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NOTICE TO ALL CONTRACTORS AND SUB-CONTRACTORS

August 22, 2025

USD 321 Rossville High School Addition and CTE Renovation – JGR Proj #22-3269

ADDENDUM NO. 2

YOU ARE INSTRUCTED TO READ AND TO NOTE THE FOLLOWING DESCRIBED CHANGES, CORRECTIONS, CLARIFICATIONS, OMISSIONS, DELETIONS, ADDITIONS, APPROVALS, AND STATEMENTS PERTINENT TO THE CONTRACT AND CONSTRUCTION DOCUMENTS. THIS ADDENDUM IS A PART OF THE CONTRACT AND CONSTRUCTION DOCUMENTS AND SHALL GOVERN IN THE PERFORMANCE OF THE WORK.

Bid Date: Thursday, August 28, 2025 to the USD 321 District Office, 411 W. Lasley St, St. Marys, KS by 2:00 pm

GENERAL

1. The 2nd Pre-Bid Sign In sheet is attached.
2. For contractor reverence, the original building drawings at the CTE classroom area have been added to the JGR Plan Room.

CIVIL – Drawings

1. Sheet 08 Utility Plan – Reference the attached revised sheet 08 providing clarification for routing and tapping of the new domestic water and 6" fire line.

ARCHITECTURAL – Specifications

1. Section 06410 Custom Casework – Include the following as approved manufacturers for bidding purposes.
 - Stevens Industries
 - Highland Mill Shop
 - Lakewood Cabinetry
2. Section 10850 Building Specialties – Section 1.10 Lockers, include Lockers MFG as an approved manufacturer for bidding purposes.
3. Section 075423 Thermoplastic Polyolefin (TPO) Roofing – Replace this section with the attached section 075423 Thermoplastic Polyolefin (TPO).

ARCHITECTURAL – Drawings

1. Sheet A1.2 Detail D, Alternate fence Type 3 Elevations - Screen wall panels are to be 10ga. powder-coated panels with 2"x2"x1/8" angle around the perimeter of each panel. Delete reference to stainless steel.

MECHANICAL – Drawings

1. Sheet ME1.6 ME Roof Plan - Note 12 was missing. Note 12 was added pointing to the gas line to the paint booth make-up air unit.
2. Sheet M1.1 Waste and Vent Plan - Water closet in RR 139 was changed to a flush valve water closet.
3. Sheet M1.1 Waste and Vent Plan - Water closet in RR 139 was changed to a flush valve water closet.
4. Domestic water line and fire protection line routing was modified and note was added to see continuation of pipe routing on Civil Drawings.
5. Remove Furnace Split System Schedule from sheet M6.1. Equipment will be installed previous to project start and will be existing.
6. Coordinate duct installation requirements for paint booth with paint booth supplier. Provide all required hangars and supports and roof and wall penetrations for paint booth mechanical equipment, coordinate exact requirements with paint booth supplier.

Receipt of this Addendum shall be noted on the Bid Form.

END OF ADDENDUM NO. 2

Attachments

2nd Pre-Bid Sign-In Sheet

Section 075423

Sheet 08 (Civil)

Sheet ME1.6

Sheet M1.1

Sheet M1.3



USD 321 Rossville High School Addition and CTE Renovation
Rossville, KS
Pre-Bid Conference – Thursday, August 21, 2025
JGR Project No. 22-3269

[illegible]

SECTION 075423
THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
1. Adhered **fleeceback** thermoplastic polyolefin (TPO) roofing system.
 2. Roof insulation.
- B. Section includes the installation of insulation strips in ribs of roof deck. Insulation strips are furnished under Section 053100 "Steel Decking."
- C. Related Requirements:
1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking; and for wood-based, structural-use roof deck panels.
 2. Section 061600 "Sheathing" for wood-based, structural-use roof deck panels.
 3. Section 070150.19 "Preparation for Re-Roofing" for re-cover board beneath new roofing.
 4. Section 072100 "Thermal Insulation" for insulation beneath the roof deck.
 5. Section 076200 "Sheet Metal Flashing and Trim" for metal roof flashings and counterflashings.
 6. Section 077129 "Manufactured Roof Expansion Joints" for proprietary manufactured roof expansion-joint assemblies.
 7. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.
 8. Section 221423 "Storm Drainage Piping Specialties" for roof drains.

1.03 SYSTEM DESCRIPTION

- A. TPO Sheet membrane roof assembly shall conform to UL requirements for a Class-A Rated assembly, and factory mutual requirements for I-90 wind uplift resistance. Wind rating **as noted below in the system description.**
- B. Roof system shall provide continuity of thermal and moisture barrier at building enclosure elements, and shall consist of the following **(components listed are per basis of specification requirements):**

1. **New Addition Areas – Adhered System Design 1 – 20 year 100 mph wind rating.**

UL Listed Class A Assembly

Edge Metal:

Membrane: Adhere 115 Mil Sure=Weld TPO FleeceBack membrane with 4" o.c. beads or manufacturer approved adhesive.

Cover Board: ½" Secure Shield HD Plus Secured with fasteners and plates as required to meet wind load rating. Min. 16 InsulFast fasteners and 3" plates per 4x8 board. Approval based on 300lb pullout.

Insulation: Tapered Insulbase polyiso. Layer and secure as required to meet roof slope, drainage, and warranty requirements. Slope/Thickness as indicated on drawings.

