ADDENDUM NO. 1

February 4, 2026

Richland Bean Blossom Schools Roofing & Mechanical Renovations
Various Schools Locations
Ellettsville, IN 47429

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated January 15, 2026, by Lancer Associates Architecture. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1 through ADD 1-2, Specification Section 01 32 00 – Schedule and Reports, and attached Lancer Associates Architecture Addendum No. 1, dated February 3, 2026, consisting of 2 pages, Specification Sections 04 2100 – Unit Masonry, 07 5323 – Ethylene-Propylene-Diene-Monomer (EPDM) Roofing, and Creative Engineering Addendum No. 1, dated February 1, 1 Page, and Addendum Drawings: M-601, M-701, M-702, G001, D141, A141, A142, A201.

A. SPECIFICATION SECTION 00 00 10 – TITLE PAGE

1. Revise Bids Received to February 17, 2026. The time remains the same.

B. SPECIFICATION SECTION - 01 12 00 MULTIPLE CONTRACT SUMMARY

1. The Masonry work indicated in detail 6, 7, 8 and 9/A201 shall be provided by a Masonry Contractor to be selected by the Owner, and as follows.

2. 3.03/A – Bid Category No. 1 – Roofing: Remove Specification Sections 04 05 13 Masonry Mortar and Grout and 04 21 00 Unit Masonry from this scope of work. NOTE: Drawing Sheet A201, details 6, 7, 8 and 9 relative to masonry removal and replacement are not included in included in this scope of work.

3. 3.03/A – Bid Category No. 1 – Roofing Clarification. The Bid Category No. 1 Contractor shall coordinate with the Masonry Contractor relative to schedule and sequencing.

4. 3.03/A – Bid Category No. 1 – Roofing Clarification. The Bid Category No. 1 Contractor shall provide and supply to the Masonry Contractor for installation the metal counter flashing indicated in details No. 8 and 9/A201. The elastomeric through wall flashing shall be by the Masonry Contractor.

C. SPECIFICATION SECTION 01 32 00 – SCHEDULES AND REPORTS

Add the following Specification Section

01 32 00 – Schedules and Reports

SECTION 01 32 00 - SCHEDULES AND REPORTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. The Work of this Section shall be included as a part of the Contract Documents of each Contractor on this Project. Where such Work applies to only one Contractor, it shall be defined as to which Contractor the Work belongs.

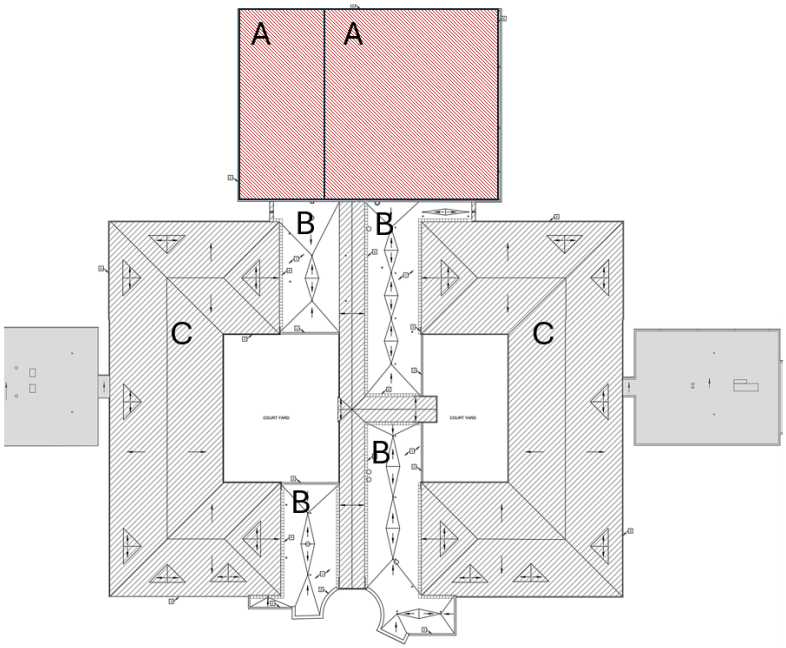
1.02 SUMMARY

A. This Section includes administrative and procedural requirements for schedules and reports required for proper performance of the Work, including:
   1. Construction schedule

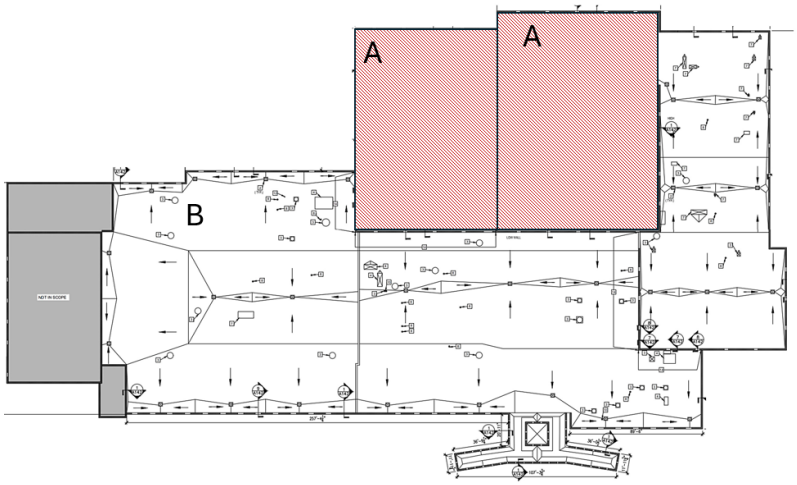
1.03 GUIDELINE SCHEDULE

A. The milestone activities for the Project, as well as anticipated completion date are indicated following.
   1. Prior to bidding Project, Contractor shall review the guideline schedule to determine if the intent of the schedule can be met.

B. Schedule of Work roofs:
   1. Intermediate and Primary Schools:
      i. Area A: March 2 through May 29, 2026
      ii. Area B: May 29 through August 4, 2026
      iii. Area C: To be decided.
      iv. Note: Intermediate and Primary Schools are mirror images.



2. Junior High School:
   i. Area A: March 2 through May 29, 2026
   ii. Area B: May 29 through August 4, 2026
   iii. Provision of through-wall metal to the Masonry Contractor by April 6, 2026



B. Schedule of work HVAC:
   1. On site installation: May 29 through August 4,2026.

C. Schedule of work: Masonry Through-Wall Flashing (Separate Contract):
   1. Work is at Junior High School only.
   2. Coordinate with Roof Installation.
   3. Complete prior to June 12, 2026.

D. The project construction schedule will be provided by the Construction Manager, consistent with the guideline schedule and utilizing the Contractors' construction schedules provided by the separate Contractors.
   1. Contractor shall provide the Construction Manager with information and data to prepare a working day construction schedule and sequence of events for each work activity included in his bid category within 15 days after the Pre-construction Meeting. The Contractor shall cooperate with the Construction Manager in establishing a final overall project schedule which meets the specified completion date.
   2. After the project schedule has been established, Contractors shall work overtime, nights, and weekends, if necessary, to maintain their portion of the schedule.
      a. Overtime, night and weekend work will be at no additional cost to the Owner.
      b. Failure of the Contractor to maintain his portion of the schedule will be grounds for the Owner to withhold all or part of any payments which may become due to the Contractor for work completed.
   3. The Contractor is responsible to expedite all approvals and deliveries of material so as not to delay job progress.

4. The Contractor shall begin all phases of his work as quickly as physically possible, but not to impede or jeopardize the work of other Contractors.
5. Phases of the work may be started prior to the scheduled start dates if if approved through the Construction Manager.
6. The Contractor shall cooperate fully with the Construction Manager in the coordination of the work for the convenience of the Owner as indicated in the Specifications.

E. Each Contractor's work shall be executed at such a rate as to ensure meeting the specified milestone dates for Substantial Completion. By execution of the Contract, a Contractor represents he has analyzed the Work, the materials and methods involved, the systems of the building, availability of qualified mechanics and unskilled labor, restrictions of the site, constraints imposed, his own work load and capacity to perform the Work and agrees that the specified dates are reasonable considering the existing conditions prevailing in the locality of the Work, including weather conditions, and other factors, with reasonable allowance for variations from average or ideal conditions.

F. The Construction Manager will utilize the project master construction schedule to plan, coordinate, and manage all construction activities of Contractors, Subcontractors, and Suppliers. All Contractors are to complete all Work in accordance with this schedule.

G. The Construction Manager will hold periodic progress meetings at the jobsite. Field supervisors from each Contractor working on the site are to attend all such meetings.

H. Whenever it becomes apparent that any activity completion date may not be met, the responsible Contractor(s) are to take some or all of the following actions at no additional cost to the Owner or Construction Manager.
1. Increase construction manpower to put the project back on schedule.
2. Increase number of working hours per shift, shifts per working day, working days per week, amount of construction equipment, or any combination, which will place the project back on schedule.
3. Reschedule activities to achieve maximum practical concurrency and place the project back on schedule.

I. If the Contractor fails to take any of the above actions, Owner or Construction Manager may take action to attempt to put the project back on schedule and deduct cost of such actions from monies due or to become due the Contractor in accordance with Subparagraph 2.4.1. of the amended General Conditions.

J. The Construction Manager will manage the project and will make every effort to complete the project within the schedule. Time extensions may be granted to various Contractors when delays that affect final completion date have been caused by inability of another Contractor to meet his time commitments; however, neither Owner nor Construction Manager will assume responsibility to any Contractor for compensation, damages, or other costs due to delays.

1.06 SUBMITTAL SCHEDULE

A. Within 15 days of the Notice to Proceed, each Contractor shall submit their schedule of submittals.
   1. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Construction Schedule.
   2. The contractor shall provide the following information:
      a. Scheduled date for the first submittal (due date).
      b. Name of the Subcontractor (under comments).
      c. Fabrication time.

B. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS, PART 3 - EXECUTION (Not Used)

END OF SECTION 01 32 00

ADDENDUM NO. ONE

PROJECT:	**Richland Bean Blossom – Roofing & HVAC Junior High School**
PROJECT NUMBER:	**25148**
DATE OF ADDENDUM:	**February 3, 2026**

THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDENDUM ACKNOWLEDGMENT SECTION OF THE BID FORM.

SPECIFICATIONS:

1. Spec Section: 04 2100
   Spec Title: Unit Masonry

   Change: Removed materials and methods not relevant to the Project.

2. Spec Section: 07 5323
   Spec Title: EPDM Roofing

   Change: Removed materials and methods not relevant to the Project.

DRAWINGS:

1. Drawing Sheet Number: G001

Drawing Sheet Title: COVER SHEET

Change: Added assistant superintendent.
Removed the "General" for General Note 11.

2. Drawing Sheet Number: D141
   Drawing Sheet Title: DEMO ROOF PLAN

   Change: Updated Key Notes.
   - Added note number 5
   - Keyed note number to plan

3. Drawing Sheet Number: A141
   Drawing Sheet Title: ROOF PLAN

   Change: Revised General Notes #5 to be referenced correctly.
   Change: Revised Plan Key Notes #7.
   Change: Added detail reference 10/A142 for new gutter section.
   Change: Changed some #7 to #3. This will have to be field verified.

4. Drawing Sheet Number: A142
   Drawing Sheet Title: ROOF DETAILS

   Change:
   - Revised detail 1 to show the stone cap being covered by new metal coping.
   - Deleted detail 4.
   - Revised notes for details 2, 8, and 9.
   - Revised detail 9 to show new coping detail. Profile and color shall match the coping of the 2020 addition to the south.
   - Added detail 10 for new gutter replacement.

5. Drawing Sheet Number: A201
   Drawing Sheet Title: EXTERIOR ELEVATIONS

   Change: Revised notes for weeps and flashing for details 8 and 9.
   Change: Detail 8 paint block to match the brick above it.

Attachments:
(Specs) 04 2100, 07 5323
(Drawings) G001, D141, A141, A142, A201

END OF ADDENDUM NO. ONE

SECTION 04 2100 – UNIT MASONRY

PART 1 GENERAL

1.1 SUMMARY

A. Section includes concrete masonry units; reinforcement, anchorage, and accessories.

1.2 REFERENCES

A. American Society for Testing and Materials:

1. ASTM A153/A153M - Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
2. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
3. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
4. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
5. ASTM A951 - Standard Specification for Masonry Joint Reinforcement.
6. ASTM C62 - Standard Specification for Building Brick (Solid Masonry Units Made From Clay or Shale).
7. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units.
8. ASTM C140 - Standard Test Methods of Sampling and Testing Concrete Masonry Units.
9. ASTM C212 - Standard Specification for Structural Clay Facing Tile.

