidders, offerors, contractors, and subcontractors are applicable to this Contract.

**SECTION 35. COMPLIANCE WITH STATE LAW; FOREIGN AND DOMESTIC BUSINESSES AUTHORIZED TO TRANSACT BUSINESS IN THE COMMONWEALTH OF VIRGINIA.**

Contractor shall comply with the provisions of Virginia Code Section 2.2-4311.2, as amended, which provides that a contractor organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 or as otherwise required by law. Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the Contract. The County may void the Contract if the Contractor fails to remain in compliance with the provisions of this section.

**SECTION 36. OWNERSHIP OF REPORTS AND DOCUMENTS.**

Contractor agrees that all reports and any other documents (including electronic data) prepared for, obtained in connection with, and/or required to be produced in connection with this Contract shall be delivered by the Contractor to the County and all such items shall become the sole property of the County. The Contractor agrees that the County shall own all rights of any type in and to all such items, including but not limited to copyrights and trademarks, and the County may reproduce, copy, and use all such items as the County deems appropriate, without any restriction or limitation on their use and without any cost or charges to the County from Contractor. Contractor hereby transfers and assigns all such rights and items to the County. Contractor further agrees Contractor will take any action and execute any documents necessary to accomplish the provisions of this Section. The Contractor also warrants that Contractor has good title to all materials, equipment, documents, and supplies which it uses in the Work or for which it accepts payment in whole or in part.

**SECTION 37. ENTIRE CONTRACT.**

This Contract, including any attachments, exhibits, and referenced documents, constitutes the complete understanding between the parties. This Contract may be modified only by written agreement properly executed by the parties.

**SIGNATURE PAGE TO FOLLOW.**

THIS AGREEMENT may be modified in writing by mutual agreement of both parties.

IN WITNESS WHEREOF, the parties hereto have signed this Contract by their authorized representatives.

(Full Legal Name of Vendor)

By \_\_\_\_\_

\_\_\_\_\_  
Printed Name and Title

COUNTY OF ROANOKE, VIRGINIA

By \_\_\_\_\_

\_\_\_\_\_  
Printed Name and Title

Approved as to execution:

\_\_\_\_\_  
County Attorney/Assistant County Attorney

**CONTRACT 2022-015**  
**BETWEEN COUNTY OF ROANOKE AND [VENDOR NAME]**  
**FOR BRAMBLETON RECREATION CENTER BOILER REPLACEMENT**

**EXHIBIT 1: SAMPLE CONTRACTOR'S INSURANCE AND BOND REQUIREMENTS**

**REFERENCE: IFB # 2022-015**

**INSURANCE REQUIREMENTS SECTION**

The Contractor shall comply with the insurance requirements set forth in the Contract, including the items set forth below:

- A. Neither the Contractor nor any subcontractor shall commence work under this Contract until the Contractor has obtained and provided proof of the required insurance coverages to the County, and such proof has been approved by the County. The Contractor confirms to the County that all subcontractors have provided Contractor with proof of such insurance, or will do so prior to commencing any work under this Contract.
- B. Contractor, including all subcontractors, shall, at its and/or their sole expense, obtain and maintain during the life of this Contract the insurance policies and/or coverages required by this section. The County and its officers, employees, agents, assigns, and volunteers shall be added as an additional insureds, by endorsement, to the general liability and automobile coverages of any such policies and such insurance coverages shall be primary and noncontributory to any insurance and/or self-insurance such additional insureds may have. The Contractor shall immediately notify in writing the County of any changes, modifications, and/or termination of any insurance coverages and/or policies required by this Contract. The Contractor shall provide to the County with the signed Contract an Acord certificate of insurance which states in the description of operations section one of the two paragraphs below:
  - (1) The County and its officers, employees, agents, assigns, and volunteers are additional insureds by endorsement as coverage under this policy includes ISO endorsement CG 20 33 which provides that the insured status of such entities is automatic if required by a contract or a written agreement. (If additional insured status is automatic under a different coverage form, Contractor must attach a copy of the coverage form to its certificate. Any required insurance policies shall be effective prior to the beginning of any work or other performance by Contractor and any subcontractors under this Contract).
  - (2) ISO endorsement CG 20 10 will be issued, prior to the beginning of any work or other performance by Contractor under this Contract, to the County and its officers, employees, agents, assigns, and volunteers naming them as an additional insured under the general liability coverage. (A copy of the binder confirming the issuance

OR

- (2) ISO endorsement CG 20 10 will be issued, prior to the beginning of any work or other performance by Contractor under this Contract, to the County and its officers, employees, agents, assigns, and volunteers naming them as an additional insured under the general liability coverage. (A copy of the binder confirming the issuance

must be attached to the certificate. Any required insurance policies shall be effective prior to the beginning of any work or other performance by Contractor and any subcontractors under this Contract).

However, if B (1) or (2) cannot be provided, the County's Risk Manager, in such Manager's sole discretion, may approve such other certificate of insurance or insurance document(s) that the Risk Manager deems acceptable. The County of Roanoke shall also be named as the Certificate Holder.

**C. The following insurance coverages and limits are required in order to provide services or materials to Roanoke County general government agencies and the Roanoke County Public Schools. These limits may be adjusted depending on the type of service or materials being provided and the exposure to risk.**

The Successful Offeror shall carry Liability Insurance in the amount specified below, including contractual liability assumed by the Successful Offeror, and shall deliver a Certificate of Insurance from carriers acceptable to the owner specifying such limits. The Certificate shall show the County of Roanoke and Roanoke County Public Schools, their supervisory boards and members thereof, officers, agents, employees and volunteers as additional insureds by endorsement, on the Commercial General Liability, Automobile Liability and Excess/Umbrella Liability coverage. The additional insured status shall be endorsed to the coverage with the provision that this coverage "is primary to all other coverage the County of Roanoke and/or Roanoke County Public Schools may possess." A Certificate of Insurance evidencing the additional insured status must be presented to the County of Roanoke and/or Roanoke County Public Schools along with a copy of the Endorsement prior to work or services beginning.

The coverage shall be provided by a carrier(s) rated "Excellent" by A.M. Best. In addition, the insurer shall agree to give the County 30 days' notice of its decision to cancel coverage.

**(1) Workers' Compensation**

Statutory Virginia Limits

Employers' Liability Insurance

- \$100,000 for each Accident by employee
- \$100,000 for each Disease by employee
- \$500,000 policy limit by Disease

**(2) Commercial General Liability - Combined Single Limit**

- \$1,000,000 each occurrence including contractual liability for specified agreement
- \$2,000,000 General Aggregate (other than Products/Completed Operations)
- \$2,000,000 General Liability-Products/Completed Operations
- \$1,000,000 Personal and Advertising injury
- \$ 100,000 Fire Damage Legal Liability

Coverage must include Broad Form property damage and (XCU) Explosion, Collapse and Underground Coverage

(3) **Business Automobile Liability** – including owned, non-owned and hired car coverage

- Combined Single Limit - \$1,000,000 each accident

Compliance by the Contractor with the foregoing requirements as to carrying insurance shall not relieve the Contractor of their liabilities provisions of the Contract

D. Contractual Liability covers the following indemnity agreement: "The Successful Offeror agrees to indemnify, defend and hold harmless the County of Roanoke and Roanoke County Public Schools, their supervisory boards and members thereof, officers, agents, employees and volunteers from any claims, damages, suits, actions, liabilities and costs of any kind or nature, including attorneys' fees, arising from or caused by the provision of any services, the failure to provide any services or the use of any services or materials furnished (or made available) by the Successful Offeror, provided that such liability is not attributable to the County or School Division's sole negligence."

E. The continued maintenance of the insurance policies and coverages required by the Agreement is a continuing obligation, and the lapse and/or termination of any such policies or coverages without approved replacement policies and/or coverages being obtained shall be grounds for termination of the Consultant/Contractor for default.

F. Nothing contained in the insurance requirements is to be construed as limiting the liability of the Consultant/Contractor, and/or its subcontractors, or their insurance carriers. The County does not in any way represent that the coverages or the limits of insurance specified are sufficient or adequate to protect the Consultant/Contractor's interest or liabilities, but are merely minimums. The obligation of the Consultant/Contractor, and its subcontractors, to purchase insurance shall not in any way limit the obligations of the Consultant/Contractor in the event that the County or any of those named above should suffer any injury or loss in excess of the amount actually recoverable through insurance.

G. The classification code numbers appearing on the Commercial General Liability coverage parts shall not exclude the symbols "X-C-U".

H. The intent of this insurance specification is to provide the coverage required and the limits expected for each type of coverage. With regard to the Business Automobile Liability and Commercial General Liability, the total amount of coverage can be accomplished through any combination of primary and excess/umbrella insurance. However, the total insurance protection provided for Commercial General Liability or for Business Automobile Liability, either individually or in combination with the Excess/Umbrella Liability, must total \$1,000,000 per occurrence. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded the County of Roanoke and Roanoke County Public Schools. This policy shall be endorsed to be primary with respect to the additional insured.

I. The certificate holders on the Accord form Certificates of Insurance shall be:

**County of Roanoke Projects**

Roanoke County Board of Supervisors  
5204 Bernard Drive, Suite 300F  
Roanoke, VA 24019-0798  
Attn: Purchasing Dept.

J. **Claims Made Policies**

If the liability insurance has been issued on a "claims made" basis, the Successful Offeror must either:

- (1) Agree to provide certificates of insurance evidencing the above coverage for a period of three (3) years after final payment under the Agreement for General Liability policies. This certificate shall evidence a "retroactive date" no later than the beginning of the Offeror's work; or
- (2) Purchase the extended reporting period endorsement for the policies and provide certificates of insurance and a copy of the endorsement.

**BOND REQUIREMENTS SECTION**

The Contractor shall comply with the bond requirements set forth in the Contract, including the items set forth below:

- A. Except in cases of emergency, all bids for construction contracts shall be accompanied by a bid bond from a surety company selected by the bidder, which is legally authorized to do business in Virginia.
  - (1) A bid, payment or performance bond for contracts for goods or services other than construction may be required if provided in the Invitation for Bid.
  - (2) The amount of the bid bond shall not exceed five percent (5%) of the total amount of the bid.
  - (3) In lieu of a bid bond, a bidder may furnish a certified check or cash escrow in the face amount required for the bond.
  - (4) Upon award of any public construction contract exceeding \$100,000 awarded to any prime contractor, such contractor shall furnish:
    - i. Performance bond in the sum of the contract amount.
    - ii. Payment bond in the sum of the contract amount.

- (5) Performance and/or payment bonds may be required for construction contracts below \$100,000 at the discretion of the County.
- (6) In cases of emergency performance bonds/payment bonds are required within ten (10) calendar days of notice to proceed/project commencement.

**END**

**CONTRACT 2022-015**  
**BETWEEN COUNTY OF ROANOKE AND VENDOR NAME**  
**FOR BRAMBLETON RECREATION CENTER BOILER REPLACEMENT**

**EXHIBIT 2: SCOPE OF WORK/FEE SCHEDULE**

**REFERENCE: IFB# 2022-015**

The services, work, and/or items that the Contractor shall provide in a timely and proper manner in accordance with the Contract include, but are not necessarily limited to, the following:

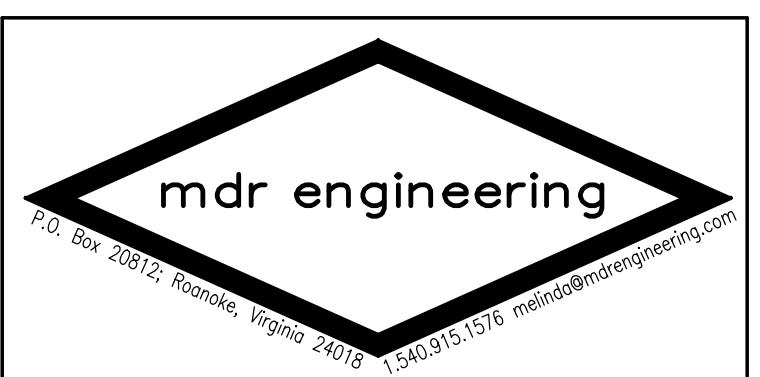
Reference IFB 2022-015 Specifications and Project Plans.