Substrate Board: 5/8" Type "X" G.B

Deck: Less than 22 GA metal roof panel

2. **At Existing Metal Standing Seam Roof – Retrofit Adhered System Design 1- 20 year 72 mph wind rating**

UL Listed Class A Assembly

Edge Metal: As required by manufacturer to achieve warranty requirements.

Membrane:	Adhere 115 Mil Sure=Weld TPO FleeceBack membrane with 4" o.c. beads or manufacturer approved adhesive.
Cover Board:	½" Secure Shield HD Plus Secured with fasteners and plates as required to meet wind load rating. Min. 16 HP-X fasteners and 3" plates per 4x8 board. Approval based on 300lb pullout.
Insulation:	3" Insulbase polyiso flute filler loose laid
Substrate Board:	5/8" Type "X" G.B
Deck:	Less than 22 GA metal roof panel

1.04 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.05 PREINSTALLATION MEETINGS

- A. Preinstallation Roofing Conference: Conduct conference at Project site.
 1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
 3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
 5. Review structural loading limitations of roof deck during and after roofing.
 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
 7. Review governing regulations and requirements for insurance and certificates if applicable.
 8. Review temporary protection requirements for roofing system during and after installation.
 9. Review roof observation and repair procedures after roofing installation

1.06 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work, including:
 1. Base flashings and membrane terminations.
 2. Tapered insulation, including slopes.
 3. Roof plan showing orientation of steel roof deck and orientation of roofing, fastening spacings, and patterns for mechanically fastened roofing.
 4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
 5. Warranty confirmation shall be submitted with shop drawings.

1.07 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 1. Submit evidence of compliance with performance requirements.

- C. Product Test Reports: For components of roofing system, tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Research/Evaluation Reports: For components of roofing system, from ICC-ES.
- E. Field quality-control reports.
- F. Sample Warranties: For manufacturer's special warranties.

1.08 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.

1.09 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is FM Global approved for roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.11 FIELD 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.

1.12 WARRANTY

- A. Provide roofer's two year warranty covering materials (including insulation and flashings) and workmanship for areas of incidental tie-in with existing roofing.
- B. Manufacturer's Special Warranty: Manufacturer agrees to repair or replace all components of roofing system that fail in materials or workmanship within specified warranty period.
 - 1. Special warranty shall be a complete systems warranty that includes roofing, base flashings, roof insulation, fasteners, cover boards, substrate board, equipment curbs, pipe penetrations, duct penetrations, roofing accessories, roof pavers, and other components of roofing system. Contractor/manufacturer shall provide any inspections and testing as required for this complete systems warranty as identified in the specifications.
 - 2. Warranty Period: **20 years** from date of Substantial Completion. Warranty shall be a No-Dollar-Limit, Single Source, Manufacturer's, Non-Prorated warranty.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Carlisle SynTec Incorporated., Sure-Weld and Sure-Weld Retrofit System or a comparable product by one of the following:
 - 1. Elevate/Firestone Building Products; UltraPly TPO.
 - 2. GenFlex Roofing Systems.
 - 3. Johns Manville; a Berkshire Hathaway company.
 - 4. Mule-Hide Products Co., Inc.
- B. Source Limitations: Obtain components including roof insulation fasteners for roofing system from same manufacturer as membrane roofing.

2.02 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
 - 1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 - 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- D. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.03 TPO ROOFING

- A. Fabric-Reinforced TPO Sheet: ASTM D 6878, internally fabric- or scrim-reinforced, uniform, flexible fabric-backed TPO sheet.
 - 1. Thickness: 115 mils nominal.
 - 2. Exposed Face Color: White.

2.04 ACCESSORIES

- A. Gypsum Sheathing: ANSI/ASTM C707; 5/8 inch thick Type X; uncoated face, fire rated.
- B. Sheathing Adhesive: Non-combustible type, for adhering gypsum sheathing to metal deck.
- C. Sheathing Joint Tape: Heat resistant type,
- D. Sheet Vapor Retarder: N.A.
- E. Dry Sheathing Paper: N.A.
- F. Flexible Flashings: Flashing around perimeter, vents, pipes, stand supports, etc., shall be 115-mil thick TPO flashing material; white color; manufactured by primary membrane manufacturer.
- G. Prefabricated Expansion Joint Flashing: Expansion joint cover shall be a non-reinforced, Form-supported TPO bellows with a bifurcated waterproof attachment to metal flanges; "Expand-o-Flash" Style CF-EJ 4, with Type E (EPDM) bellows and flange metal of 26 gage galvanized steel, as manufactured by Manville; or others as approved by Architect.
 - 1. All intersections and terminations shall be prefabricated by the manufacturer.
 - 2. All splices shall be made with materials supplied for this purpose by the manufacturer.
- H. Fiber Cant and Tapered Edge Strips: N.A., unless required by roofing manufacturer.
- I. Fasteners: Galvanized Type, as recommended by roofing manufacturer to secure insulation and coverboard.
- J. Sealants: Sealants for use between various components of the membrane roof system shall be as recommended by roof manufacturer. Sealants for use between metal flashings and surrounding

masonry or other construction, and at other miscellaneous locations shall be as specified in Section 07900.

- K. Walkway Pads: **Roof Membrane additional layer, 30" min. width. Locate at perimeter of all roof equipment and under piping and supports**; approved and furnished by roofing manufacturer.
- L. "Pitch Pans" and metal accessories necessary for flashing shall be 24-gage galvanized iron if not exposed to view. Exposed metal accessories shall be 24-gage pre-finished sheet metal as specified in section 07620.
- M. Pourable sealer shall be as recommended and supplied by the manufacturer of the membrane.
- N. Vent pipe flashing shall be molded TPO pipe flashing with stainless steel clamping ring all as supplied by the manufacturer.
- O. Other miscellaneous components as shown or specified and/or as otherwise required by manufacturer for a complete and watertight installation.