B. The Masonry Society:

1. TMS MSJC - Building Code for Masonry Structures (ACI 530/ASCE 5/TMS 402), Specification for Masonry Structures (ACI 530.1/ASCE 6/TMS 602) and Commentaries.

1.3 PERFORMANCE REQUIREMENTS

A. Provide unit masonry that develops the following net-area compressive strength (f'm) at 28 days. Determine compressive strength on masonry by testing masonry prisms according to ASTM C1314.

1. For Concrete Unit Masonry: f'm = 2000 p.s.i.

1.4 SUBMITTALS

A. Section 01 3300 - Submittal Procedures: Submittal requirements.

B. Samples: Submit two samples of face brick, units to illustrate color, texture and extremes of color range.

C. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

D. Test Reports: Submit test results indicating compressive strength, water absorption, saturation and suction.

E. Shop drawings: Show fabrication and installation details for following:

1. Reinforcing Steel: Provide detailed drawings that give the quantity, size, dimensions, spacing, locations, bends, lap lengths, and other information required for reinforcement fabrication and installation. Comply with ACI 315, “Detail and Detailing of Concrete Reinforcement.”
Show elevation of each reinforced walls with information noted above.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with TMS MSJC Code and TMS MSJC Specification.

B. Fire Performance Characteristics: Where fire-resistance ratings are indicated, provide materials and construction which are identical to those of assemblies who fire endurance has been determined by testing in compliance with ASTM E119 by a recognized testing and inspecting organization or by another means, as acceptable to authorities having jurisdiction.

C. Single Source Responsibility for Masonry Units: Obtain exposed masonry units of uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from one manufacturer for each different product required for each continuous surface or visually related surfaces.

1.6 QUALIFICATIONS

A. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

1.7 MOCKUP

A. Section 01 4000 - Quality Requirements: Mockup requirements.

B. Construct cavity masonry wall mockup, 4 feet long by 4 feet high, including masonry, mortar and accessories, structural backup, flashings, wall insulation and weeps.

C. Locate where directed at the project site.

D. Incorporate accepted mockup as part of Work.

1.8 PRE-INSTALLATION MEETINGS

A. Administrative Requirements: Pre-installation meeting.

B. Convene minimum one week prior to commencing work of this section.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Section 01 6000 - Product Requirements: Product storage and handling requirements.

1.10 ENVIRONMENTAL REQUIREMENTS

A. Section 01 6000 - Product Requirements.

B. Cold Weather Requirements: IMIAC – Recommended Practices and Guide Specifications for Cold Weather Masonry Construction.

C. Perform the following construction procedures while masonry work is progressing. Temperature ranges indicated below apply to air temperatures existing at time of installation except for grout. For grout, temperature ranges apply to anticipated minimum night temperatures. In heating mortar and grout materials, maintain mixing temperature selected within 10 degrees F.

1. 40 degrees F to 32 degrees F:

a. Mortar: Heat mixing water to produce mortar temperature between 40 degrees F and 120 degrees F.
b. Grout: Follow normal masonry procedures.

2. 32 degrees F to 25 degrees F:

a. Mortar: Heat mixing water and sand to produce mortar temperatures between 40 degrees F and 120 degrees F; maintain temperature of mortar on boards above freezing.
b. Grout: Heat grout materials to 90 degrees F to produce in-place grout temperature of 70 degrees F at end of work day.

3. 25 degrees F to 20 degrees F:

a. Mortar: Heat mixing water and sand to produce mortar temperatures between 40 degrees F and 120 degrees F; maintain temperature of mortar on boards above freezing.
b. Grout: Heat grout materials to 90 degrees F to produce in-place grout temperature of 70 degrees F at end of work day.
c. Heat both sides of walls under construction using salamanders or other heat sources.
d. Use windbreaks or enclosures when wind is in excess of 15 mph.

4. 20 degrees F and below:

a. Mortar: Heat mixing water and sand to produce mortar temperatures between 40 degrees F and 120 degrees F:
b. Grout: Heat grout materials to 90 degrees F to produce in-place grout temperature of 70 degrees F at end of work day.
c. Masonry Units: Heat masonry units so that they are

above 20 degrees F at time of laying.

d. Provide enclosure and auxiliary heat to maintain an air temperature of at least 40 degrees F for 24 hours after laying units.

e. Do not heat water for mortar and grout to above 160 degrees F.

D. Protect completed masonry and masonry not being worked on in the following manner. Temperature ranges indicated apply to mean daily air temperatures except for grouted masonry. For grouted masonry temperature ranges apply to anticipated minimum night temperatures.

1. 40 degrees F to 32 degrees F:

a. Protect masonry from rain or snow for at least 24 hours by covering with weather-resistive membrane.

2. 32 degrees F to 25 degrees F:

a. Completely cover masonry with weather-resistive membrane for at least 24 hours.

3. 25 degrees F to 20 degrees F:

a. Completely cover masonry with weather-resistive insulating blankets or similar protection for at least 24 hours, 48 hours for grouted masonry.

4. 20 degrees F and below:

a. Except as otherwise indicated, maintain masonry temperature above 32 degrees F for 24 hours using enclosures and supplementary heat, electric heating blankets, infrared lamps or other methods proven to be satisfactory. For grouted masonry maintain heated enclosure to 40 degrees F for 48 hours.

1.11 PROJECT CONDITIONS

A. Protection of Masonry: During construction, cover tops of walls, projections and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.

1. Extend cover a minimum of 24 inches down both sides and hold cover securely in place.
2. Where one wythe of multwythe masonry walls is completed in advance of other wythe, secure cover a minimum of 24 inches down face next to unconstructed wythe and hold cover in place.

B. Do not apply uniform floor or roof loads for a least 12 hours and concentrated loads for Least 3 days after building masonry walls or columns.

1.12 COORDINATION

A. Administrative Requirements: Coordination and project conditions.

B. Coordinate masonry work with installation of window and door anchors.

1.13 EXTRA MATERIALS

A. Supply 100 of each size, color, and type of brick units masonry units.

PART 2 PRODUCTS

2.1 COMPONENTS

A. Integral Water Repellent: Provide units made with integral water repellent for exposed units.

B. Concrete Masonry Unit Size and Shape: ASTM C90, Nominal modular size (width) as indicated on the Drawings. Furnish special units for 90 degree corners, bond beams, bullnosed corners. Provide bullnose units for outside corner, unless otherwise indicated.

2.2 ACCESSORIES

A. Reinforcing Steel: ASTM A615/A615M, 60 ksi yield grade, deformed billet bars, uncoated finish.

B. Strap Anchors: bent steel shape, as detailed on drawings, hot dip galvanized to ASTM A153 B2 finish.

C. Wall Ties (CMU Back-up): Formed steel wire, 9 gage thick, adjustable, eye and pintle type, hot dip galvanized to ASTM A153 B2 finish.

D. Wall Ties (Frame Back-up): Formed steel wire, 16 gage, with tab plates galvanized to ASTM A153 finish. Plates secured to substrate with corrosion resistant screws as recommended by the Manufacturer.

E. Anchor Bolts: Headed, J-shaped or L-shaped.

F. Mortar and Grout: As specified in Section 04 0513.

G. Flashings: 40 mil thick non asphaltic composite membrane “TeXtro Flash Hohman & Barnard or 3 oz/sq ft rolled sheet copper bonded to fiber reinforced asphalt treated Kraft paper; “Cop-R-Tex” manufactured by Wasco or equal of AFCO, Hohmann& Barnard, Sandell or YORK.

H. Termination Bars: Hohmann & Barnard T2 Aluminum Termination Bar, 14 ga. Or equal.

I. Sealant for Termination Bars: Hohmann & Barnard HB Sealant or equal

J. Drip Plate/Edge: Hohman & Barnard DP-LB 26 gauge type 304 stainless steel or equal.

K. Preformed Control Joints: Rubber, Neoprene or Polyvinyl chloride material. Furnish with corner and tee accessories, heat or cement fused joints.

L. Joint Filler: Closed cell polyethylene ; oversized 50 percent to joint width; self expanding; maximum lengths.

M. Weeps/Cavity Vents: Use one of the following unless otherwise indicated:
1. Cellular Plastic Weep/Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8 inch less than depth of outer wythe, in color selected from manufacturer's standard.
2. Cavity Vents: Molded polyvinyl chloride grilles; insect resistant. “Vinyl Block Vent” manufactured by Williams Products or Architect approved equal.

N. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

O. Cavity Drainage System: Mortar Net or others as approved by the Architect.

PART 3 EXECUTION

3.1 EXAMINATION

A. Administrative Requirements: coordination and project conditions.

B. Verify field conditions are acceptable and are ready to receive work.

C. Verify items provided by other sections of work are properly sized and located.

D. Verify built-in items are in proper location, and ready for roughing into masonry work.

3.2 PREPARATION

A. Direct and coordinate placement of metal anchors supplied to other sections.

B. Furnish temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent support.

3.3 INSTALLATION

A. Establish lines, levels, and coursing indicated. Protect from displacement.

B. Maintain masonry courses to uniform dimension. Form bed and head joints of uniform thickness.

C. Coursing of Concrete Masonry Units:

1. Bond: Running. Unless Stacked is indicated.
2. Coursing: One unit and one mortar joint to equal 8 inches.
3. Mortar Joints: Concave typical; Flush where a direct applied finish occurs other than paint.

D. Coursing of Brick Units:

1. Bond: Running.
2. Coursing: Three units and three mortar joints to equal 8 inches.
3. Mortar Joints: Concave.

E. Placing And Bonding:

1. Lay solid masonry units in full bed of mortar, with full head joints.
2. Lay hollow masonry units with face shell bedding on head and bed joints.
3. Buttering corners of joints or excessive furrowing of mortar joints are not permitted.
4. Remove excess mortar as work progresses.
5. Interlock intersections and external corners.
6. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment is required, remove mortar and replace.
7. Perform job site cutting of masonry units with proper tools to assure straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
8. Cut mortar joints flush where wall tile is scheduled.
9. Isolate masonry from vertical structural framing members with movement joint.
10. Isolate top of masonry from horizontal structural framing members and slabs or decks with compressible joint filler.

F. Weeps and Vents: Furnish weeps and vents in outer wythe at 24 inches oc horizontally above through-wall flashing,above shelf angles and lintels, and at bottom of walls.

G. Cavity Wall: Do not permit mortar to drop or accumulate into cavity air space or to plug weeps. Build inner wythe ahead of outer wythe to receive cavity insulation and air/vapor barrier adhesive.

H. Joint Reinforcement And Anchorage - Masonry Veneer:

1. Install horizontal joint reinforcement 16 inches oc., unless otherwise indicated.
2. Install horizontal joint reinforcement 8 inches oc., at parapet walls.
3. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.
4. Place joint reinforcement continuous in first and second joint below top of walls.
5. Lap joint reinforcement ends minimum 6 inches.
6. Embed wall ties in masonry backing to bond veneer at maximum 16 inches oc vertically and 16 inches oc horizontally. Place at maximum 3

inches oc each way around perimeter of openings, within 12 inches of openings.

7. Secure anchors to stud framed backing and embed into masonry veneer at maximum 16 inches oc vertically and 16 inches oc horizontally. Place at maximum 3 inches oc each way around perimeter of openings, within 12 inches of openings.
8. Reinforce joint corners and intersections with strap anchors 16 inches oc.

I. Masonry Flashings:

1. Extend flashings horizontally through outer wythe at foundation walls, above ledge or shelf angles and lintels, under parapet caps, at bottom of walls, and turn down on outside face to form drip.
2. Turn flashing up minimum 8 inches and bed into mortar joint of masonry or seal to concrete or seal to sheathing over backing.
3. Lap end joints minimum 6 inches and seal watertight.
4. Turn flashing, fold, and seal at corners, bends, and interruptions.

J. Control And Expansion Joints:

1. General: Install control and expansion joints in unit masonry where indicated. Build-in related items as masonry progresses. Do not form a continuous span through movement joints unless provisions are made to prevent in-plane restraint of wall or partition movement.
2. If locations of control joints are not indicated on the Drawings provide as follows. Not less than a control joint every 25’ of wall. Other locations are at changes in wall height or thickness, at construction joints in foundations, roof or floors, at chases and recesses for piping, columns and fixtures, at one side of wall openings 6’ or less and both sides of wall openings over 6’. If the shape and design of the structure causes excessive number of control joints, review locations with Architect.
3. Do not continue horizontal joint reinforcement through control and expansion joints.
4. Install preformed control joint device in continuous lengths. Seal butt and corner joints.
5. Size control joint in accordance with Section 07 9200 for sealant performance.
6. Form expansion joint by omitting mortar and cutting unit to form open space.