## **ATTACHMENT E: PROJECT PLANS**



## BRAMBLETON CENTER BOILER REPLACEMENT

3738 BRAMBLETON AVENUE  
ROANOKE, VIRGINIA 24018



### SHEET INDEX

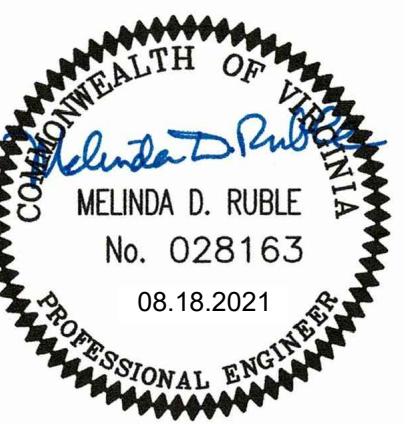
T-1	TITLE SHEET
M-1	MECHANICAL SPECIFICATIONS
M-2	MECHANICAL LEGEND, SCHEDULES AND CONTROLS
M-3	MECHANICAL DEMOLITION PLANS
M-4	MECHANICAL NEW WORK PLANS

BRAMBLETON CENTER  
BOILER REPLACEMENT  
TITLE  
SHEET



No.	Date	Revision

Designed	MDR
Drawn	MDR
Checked	MDR
Date	08-18-2021
Project No.	



Sheet No.
T-1

## MECHANICAL SPECIFICATIONS

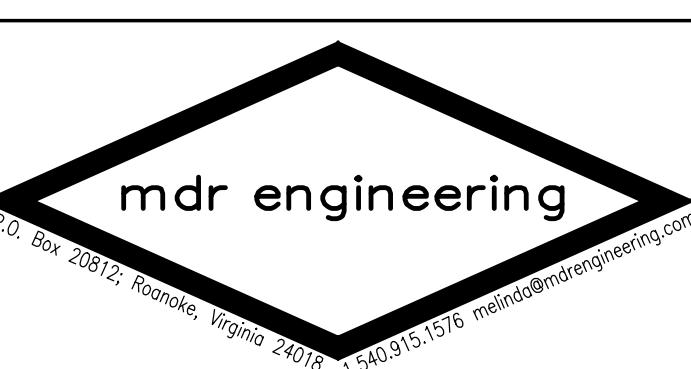
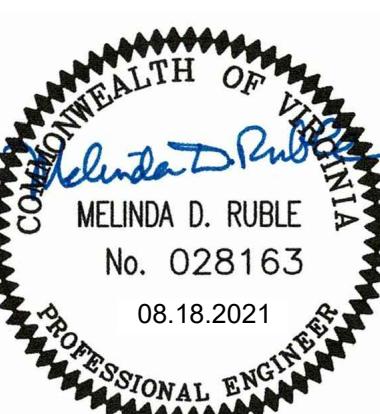
- GENERAL PROVISIONS
  - INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE INCLUDING REFERENCED CODES AND STANDARDS AND IN ACCORDANCE WITH MANDATES OF THE LOCAL BUILDING OFFICIALS.
  - THE GENERAL ARRANGEMENT AND LOCATIONS OF DUCTWORK, PIPING, FIXTURES, ETC. ARE INDICATED BY THE DRAWINGS AND SHALL BE INSTALLED IN ACCORDANCE THEREWITH; WITH THE EXCEPTION OF SUCH CHANGES AS MAY BE REQUIRED ON ACCOUNT OF OTHER TRADES. CONTRACTOR SHALL COORDINATE WORK WITH INSTALLATION OF OTHER SUBCONTRACTORS.
  - MECHANICAL WORK SHALL BE COORDINATED WITH THE CONTRACTOR AS TO SCHEDULING, DIMENSIONING AND LOCATION OF EQUIPMENT.
  - MAJOR ITEMS ARE SHOWN ON THE PROJECT PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INCIDENTAL ITEMS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.
  - TRADE NAMES AND CATALOG NUMBERS SHALL BE INTERPRETED AS ESTABLISHING A GENERAL DESIGN AND STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. UNLESS STATED OTHERWISE, THE CONTRACTOR MAY USE ANY ARTICLE WHICH, IN HIS JUDGEMENT, AND WITH WRITTEN COMMENT FROM THE ARCHITECT/ENGINEER INDICATING NO OBJECTION, IS EQUAL OR SUPERIOR TO THAT SPECIFIED. DRAWINGS SHOWING CHANGES OR REVISIONS REQUIRED BY THE SUBSTITUTION FOR SPECIFIED ITEMS SHALL BE SUBMITTED WITH THE SHOP DRAWING DATA, AND THE COSTS OF ALL SUCH CHANGES SHALL BE BORNE BY THE CONTRACTOR.
  - SIMILAR ITEMS SHALL BE PROVIDED BY A SINGLE MANUFACTURER.
  - ALL REQUIRED WALL OR FLOOR OPENINGS SHALL BE COORDINATED WITH THE CONTRACTOR.
  - ALL PIPING SHALL BE ABOVE CEILING UNLESS INDICATED OTHERWISE.
  - DO NOT INSTALL PVC PIPING OR ANY COMBUSTIBLE MATERIAL IN ANY AIR PLENUM.
  - ALL EQUIPMENT SHALL BE WIPE CLEAN, REMOVING ALL TRACES OF OIL, DIRT, OR PAINT SPOTS.
  - PROVIDE SUPPORTS TO RIGIDLY ATTACH ALL EQUIPMENT, APPURTEANCES AND PIPE AS REQUIRED FOR SUPPORT. PRIOR TO INSTALLATION OF HANGERS AND INSERTS, THE CONTRACTOR SHALL COORDINATE LOCATIONS AND REQUIREMENTS TO MINIMIZE CONFLICTS WITH OTHER BUILDING SYSTEMS. INSTALLATION OF PIPE HANGERS AND SUPPORTS SHALL BE IN STRICT ACCORDANCE WITH MSS SP-58, 69 AND 89.
  - CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED TO BE FURNISHED BY OTHERS.
  - ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE, AND CONTRACTOR SHALL MAKE GOOD, WITHOUT ADDITIONAL COST TO THE OWNER, ANY DEFECT WHICH MAY APPEAR WITHIN THAT PERIOD. MANUFACTURER'S WARRANTIES EXTENDING BEYOND ONE YEAR SHALL BE PROCESSED AND TURNED OVER TO THE OWNER.
  - THE CONTRACTOR SHALL INVESTIGATE THE CONSTRUCTION CONDITIONS AFFECTING THE WORK, ADJUST THE LOCATION OF EQUIPMENT, PIPING AND DUCTWORK AND PROVIDE FITTINGS AND ACCESSORIES AS REQUIRED TO MEET ACTUAL CONDITIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR UNANTICIPATED WORK ERUPTING FROM THE INSTALLATION OF THE NEW WORK.
- SUBMISSION OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND PROJECT INFORMATION
  - SHOP DRAWINGS SHALL BE SUBMITTED FOR THE FOLLOWING ITEMS:
    - INSULATION
    - ALL MECHANICAL EQUIPMENT
  - IDENTIFY ALL MECHANICAL SHOP DRAWINGS, PRODUCT DATA AND SAMPLES WITH THE NAME OF THE PROJECT. CLEARLY MARK THE SPECIFIC ITEMS INTENDED FOR USE. SUBMIT ALL RELATED ITEMS AT ONE TIME.
  - PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT, SUBMIT THE FOLLOWING INFORMATION FOR REVIEW AND APPROVAL.
    - OPERATING AND MAINTENANCE INSTRUCTIONS.
    - "AS BUILT" DRAWINGS.
  - GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE AND CONTRACTOR SHALL MAKE GOOD, WITHOUT ADDITIONAL COST TO THE OWNER, ANY DEFECTS WHICH MAY APPEAR WITHIN THAT PERIOD. MANUFACTURER'S WARRANTIES EXTENDING BEYOND ONE YEAR SHALL BE PROCESSED AND TURNED OVER TO THE OWNER.