2.05 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured by TPO roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide **InsulBase** or a comparable product by one of the following:
 - a. Atlas Roofing Corporation, Acfoam Supreme.
 - b. Carlisle SynTec Incorporated.
 - c. Dyplast Products.
 - d. GAF Materials Corporation.
 - e. Hunter Panels.
 - f. Insulfoam LLC; a Carlisle company.
 - g. Johns Manville; a Berkshire Hathaway company.
 - h. Rmax, Inc.
 - 2. Thickness: As indicated on drawings to provide total R-30 (minimum) insulation value.
- C. Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches. Reference drawings for areas where tapered insulation is 1/2 inch per 12 inches.
- D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

2.06 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Full-spread spray-applied, low-rise, two-component urethane adhesive.
- D. Cover Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, 1/2 inch (13 mm) thick, factory primed.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Georgia-Pacific Building Products; Dens Deck or a comparable product by one of the following:
 - a. CertainTeed Corporation.
 - b. National Gypsum Company.
 - c. United States Gypsum Company.

2.07 ASPHALT MATERIALS

- A. Roofing Asphalt: ASTM D 312, Type III or Type IV.
- B. Asphalt Primer: ASTM D 41/D 41M.

2.08 WALKWAYS

- A. Walkway Roof Pads: Provide Additional layer of TPO membrane around rooftop equipment, min, 6' width at perimeter of equipment.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 - 3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Section 053100 "Steel Decking."
 - 4. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
 - 5. Verify that concrete substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
 - 6. Verify that concrete-curing compounds that will impair adhesion of roofing components to roof deck have been removed.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Install insulation strips according to acoustical roof deck manufacturer's written instructions

3.03 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from and discard temporary seals before beginning work on adjoining roofing.
- C. Install roofing and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition and to not void warranty for existing roofing system.

3.04 SUBSTRATE BOARD INSTALLATION

- A. Install substrate board with long joints in continuous straight lines, perpendicular to roof slopes with end joints staggered between rows. Tightly butt substrate boards together.
 - 1. Fasten substrate board to top flanges of steel deck according to recommendations in FM Global's "RoofNav" and FM Global Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification.
 - 2. Fasten substrate board to top flanges of steel deck to resist uplift pressure at corners, perimeter, and field of roof according to roofing system manufacturers' written instructions.

3.05 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches (68 mm) 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.
 - 1. Where installing composite and noncomposite insulation in two or more layers, install noncomposite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.
- E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges, and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - 1. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- G. 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.
- H. Mechanically Fastened and Adhered Insulation: Install each layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
 - 1. Fasten first layer of insulation according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
 - 2. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
- I. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches (150 mm) in each direction. Loosely butt cover boards together and fasten to roof deck.
 - 1. Fasten cover boards according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
 - 2. Fasten cover boards to resist uplift pressure at corners, perimeter, and field of roof.

3.06 ADHERED ROOFING INSTALLATION

- A. Adhere roofing over area to receive roofing according to roofing system manufacturer's written instructions. Unroll roofing and allow to relax before retaining.
- B. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- C. Accurately align roofing, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply to substrate and underside of roofing at rate required by manufacturer, and allow to partially dry before installing roofing. Do not apply to splice area of roofing.
- E. In addition to adhering, mechanically fasten roofing securely at terminations, penetrations, and perimeter of roofing.
- F. Apply roofing with side laps shingled with slope of roof deck where possible.
- G. Seams: Clean seam areas, overlap roofing, and hot-air weld side and end laps of roofing and sheet flashings according to manufacturer's written instructions, to ensure a watertight seam installation.
 - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet.
 - 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.

3. Repair tears, voids, and lapped seams in roofing that do not comply with requirements.
- H. Spread sealant bed over deck-drain flange at roof drains, and securely seal roofing in place with clamping ring.

3.07 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to 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 seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.08 WALKWAY INSTALLATION

- A. Roof-Paver Walkways: Install walkway roof **membrane** according to manufacturer's written instructions in locations indicated, to form walkways.

3.09 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components, and to furnish reports to Architect.
 1. Electric Field Vector Mapping (EFVM): Testing agency shall survey entire roof area for potential leaks using electric field vector mapping (EFVM).
- B. Flood Testing: Flood test each roofing area for leaks, according to recommendations in ASTM D 5957, after completing roofing and flashing but before overlying construction is placed. Install temporary containment assemblies, plug or dam drains, and flood with potable water.
 1. Flood to an average depth of 2-1/2 inches (65 mm) with a minimum depth of 1 inch (25 mm) and not exceeding a depth of 4 inches (100 mm). Maintain 2 inches (50 mm) of clearance from top of base flashing.
 2. Flood each area for 48 hours.
 3. After flood testing, repair leaks, repeat flood tests, and make further repairs until roofing and flashing installations are watertight.
- C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- D. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
- E. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.10 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.11 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
1. Owner: **<Insert name of Owner>**.
 2. Address: **<Insert address>**.
 3. Building Name/Type: **<Insert information>**.
 4. Address: **<Insert address>**.
 5. Area of Work: **<Insert information>**.
 6. Acceptance Date: _____.
 7. Warranty Period: **<Insert time>**.
 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding **<120 mph>**;
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.