K. Cutting And Fitting:

1. Cut and fit for chases, pipes, conduit, sleeves, and grounds. Coordinate with other sections of work to provide correct size, shape, and location.
2. Obtain Architect/Engineer’s approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.4 ERECTION TOLERANCES

A. Section 01 4000 - Quality Requirements: Tolerances.

B. Maximum Variation From Alignment of Columns and Pilasters: 1/4 inch.

C. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.

D. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.

E. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.

F. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.

G. Maximum Variation of Joint Thickness: 1/8 inch in 3 ft.

H. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

3.5 FIELD QUALITY CONTROL

A. Section 01 4000 – Quality Requirements: Testing and Inspection Services.

B. Brick Units: Test each type in accordance with ASTM C67, 5 random units for each 50,000 units installed.

C. Concrete Masonry Units: Test each type in accordance with ASTM C140.

3.6 CLEANING

A. Section 01 7000 - Execution Requirements: Final cleaning.

B. Remove excess mortar and mortar smears as work progresses.

C. Replace defective mortar. Match adjacent work.

D. Clean soiled surfaces with cleaning solution.

E. Use non-metallic tools in cleaning operations.

END OF SECTION 04 2100

SECTION 07 5323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Adhered EPDM membrane roofing system.

1.2 PERFORMANCE REQUIREMENTS

A. Roofing System Design: Provide EPDM roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE/SEI 7

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.

C. Samples: For each product included in the roofing system.

1.4 INFORMATIONAL SUBMITTALS

A. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

B. Performance Characteristics: Provide roofing materials and roof systems with the performance characteristics indicated as determined by testing and test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction.

1. Underwriters Laboratories, Inc. (UL)
   a. Exterior Fire-Test Exposure: Class A; UL 790 for application and roof slopes indicated.
   b. Internal Fire Spread Below Deck: UL 1256 for application and roof slopes indicated.

2. Factory Mutual Research Corp. (FMRC)

a. Resistance to Fire, Wind, Hail, Leakage, Corrosion, Ultraviolet Weathering and Foot Traffic when tested in accordance with Approval Standard 4470: Class 1 for application and roof slopes indicated.

C. Resistance to Wind: Minimum 90 pounds per square foot uplift pressure resistance when tested in accordance with Approval Standard 4470.Preinstallation Roofing Conference: Conduct conference at Project site.

D. Preinstallation Roofing Conference: Conduct conference at Project site.

1.7 CONTRACTOR EXPERIENCE

A. Contractor and all sub-contractors hall be an “experienced” installer with a minimum of 5-years of business experience and successful experience in installation of roofing systems similar to those required for this project and acceptable to or licensed by manufacturer of primary roofing materials.

1.8 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.9 WARRANTY

A. Roofing Contractor Workmanship Warranty: Midwest Roofing Contractors Association form 202B without monetary limitation (i.e., no-dollar-limit) in which contractor agrees to repair or replace components of roof system that fails in workmanship within specified warranty period.

1. Warranty Period: 2 years from date of Substantial Completion.

B. Roof System Manufacturer’s Warranty: Manufacturer's standard or customized form, without monetary limitation (i.e., no-dollar-limit) and signed by manufacturer, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.

1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 EPDM MEMBRANE ROOFING

A. EPDM: ASTM D 4637, Type I, non-reinforced, fire retardant, flexible EPDM sheet.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Carlisle SynTec Incorporated (Carlisle).
b. Elevate roofing (Holcim).

c. Manville.

2. Thickness: 60 mils (1.5 mm), nominal.
3. Exposed Face Color: Black.

2.2 AUXILIARY MEMBRANE ROOFING MATERIALS

A. General: Auxiliary membrane roofing materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.

1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.

B. Sheet Flashing: 60-mil- (1.5-mm-) thick EPDM, partially cured or cured, according to application.

C. Bonding Adhesive: Manufacturer's standard.

D. Seaming Material: Manufacturer's standard, synthetic-rubber polymer primer and 3-inch- (75-mm-) wide minimum, butyl splice tape with release film.

E. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening membrane to substrate, and acceptable to roofing system manufacturer.

F. Miscellaneous Accessories: Provide lap sealant, water cutoff mastic, metal termination bars, metal battens, pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination reglets, cover strips, and other accessories.

2.3 ROOF INSULATION

A. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class I, Grade 3, glass-fiber mat facer on both major surfaces.

B. Preformed Polyisocyanurate Board Insulation Saddles: ASTM C 1289, Type II, Class I, Grade 3, glass-fiber mat facer on both major surfaces fabricated to slope of 1/2 inch per 12 inches unless otherwise indicated.

C. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

2.4 INSULATION ACCESSORIES

A. Cover Board: Provide 1/4 inch thick Dens-Deck or Architect approved equal.

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.

C. Adhesive: Provide polyurethane adhesive as recommended by the roofing manufacturer.

2.5 WALKWAYS

A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, solid-rubber, slip-resisting, surface-textured walkway pads or rolls, approximately 3/16 inch (5 mm) thick, and acceptable to membrane roofing system manufacturer.

PART 3 - EXECUTION

3.1 INSULATION INSTALLATION

A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with membrane roofing system and insulation manufacturer's written instructions for installing roof insulation.

C. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.0 inches or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.

D. Mechanically Fastened Insulation: Install each layer of insulation and secure to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.

1. Fasten insulation to resist uplift pressure at corners, perimeter, and field of roof.

3.2 ADHERED MEMBRANE ROOFING INSTALLATION

A. Adhere membrane roofing over area to receive roofing according to membrane roofing system manufacturer's written instructions. Unroll membrane roofing and allow to relax before installing.

B. Accurately align membrane roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

C. Bonding Adhesive: Apply to substrate and underside of membrane roofing at rate required by manufacturer and allow to partially dry before installing membrane roofing. Do not apply to splice area of membrane roofing.

D. In addition to adhering, mechanically fasten membrane roofing securely at terminations, penetrations, and perimeters.

E. Tape Seam Installation: Clean and prime both faces of splice areas, apply splice tape, and firmly roll side and end laps of overlapping membrane roofing according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of membrane roofing terminations.

F. Repair tears, voids, and lapped seams in roofing that does not comply with requirements.

3.3 BASE FLASHING INSTALLATION

A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.

B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply to seam area of flashing.

C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.

D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.

E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.4 WALKWAY INSTALLATION

A. Flexible Walkways: Install walkway products in locations indicated. Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.5 FIELD QUALITY CONTROL

A. Testing Agency: Owner may engage a qualified independent testing agency to perform inspections.

B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.

C. Repair or remove and replace components of membrane roofing system where inspections indicate that they do not comply with specified requirements.

END OF SECTION 07 5323

creative engineering solutions
mechanical • electrical • plumbing

PROJECT NAME: EDGEWOOD MEP UPGRADES
DATED: 2/3/2026

PART 1 - CHANGES TO THE DRAWINGS

Modifications described herein shall be incorporated in the Drawings. All other Work shall remain un-changed.

1.1 DRAWING SHEETS: ADDITIONS, DELETIONS AND REPLACEMENTS

DRAWING NO.	INDICATE ACTION: REPLACE (R), ADD (A), DELETE (D)
M-SERIES DRAWINGS	
Edgewood High School HVAC Project	
M-601 MECHANICAL SCHEDULES	DELETE AND REPLACE
M-701 TEMPERATURE CONTROLS SCHEMATICS	DELETE AND REPLACE
Edgewood Junior High Reroof & HVAC Project	
M-702 TEMPERATURE CONTROLS SCHEMATICS	DELETE AND REPLACE

END OF ADDENDUMN NO. 1

RICHLAND-BEAN BLOSSOM COMMUNITY SCHOOL CORPORATION
600 S EDGEWOOD Dr,
ELLETTSVILLE, IN 47429
Telephone: (812) 876-7927

https://www.rbbschools.net/
OWNER

LANCER ASSOCIATES
145 North East Street
Indianapolis, IN 46204
Telephone: 317.797.6595

www.lancerassociates.com
ARCHITECT

CREATIVE ENGINEERING SOLUTIONS
602 N. CAPITOL AVE. SUITE 200
Indianapolis, IN 46204
Telephone: 463.233.9799

https://www.creativeng.net
STRUCTURAL ENGINEERING

THE SKILLMAN CORPORATION
3834 S. Emerson Ave. Bldg. A
Indianapolis, IN 46203
Telephone: 317.783.6151

https://skillman.com
CONSTRUCTION MANAGEMENT

EDGEWOOD JUNIOR HIGH SCHOOL
REROOF & HVAC PROJECT

851 W EDGEWOOD Dr, ELLETTSVILLE, IN 47429

100% CONSTRUCTION DOCUEMNTS - 01/15/2026

Project Team

OWNER
Richland-Bean Blossom Community School Corporation
600 S Edgewood Dr,
ELLETTSVILLE, IN 47429
Telephone: (812) 876-7927
https://www.rbbschools.net/

PROJECT ARCHITECT
Lancer Associates
145 North East Street
Indianapolis, IN 46204

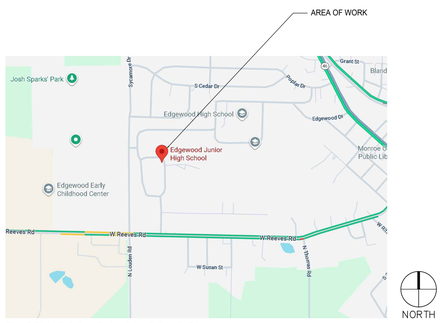
Ralph R. Pitman, Jr. - Project Manager
Phone: 317-748-0670

CODE INFORMATION

1. BUILDING CODES
   - 2014 INDIANA BUILDING CODE (2012 IBC with state amendments)
   - 2010 ADA STANDARD (IBC CHAPTER 11, ANSI A117.1–2009, ASCE–7–2005)
   - 2012 INDIANA PLUMBING CODE
   - 2014 INDIANA MECHANICAL CODE (2012 IMC with state amendments)
   - 2009 INDIANA ELECTRICAL CODE (2008 NEC with state amendments)
   - 2014 INDIANA FIRE CODE (2012 IFC with state amendments)
   - 2010 ENERGY CONSERVATION CODE (ASHRAE 90.1 – 2007 with state amendments)
   - 2014 INDIANA FUEL GAS CODE (2012 IFGC with state amendments)
2. OCCUPANCY: E – EDUCATIONAL AND B – OFFICE AND ADMINISTRATION
3. CONSTRUCTION TYPE: II–B
4. AREA PERMITTED (W/O FRONTAGE INCREASE) = 12,500 SQ. FT. –PER TABLE 503
5. SPRINKLERED
6. SMOKE DETECTORS PROVIDED AS REQUIRED BY CODE.
7. BUILDING HEIGHT: ALLOWED BY TABLE 503 = 55 FT.
8. ACTUAL AREA (BUILDING FOOTPRINT): 95,783 SQ. FT.
   ELEMENTARY SCHOOL AREA OF REROOF: 99,297 FT.
9. ACTUAL HEIGHT: VARIOUS TO OF RIDGE
10. ASHRAE 90.1 CLIMATE ZONE: 5A

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND ORDINANCES.
2. ALL CONTRACTORS SHALL COMPLY WITH THE LATEST EDITION OF O.S.H.A. CONSTRUCTION AND SAFETY MANUAL.
3. INTERIM LIFE SAFETY MEASURES TO TEMPORARILY COMPENSATE FOR THE HAZARDS POSED BY EXISTING NFPA 101 LIFE SAFETY CODE DEFICIENCIES OR CONSTRUCTION ACTIVITIES SHALL BE IMPLEMENTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
4. THE CONTRACTOR SHALL PROTECT THE OWNER'S PROPERTY AND PROVIDE ALL NECESSARY TEMPORARY ENCLOSURES AND BARRICADES REQUIRED DURING THE ENTIRE CONSTRUCTION PERIOD. DAILY SITE CLEANUP IS REQUIRED.
5. EACH CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, CONDITIONS, AND EXTENT OF THE WORK TO BE ACCOMPLISHED UNDER EACH RESPECTIVE CONTRACT.
6. ALL DIMENSIONS INDICATED ON THE DRAWINGS SHALL BE ADHERED TO. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS IN FIELD. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
7. ALL TYPICAL NOTES APPLY TO ALL SHEETS AND WHERE SAME CONDITION IS SHOWN OR APPLIES.
8. LAYOUT WORK TO AVOID CONFLICTS BETWEEN DUCTWORK, LIGHTING, CEILING, PIPING, BUILDING STRUCTURE, ETC.
9. COORDINATE EXACT LOCATION OF ALL CEILING REGISTERS, GRILLES, AND DIFFUSERS WITH LIGHTING LAYOUT, CEILING GRID, ETC.
10. COORDINATE ALL WORK REQUIRED UNDER THIS CONTRACT WITH ALL OTHER SHEETS/DRAWINGS.
1 11. THE CONTRACTOR SHALL PATCH AND MATCH ALL SURFACES (NEW AND EXISTING) AFFECTED BY THE WORK TO BE DONE.
12. ALL NEW WALLS/PARTITIONS SHALL BE INSULATED FOR SOUND AND EXTEND TIGHT (AIR AND SOUND) TO BOTTOM OF STRUCTURE ABOVE, UNLESS NOTED OTHERWISE.
13. FILL ALL VOIDS AND GAPS SOLID AT PIPE, DUCT, CONDUIT ETC. PENETRATIONS IN WALLS/PARTITIONS WITH APPROVED FIRE SAFING METHODS.
14. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
15. THE ARCHITECT SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE ARCHITECT SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSON PERFORMING PORTIONS OF THE WORK.