- "AS BUILT" DRAWINGS: CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF THE LOCATION OF ALL CONCEALED DUCTWORK, PIPING, VALVES, CONTROLS, ETC., BOTH INTERIOR AND EXTERIOR. ON COMPLETION OF THE WORK, ONE PRINT EACH OF THE CONTRACT DRAWINGS WHICH ARE APPLICABLE SHALL BE NEATLY AND CLEARLY MARKED IN COLOR TO SHOW ALL VARIATIONS BETWEEN THE WORK ACTUALLY PROVIDED AND THAT INDICATED ON THE CONTRACT DRAWINGS.
- OPERATING AND MAINTENANCE MANUALS
  - GENERAL: PRIOR TO COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE TWO HARDBACKED LOOSELEAF RING TYPE BINDERS, IDENTIFIED WITH THE NAME OF THE PROJECT. CONTRACTOR SHALL DELIVER THESE BINDERS TO THE ENGINEER FOR REVIEW AND TRANSMITTAL TO THE OWNER.
  - THE FOLLOWING ITEMS AND OTHER ADDITIONAL PERTINENT DATA FOR EACH ITEM OF EQUIPMENT SHALL BE INCLUDED:
    - NAME OF MANUFACTURER.
    - NAME, ADDRESS AND TELEPHONE NUMBER OF NEAREST MANUFACTURER'S REPRESENTATIVE.
    - COPY OF LATEST APPROVED SHOP DRAWING.
    - MANUFACTURER'S OPERATING AND MAINTENANCE MANUAL INCLUDING LUBRICATION DATA.
    - PARTS NUMBERS FOR ALL REPLACEABLE ITEMS.
    - SERIAL NUMBERS OF ALL PRINCIPAL ITEMS OF EQUIPMENT.
    - CONTROL DIAGRAMS AND SEQUENCE OF OPERATION.
    - MANUFACTURER'S WRITTEN GUARANTEES THAT EXTEND BEYOND THE CONTRACTOR'S ONE YEAR GUARANTEE.
  - THE OPERATING AND MAINTENANCE MANUALS SHALL BE CONSIDERED A PART OF THE FINAL INSPECTION AND THEY SHALL BE SUBMITTED FOR APPROVAL AT LEAST THIRTY (30) DAYS PRIOR TO REQUEST FOR FINAL INSPECTION.
- ACCESS DOORS: ACCESS DOORS SHALL BE PROVIDED FOR ALL CONCEALED VALVES, CONTROLS, AND ANY OTHER EQUIPMENT OR MATERIALS REQUIRING INSPECTION OR MAINTENANCE. ACCESS DOORS SHALL BE FURNISHED FOR FLOORS, WALLS AND CEILINGS, OF ADEQUATE SIZE SO THAT CONCEALED ITEMS WILL BE READILY ACCESSIBLE FOR SERVICING OR FOR REMOVAL AND REPLACEMENT IF NECESSARY.
- PAINTING
  - SCOPE OF WORK: MECHANICAL EQUIPMENT, MATERIALS, AND RELATED PIPING DO NOT REQUIRE PAINTING EXCEPT AS INDICATED BELOW.
  - EQUIPMENT WITH A FACTORY APPLIED FINISH WILL NOT REQUIRE ADDITIONAL PAINTING EXCEPT TOUCH-UP WITH MATCHING FINISH WHERE IT IS DAMAGED.
  - PIPING, FABRICATED SUPPORTS, OR OTHER UNFINISHED AND UNPROTECTED MATERIALS LOCATED OUTDOORS SHALL BE PAINTED WITH A SUITABLE PRIMER AND COMPATIBLE FINISH PAINT. COLOR SHALL BE AS DIRECTED BY ENGINEER.
  - PAINT INSIDE OF DUCTWORK WITH MATTE BLACK PAINT WHERE VISIBLE BEHIND AIR INLETS AND OUTLETS.
  - PROTECTION OF WORK: PAINTING SHALL BE DONE WITH ALL POSSIBLE CARE TO PROTECT THIS WORK AND WORK OF OTHER TRADES. ALL DAMAGE TO THIS AND OTHER WORK CAUSED BY THE PAINTING OPERATIONS SHALL BE CORRECTED, CLEANED OR REPAIRED AS REQUIRED. HARDWARE, SPECIAL CONTROL ITEMS, GAUGES, THERMOMETERS, NAMEPLATES, INSTRUMENT GLASS AND OTHER SIMILAR ITEMS SHALL BE REMOVED OR PROPERLY PROTECTED DURING THE PAINTING OPERATIONS TO INSURE THAT THESE ITEMS ARE NOT COVERED OR SPLATTERED WITH PAINT.
- IDENTIFICATION
  - SUBMITTALS
    - SUBMIT LIST OF WORDING, SYMBOLS, LETTER SIZE, AND COLOR CODING FOR MECHANICAL IDENTIFICATION.
    - SUBMIT VALVE CHART AND SCHEDULE, INCLUDING VALVE TAG NUMBER, LOCATION, FUNCTION, AND VALVE MANUFACTURER'S NAME AND MODEL NUMBER.
    - PRODUCT DATA: PROVIDE MANUFACTURERS CATALOG LITERATURE FOR EACH PRODUCT REQUIRED.
  - NAMEPLATES
    - DESCRIPTION: LAMINATED THREE-LAYER PLASTIC WITH ENGRAVED LETTERS ON LIGHT CONTRASTING BACKGROUND COLOR.
  - TAGS
    - METAL TAGS: BRASS WITH STAMPED LETTERS; TAG SIZE MINIMUM 1-1/2 INCHES (40 MM) DIAMETER.
    - CHART: TYPEWRITTEN LETTER SIZE LIST IN ANODIZED ALUMINUM FRAME.
- STENCILS
  - STENCILS: WITH CLEAN CUT SYMBOLS AND LETTERS OF FOLLOWING SIZE:
    - 3/4 TO 1-1/4 INCHES (20-30 MM) OUTSIDE DIAMETER OF INSULATION OR PIPE: 8 INCHES (200 MM) LONG COLOR FIELD, 1/2 INCHES (15 MM) HIGH LETTERS.
    - 1-1/2 TO 2 INCHES (40-50 MM) OUTSIDE DIAMETER OF INSULATION OR PIPE: 8 INCHES (200 MM) LONG COLOR FIELD, 3/4 INCH (20 MM) HIGH LETTERS.
    - 2-1/2 TO 6 INCHES (65-150 MM) OUTSIDE DIAMETER OF INSULATION OR PIPE: 12 INCHES (300 MM) LONG COLOR FIELD, 1-1/4 INCHES (35 MM) HIGH LETTERS.
    - 8 TO 10 INCHES (200-250 MM) OUTSIDE DIAMETER OF INSULATION OR PIPE: 24 INCHES (600 MM) LONG COLOR FIELD, 2-1/2 INCHES (65 MM) HIGH LETTERS.
    - OVER 10 INCHES (250 MM) OUTSIDE DIAMETER OF INSULATION OR PIPE: 32 INCHES (800 MM) LONG COLOR FIELD, 3-1/2 INCHES (90 MM) HIGH LETTERS.
    - DUCTWORK AND EQUIPMENT: 2-1/2 INCHES (65 MM) HIGH LETTERS.
- INSULATION
  - FLAME/SMOKE RATINGS: PROVIDE COMPOSITE PLUMBING INSULATION (INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES) WITH FLAME-Spread RATING OF 25 OR LESS, AND SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ANSI/ASTM E84 (NFPA 255) METHOD. INSULATION SHALL BE LABELED BY THE MANUFACTURER. THE LABEL SHALL INDICATE THE INSULATING VALUE, FLAME SPREAD AND SMOKE-DEVELOPED RATING.
  - SUBMITTALS: SUBMIT MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF PLUMBING INSULATION. SUBMIT SCHEDULE SHOWING MANUFACTURER'S PRODUCT NUMBER, THICKNESS, AND FURNISHED ACCESSORIES FOR EACH PLUMBING SYSTEM REQUIRING INSULATION.
  - INSTALLATION: INSULATION SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS USING ONLY ADHESIVES, MASTICS AND PLUMBING FASTENERS APPROVED BY THE INSULATION MANUFACTURER. INSULATION SHALL NOT BE APPLIED UNTIL AFTER THE EQUIPMENT HAS BEEN TESTED WITH RESULTS ACCEPTABLE TO THE ARCHITECT/ENGINEER. INSULATION WITH A VAPOR BARRIER JACKET SHALL BE APPLIED WITH A CONTINUOUS, UNBROKEN VAPOR SEAL AND ALL JOINTS SHALL BE SEALED WITH A VAPOR BARRIER ADHESIVE UNLESS OTHERWISE INDICATED. STAPLES, STICK CLIPS AND HANGERS SHALL BE VAPOR SEALED WHERE THEY PUNCTURE VAPOR JACKET.
  - PIPE INSULATION
    - HEATING WATER PIPING: INSULATE WITH 1-1/2" THICK ELASTOMERIC CELLULAR FOAM INSULATION.
- PIPEING
  - HEATING WATER PIPING SHALL BE SCHEDULE 40 SEAMLESS BLACK STEEL IN ACCORDANCE WITH ASTM A52 OR TYPE L COPPER TUBING IN ACCORDANCE WITH ASTM B75. INSTALL PIPING, HANGARDS AND SUPPORTS PER ASTM B31.9. PROVIDE MANUAL AIR VENTS AT HIGH POINTS, DRAINS AT LOW POINTS. COORDINATE PIPE ROUTING WITH EXISTING CONDITIONS AND OTHER TRADES AND INSTALL PIPING TO MAINTAIN CEILING HEIGHTS.
  - ALL BALL VALVES SHALL BE BRONZE BODY, BRONZE BALL WITH TFE SEATS AND SEALS. VALVES TO BE EQUAL TO NIBCO T-280-70 OR S-580-70. CHECK VALVE SHALL BE BRONZE BODY Y-SWING EQUAL TO MILWAUKEE VALVE #5091.
- NATURAL GAS SYSTEMS
  - GAS SERVICE PIPING:
    - ALL SIZES: SCHEDULE 40 BLACK STEEL PIPE, ASTM A120/A53-CW OR ASTM/A53 GRADE B (WELDED OR SEAMLESS); WROUGHT STEEL BUTTWELD FITTINGS.
    - WRAPPING FOR EXPOSED PIPING: MACHINE WRAP PIPE USING 50% OVERLAP WRAP, WITH POLYVINYL CHLORIDE TAPE. HAND WRAP FITTINGS USING 100% OVERLAP WRAP EXTENDING 6 INCHES BEYOND FITTING ONTO WRAPPED PIPE. COMPLY WITH TAPE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
  - GAS COCKS:
    - GAS COCKS 2 INCHES AND SMALLER: 150 PSI NON-SHOCK WOG, BRONZE STRAIGHTWAY COCK, FLAT OR SQUARE HEAD, THREADED ENDS.
    - GAS COCKS 2-1/2 INCHES AND LARGER: 125 PSI NON-SHOCK WOG, IRON BODY BRONZE BRONZE MOUNTED, STRAIGHTWAY COCK, SQUARE HEAD, FLANGED ENDS.
  - ALL GAS PIPING EQUIPMENT CONNECTIONS SHALL BE PROVIDED WITH A 6 INCH DIRT TRAP, UNION AND GAS COCK SHUT OFF.
  - ALL JOINTS SHALL BE SEALED WITH CHEMICALLY RESISTANT SEALER APPLIED TO MALE THREADS OF PIPE CONNECTION.
  - GAS PIPING SHALL BE INSTALLED WITH A 1/64 INCH PER FOOT DOWNWARD SLOPE IN DIRECTION OF FLOW.
- CONTROLS
  - EACH BOILER SHALL BE PROVIDED WITH ALL NECESSARY CONTROLS, ALL NECESSARY PROGRAMMING SEQUENCES AND ALL SAFETY INTERLOCKS. EACH WATER HEATER CONTROL SYSTEM SHALL BE PROPERLY INTERLOCKED WITH ALL SAFETIES.
  - EACH WATER HEATER SHALL BE PROVIDED WITH A FULL MODULATING FIRING CONTROL SYSTEM WHEREBY THE FIRING RATE IS INFINITELY PROPORTIONAL AT ANY FIRING RATE BETWEEN LOW FIRE AND HIGH FIRE AS DETERMINED BY THE PULSE WIDTH MODULATION INPUT CONTROL SIGNAL. BOTH FUEL INPUT AND AIR INPUT MUST BE SEQUENCED IN UNISON TO THE APPROPRIATE FIRING RATE WITHOUT THE USE OF MECHANICAL LINKAGE.
  - THE BOILER'S CONTROL SYSTEM SHALL PROVIDE THE MINIMUM CAPABILITIES: 7" COLOR TOUCHSCREEN WITH ONE OR MORE USB PORTS; PARAMETER UPLOADS AND DOWNLOADS VIA EXTERNAL USB FLASH DRIVE; SOFTWARE UPDATES VIA EXTERNAL USB FLASH DRIVE; PROGRAMMABLE RELAY OUTPUTS FOR DIRECT CONTROL OF PUMPS, CONTROL VALVES, DAMPERS AND OTHER AUXILIARY DEVICES; MULTIPLE BOILER "CASCADE" NETWORK WITHOUT ANY EXTERNAL CONTROL PANEL. PROGRAMMABLE BOILER AND SYSTEM PUMP CONTROL FOR MULTIPLE BOILER "CASCADE" SYSTEMS INSTALLED IN A PRIMARY-SECONDARY PIPING ARRANGEMENT; ON SCREEN ERROR NOTIFICATIONS WITH A COMPREHENSIVE DESCRIPTION OF ALL ALARM CONDITIONS AND TROUBLESHOOTING STEPS.
  - THE BOILER CONTROL SYSTEM SHALL BE FULLY INTEGRATED WITH EXISTING JOHNSON CONTROLS BUILDING MANAGEMENT SYSTEM.
- ELECTRICAL
  - PROVIDE NEW WIRING, CONDUIT, CIRCUIT BREAKERS AND DISCONNECT SWITCHES AS REQUIRED TO POWER THE MECHANICAL EQUIPMENT. ALL COMPONENTS SHALL COMPLY WITH THE NEC. ELECTRICAL PRODUCTS MUST BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING AGENCY. ALL WORK AS REQUIRED FOR COMPLETE, OPERABLE EQUIPMENT AND SYSTEMS SHALL BE PROVIDED.
- CLEANING AND TESTING
  - CLEAN EQUIPMENT AND FIXTURES TO A SANITARY CONDITION WITH CLEANING MATERIALS APPROPRIATE TO THE SURFACE AND MATERIAL BEING CLEANED. CLEAN DUCT SYSTEMS AND FORCE AIR AT HIGH VELOCITY THROUGH DUCT TO REMOVE ACCUMULATED DUST.
  - REPLACE FILTERS OF OPERATING EQUIPMENT.
  - HEATING AND COOLING SYSTEMS AND EXHAUST SYSTEMS SHALL BE TESTED, ADJUSTED AND BALANCED (TAB). AIR HANDLING SYSTEMS SHALL BE ADJUSTED TO WITHIN +/- 10% OF DESIGN. THE TOTAL OF AIR OUTLETS AND INLETS SHALL BE ADJUSTED TO WITHIN PLUS 10% AND MINUS 5% OF DESIGN TO SPACE. ADJUST OUTLETS AND INLETS IN SPACE TO WITHIN +/- 10% OF DESIGN.
  - THE TAB CONTRACTOR SHALL NOT BE AFFILIATED IN ANY WAY BE WITH THE INSTALLING CONTRACTOR OR EQUIPMENT SUPPLIERS.
- REVISIONS

BRAMBLETON CENTER  
BOILER REPLACEMENT  
MECHANICAL  
SPECIFICATIONS



Designed	MDR
Drawn	MDR
Checked	MDR
Date	08-18-2021
Project No.	