6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

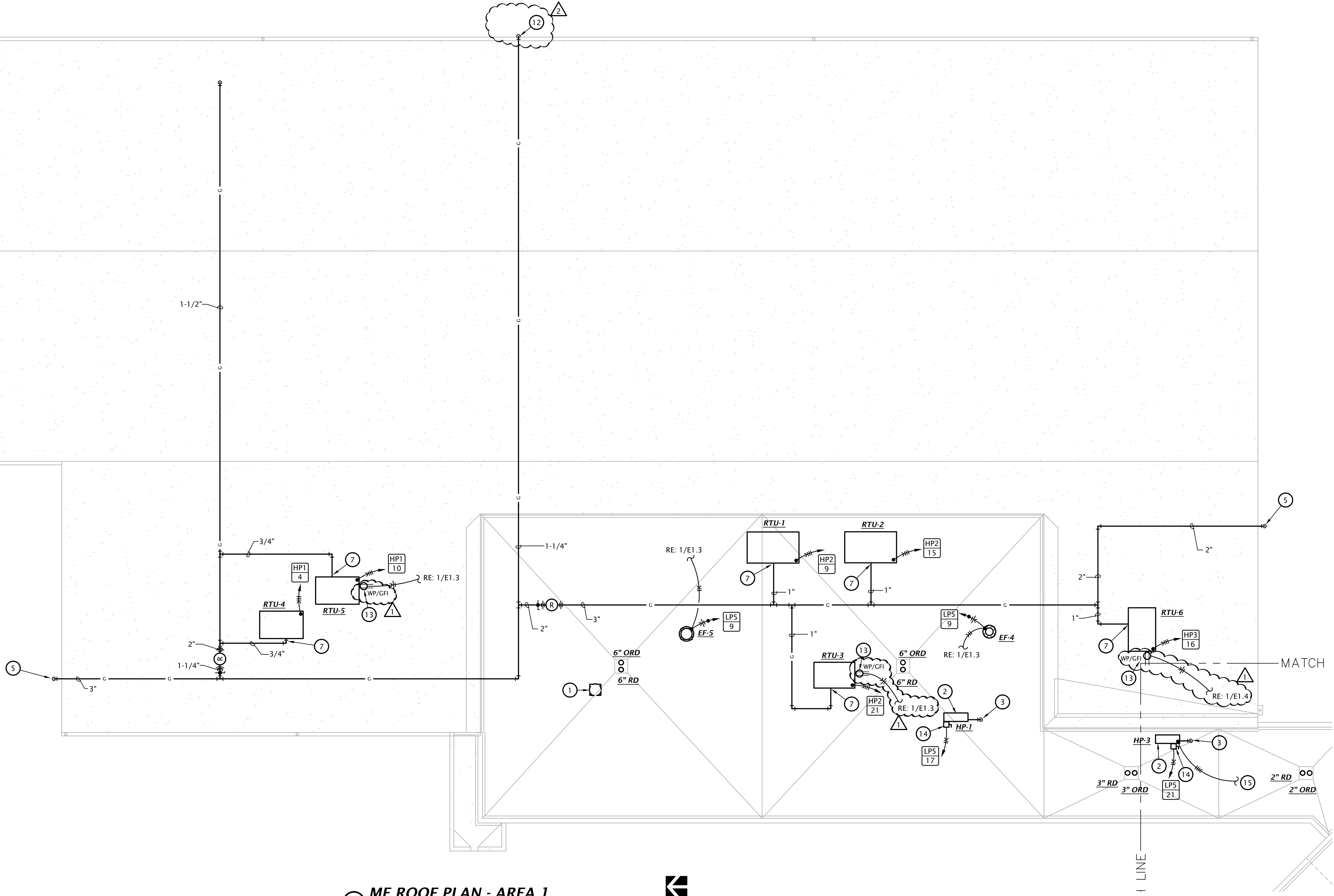
E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION 075423