EDGEWOOD JR HIGH SCHOOL

851 W EDGEWOOD Dr, ELLETTSVILLE, IN 47429

BOARD OF SCHOOL TRUSTEES

PRESIDENT:	DANA KERR
VICE PRESIDENT:	JIMMIE DURNIL
SECRETARY:	ROBIN MAY
BOARD MEMBER:	LARRY DEMOSS
BOARD MEMBER:	ANGIE JACOBS
BOARD MEMBER:	BRAD TUCKER
SUPERINTENDENT:	DR. JERRY SANDERS
ASST SUPERINTENDENT:	JENNIFER BARRETT
DIRECTOR OF FINANCES:	DEBBIE TATE
JR HIGH PRINCIPAL:	KENT RENTSCHLER
ASSISTANT PRINCIPAL:	JOHN SIEGLIN

1

OWNER DIRECTORY

SHEET INDEX

LANCER ASSOCIATES ARCHITECTURE
145 N EAST STREET
INDIANAPOLIS, IN 46204

EDGEWOOD JUNIOR HIGH
REROOF & HVAC PROJECT
851 W EDGEWOOD Dr
ELLETTSVILLE, IN 47429

JERRY L. CRITSER
REGISTERED
NO. 880039
STATE OF INDIANA
PROFESSIONAL ENGINEER

REVISIONS:

#	DATE	DESC.
1	2/2/26	PLAN REVISIONS

100% CONSTRUCTION DOCUMENTS

PROJECT: 25148
DATE: 01/15/2026
DRAWN BY: NFA

COVER SHEET

G001

GENERAL NOTES

1. DRAWINGS ESTABLISH THE DESIGN INTENT OF WORK TO BE PERFORMED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HIGHEST INDUSTRY STANDARDS. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND WARRANTY REQUIREMENTS. ALL TRADES SHALL CAREFULLY COORDINATE WORK OF ALL OTHER TRADES. ANY DISCREPANCIES OR CONFLICTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND THE OWNER PRIOR TO FABRICATION OR INSTALLATION.
2. ALL EXISTING WORK TO REMAIN SHALL BE PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION. ANY DAMAGE TO EXISTING WORK SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION.
3. ALL DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ACCURATE FIELD MEASUREMENTS FOR CONSTRUCTION.
4. PLAN NOTES INDICATE ONE GRAPHIC REPRESENTATION TYPICAL. THE CONTRACTOR SHALL USE THE GRAPHIC REPRESENTATIONS FOR THE COUNT, NOT THE KEYED PLAN NOTES. THE ABSENCE OF A KEYED PLAN NOTE ON THE PLAN DOES NOT ABSOLVE THE CONTRACTOR FROM PROVIDING THE FEATURE GRAPHICALLY REPRESENTED ON THE DRAWING.
5. CONTRACTOR SHALL FIELD VERIFY ALL PENETRATIONS, ROOF CURBS, AND ROOF EXHAUST/VENT FANS IN EXISTING ROOF PRIOR TO BID & INSTALLATION. FLASH AROUND PERIMETER OF PENETRATIONS AND RAISED CURBS OR VENTS AS PER DRAWINGS AND RECOMMENDATIONS OF ROOFING MANUFACTURER TO MAINTAIN WARRANTY. THE EXISTING HEIGHTS OF CURBS AND VENTS SHALL BE RAISED AS NECESSARY ABOVE THE NEW/HIGHER RIGID INSULATED ROOF TO MEET ROOFING MANUFACTURER'S REQUIREMENTS. SEE DETAILS 8, 9 AND 10/A142.
6. CONTRACTOR SHALL REMOVE ALL ABANDONED EQUIPMENT, CURBS AND SUPPORT STRUCTURES.
7. CONTRACTOR SHALL INSPECT AND REPLACE ALL DETERIORATED METAL FLASHING, CURBING AND BLOCKING AS REQUIRED. CONTRACTOR SHALL USE TREATED WOOD FOR ALL BLOCKING.
8. PROVIDE GREASE/OIL PROTECTION PAD FOR MECHANICAL ROOF TOP UNITS AND FANS PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL VERIFY ALL ROOF TOP UNITS FOR EQUIPMENT REQUIREMENTS.
9. ALL NEW COPING INSTALLED IS TO MATCH PROFILE, PAINT COLOR AND FINISH OF COPING INSTALLED DURING PREVIOUS PHASES.
10. ALL WOOD USED IN RE-ROOF PROJECT TO BE PRESERVATIVE- TREATED, TYPICAL.
11. MAIN ROOF AREA TO BE SLOPED MIN. 1/4" PER FOOT TO DRAIN.
12. ALL HOGBACKS AND CRICKETS TO BE SLOPED MIN. 1/2" PER FOOT.

DEMOLITION PLAN KEY NOTES

1. REMOVE EXISTING MEMBRANE ROOFING AND ANY WET INSULATION.
2. REMOVE MASONRY AND FLASHING. SEE SHEET A201
3. REMOVE EXISTING SPLASH BLOCKS AND STORE FOR REINSTALLATION
4. REMOVE ALL EXISTING GUTTERS AND DOWN SPOUTS
5. REMOVE EXISTING ROOF CURBS TO BELOW INSULATION.

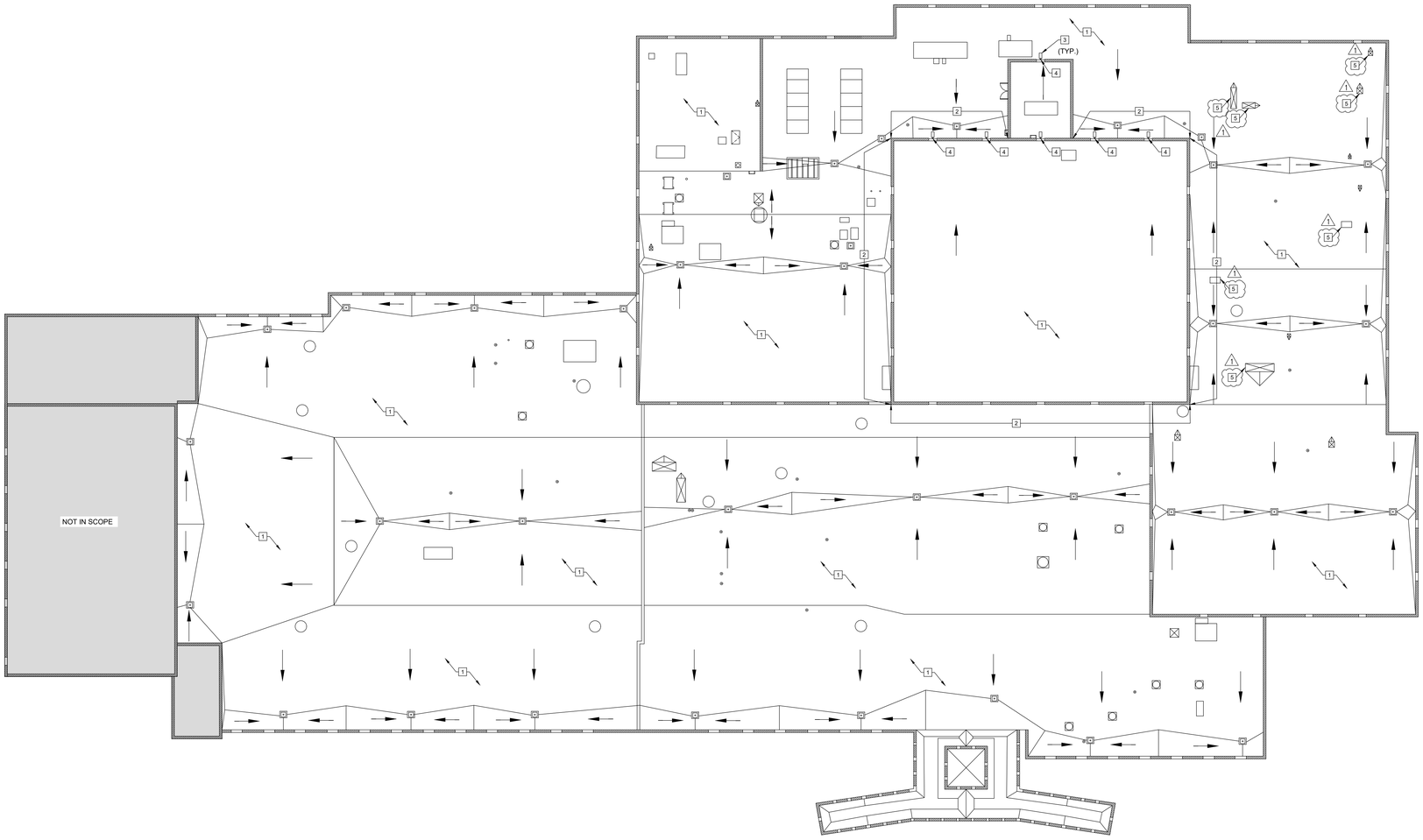
LEGEND

ROOF SLOPE DOWN INDICATES DIRECTION

AND SHEET NUMBER

ABBREVIATIONS

RD	ROOF DRAIN
ORD	OVERFLOW ROOF DRAIN
RV	ROOF VENT
RH	ROOF HATCH
AD	ACCESS DOOR
RL	ROOF ACCESS LADDER
PH	PENT HOUSE
EF	EXHAUST FAN
EJ	EXPANSION JOINT
VS	VENT STACK
MF	MASONRY FLUE
SMKE	SMOKE EXHAUST HATCH
RFS	ROOF FASCIA SCUPPER



1 JUNIOR HIGH SCHOOL ROOF DEMO PLAN
SCALE: 1" = 20'-0"

NORTH

EXISTING EQUIPMENT

NOT IN SCOPE OF WORK

KEY PLAN

LANCER ASSOCIATES ARCHITECTURE
145 N EAST STREET
INDIANAPOLIS, IN 46204

EDGEWOOD JUNIOR HIGH
REROOF & HVAC PROJECT
851 W EDGEWOOD Dr
ELLETTSVILLE, IN 47429

TERRY L. CRITES REGISTERED No. 8900331 STATE OF INDIANA LICENSED ARCHITECT

REVISIONS:

#	DATE	DESC.
1	2/2/26	PLAN REVISIONS

100% CONSTRUCTION DOCUMENTS

PROJECT: 25148
DATE: 01/15/2026
DRAWN BY: NFA

DEMO ROOF PLAN

D141

GENERAL NOTES

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6. CONTRACTOR SHALL REMOVE ALL ABANDONED EQUIPMENT, CURBS AND SUPPORT STRUCTURES.
7. CONTRACTOR SHALL INSPECT AND REPLACE ALL DETERIORATED METAL FLASHING, CURBING AND BLOCKING AS REQUIRED. CONTRACTOR SHALL USE TREATED WOOD FOR ALL BLOCKING.
8. PROVIDE GREASE/OIL PROTECTION PAD FOR MECHANICAL ROOF TOP UNITS AND FANS PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL VERIFY ALL ROOF TOP UNITS FOR EQUIPMENT REQUIREMENTS.
9. ALL NEW COPING INSTALLED IS TO MATCH PROFILE, PAINT COLOR AND FINISH OF COPING INSTALLED DURING PREVIOUS PHASES.
10. ALL WOOD USED IN RE-ROOF PROJECT TO BE PRESERVATIVE- TREATED, TYPICAL.
11. MAIN ROOF AREA TO BE SLOPED MIN. 1/4" PER FOOT TO DRAIN.
12. ALL HOGBACKS AND CRICKETS TO BE SLOPED MIN. 1/2" PER FOOT
13. REMOVE EXISTING PROTECTION PADS BEFORE INSTALLATION OF NEW ROOFING MATERIALS
14. ALL EXISTING STONE CAPS SHALL BE COVERED WITH NEW METAL COPING. COLOR SELECTED BY ARCHITECT.