Sheet No.  
M-1

## MECHANICAL EQUIPMENT

PUMP **HWP-1, HWCP-2** (BASIS OF DESIGN): BELL AND GOSSETT INLINE CIRCULATOR XL-40-275, 85 GPM, 15 FEET HEAD, 2-1/2" CONNECTIONS, 1750 RPM, 1.0 HP, 120 VOLT, 1 PHASE.

PUMP **HWP-1**: INLINE CIRCULATOR, 1750 RPM, 1/4 HP, 120 VOLT, 1 PHASE. CONTRACTOR TO FIELD VERIFY SIZE REQUIRED.

PUMP **HWP-2**: INLINE CIRCULATOR, 1750 RPM, 3/4 HP, 208 VOLT, 3 PHASE. CONTRACTOR TO FIELD VERIFY SIZE REQUIRED.

PUMP **HWP-3**: CONTRACTOR TO FIELD VERIFY SIZE REQUIRED.

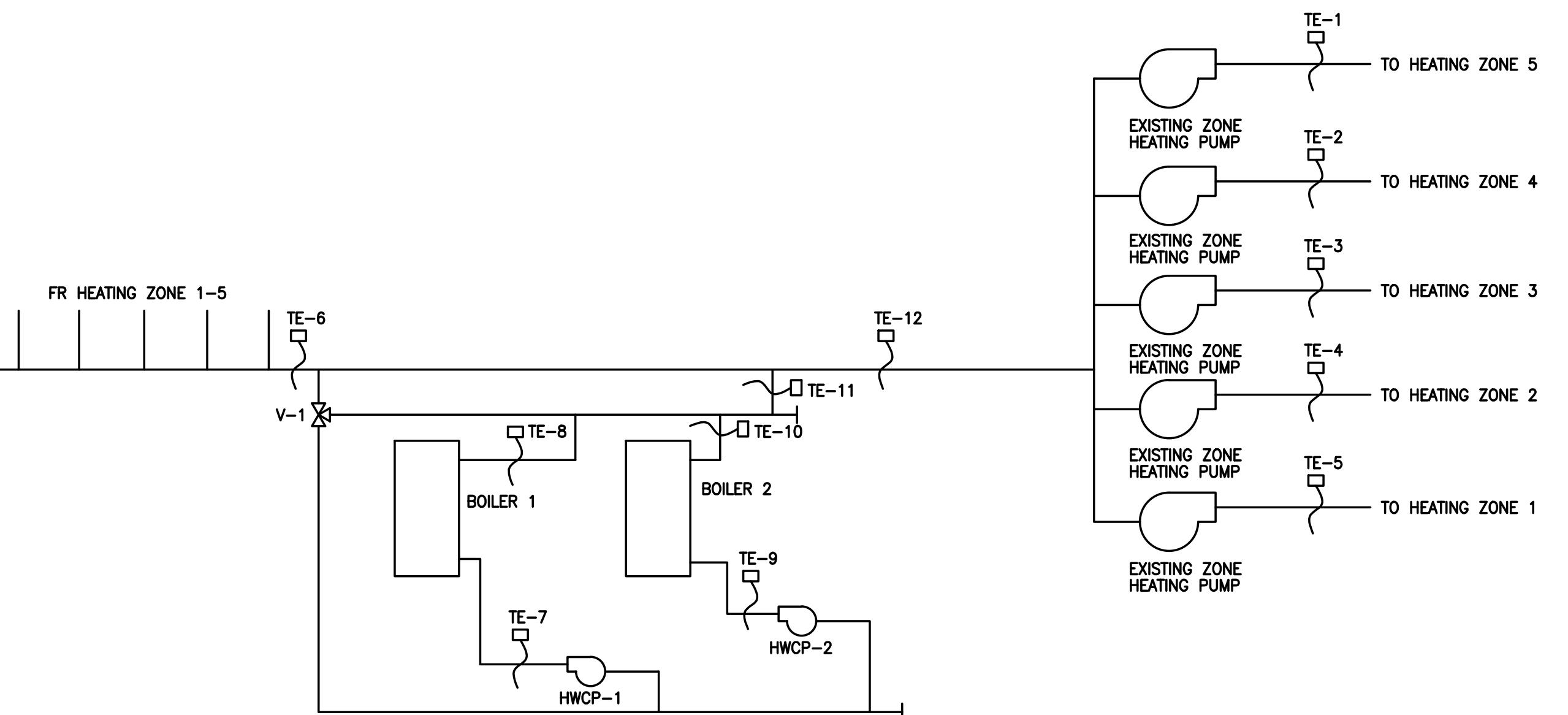
PUMP **HWP-4**: INLINE CIRCULATOR, 1750 RPM, 1 HP, 208 VOLT, 3 PHASE. CONTRACTOR TO FIELD VERIFY SIZE REQUIRED.

PUMP **HWP-5**: INLINE CIRCULATOR, 1750 RPM, 1-3/4 HP, 208 VOLT, 3 PHASE. CONTRACTOR TO FIELD VERIFY SIZE REQUIRED.

BOILER 1, BOILER 2 (BASIS OF DESIGN): PATTERSON KELLEY MODEL W1000VX, 1000 MBH INPUT, 850 MBH OUTPUT, 85% EFFICIENT, 1.6:1 TURNDOWN PROVIDED WITH POWER BURNER, WATER PRESSURE/TEMPERATURE GAUGES, RELIEF VALVE, MANUAL RESET HIGH LIMIT, WATER TEMPERATURE CONTROLLER, HIGH/LOW GAS PRESSURE SWITCHES, UV SCANNER TYPE FLAME SENSOR, INDOOR/OUTDOOR RESET, LOW WATER/FLOW CUT-OFF, VENT SYSTEM AND FULL MODULATING FIRING CONTROLS.

AIR SEPARATOR **AS-1** (BASIS OF DESIGN): B&G ROLAIRTROL R-4, 170 GPM, 5 FT. WPD, WITH STRAINER AND CONNECTION FOR EXPANSION TANK.

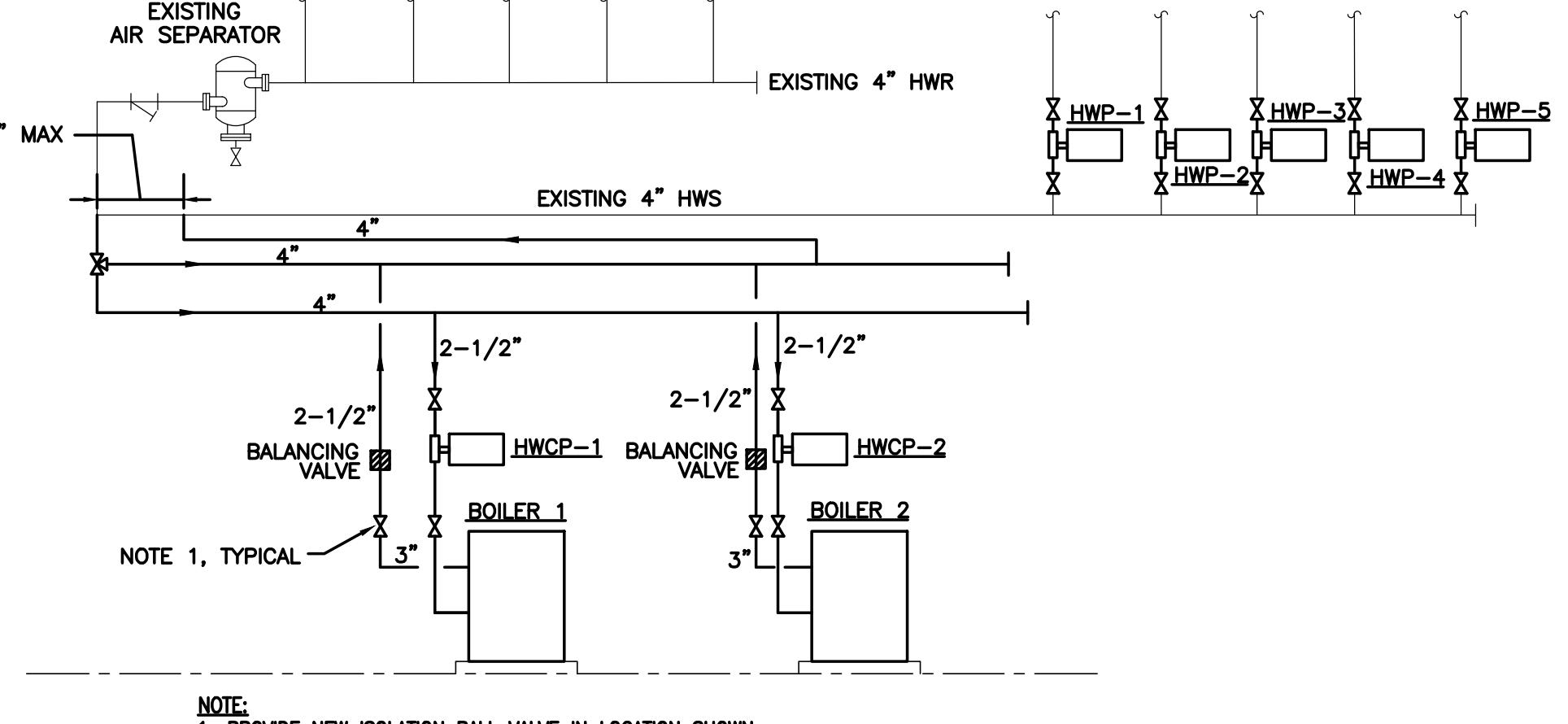
EXPANSION TANK (BASIS OF DESIGN): B&G D-40, PRECHARGED DIAPHRAGM TANK, 22.4 GALLON, 4.7 GALLON ACCEPTANCE VOLUME, 16" DIA. X 29" LONG.