2 KEY PLAN
NO SCALE



1 ME ROOF PLAN - AREA 1
1/8" = 1'-0"

ME ROOF PLAN NOTES BY SYMBOL

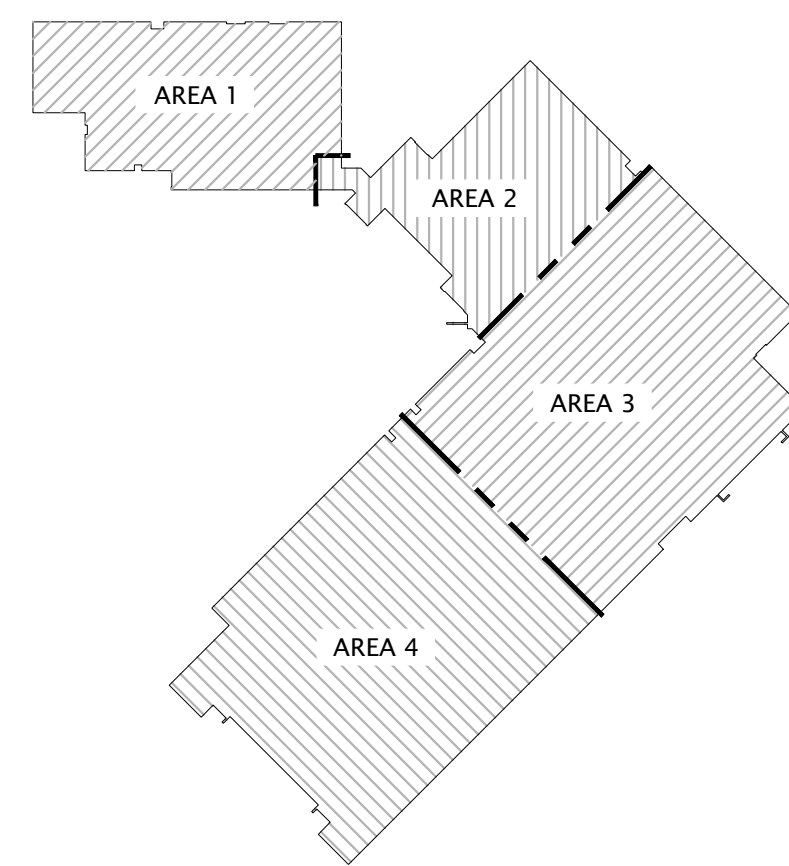
1. PROVIDE GRAVITY RELIEF HOOD EQUAL TO GREENHECK MODEL GRSH-10, 0.57 SF THROAT AREA, WITH BACKDRAFT DAMPER AND BIRD SCREEN.
2. MOUNT HEAT PUMP UNITS ON ROOF CURBS, PATE OR EQUIVALENT.
3. ROUTE REFRIGERANT PIPING FROM HEAT PUMP TO INDOOR UNITS. PROVIDE PIPING PENETRATION ASSEMBLY EQUAL TO RPH AW SERIES ROOF VAULT WITH EXIT SEALS FOR REFRIGERANT PIPING AND ELECTRICAL CONDUIT AND TWO ADDITIONAL SPARE EXIT SEALS.
4. ROUTE GAS PIPING ACROSS ROOF OF NEW HALLWAY AND CONNECT TO EXISTING PIPING UP TO ROOF. FIELD VERIFY SIZE AND LOCATION OF EXISTING PIPING. NEW PIPING SHALL MATCH SIZE OF EXISTING.
5. ROUTE GAS PIPING DOWN ALONG EXTERIOR WALL. SEE DOMESTIC WATER AND GAS PLANS FOR CONTINUATION.
6. PROVIDE REGULATOR FOR 1 PSI INLET AND 7" W.C. OUTLET. FIELD COORDINATE EXACT INLET PRESSURE ON EXISTING GAS SERVICE WITH KANSAS GAS SERVICE.
7. CONNECT GAS TO ROOF TOP UNIT. PROVIDE GAS COCK, UNION, AND DIRT LEG.
8. SUPPORT GAS PIPING ON ROOF WITH PREFABRICATED ROOF TOP SUPPORT EQUAL TO ERICO PYRAMID. SEE DETAIL 1-M6.2.
9. 6" HUB DRAIN TERMINATED WITH 6" TO 8" TRANSITION FOR DISCHARGE OF EXISTING GYM DOWN SPOUTS. FIELD COORDINATE EXACT LOCATIONS WITH EXISTING CONDITIONS. COORDINATE ROOF PENETRATION REQUIREMENTS WITH ARCHITECT AND G.C.
10. LOCATE ROOF TOP UNIT AT EXISTING ROOF TOP UNIT LOCATION. MODIFY EXISTING ROOF OPENING AS REQUIRED FOR NEW UNIT. COORDINATE REQUIREMENTS WITH EXISTING CONDITIONS AND G.C.
11. PROVIDE PIPE CURB AND ROUTE GAS PIPING DOWN THROUGH ROOF. COORDINATE EXACT REQUIREMENTS WITH G.C.
12. ROUTE 1 PSI GAS PIPING DOWN ALONG EXTERIOR WALL AND CONNECT TO SPRAY BOOTH MAKE-UP AIR UNIT INCLUDED AS PART OF ALTERNATE #4. PROVIDE GAS COCK, UNION, AND DIRT LEG. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH EQUIPMENT PROVIDED BY OTHERS. WORK ASSOCIATED WITH ALTERNATE #4 SHALL BE PRICED SEPARATELY.
13. MOUNT RECEPTACLE TO NON-REMOVABLE PANEL OF ROOFTOP UNIT. DO NOT COVER EQUIPMENT NAMEPLATE.
14. 60A/2P NON-FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. MOUNT TO UNISTRUT FRAME SUPPORTED FROM EQUIPMENT CURB. MAKE FINAL CONNECTION TO EQUIPMENT IN 'LFMC' RACEWAY.
15. (3) #12, #12G, 1/2"C BETWEEN HEAT PUMP UNIT AND ASSOCIATED INDOOR UNIT 'IU-3-1'. SEE SHEET E1.4 FOR INDOOR UNIT LOCATION.