PLAN KEY NOTES

1 LADDER - EXISTING
2 ROOF DRAIN - EXISTING
3 EXHAUST FAN - EXISTING
4 ROOF TOP UNIT (R.T.U.) - EXISTING
5 PHOTOVOLTAIC PANELS - EXISTING
6 RADIO TOWER - EXISTING
7 EXISTING CAPPED ROOF CURB REMOVED. INSTALL NEW DECKING IN OPENING AND INFILL WITH ISO TO MATCH EXISTING INSULATION DEPTH. 1
8 EXHAUST PIPE - EXISTING
9 ROOF ACCESS HATCH - EXISTING
10 OVERFLOW DRAIN - EXISTING
11 NEW GUTTER WITH LEAF GUARD AND DOWNSPOUTS
12 HYDRANT - EXISTING
13 N/A
14 WRAP PARAPET WALL IN NEW EPDM MEMBRANE

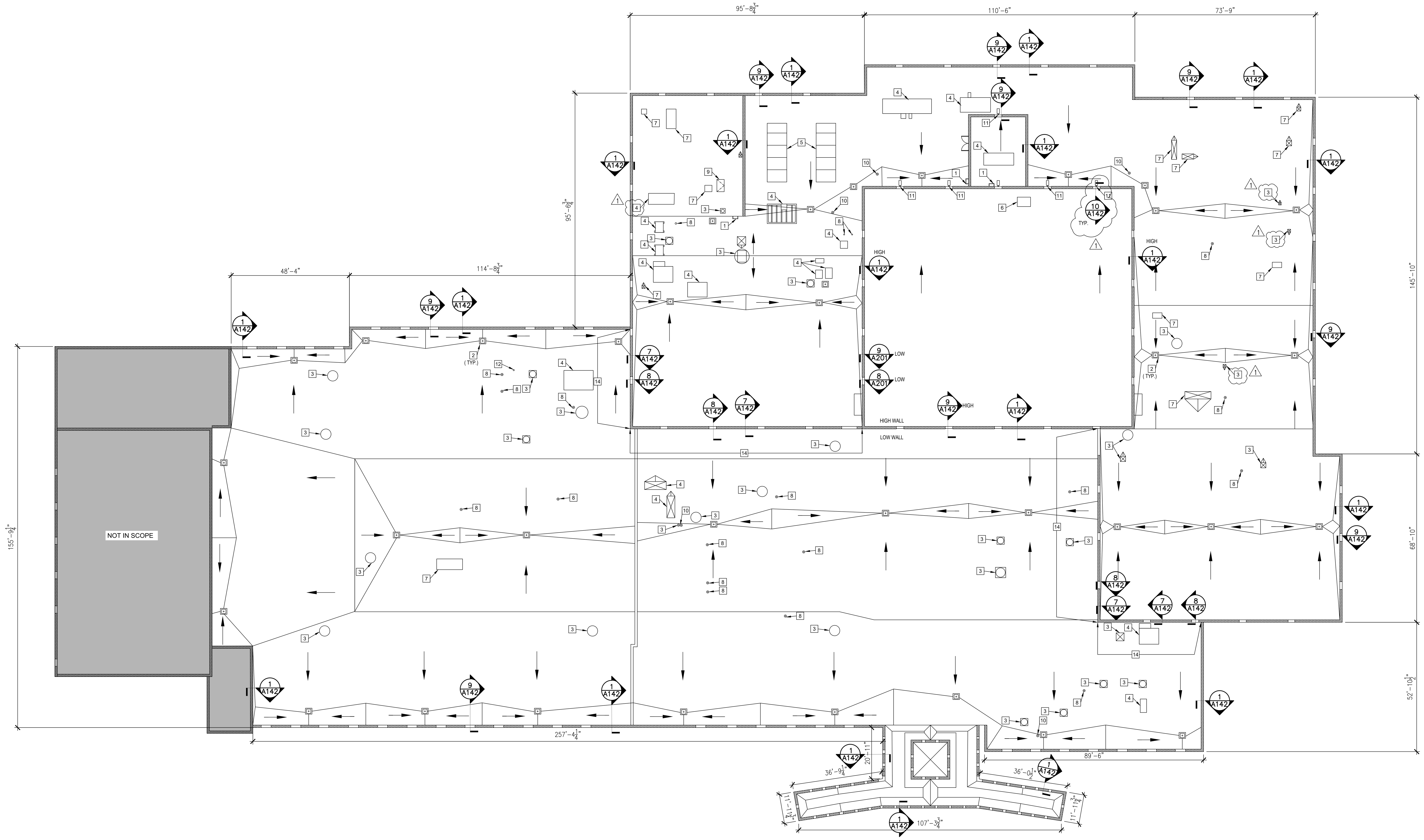
LEGEND

ROOF SLOPE DOWN INDICATES DIRECTION

11 / A142 AND SHEET NUMBER

ABBREVIATIONS

RD	ROOF DRAIN
ORD	OVERFLOW ROOF DRAIN
RV	ROOF VENT
RH	ROOF HATCH
AD	ACCESS DOOR
RL	ROOF ACCESS LADDER
PH	PENT HOUSE
EF	EXHAUST FAN
EJ	EXPANSION JOINT
VS	VENT STACK
MF	MASONRY FLUE
SMKE	SMOKE EXHAUST HATCH
RFS	ROOF FASCIA SCUPPER



1 JUNIOR HIGH SCHOOL ROOF PLAN
SCALE: 1" = 20'-0"
NORTH

NEW ROOFING

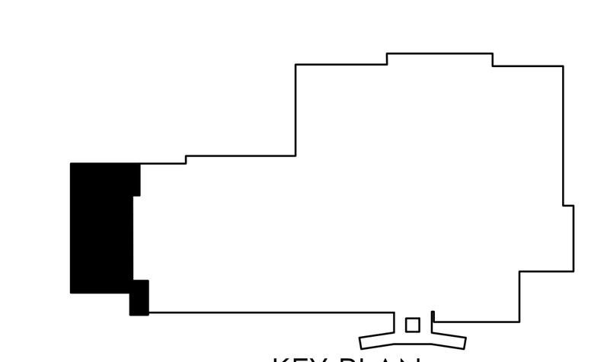
ADD 1/2" THICK HIGH DENSITY RECOVERY BOARD MECHANICALLY FASTENED TO DECK AND COVER WITH FULLY ADHERED EPDM MEMBRANE

FLASH AT ALL ROOF PENETRATIONS, REMOVE ALL EXISTING CAULK AND TERMINATION BARS, AND INSTALL NEW TERMINATION BARS BELOW MASONRY FLASHING AND WEEP HOLES.

RE-SEAL AROUND ALL EXISTING ROOF DRAINS

EXISTING EQUIPMENT

NOT IN SCOPE OF WORK



KEY PLAN

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145 N EAST STREET
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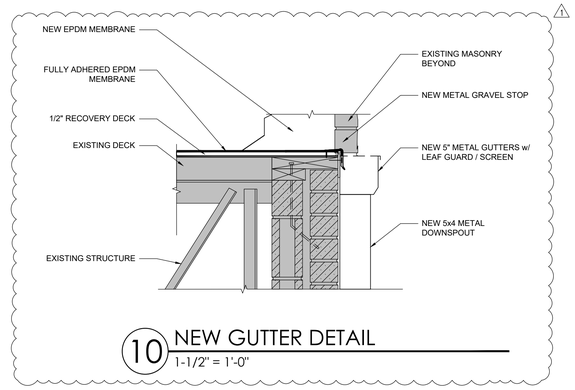
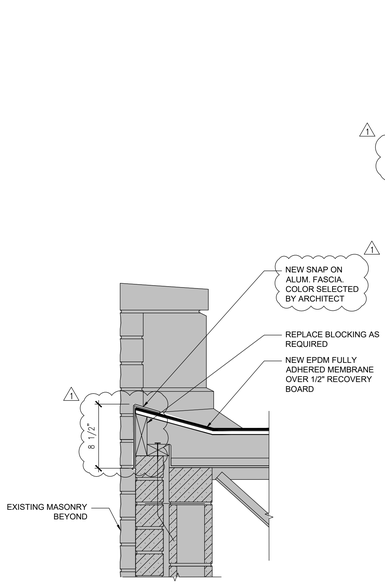
ROOF PLAN

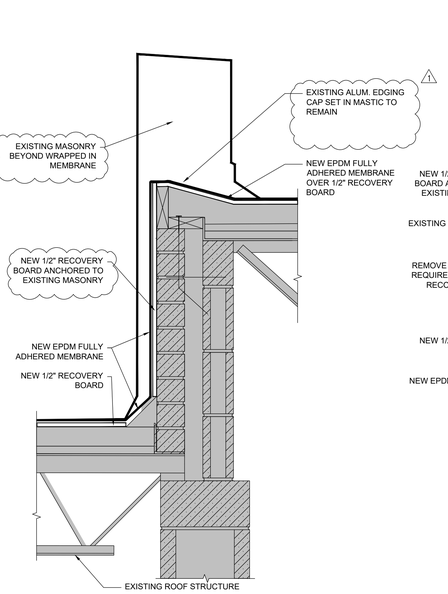
A141



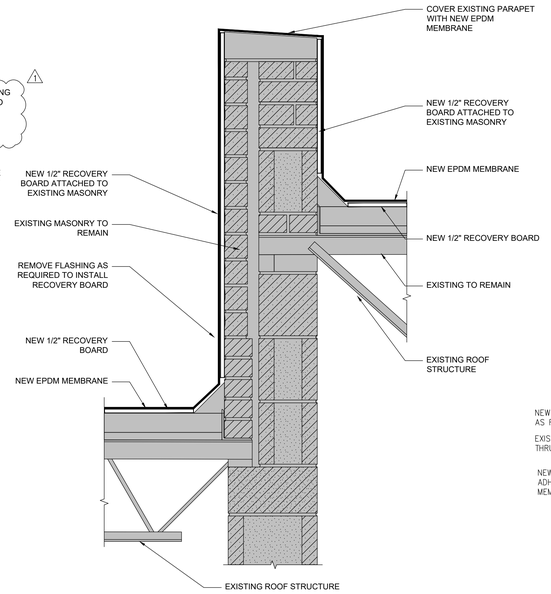
10 NEW GUTTER DETAIL
1-1/2" = 1'-0"



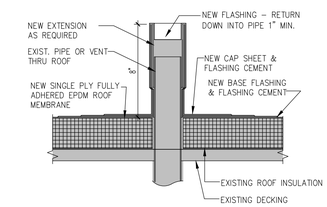
9 ROOF DETAIL
1-1/2" = 1'-0"



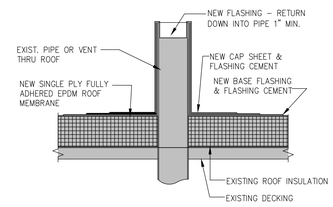
8 ROOF DETAIL
1-1/2" = 1'-0"



7 ROOF DETAIL
1-1/2" = 1'-0"

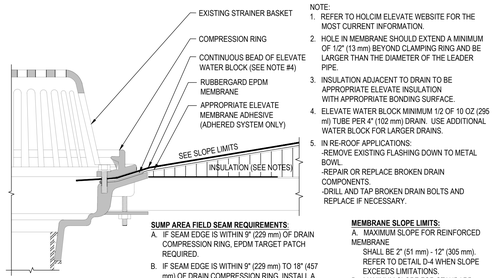


6 VENT EXTENSION
1-1/2" = 1'-0"



5 VENT OR PIPE FLASHING
1-1/2" = 1'-0"

4 NOT USED
N.T.S

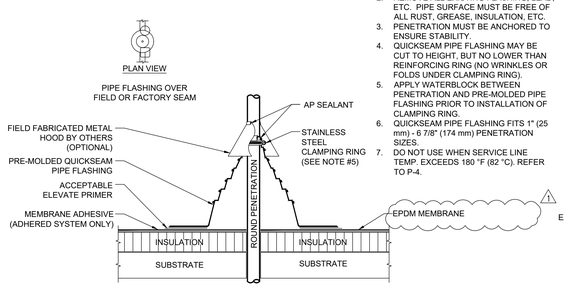


NOTE:
1. REFER TO HOLCIM ELEVATE WEBSITE FOR THE MOST CURRENT INFORMATION.
2. HOLE IN MEMBRANE SHOULD EXTEND A MINIMUM OF 1/2" (13 mm) BEYOND CLAMPING RING AND BE LARGER THAN THE DIAMETER OF THE LEADER PIPE.
3. INSULATION ADJACENT TO DRAIN TO BE APPROPRIATE ELEVATE INSULATION WITH APPROPRIATE BONDING SURFACE.
4. ELEVATE WATER BLOCK MINIMUM 1/2 OF 10 OZ (295 ml) TUBE PER 4" (102 mm) DRAIN. USE ADDITIONAL WATER BLOCK FOR LARGER DRAINS.
5. IN RE-ROOF APPLICATIONS:
-REMOVE EXISTING FLASHING DOWN TO METAL BOWL.
-REPAIR OR REPLACE BROKEN DRAIN COMPONENTS.
-DRILL AND TAP BROKEN DRAIN BOLTS AND REPLACE IF NECESSARY.