### SEQUENCE OF OPERATION:

UPON A CALL FOR HEATING BY ANY HEATING COIL, THE CONTROL SYSTEM SHALL ENERGIZE BOILER 1 OR 2 AND THE EXISTING ZONE HEATING PUMP AS REQUIRED. TE-1 THRU TE-5 SHALL SENSE SUPPLY WATER TEMPERATURE. TE-6 SHALL SENSE RETURN WATER TEMPERATURE. TE-7 SHALL SENSE BOILER #1 ENTERING WATER TEMPERATURE. TE-9 SHALL SENSE BOILER #2 ENTERING WATER TEMPERATURE. TE-8 SHALL SENSE BOILER #1 LEAVING WATER TEMPERATURE. TE-10 SHALL SENSE #2 LEAVING WATER TEMPERATURE. V-1 SHALL BE MODULATED AS REQUIRED TO HEADER TEMPERATURE. TE-11 AND TE-12 SHALL SENSE HEADER TEMPERATURE. HWCP-1 AND HWCP-2 SHALL BE ENERGIZED WHEN ITS RESPECTIVE BOILER IS ENERGIZED TO ENSURE MINIMUM WATER CIRCULATION THROUGH THE BOILER. DIFFERENTIAL PRESSURE SWITCHES ON THE EXISTING ZONE HEATING PUMPS, HWCP-1, HWCP-2 SHALL ALARM THE CONTROL SYSTEM OF PUMP OFF NORMAL CONDITIONS. THE BOILER SAFETY CONTROL STATUS SHALL BE TRANSMITTED TO THE CONTROL SYSTEM FOR ALARM PURPOSES.

## HEATING WATER SYSTEM CONTROLS



## HEATING WATER DIAGRAM - NEW WORK

SCHEMATIC

## LEGEND

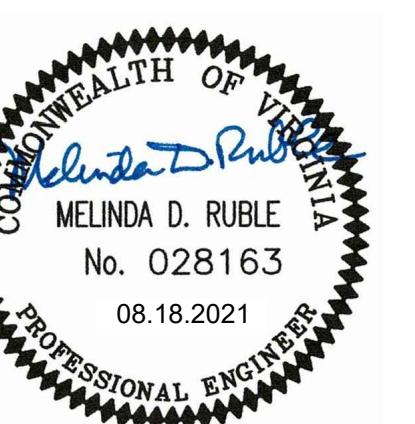
	BRANCH CONNECTION - BOTTOM OF MAIN
	BRANCH CONNECTION - SIDE OF MAIN
	BRANCH CONNECTION - TOP OF MAIN
	PIPE DOWN OR PIPE FROM BELOW
	PIPE UP OR PIPE FROM ABOVE
	DIRECTION OF FLOW
	HEATING WATER SUPPLY
	HEATING WATER RETURN
	ISOLATION BALL VALVE
	BALANCING VALVE
	UNION

## ABBREVIATIONS

AAV	AUTOMATIC AIR VENT
BTU	BRITISH THERMAL UNIT
DB	DRY BULB TEMPERATURE
DIA, Ø	DIAMETER
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EXT	EXTERNAL
F	DEGREES FAHRENHEIT
FT	FEET
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
IN	INCH, INCHES
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MIN	MINIMUM
PD	PRESSURE DROP
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAGE
TEMP	TEMPERATURE
TYP	TYPICAL
WB	WET BULB TEMPERATURE
CONN	CONNECT, CONNECTION
CONT	CONTINUED
DN	DOWN
EA	EACH
EXIST	EXISTING
FL	FLOOR
FR	FROM

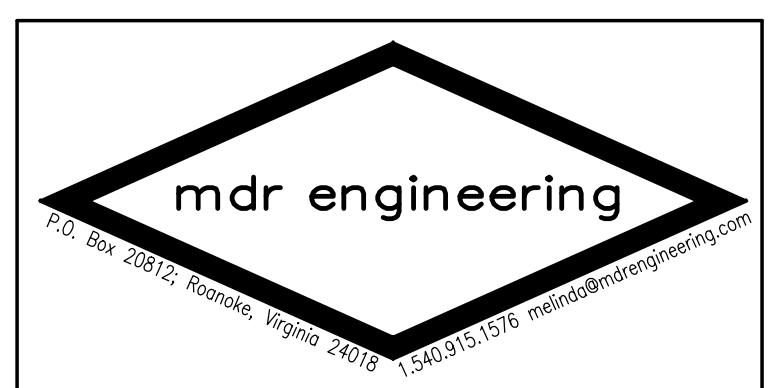
BRAMBLETON CENTER  
BOILER REPLACEMENT

MECHANICAL LEGEND, SCHEDULES  
AND CONTROLS



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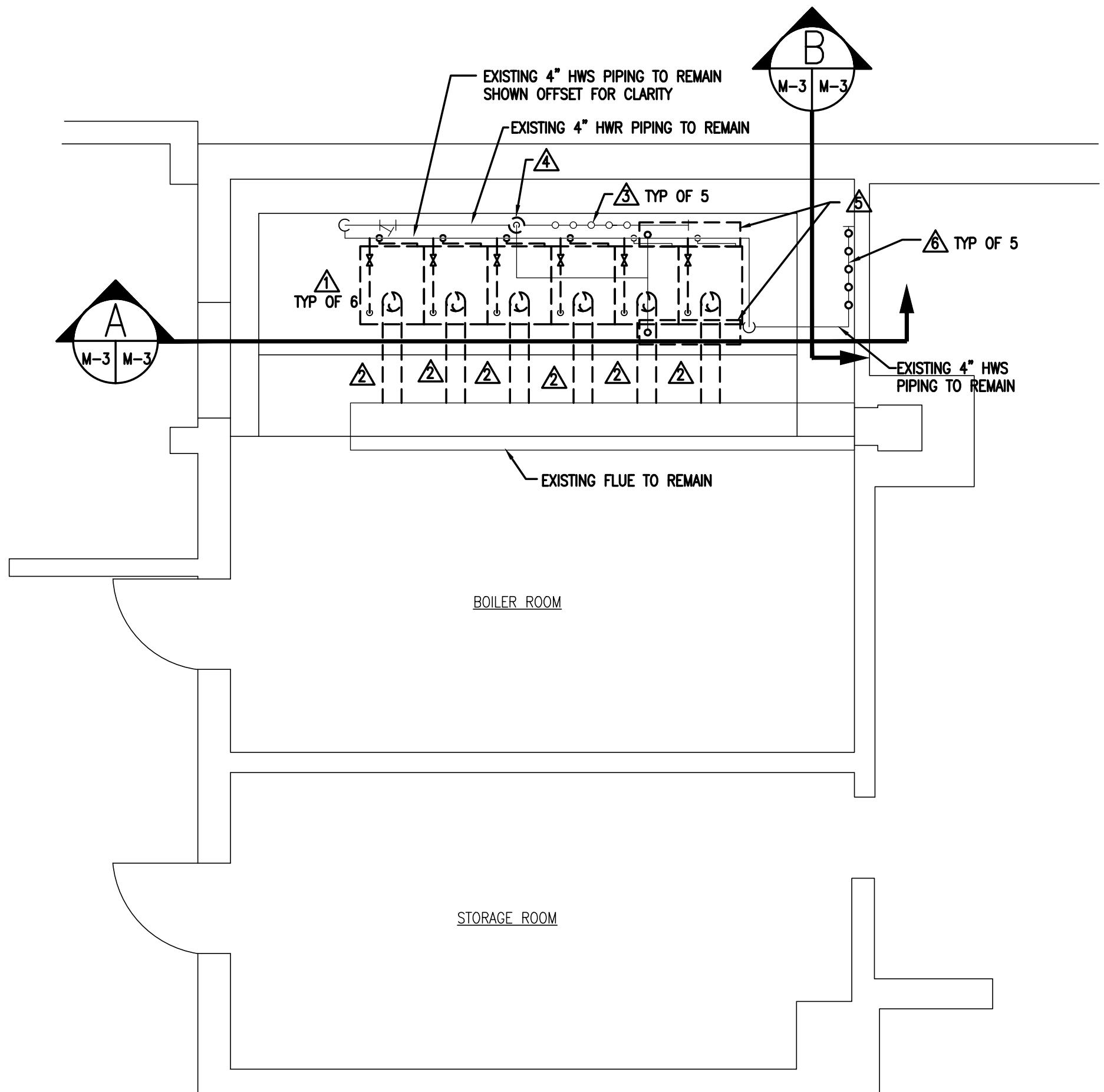
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Designed	MDR
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Checked	MDR
Date	08-18-2021
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Sheet No.
M-3

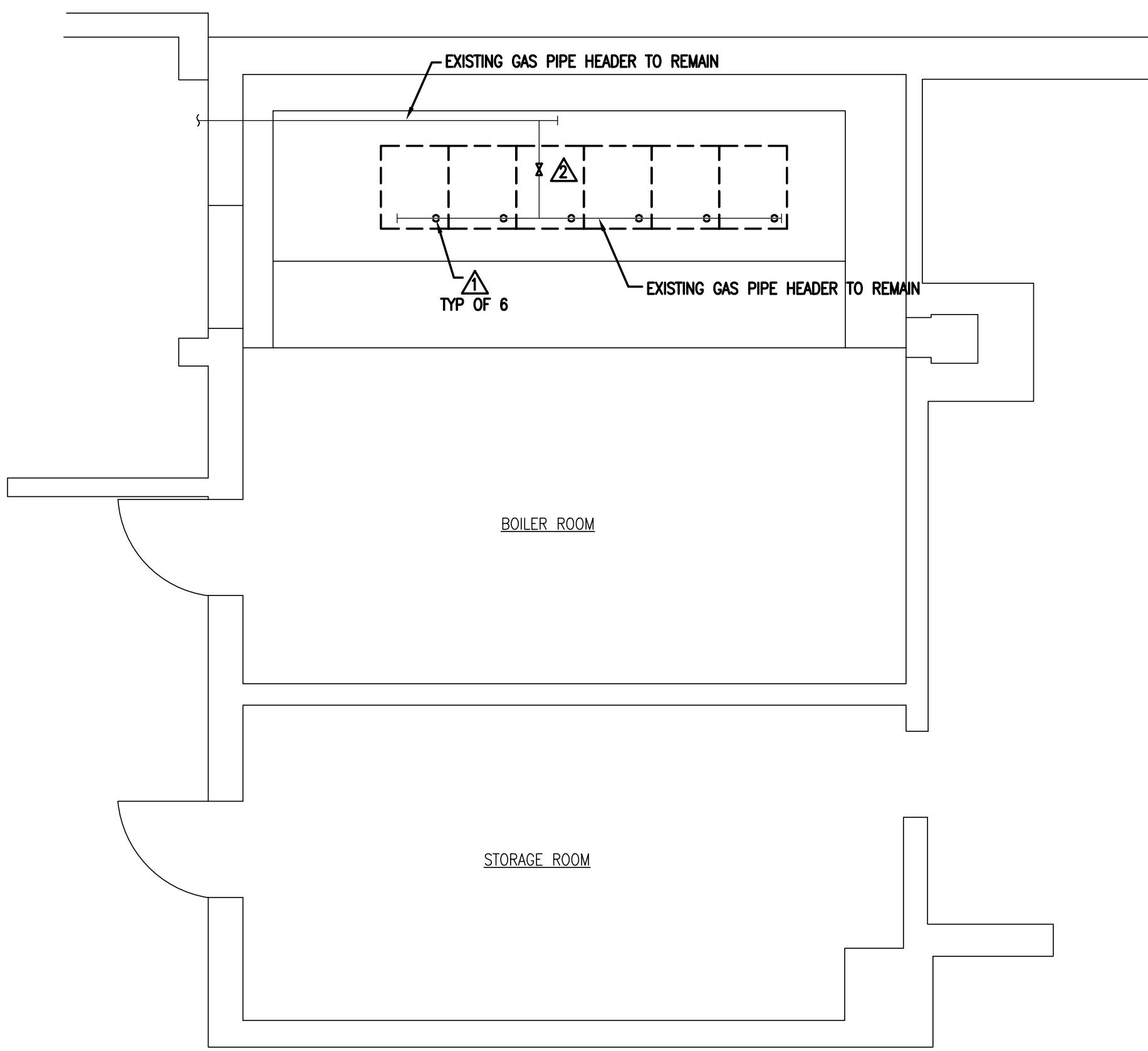


### DEMOLITION PLAN - BOILER ROOM

1/4" = 1'-0"