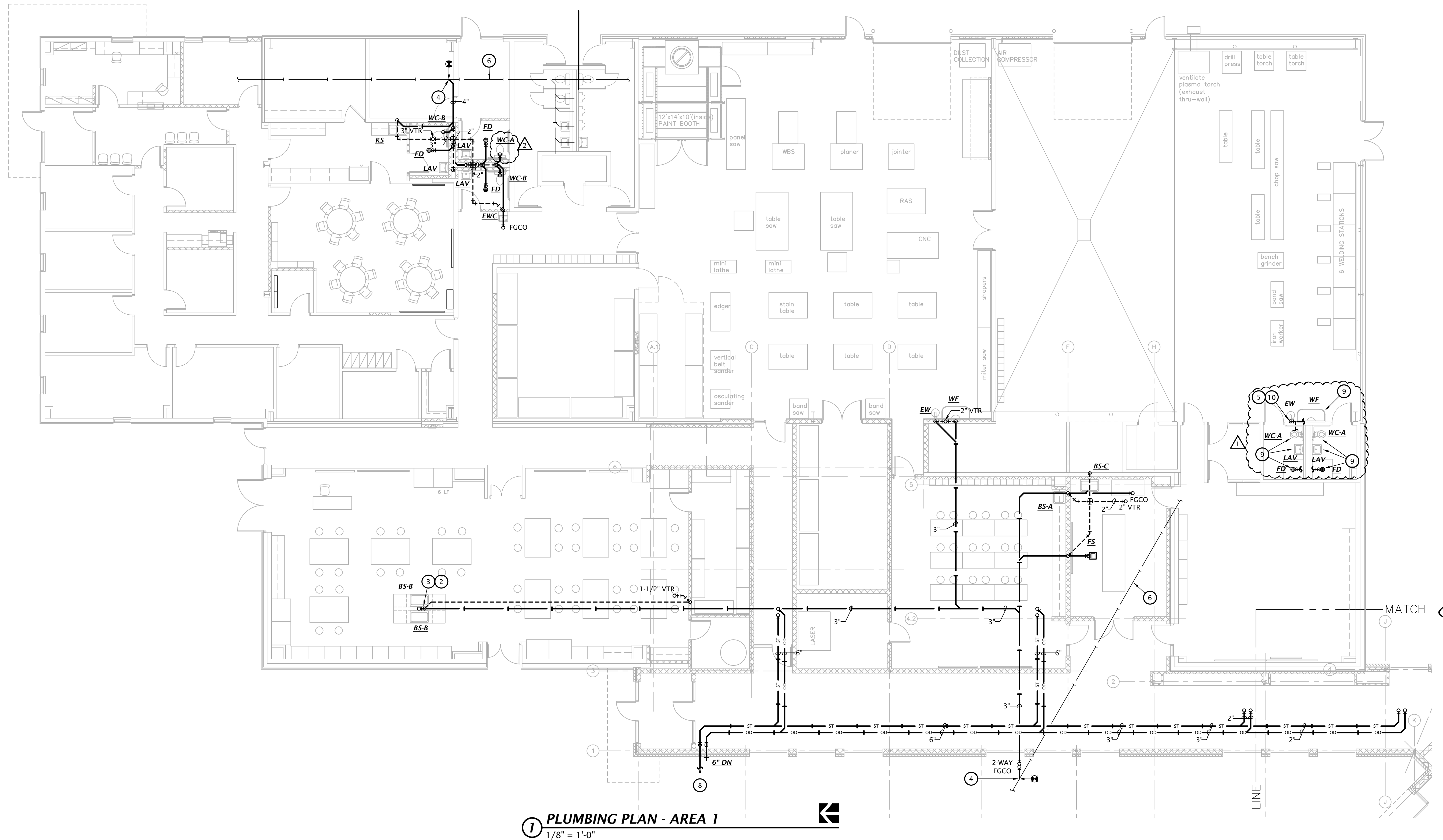
REVISION:	
1	ADDENDUM 1 8/6/2025
2	ADDENDUM #2 8-22-2025

DATE:	7-18-2025
JOB:	22-3269
SHEET NO.:	

ME1.6



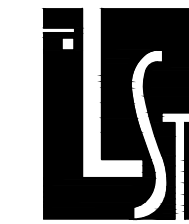
2 KEY PLAN
NO SCALE



1 PLUMBING PLAN - AREA 1
1/8" = 1'-0"

⑧ PIPING PLAN NOTES BY SYMBOL

1. CONNECT TO EXISTING 4" OR LARGER DRAIN. FIELD VERIFY EXACT SIZE AND LOCATION.
2. PROVIDE ISLAND VENT FOR SINKS..
3. PROVIDE SINKS IN ART ROOM WITH SOLIDS INTERCEPTOR EQUAL TO GLECO TRAP GT32. PROVIDE WITH ALL COMPONENTS REQUIRED FOR A COMPLETE INSTALLATION AND ONE EXTRA BOTTLE WITH LID. FIELD COORDINATE ROUGH-IN HEIGHT TO ENSURE RECOMMENDED CLEARANCE IS MAINTAINED.
4. CONNECT TO EXISTING 4" OR LARGER BUILDING DRAIN. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING.
5. CONNECT TO EXISTING 2" OR LARGER VENT PIPING. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING.
6. EXISTING PIPING TO REMAIN.
7. ROUTE 6" ROUND STORM DRAIN UP THROUGH ROOF AND TERMINATE WITH 6" TO 8" TRANSITION FOR DISCHARGE OF EXISTING GYM DOWNSPOUTS. COORDINATE EXAC. LOCATION WITH EXISTING CONDITIONS. COORDINATE ROOF PENETRATION REQUIREMENTS WITH ARCHITECT AND G.C.
8. SEE CIVIL PLAN FOR CONTINUATION.
9. CONNECT NEW FIXTURES TO EXISTING ROUGH-INS. MODIFY EXISTING PIPING AS REQUIRED. FIELD VERIFY EXACT REQUIREMENTS.
10. CONNECT DRAIN FROM EYE WASH TO NEAREST EXISTING 2" OR LARGER DRAIN PIPING. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING.