SUMP AREA FIELD SEAM REQUIREMENTS:
A. IF SEAM EDGE IS WITHIN 9" (229 mm) OF DRAIN COMPRESSION RING, EPDM TARGET PATCH REQUIRED.
B. IF SEAM EDGE IS WITHIN 9" (229 mm) TO 18" (457 mm) OF DRAIN COMPRESSION RING, INSTALL A LAYER OF 5" (127 mm) QUICKSEAM FLASHING CENTERED OVER SEAM EDGE. EXTEND 5" (127 mm) QUICKSEAM FLASHING 3" (76 mm) MIN. BEYOND EDGE OF SUMP.

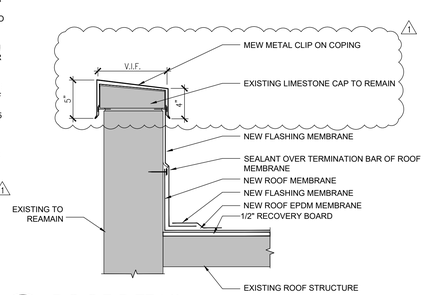
MEMBRANE SLOPE LIMITS:
A. MAXIMUM SLOPE FOR REINFORCED MEMBRANE SHALL BE 2" (51 mm) - 12" (305 mm). REFER TO DETAIL D-4 WHEN SLOPE EXCEEDS LIMITATIONS.
B. MAXIMUM SLOPE FOR STANDARD MEMBRANE SHALL BE 6" (152 mm)/12"(305 mm).

3 ROOF DRAIN DETAIL
N.T.S



1. REFER TO HOLCIM ELEVATE WEBSITE FOR THE MOST CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHING, LEAD, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. PENETRATION MUST BE ANCHORED TO ENSURE STABILITY.
4. QUICKSEAM PIPE FLASHING MAY BE CUT TO HEIGHT, BUT NO LOWER THAN REINFORCING RING (NO WRINKLES OR FOLDS UNDER CLAMPING RING).
5. APPLY WATERBLOCK BETWEEN PENETRATION AND PRE-MOLDED PIPE FLASHING PRIOR TO INSTALLATION OF CLAMPING RING.
6. QUICKSEAM PIPE FLASHING FITS 1" (25 mm) - 6 7/8" (174 mm) PENETRATION SIZES.
7. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180 °F (82 °C). REFER TO P-4.

2 PENITRATION FLASHING DETAIL
N.T.S



1 ROOF DETAIL
1-1/2" = 1'-0"

LANCER ASSOCIATES ARCHITECTURE
145 N EAST STREET
INDIANAPOLIS, IN 46204

EDGEWOOD JUNIOR HIGH
REROOF & HVAC PROJECT
851 W EDGEWOOD Dr
ELLETTSVILLE, IN 47429

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PROJECT: 25148
DATE: 01/15/2026
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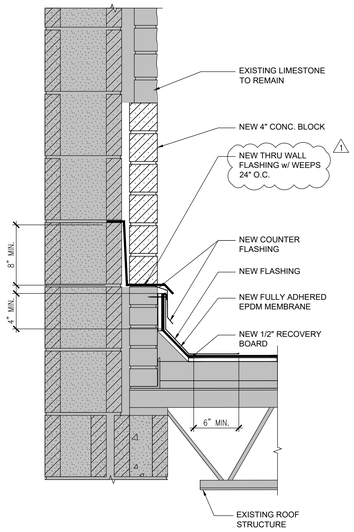
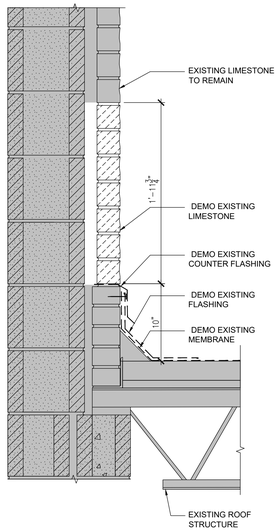
ROOF DETAILS

A142



9 NEW DETAIL SECTION

SCALE: N.T.S.



7 DEMO SECTION

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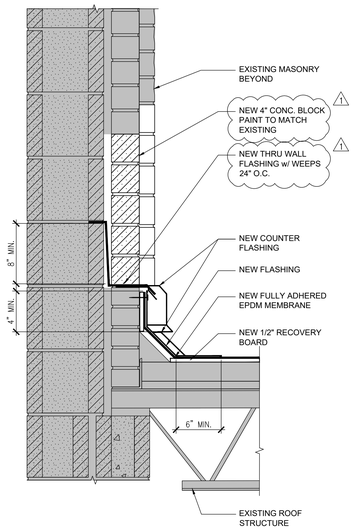

8 NEW DEATAIL SECTION

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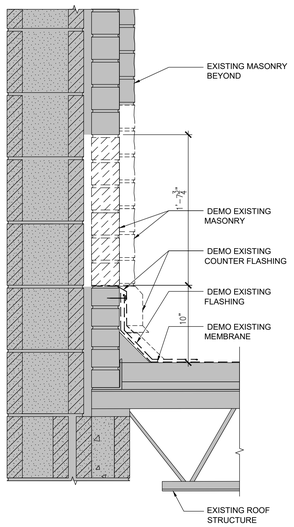
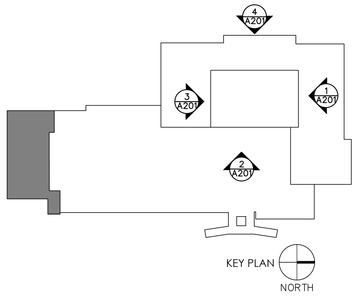


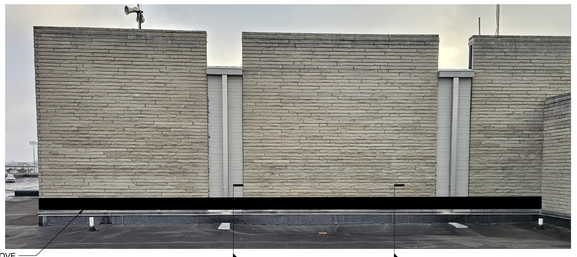
6 DEMO SECTION

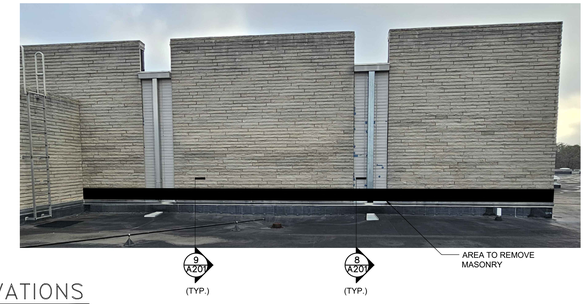
SCALE: N.T.S.

5 EXISTING SPLASH BLOCK

SCALE: N.T.S.

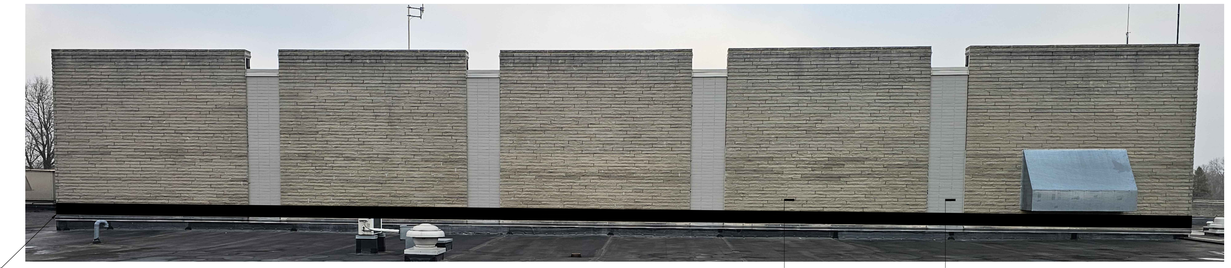






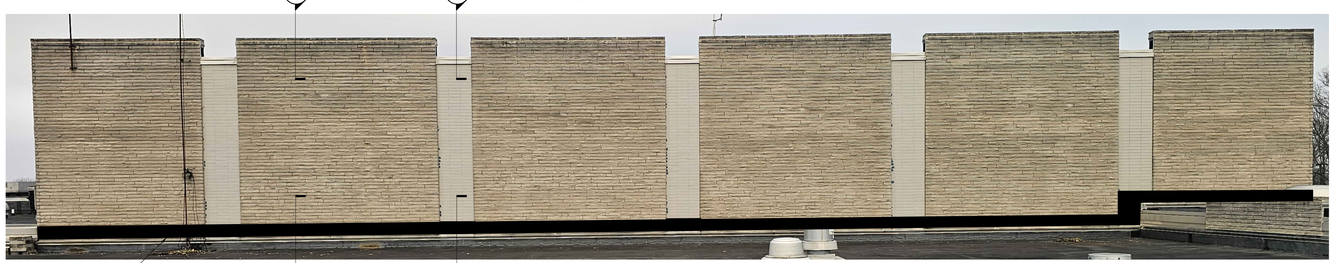
4 WEST ELEVATIONS

SCALE: N.T.S.



3 SOUTH ELEVATION

SCALE: N.T.S.



2 EAST ELEVATION

SCALE: N.T.S.

1 NORTH ELEVATION

SCALE: N.T.S.

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EXTERIOR ELEVATIONS

A201

PUMP SCHEDULE - 23 21 23

IDENTITY DATA									FLUID DATA					MOTOR DATA			ELECTRICAL DATA	
MARK	MANUFACTURER	SERIES	MODEL	FRAME	IMPELLER SIZE (IN)	SYSTEM SERVED	WEIGHT (LBS)	TYPE	FLUID TYPE	FLOW (GPM)	HEAD (FT-WG)	TEMP (°F)	EFF (%)	SPEED (RPM)	HP	BHP	VOLTS / PH / HZ	NOTES
BP-1	BELL & GOSSETT	e-80	4x4x11B	184JM	10.25"	PRIMARY HHW	425	CLOSE COUPLED IN-LINE CENTRIFUGAL	WATER	240	40.0	140	70.0	1,200	5.0	3.4	460/3/60	1,3
BP-2	BELL & GOSSETT	e-80	4x4x11B	184JM	10.25"	PRIMARY HHW	425	CLOSE COUPLED IN-LINE CENTRIFUGAL	WATER	240	40.0	140	70.0	1,200	5.0	3.4	460/3/60	1,3
BP-3	BELL & GOSSETT	e-80	4x4x11B	184JM	10.25"	PRIMARY HHW	425	CLOSE COUPLED IN-LINE CENTRIFUGAL	WATER	240	40.0	140	70.0	1,200	5.0	3.4	460/3/60	1,3
BP-4	BELL & GOSSETT	e-80	4x4x11B	184JM	10.25"	PRIMARY HHW	425	CLOSE COUPLED IN-LINE CENTRIFUGAL	WATER	240	40.0	140	70.0	1,200	5.0	3.4	460/3/60	1,3
HWP-1	BELL & GOSSETT	e-1510	4EB	284T	11"	SECONDARY HHW	375	BASE MOUNTED END SUCTION PUMP	WATER	475	110.0	140	76.5	1,800	25.0	17.2	460/3/60	1 - 3
HWP-2	BELL & GOSSETT	e-1510	4EB	284T	11"	SECONDARY HHW	375	BASE MOUNTED END SUCTION PUMP	WATER	475	110.0	140	76.5	1,800	25.0	17.2	460/3/60	1 - 3

PUMP SCHEDULE NOTES:

1. PROVIDE WITH ACCESSORIES SHOWN IN DETAILS.
2. PROVIDE WITH FULL SIZE IMPELLER. LIMIT OVERLOAD WITH VFD.
3. COMBINATION MAGNETIC STARTER WITH HOA BY EC. BOILER CONTROLLER SHALL CONTROL PUMP START.
4. COMBINATION MAGNETIC STARTER WITH HOA BY EC. REFER TO M-700 SERIES DRAWINGS FOR CONTROL OF PUMP.