DEMOLITION NOTES:

- △ REMOVE EXISTING BOILER AND ALL ASSOCIATED PIPING, VALVES, VENTING, CIRCULATING PUMP, ETC. WHERE PIPING CONNECTIONS TO THE HWS/R ARE REMOVED, THE PIPING SHALL BE CAPPED WATERTIGHT.
- △ REMOVE EXISTING VENT AS INDICATED. SEAL UNUSED HOLES IN EXISTING FLUE AIR TIGHT.
- △ REMOVE EXISTING ISOLATION VALVE FOR EACH ZONE RETURN. PREPARE FOR NEW VALVE. VALVE NOT SHOWN FOR CLARITY.
- △ REMOVE EXISTING AIR SEPARATOR. PREPARE FOR INSTALLATION OF NEW AIR SEPARATOR.
- △ REMOVE EXISTING EXPANSION TANK. PREPARE FOR INSTALLATION OF NEW EXPANSION TANK.
- △ REMOVE EXISTING ZONE CIRCULATING PUMP WITH ISOLATION VALVES AND PIPING BETWEEN VALVE. PREPARE FOR INSTALLATION OF NEW PUMP, ISOLATION VALVES AND PIPING.

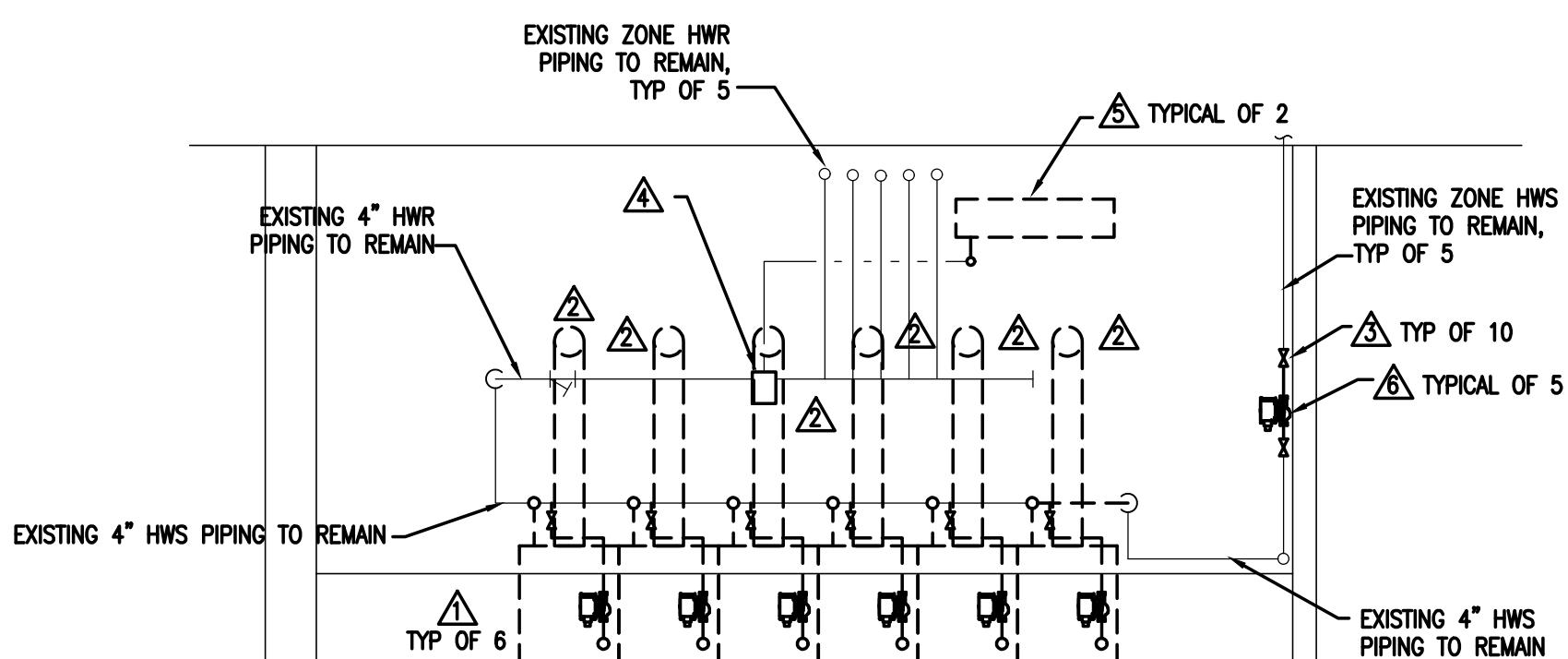


### DEMOLITION PLAN - GAS PIPING - BOILER ROOM

1/4" = 1'-0"

DEMOLITION NOTES:

- △ REMOVE EXISTING BOILER AND ASSOCIATED GAS PIPING CONNECTIONS.
- △ REMOVE EXISTING GAS ISOLATION VALVE. PREPARE FOR NEW VALVE.



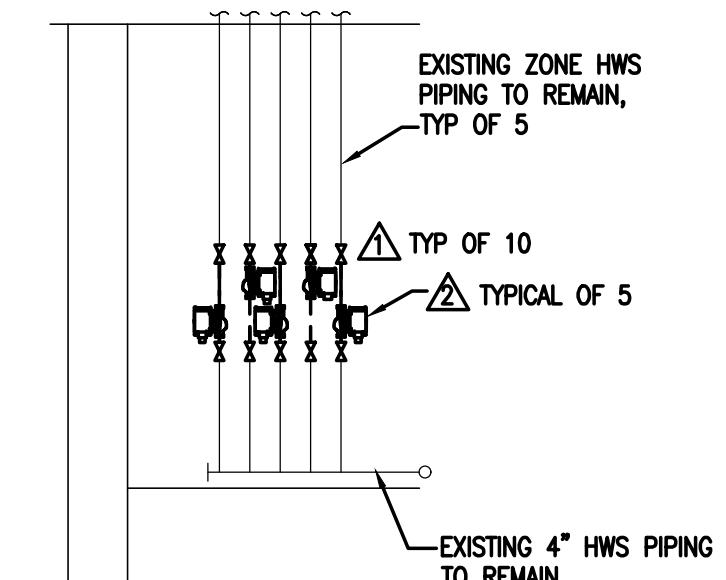
### DEMOLITION NOTES:

- △ REMOVE EXISTING BOILER AND ALL ASSOCIATED PIPING, VALVES, VENTING, CIRCULATING PUMP, ETC. WHERE PIPING CONNECTIONS TO THE HWS/R ARE REMOVED, THE PIPING SHALL BE CAPPED WATERTIGHT.
- △ REMOVE EXISTING VENT AS INDICATED. SEAL UNUSED HOLES IN EXISTING FLUE AIR TIGHT.
- △ REMOVE EXISTING ISOLATION VALVE. PREPARE FOR NEW VALVE.
- △ REMOVE EXISTING AIR SEPARATOR. PREPARE FOR INSTALLATION OF NEW AIR SEPARATOR.
- △ REMOVE EXISTING EXPANSION TANK. PREPARE FOR INSTALLATION OF NEW EXPANSION TANK.
- △ REMOVE EXISTING ZONE CIRCULATING PUMP WITH ISOLATION VALVES AND PIPING BETWEEN VALVE. PREPARE FOR INSTALLATION OF NEW PUMP, ISOLATION VALVES AND PIPING.

### SECTION

1/4" = 1'-0"

A  
M-3 M-3



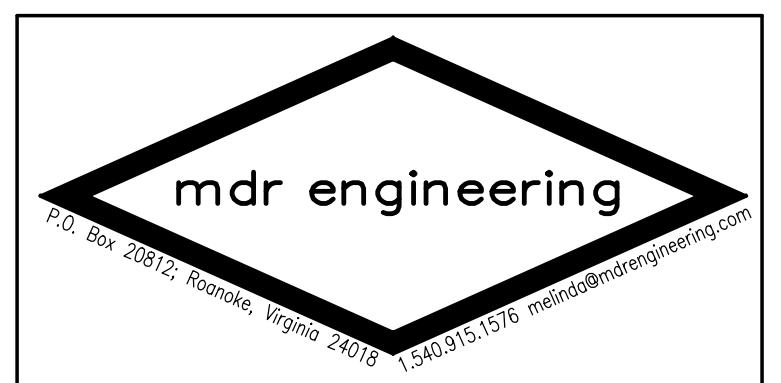
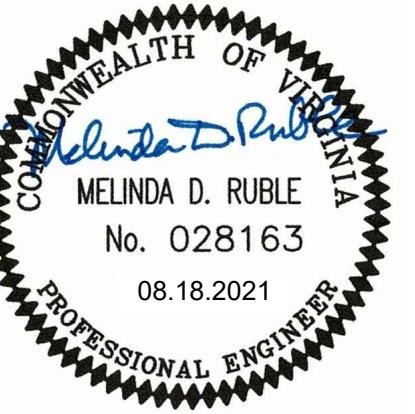
### DEMOLITION NOTES:

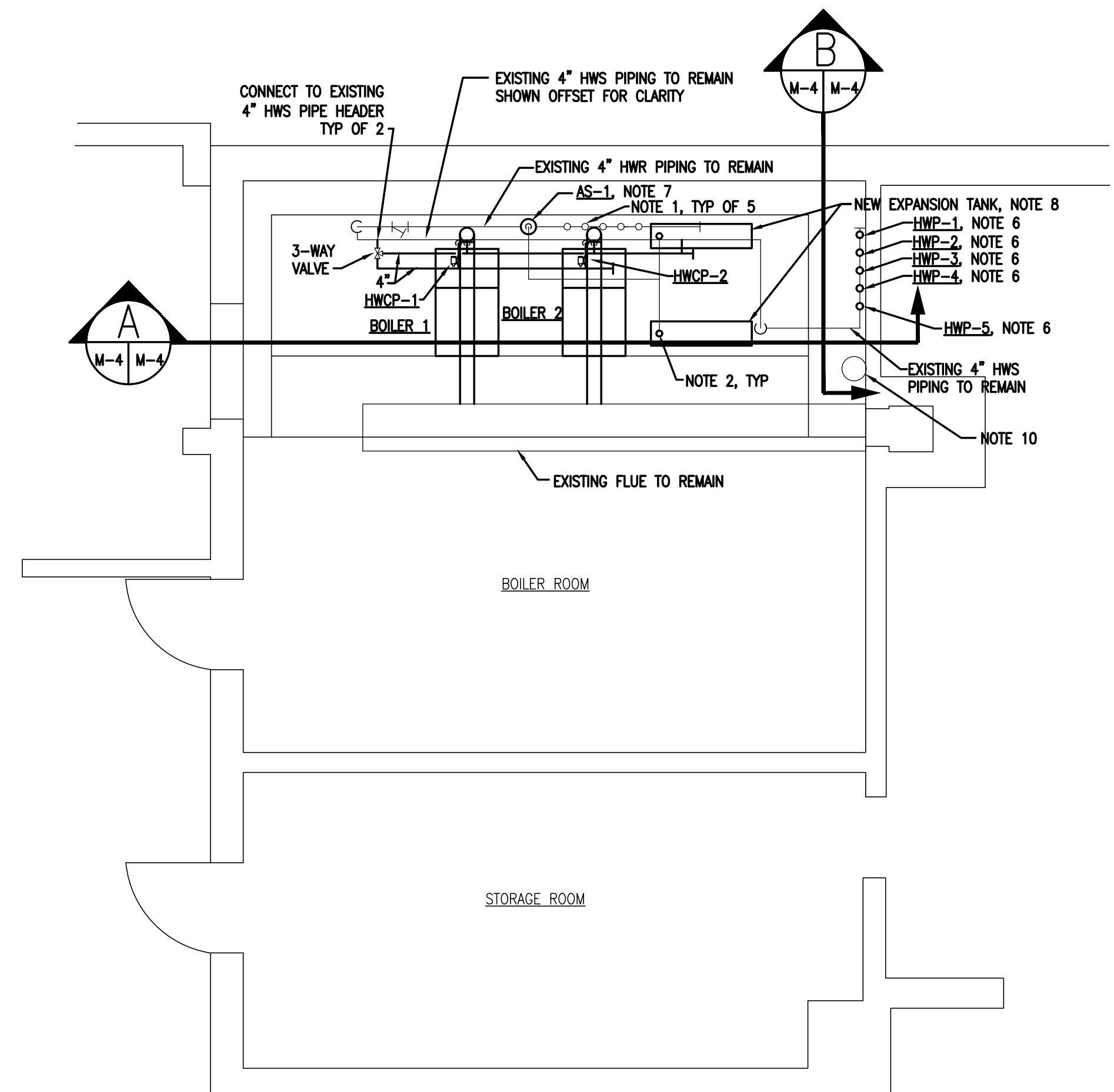
- △ REMOVE EXISTING ISOLATION VALVE. PREPARE FOR NEW VALVE.
- △ REMOVE EXISTING ZONE CIRCULATING PUMP WITH ISOLATION VALVES AND PIPING BETWEEN VALVE. PREPARE FOR INSTALLATION OF NEW PUMP, ISOLATION VALVES AND PIPING.

### SECTION

1/4" = 1'-0"

B  
M-3 M-3



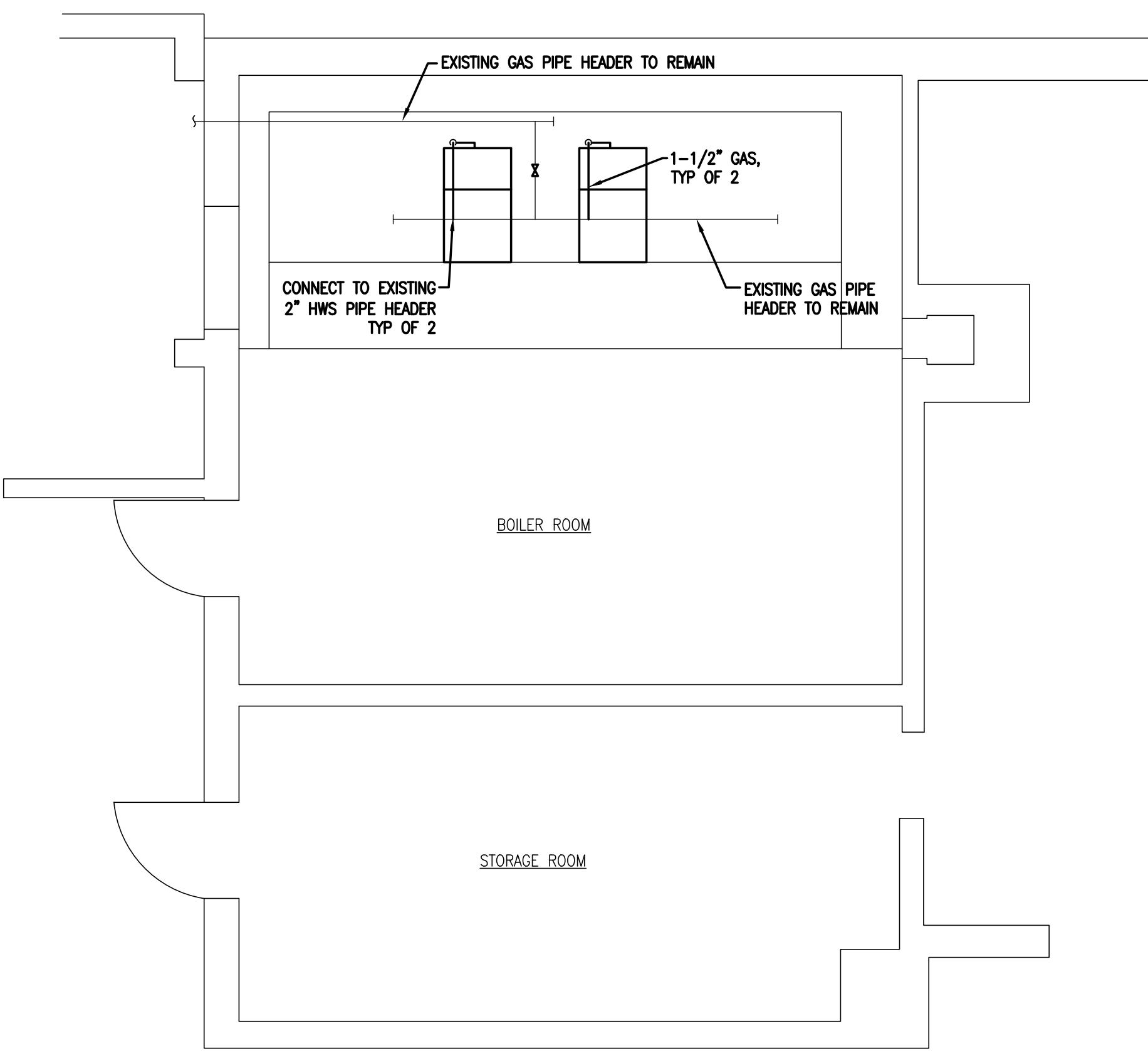


**NOTES:**

1. INSTALL NEW ISOLATION BALL VALVE IN PLACE OF EXISTING VALVE. CONTRACTOR TO FIELD VERIFY VALVE SIZE. VALVE NOT SHOWN FOR CLARITY.
2. ALL EXISTING THREADED FITTINGS SHALL BE TAPE AND DODGED AS REQUIRED TO CORRECT LEAKS. FITTINGS AT THE EXPANSION TANKS, AIR SEPARATOR AND EXISTING PUMPS SHALL BE INCLUDED.
3. PROVIDE ELECTRICAL WORK AS REQUIRED. SEE SPECIFICATIONS.
4. CLEAN UP ELECTRICAL CONDUIT AND PIPE SURFACES AS REQUIRED.
5. REPAIR ALL EXISTING PIPE INSULATION TO MATCH AS REQUIRED.
6. INSTALL NEW ZONE HEATING PUMP IN PLACE OF EXISTING PUMP. INSTALL NEW ISOLATION BALL VALVES AND NEW PIPING BETWEEN THE TWO ISOLATION VALVES. CONTRACTOR TO FIELD VERIFY PUMP/PIPING SIZE.
7. INSTALL NEW AIR SEPARATOR IN PLACE OF EXISTING AIR SEPARATOR.
8. INSTALL NEW EXPANSION TANK IN PLACE OF EXISTING EXPANSION TANK.
9. SEE HEATING WATER FLOW DIAGRAM ON SHEET M-2 FOR LOCATION OF ALL ISOLATION VALVES. ALL VALVES NOT SHOWN ON FLOOR PLAN FOR CLARITY. CONTRACTOR TO ENSURE NEW BALL VALVES ARE INSTALLED AS INDICATED IN DIAGRAM.
10. RECONNECT CHEMICAL FEED SYSTEM AS REQUIRED AFTER ZONE HEATING PUMP/PIPING IS REPLACED.

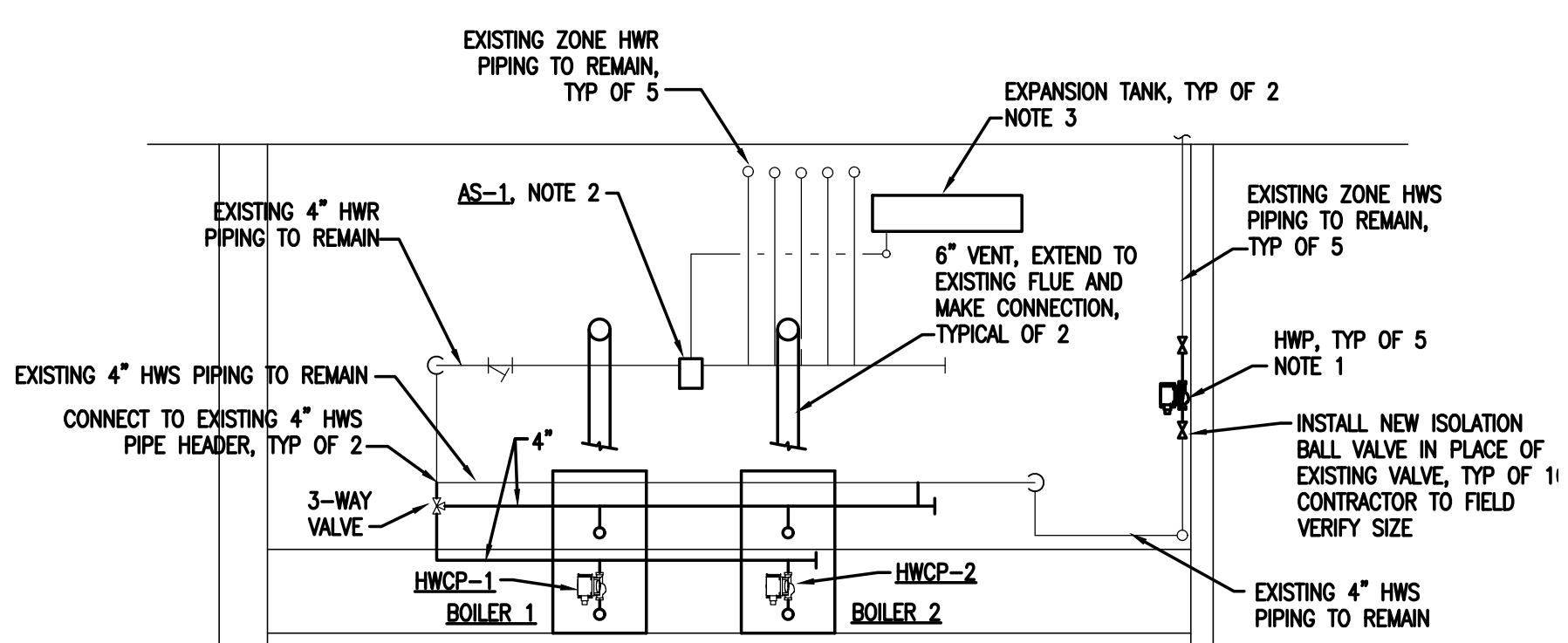
## NEW WORK PLAN - BOILER ROOM

1/4" = 1'-0"



## NEW WORK PLAN - GAS PIPING - BOILER ROOM

1/4" = 1'-0"