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USD 321 - KAW VALLEY SCHOOLS	CTE RENOVATION	KANSAS
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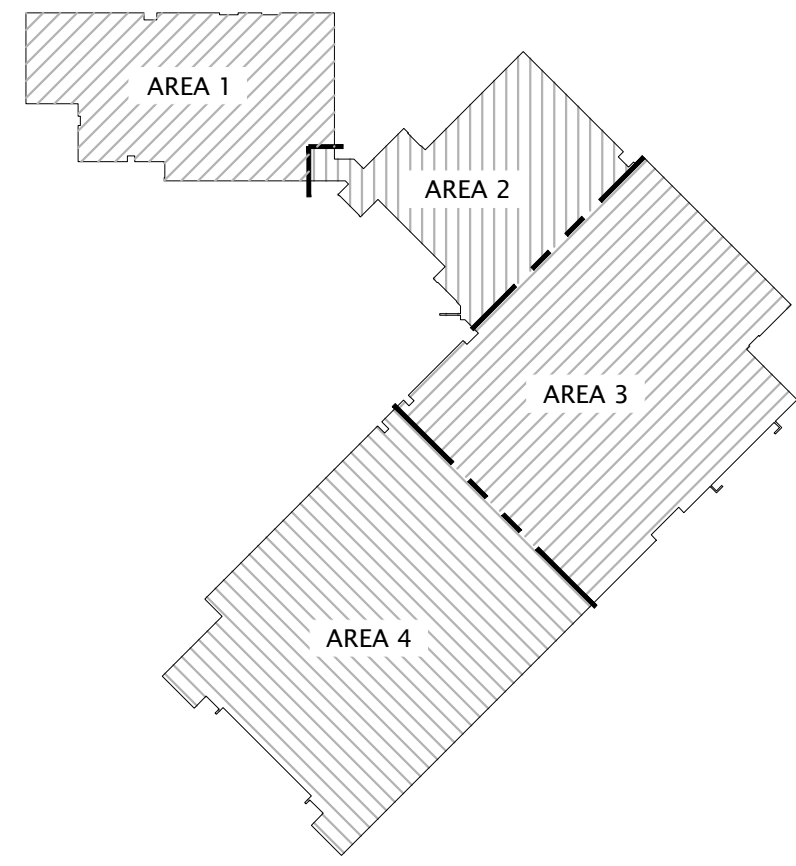


REVISION:	
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2	ADDENDUM #2 8-22-2025

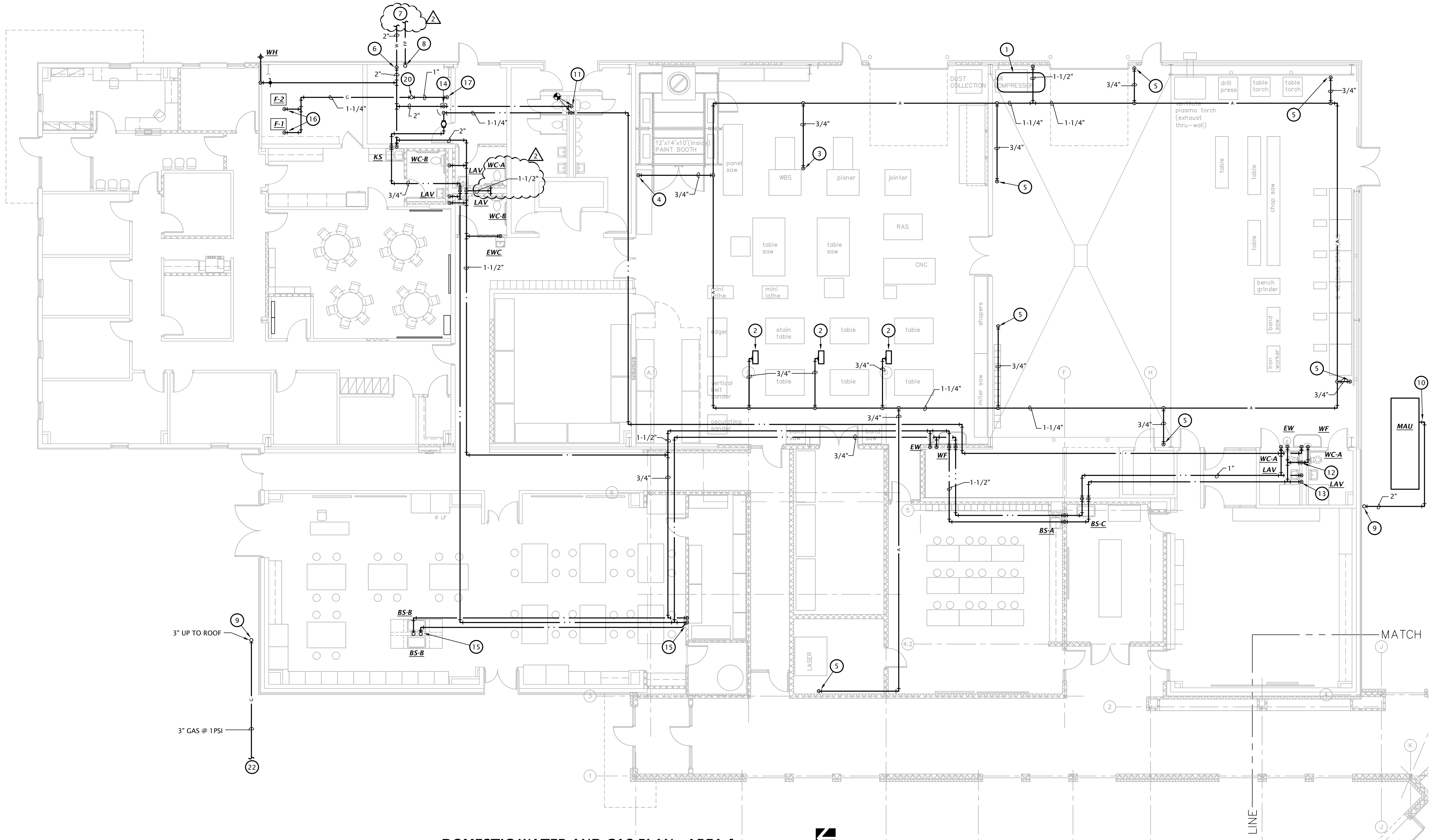
DATE:	7-18-2025
DOB:	22-3269
SHEET NO.:	