BOILER SCHEDULE - 23 52 16

IDENTITY DATA					HEATING DATA				GAS PRESSURE DATA		WATER DATA				ELECTRICAL DATA			
MARK	MANUFACTURER	MODEL	TYPE	WEIGHT (LBS)	INPUT (MBH)	OUTPUT (MBH)	FLUID TYPE	EFF (%)	MINIMUM (PSI)	MAXIMUM (PSI)	FLOW (GPM)	WPD (FT-WG)	EWT /LWT (°F)	FLUID TYPE	V/PH/HZ	FLA (A)	MOCP (A)	NOTES
B-1	LOCHINVAR	FB-2501	CONDENSING	3,600	2,500	2,400	NATURAL GAS	96.4	4	14	240	8.4	120 / 140	WATER	208 / 3 / 60	4.5	15	1-5
B-2	LOCHINVAR	FB-2501	CONDENSING	3,600	2,500	2,400	NATURAL GAS	96.4	4	14	240	8.4	120 / 140	WATER	208 / 3 / 60	4.5	15	1-5
B-3	LOCHINVAR	FB-2501	CONDENSING	3,600	2,500	2,400	NATURAL GAS	96.4	4	14	240	8.4	120 / 140	WATER	208 / 3 / 60	4.5	15	1-5
B-4	LOCHINVAR	FB-2501	CONDENSING	3,600	2,500	2,400	NATURAL GAS	96.4	4	14	240	8.4	120 / 140	WATER	208 / 3 / 60	4.5	15	1-5

BOILER SCHEDULE NOTES:

1. SEE BOILER PIPING INSTALLATION DETAIL '1/M501'.
2. MANUFACTURER SHALL PROVIDE A FACTORY OR FIELD INSTALLED RELAY FOR PRIMARY PUMP CONTROL FOR EACH BOILER.
3. MANUFACTURER SHALL PROVIDE A BACNET COMMUNICATING MASTER BOILER CONTROLLER FOR CONTROL OF ALL BOILER IN EACH LOCATION.
4. MANUFACTURER SHALL PROVIDE A BOILER SUPPLY HEADER TEMPERATURE SENSOR FOR FIELD MOUNTING.
5. PROVIDE ACID NEUTRALIZATION KIT.

AIR SEPARATOR SCHEDULE

IDENTITY DATA									
MARK	MANUFACTURER	MODEL	WEIGHT (LBS)	CONN. SIZE (IN)	SYSTEM SERVED	FLOW (GPM)	WPD (FT-WG)	FLUID TYPE	STRAINER	NOTES
AS-2	BELL & GOSSETT	R-6F	579	6	HEATING HOT WATER	500	1.1	WATER	304 SS	1-3

AIR SEPARATOR SCHEDULE NOTES:

1. PROVIDE AUTOMATIC AIR VENT.
2. DESIGNED AND CONSTRUCTED PER ASME CODE SECTION VIII DIV. 1.
3. REFER TO AIR SEPARATOR INSTALLATION DETAIL '4/M-501'.

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ELLETTSVILLE, IN 47429

GABRIEL S. CURRIER
REGISTERED
NO. PE10808972
STATE OF INDIANA
PROFESSIONAL ENGINEER

REVISIONS:

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1	02/03/2026	ADDENDUM #1

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PROJECT: #25148
DATE: 01/15/2026
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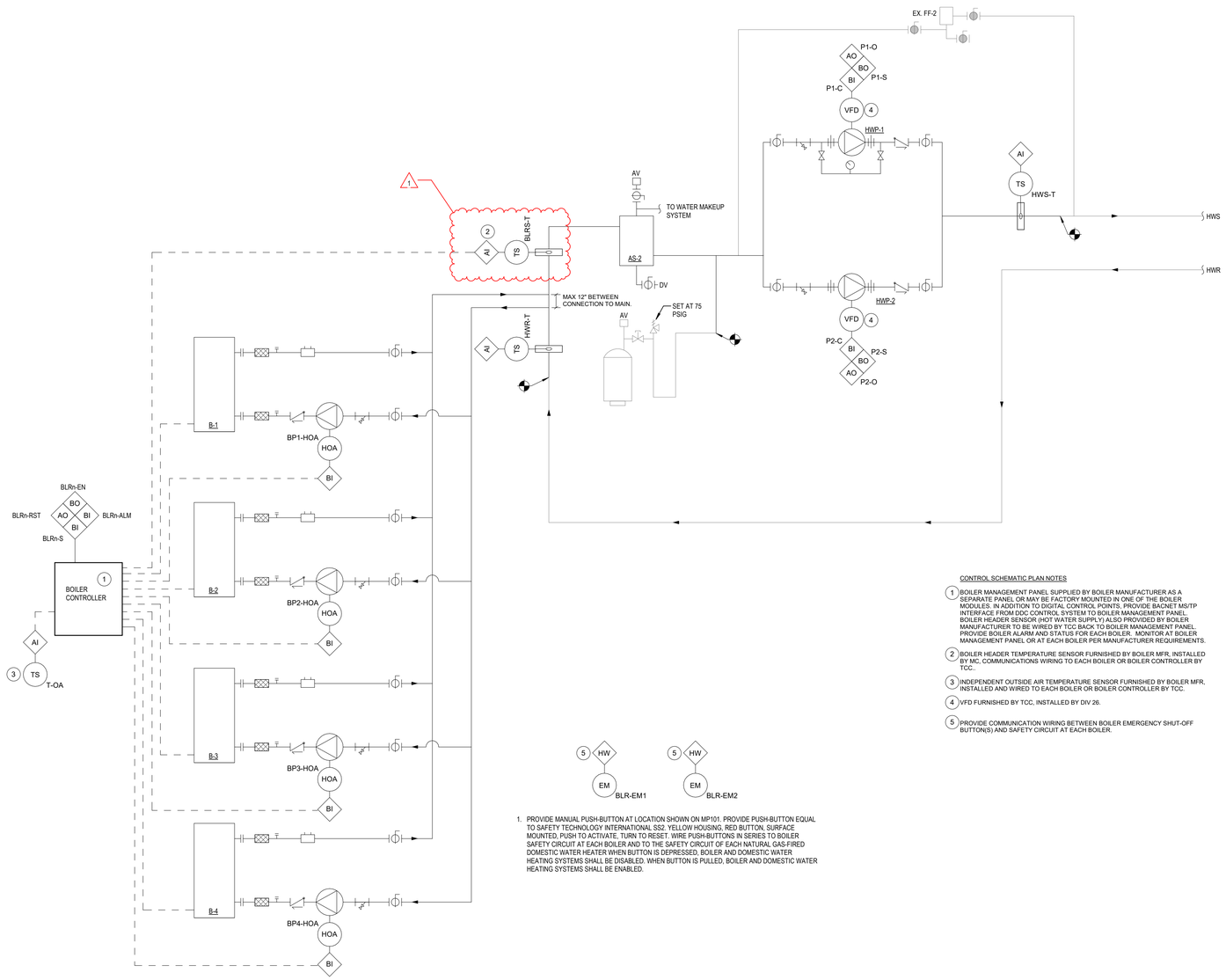
MECHANICAL SCHEDULES

M-601



1. PROVIDE MANUAL PUSH-BUTTON AT LOCATION SHOWN ON MP101. PROVIDE PUSH-BUTTON EQUAL TO SAFETY TECHNOLOGY INTERNATIONAL SS2. YELLOW HOUSING, RED BUTTON, SURFACE MOUNTED, PUSH TO ACTIVATE, TURN TO RESET. WIRE PUSH-BUTTONS IN SERIES TO BOILER SAFETY CIRCUIT AT EACH BOILER AND TO THE SAFETY CIRCUIT OF EACH NATURAL GAS-FIRED DOMESTIC WATER HEATER WHEN BUTTON IS DEPRESSED, BOILER AND DOMESTIC WATER HEATING SYSTEMS SHALL BE DISABLED. WHEN BUTTON IS PULLED, BOILER AND DOMESTIC WATER HEATING SYSTEMS SHALL BE ENABLED.

CONTROL SCHEMATIC PLAN NOTES

1. BOILER MANAGEMENT PANEL SUPPLIED BY BOILER MANUFACTURER AS A SEPARATE PANEL OR MAY BE FACTORY MOUNTED IN ONE OF THE BOILER MODULES. IN ADDITION TO DIGITAL CONTROL POINTS, PROVIDE BACNET MS/TP INTERFACE FROM DDC CONTROL SYSTEM TO BOILER MANAGEMENT PANEL. BOILER HEADER SENSOR (HOT WATER SUPPLY) ALSO PROVIDED BY BOILER MANUFACTURER TO BE WIRED BY TCC BACK TO BOILER MANAGEMENT PANEL. PROVIDE BOILER ALARM AND STATUS FOR EACH BOILER. MONITOR AT BOILER MANAGEMENT PANEL OR AT EACH BOILER PER MANUFACTURER REQUIREMENTS.
2. BOILER HEADER TEMPERATURE SENSOR FURNISHED BY BOILER MFR, INSTALLED BY MC, COMMUNICATIONS WIRING TO EACH BOILER OR BOILER CONTROLLER BY TCC.
3. INDEPENDENT OUTSIDE AIR TEMPERATURE SENSOR FURNISHED BY BOILER MFR, INSTALLED AND WIRED TO EACH BOILER OR BOILER CONTROLLER BY TCC.
4. VFD FURNISHED BY TCC, INSTALLED BY DIV 26.
5. PROVIDE COMMUNICATION WIRING BETWEEN BOILER EMERGENCY SHUT-OFF BUTTON(S) AND SAFETY CIRCUIT AT EACH BOILER.

1

HOT WATER SEQUENCE OF OPERATION

THE BOILERS SHALL BE ENABLED (BLRn-EN) UPON A CALL FOR HEATING FROM ANY HEATING EQUIPMENT OR MANUALLY AT THE OPERATOR WORKSTATION. WHEN THE BOILERS ARE ENABLED, THE BOILER MANAGEMENT SYSTEM SHALL ENERGIZE BOILER PUMPS AND STAGE AND FIRE BOILERS AT MAXIMUM EFFICIENCY TO MAINTAIN THE HEATING WATER SUPPLY TEMPERATURE SET POINT BASED ON THE RESET SCHEDULE BELOW.

OAT	HWS-T
20F	140F
65F	120F

HEATING HOT WATER SECONDARY PUMP CONTROL: THE LEAD HOT WATER PUMP SHALL BE ENERGIZED (HWPn-C) AND SLOWLY RAMP UP TO SPEED UPON A CALL FOR HEATING FROM ANY EQUIPMENT WITH HEATING HOT WATER OR MANUALLY AT THE OPERATOR WORKSTATION. IF THE LEAD PUMP STATUS (HWPn-S) DOES NOT MATCH THE COMMANDED VALUE AFTER A TIME DELAY OF 90 SECONDS, AN ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION AND THE LAG PUMP SHALL BE ENERGIZED (HWPn-C). IF THE STATUS OF THE LAG PUMP DOES NOT MATCH THE COMMANDED VALUE AFTER A TIME DELAY OF 90 SECONDS, A CRITICAL ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION.

DIFFERENTIAL PRESSURE CONTROL: THE SECONDARY HEATING HOT WATER PUMPS SHALL OPERATE IN A LEAD/LAG SEQUENCE WHEN THE LEAD PUMP IS ENERGIZED, THE LEAD PUMP SPEED SHALL MODULATE TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SET POINT OF 15 PSIG (ADJ) AS SENSED BY EXISTING DIFFERENTIAL PRESSURE TRANSMITTER. IF PUMP SPEED EXCEEDS 90% FOR A PERIOD OF 15 MINUTES, THE LAG PUMP SHALL BE ENERGIZED (HWPn-C). THE LEAD/LAG PUMPS SHALL MODULATE IN UNISON TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SET POINT. IF THE LEAD AND LAG PUMPS ARE ENERGIZED AND THE PUMP SPEED (HWPn-S) IS AT 30% FOR A PERIOD OF 15 MINUTES, THE LAG PUMP SHALL BE DE-ENERGIZED AND THE LEAD PUMP SHALL MODULATE TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SET POINT. THE LEAD PUMP DESIGNATION SHALL BE ALTERNATED EVERY 30 DAYS.

POINTS LIST: THE FOLLOWING REPRESENTS THE MINIMUM POINTS TO BE PROVIDED AND VALUES CALCULATED TO BE DISPLAYED IN THE SYSTEM GRAPHICS. ADDITIONAL POINTS REQUIRED TO MEET THE SEQUENCE SHALL BE PROVIDED AND ALSO SHOWN. ALL OPERATING SETPOINTS SHALL BE ADJUSTABLE FROM THE FRONT END GRAPHICS.