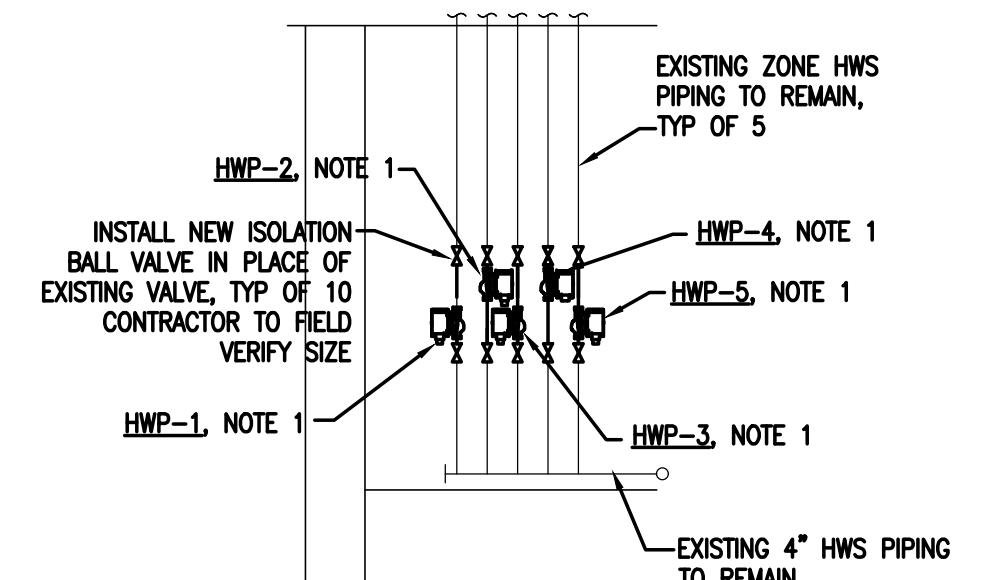


**NOTES:**

1. INSTALL NEW ZONE HEATING PUMP IN PLACE OF EXISTING PUMP. INSTALL NEW ISOLATION BALL VALVES AND NEW PIPING BETWEEN THE TWO ISOLATION VALVES. CONTRACTOR TO FIELD VERIFY PUMP/PIPING SIZE.
2. INSTALL NEW AIR SEPARATOR IN PLACE OF EXISTING AIR SEPARATOR.
3. INSTALL NEW EXPANSION TANK IN PLACE OF EXISTING EXPANSION TANK.

## SECTION

1/4" = 1'-0"

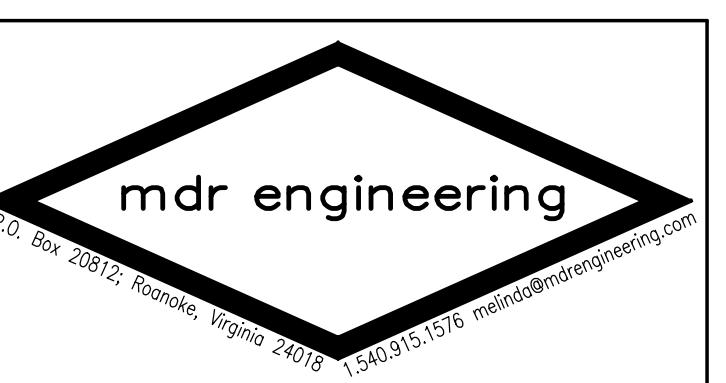
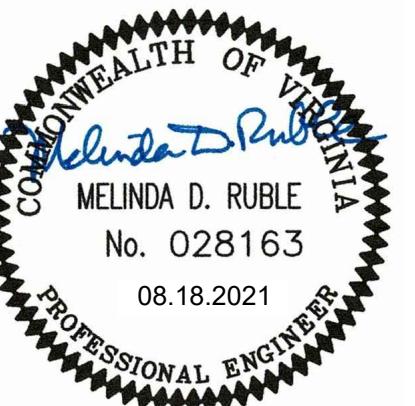


**NOTES:**

1. INSTALL NEW ZONE HEATING PUMP IN PLACE OF EXISTING PUMP. INSTALL NEW ISOLATION BALL VALVES AND NEW PIPING BETWEEN THE TWO ISOLATION VALVES. CONTRACTOR TO FIELD VERIFY PUMP/PIPING SIZE.

## SECTION

1/4" = 1'-0"



BRAMBLETON CENTER  
BOILER REPLACEMENT  
MECHANICAL  
NEW WORK PLANS



Revision	
Date	
No.	

Designed	MDR
Drawn	MDR
Checked	MDR
Date	08-18-2021
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Sheet No.	M-4
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**ATTACHMENT F: ASBESTOS REPORT**

**Statement for Building Official****RE: 3738 Brambleton Avenue Roanoke Virginia  
Limited Asbestos Inspection****Statement**

Pursuant to Section 36 - 99.7 of the Code of Virginia and regulations promulgated under Article 5.2 Section 2.1 - 526.12 through 2.1 - 526.17 and Chapter 7.01 (Section 54.145 et seq) of Title 54, the property identified above has been inspected by the undersigned, and those materials subject to renovation or demolition as indicated by the owner or his agent(s) were found to:

- a. X contain no asbestos
- b. \_\_\_\_\_ contain asbestos and response actions have been completed
- c. \_\_\_\_\_ contain asbestos and the owner or his agent(s) indicate that response actions will be taken as part of the renovation or demolition project

**Description of Work**

On July 22, 2021 a mechanical room at of the above-referenced location was inspected for asbestos containing materials. The purpose of the inspection was to identify any asbestos containing materials located in the mechanical room and was limited to suspect material that may be disturbed during a planned boiler replacement. The scope of work was defined by the owner's representative and includes replacement of the boilers (6) and associated pipes. The following suspect materials were observed: mastic sealant on fiberglass pipe insulation and plaster on the ceiling of the boiler room. The owner's representative indicated that the plaster would not be disturbed. Two bulk samples of the finish mastic were collected during the onsite visit, which resulted in four laboratory analyses.

**Inspection Results**

The following suspect material was identified as containing > 1% asbestos:

- None

Sincerely,

A & L Environmental, Inc.

Linda V. Allen  
Asbestos Inspector License # 3303 002007

<b>3738 Brambleton Avenue Roanoke, Virginia</b>		
<b>Mechanical Room</b>		
<b>Sample Number</b>	<b>Sample Description</b>	<b>Laboratory Results</b>
BC-1	Finish mastic, white, pipe insulation	ND (none detected) ND
BC-2	Finish mastic, white, pipe insulation	ND ND



EMSL ANALYTICAL, INC.  
TESTING LABS • PRODUCTS • TRAINING

# Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

042118189

PHONE:

FAX:

Company Name:	A & L Environmental, Inc.			EMSL Customer ID:	ALEN77
Street:	5167 Bradshaw Road			City:	Salem
Zip/Postal Code:	24153	Country:	US	Telephone #:	540-314-7490
Report To (Name):	Linda Allen			State/Province: VA	
Email Address:	l.v.allen@comcast.net			Fax #: none	
Project Name/Number:	Roanoke Co. 3738 Brambleton			Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken:	VA			Purchase Order:	
EMSL Bill-to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different: If Bill-to is different, note instructions in comments/special instructions below. Third-party billing requires written authorization.					

## Turnaround Time (TAT) Options – Please Check

<input type="checkbox"/> 3 Hour*	<input type="checkbox"/> 6 Hour	<input checked="" type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour	<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week
<input type="checkbox"/> 4-4.5hr TAT (AHERA only)							

\*TEM Air 3 hr., please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT.

PCM - Air	TEM - Air	Soil/Rock/Vermiculite (Reporting Limit)
<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> AHERA 40 CFR, Part 763	<input type="checkbox"/> PLM CARB 435 – A (0.25%)
<input type="checkbox"/> w/ OSHA 8hr. TWA	<input type="checkbox"/> EPA Level II	<input type="checkbox"/> PLM CARB 435 – B (0.1%)
PLM – Bulk (Reporting Limit)	<input type="checkbox"/> NIOSH 7402	<input type="checkbox"/> TEM CARB 435 – B (0.1%)*
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input type="checkbox"/> ISO 10312	<input type="checkbox"/> TEM CARB 435 – C (0.01%)*
<input type="checkbox"/> PLM EPA NOB (<1%)	TEM - Bulk	<input type="checkbox"/> TEM Qualitative via Filtration Prep
<input type="checkbox"/> 400 (<0.25%) Point Count	<input type="checkbox"/> TEM EPA NOB	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep
<input type="checkbox"/> 400 (<0.25%) Point Count with Gravimetric Reduction	<input type="checkbox"/> Chatfield SOP	<input type="checkbox"/> PLM EPA 600/R-93/116 with Milling Prep (<1%)
<input type="checkbox"/> 1000 (<0.1%) Point Count	<input type="checkbox"/> TEM EPA 600/R-93/116 with Milling Prep (<0.1%)*	<input type="checkbox"/> PLM EPA 600/R-93/116 with Milling Prep (<0.25%)
<input type="checkbox"/> 1000 (<0.1%) Point Count with Gravimetric Reduction	*Lower reporting limits available	
<input type="checkbox"/> NIOSH 9002 (<1%)	TEM- Dust	<input type="checkbox"/> TEM EPA 600/R-93/116 with Milling Prep (<0.1%)*
TEM – Water: EPA 100.2	<input type="checkbox"/> Microvac - ASTM D 5755	Other
Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	<input type="checkbox"/> Wipe - ASTM D6480	<input type="checkbox"/>
All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	<input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)	

Stop At First Positive (Clearly identify homogenous groups below)

Filter Pore Size (Air Samples):  0.8µm  0.45µm

Sampler's Name: Linda V. Allen

Sampler's Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
BC1	Finish mastic of fiberglass insulation	HA1	7-22-21
BC2	Finish mastic of fiberglass insulation	HA1	7-22-21

Client Sample # (s):

1 - 2

Total # of Samples:

20

Relinquished (Client):

Date: 7-21-21

Time:

Received (Lab):

Date: 7-23-21

Time:

Comments/Special Instructions:

92915A



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order: 042118189

Customer ID: ALEN77

Customer PO:

Project ID:

Attention: Linda V. Allen  
A & L Environmental, Inc.  
5167 Bradshaw Road  
Salem, VA 24153

Phone: (540) 314-7490

Fax: (540) 384-6324

Received Date: 07/23/2021 9:15 AM

Analysis Date: 07/24/2021 - 07/25/2021

Collected Date: 07/22/2021

Project: Roanoke Co. 3738 Brambleton

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
BC1-Mastic 042118189-0001	Finish Mastic of Fiberglass Insulation	Tan Non-Fibrous Homogeneous HA: HA1	10% Wollastonite	90% Non-fibrous (Other)	None Detected
BC1-Insulation 042118189-0001A	Finish Mastic of Fiberglass Insulation	Yellow Fibrous Homogeneous HA: HA1	98% Glass	2% Non-fibrous (Other)	None Detected
BC2-Mastic 042118189-0002	Finish Mastic of Fiberglass Insulation	Tan Non-Fibrous Homogeneous HA: HA1	10% Wollastonite	90% Non-fibrous (Other)	None Detected
BC2-Insulation 042118189-0002A	Finish Mastic of Fiberglass Insulation	Yellow Fibrous Homogeneous HA: HA1	98% Glass	2% Non-fibrous (Other)	None Detected

Analyst(s)

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Samantha Rundstrom, Laboratory Manager  
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NJ DEP 03036, PA ID# 68-00367, LA #04127

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