M1.1

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2 KEY PLAN
NO SCALE



1 DOMESTIC WATER AND GAS PLAN - AREA 1
1/8" = 1'-0"



PIPING PLAN NOTES BY SYMBOL

1. PROVIDE 2 STAGE AIR COMPRESSOR EQUAL TO SPEEDAIRE, 15HP, 480V/3PH, 200 GAL TANK, 100 CFM @ 175 PSI.
2. PROVIDE COMPRESSED AIR HOSE REEL AND DROP WITH 50' HOSE. PROVIDE SHUT-OFF VALVE AT IN BRANCH TO HOSE REEL. COORDINATE EXACT LOCATION AND HOSE REQUIREMENTS WITH OWNER.
3. PROVIDE COMPRESSED AIR DROP WITH SHUT-OFF VALVE, REGULATOR FILTER, AND QUICK RELEASE FITTING AND CONNECT TO WIDE BELT SANDER. FIELD COORDINATE EXACT CONNECTION REQUIREMENTS AND LOCATION WITH EXISTING EQUIPMENT AND OWNER.
4. PROVIDE COMPRESSED AIR DROP WITH SHUT-OFF VALVE, REGULATOR, FILTER, AND QUICK RELEASE FITTING FOR PAINT SPRAYER. FIELD COORDINATE EXACT LOCATION AND OUTLET REQUIREMENTS WITH OWNER.
5. PROVIDE COMPRESSED AIR DROP WITH SHUT-OFF VALVE AND QUICK RELEASE FITTING. TERMINATE AT 42" A.F.F. COORDINATE EXACT LOCATION AND COMPRESSED AIR OUTLET REQUIREMENTS WITH OWNER.
6. PROVIDE SHUT-OFF VALVE AND PRESSURE REDUCING VALVE SET TO 80 PSI, IF REQUIRED, IN WATER SERVICE RISER.
7. SEE CIVIL DRAWING FOR CONTINUATION.
8. FIRE PROTECTION SERVICE RISER. SEE DETAIL ON SHEET M6.2.
9. ROUTE GAS UP TO ROOF. SEE ME ROOF PLAN FOR CONTINUATION.
10. CONNECT GAS TO MAKE-UP AIR UNIT. PROVIDE GAS COCK, UNION, AND DIRT LEG.
11. ROUTE 2" CW AND 3/4" HW DOWN IN WALL AND CONNECT TO EXISTING PIPING SERVING EXISTING FIXTURES. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING PIPING. MODIFY EXISTING PIPING AS REQUIRED.
12. ROUTE 1-1/2" CW DOWN IN WALL AND CONNECT TO WATER CLOSETS. FIELD VERIFY EXACT ROUTING. COORDINATE ANY REQUIRED CUTTING AND PATCHING WITH G.C.
13. ROUTE 1/2" HW AND CW DOWN IN WALL AND CONNECT TO LAVATORIES. FIELD VERIFY EXACT ROUTING WITH EXISTING CONDITIONS. COORDINATE ANY REQUIRED CUTTING AND PATCHING WITH G.C.
14. CONNECT 1-1/4" HW AND CW TO EXISTING WATER HEATER AND CIRC PUMP. PROVIDE NEW AQUASTAT FOR CONTROL OF EXISTING PUMP. MODIFY EXISTING INSTALLATION AS REQUIRED FOR NEW PIPING. FIELD VERIFY EXACT REQUIREMENTS AND LOCATION OF EXISTING EQUIPMENT.
15. ROUTE 3/4" HW AND CW PIPING BELOW SLAB TO SINKS. DO NOT UTILIZE FITTINGS BELOW SLAB. PROVIDE SHUT-OFF VALVE WITH ACCESS PANEL IN WALL PRIOR TO DROPPING BELOW SLAB.
16. CONNECT 1-1/4" GAS TO FURNACE. PROVIDE GAS COCK, UNION, AND DIRT LEG.
17. CONNECT GAS TO EXISTING WATER HEATER. PROVIDE GAS COCK, UNION, AND DIRT LEG.
18. ROUTE 1-1/2" GAS BELOW GRADE AND CONNECT TO EXISTING 1" GAS SERVING GYM. FIELD VERIFY EXACT LOCATION OF EXISTING PIPING.
19. RE-ROUTE EXISTING 2" GAS LINE UP EXTERIOR OF NEW BUILDING AN ACROSS ROOF. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING. SEE ROOF PLAN FOR CONTINUATION.
20. ROUTE GAS UP THROUGH ROOF. SEE ME ROOF PLAN FOR CONTINUATION.
21. PROVIDE REGULATOR AT BUILDING SET FOR 1 PSI INPUT AND 11" W.C. OUTLET. TOTAL CONNECTED LOAD = 1640 CFH.
22. EXTEND GAS PIPING BACK TO METER AND REGULATOR PROVIDED BY KANSAS GAS COMPANY AT CORNER OF EXISTING BUILDING. FIELD VERIFY EXACT LOCATION OF EXISTING. TOTAL CONNECTED LOAD FOR SHOP BUILDING = 2550 CFH. SEE ME SITE PLAN ON SHEET ME1.5 FOR CONTINUATION.