BINARY INPUTS:
- HOT WATER PUMPS STATUS (HWPn-S)
- BOILER STATUS (BLRn-S)
- BOILER ALARM (BLRn-ALM)
- BOILER PUMP STATUS (BLRn-HOA)

BINARY OUTPUTS:
- HOT WATER PUMPS START/STOP (HWPn-C)
- BOILER ENABLE (BLR-EN)

ANALOG INPUTS:
- OUTSIDE AIR TEMPERATURE (T-OA)
- HOT WATER SUPPLY TEMPERATURE (HWS-T)
- HOT WATER RETURN TEMPERATURE (HWR-T)
- BOILER HEADER SUPPLY TEMPERATURE (BLRS-T)
- SYSTEM DIFFERENTIAL PRESSURE (DPT-HW)

ANALOG OUTPUTS:
- HOT WATER RESET SIGNAL (BLR-RST)
- HOT WATER PUMP SPEED (HWPn-O)

1 HEATING WATER SYSTEM
NOT TO SCALE

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PROJECT: #25148
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TEMPERATURE CONTROLS SCHEMATICS

M-701

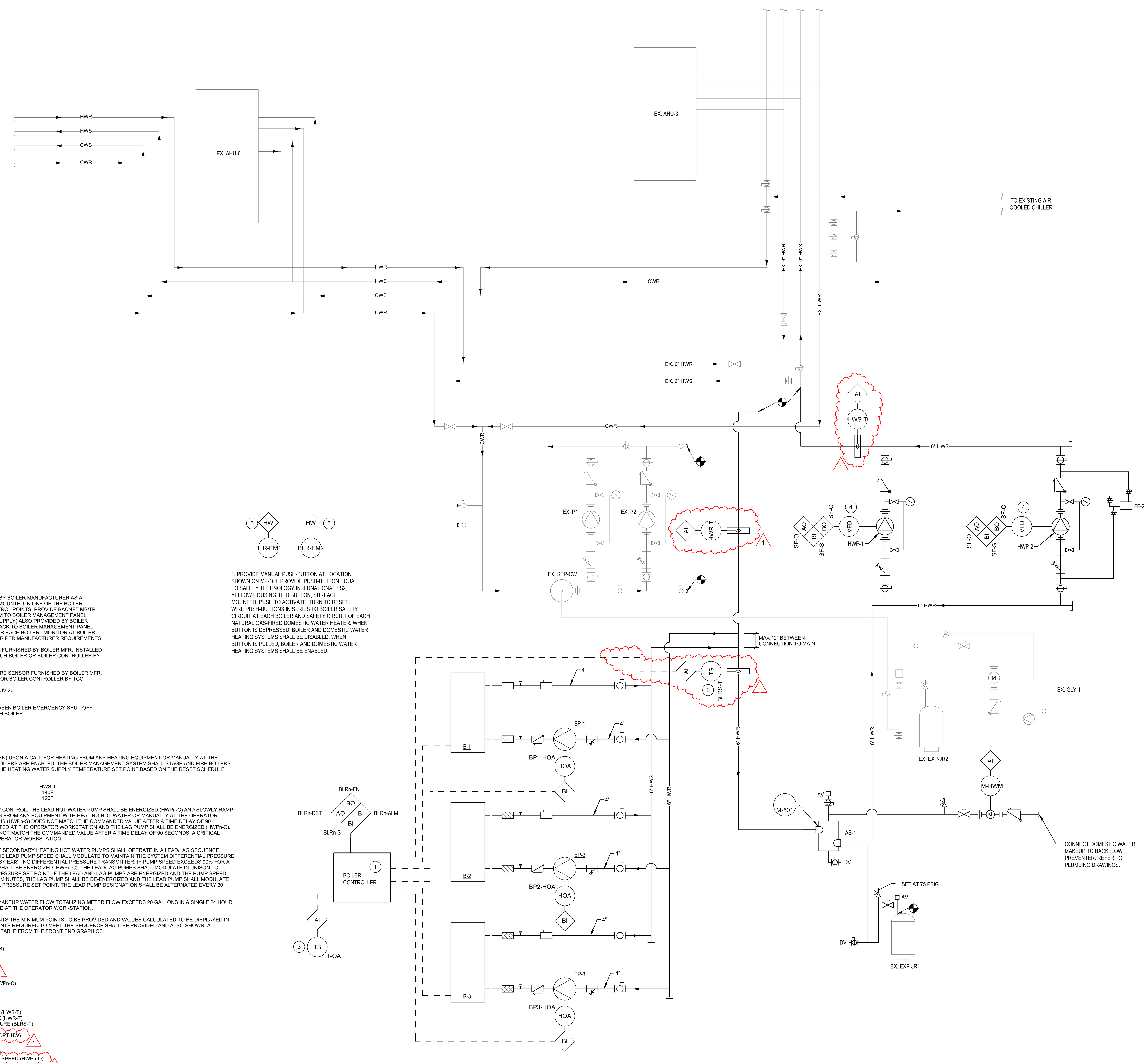
PLOT DATE/TIME:2/2/2026 3:02:11 PM

THE TEMPERATURE CONTROL CONTRACTOR MUST BE PRESENT AND PROVIDE SUPPORT TO THE MECHANICAL CONTRACTOR AT TIME OF SYSTEM DRAINING, CLEANING, FLUSHING, AND FILLING.

ALL AUTOMATIC TEMPERATURE CONTROL AND FLOW CONTROL VALVES MUST BE IN THE FULL OPEN POSITION WHEN SYSTEM IS DRAINED, CLEANED, FLUSHED, AND FILLED.

2 WATER TREATMENT CONTROLS SCOPE OF WORK

NOT TO SCALE



1. PROVIDE MANUAL PUSH-BUTTON AT LOCATION SHOWN ON MP-101. PROVIDE PUSH-BUTTON EQUAL TO SAFETY TECHNOLOGY INTERNATIONAL SS2, YELLOW HOUSING, RED BUTTON, SURFACE MOUNTED, PUSH TO ACTIVATE, TURN TO RESET. WIRE PUSH-BUTTONS IN SERIES TO BOILER SAFETY CIRCUIT AT EACH BOILER AND SAFETY CIRCUIT OF EACH NATURAL GAS-FIRED DOMESTIC WATER HEATER. WHEN BUTTON IS DEPRESSED, BOILER AND DOMESTIC WATER HEATING SYSTEMS SHALL BE DISABLED. WHEN BUTTON IS PULLED, BOILER AND DOMESTIC WATER HEATING SYSTEMS SHALL BE ENABLED.

CONTROL SCHEMATIC PLAN NOTES

1. BOILER MANAGEMENT PANEL SUPPLIED BY BOILER MANUFACTURER AS A SEPARATE PANEL OR MAY BE FACTORY MOUNTED IN ONE OF THE BOILER MODULES. IN ADDITION TO DIGITAL CONTROL POINTS, PROVIDE BACNET MS/TP INTERFACE FROM DDC CONTROL SYSTEM TO BOILER MANAGEMENT PANEL. BOILER HEADER SENSOR (HOT WATER SUPPLY) ALSO PROVIDED BY BOILER MANUFACTURER TO BE WIRED BY TCC BACK TO BOILER MANAGEMENT PANEL. PROVIDE BOILER ALARM AND STATUS FOR EACH BOILER. MONITOR AT BOILER MANAGEMENT PANEL OR AT EACH BOILER PER MANUFACTURER REQUIREMENTS.
2. BOILER HEADER TEMPERATURE SENSOR FURNISHED BY BOILER MFR, INSTALLED BY MC, COMMUNICATIONS WIRING TO EACH BOILER OR BOILER CONTROLLER BY TCC..
3. INDEPENDENT OUTSIDE AIR TEMPERATURE SENSOR FURNISHED BY BOILER MFR, INSTALLED AND WIRED TO EACH BOILER OR BOILER CONTROLLER BY TCC.
4. VFD FURNISHED BY TCC, INSTALLED BY DIV 26.
5. PROVIDE COMMUNICATION WIRING BETWEEN BOILER EMERGENCY SHUT-OFF BUTTON(S) AND SAFETY CIRCUIT AT EACH BOILER.

HOT WATER SEQUENCE OF OPERATION

THE BOILERS SHALL BE ENABLED (BLRn-EN) UPON A CALL FOR HEATING FROM ANY HEATING EQUIPMENT OR MANUALLY AT THE OPERATOR WORKSTATION. WHEN THE BOILERS ARE ENABLED, THE BOILER MANAGEMENT SYSTEM SHALL STAGE AND FIRE BOILERS AT MAXIMUM EFFICIENCY TO MAINTAIN THE HEATING WATER SUPPLY TEMPERATURE SET POINT BASED ON THE RESET SCHEDULE BELOW.

OAT	HWS-T
0F	140F
65F	120F

HEATING HOT WATER SECONDARY PUMP CONTROL: THE LEAD HOT WATER PUMP SHALL BE ENERGIZED (HWPn-C) AND SLOWLY RAMP UP TO SPEED UPON A CALL FOR HEATING FROM ANY EQUIPMENT WITH HEATING HOT WATER OR MANUALLY AT THE OPERATOR WORKSTATION. IF THE LEAD PUMP STATUS (HWPn-S) DOES NOT MATCH THE COMMANDED VALUE AFTER A TIME DELAY OF 90 SECONDS, AN ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION AND THE LAG PUMP SHALL BE ENERGIZED (HWPn-C). IF THE STATUS OF THE LAG PUMP DOES NOT MATCH THE COMMANDED VALUE AFTER A TIME DELAY OF 90 SECONDS, A CRITICAL ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION.

DIFFERENTIAL PRESSURE CONTROL: THE SECONDARY HEATING HOT WATER PUMPS SHALL OPERATE IN A LEAD/LAG SEQUENCE. WHEN THE LEAD PUMP IS ENERGIZED, THE LEAD PUMP SPEED SHALL MODULATE TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SET POINT OF 15 PSIG (ADJ) AS SENSED BY EXISTING DIFFERENTIAL PRESSURE TRANSMITTER. IF PUMP SPEED EXCEEDS 90% FOR A PERIOD OF 15 MINUTES, THE LAG PUMP SHALL BE ENERGIZED (HWPn-C). THE LEAD/LAG PUMPS SHALL MODULATE IN UNISON TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SET POINT. IF THE LEAD AND LAG PUMPS ARE ENERGIZED AND THE PUMP SPEED (HWPn-S) IS AT 30% FOR A PERIOD OF 15 MINUTES, THE LAG PUMP SHALL BE DE-ENERGIZED AND THE LEAD PUMP SHALL MODULATE TO MAINTAIN THE SYSTEM DIFFERENTIAL PRESSURE SET POINT. THE LEAD PUMP DESIGNATION SHALL BE ALTERNATED EVERY 30 DAYS.

SAFETIES: IF THE HEATING HOT WATER MAKEUP WATER FLOW TOTALIZING METER FLOW EXCEEDS 20 GALLONS IN A SINGLE 24 HOUR PERIOD, AN ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION.

POINTS LIST: THE FOLLOWING REPRESENTS THE MINIMUM POINTS TO BE PROVIDED AND VALUES CALCULATED TO BE DISPLAYED IN THE SYSTEM GRAPHICS. ADDITIONAL POINTS REQUIRED TO MEET THE SEQUENCE SHALL BE PROVIDED AND ALSO SHOWN. ALL OPERATING SETPOINTS SHALL BE ADJUSTABLE FROM THE FRONT END GRAPHICS.

BINARY INPUTS:
- HOT WATER PUMPS STATUS (HWPn-S)
- BOILER STATUS (BLRn-S)
- BOILER ALARM (BLRn-ALM)
- BOILER PUMP STATUS (BPn-HOA) 1

BINARY OUTPUTS:
- HOT WATER PUMPS START/STOP (HWPn-C)
- BOILER ENABLE (BLR-EN)

ANALOG INPUTS:
- OUTSIDE AIR TEMPERATURE (T-OA)
- HOT WATER SUPPLY TEMPERATURE (HWS-T)
- HOT WATER RETURN TEMPERATURE (HWR-T)
- BOILER HEADER SUPPLY TEMPERATURE (BLRS-T)
- ~~MAKEUP WATER FLOW (FM-HWM)~~
- SYSTEM DIFFERENTIAL PRESSURE (DPT-HW) 1

ANALOG OUTPUTS:
- ~~HOT WATER RESET SIGNAL (BLR-RST)~~
- SECONDARY HEATING WATER PUMP SPEED (HWPn-O) 1

1 MECHANICAL ROOM DIAGRAM

NOT TO SCALE

LANCER ASSOCIATES ARCHITECTURE

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REVISIONS:

#	Date	Desc.
1	02/03/2026	Addendum #1

100% CONSTRUCTION DOCUMENTS

PROJECT: #25148
DATE: 01/15/2026
DRAWN BY: AM / JR

TEMPERATURE CONTROLS SCHEMATICS

M-702