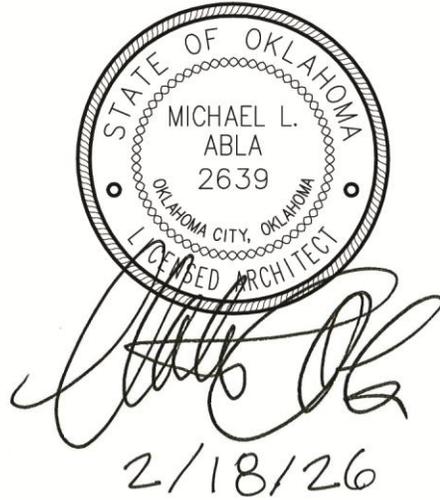


**MOORE PUBLIC SCHOOLS -
WAYLAND BONDS ELEMENTARY SCHOOL
2025 HVAC UPGRADES**

Moore Public Schools - Moore, Oklahoma
AGP - Moore, Oklahoma

ADDENDUM NO. 1

February 25th, 2026



This addendum applicable to work designated herein, shall be understood to be an Addendum, and as such shall be included in the Contract Agreement.

Receipt of this Addendum shall be acknowledged by the Construction Management Firm notifying this office in writing, and by any applicable subcontractor to the CM.

This addendum consists of two (2) pages with attachments of thirty-six (36) 8.5"x11" pages and nineteen (19) 24"x36" sheets.

A. Drawings:

General

1. Cover Sheet: replace with attached sheet in its entirety.

Civil

1. Sheet C100 – Cooling Tower Plan: add sheet in its entirety. Refer to attachment.

Structural

Refer to attachments. Sheet S300

Architectural

1. Sheet A100, Detail #1, Demolition Plan / Detail #2, Reflected Ceiling Plan / Detail #3, Reflected Ceiling Location Plan: revise detail 1A100 as indicated and omit details 2 & 3A100. Refer to attachment.
2. Sheet A101 – Demolition Plan: add sheet in its entirety. Refer to attachment.

Mechanical, Electrical, and Plumbing

Refer to attachments.

B. Specifications:

1. Table of Contents: added new sections associated with this Addendum.
Refer to attachments.
2. Added Sections 03300 - Concrete, 05500 – Metal Fabrications, 07900 -
Sealants, & 08700 – Finish Hardware: Refer to attachments.
3. Section 09210 – Ceiling Suspension Systems: replace section in its entirety.
Refer to attachments.

Mechanical, Electrical, and Plumbing

Refer to attachments.

END OF ADDENDUM NO. 1

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DIVISION 21 THRU 26 - MECHANICAL, PLUMBING, ELECTRICAL & TECHNOLOGY

REFER TO MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY
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DIVISION 3 - CONCRETE

SECTION 03300 - CAST-IN-PLACE CONCRETE - ADDENDUM NO. 1

PART 1 - GENERAL

1.01 Section Includes

- A. Concrete formwork.
- B. Slabs on grade.
- C. Concrete foundation walls and retaining walls.
- D. Concrete reinforcement.
- E. Joint devices associated with concrete work.
- F. Miscellaneous concrete elements, including equipment pads and equipment pits.
- G. Concrete curing.

1.02 Related Requirements

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Section 07 9200 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints, construction joints and isolation joints in slabs.

1.03 Reference Standards

- A. For all reference standards listed below, comply with the version year in the governing building code adopted by the Authority Having Jurisdiction. For those reference standards that are not directly referenced by the building code, use the latest edition unless noted otherwise.
- B. ACI 117 - Specifications for Tolerances for Concrete Construction and Materials.
- C. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
- D. ACI 301 - Specifications for Structural Concrete.
- E. ACI 302.1R - Guide to Concrete Floor and Slab Construction.
- F. ACI 302.2R - Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials.
- G. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete.
- H. ACI 305R - Guide to Hot Weather Concreting.
- I. ACI 305.1 - Specification for Hot Weather Concreting.
- J. ACI 306R - Guide to Cold Weather Concreting.
- K. ACI 308R - Guide to External Curing of Concrete.
- L. ACI 318 - Building Code Requirements for Structural Concrete and Commentary.
- M. ACI 347R - Guide to Formwork for Concrete.
- N. ACI SP-66 - ACI Detailing Manual.
- O. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
- P. ASTM A706/A706M - Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement.

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- Q. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
- R. ASTM C33/C33M - Standard Specification for Concrete Aggregates.
- S. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- T. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
- U. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete.
- V. ASTM C150/C150M - Standard Specification for Portland Cement.
- W. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete.
- X. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
- Y. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete.
- Z. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
- AA. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
- AB. ASTM C1064/C1064M - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
- AC. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
- AD. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete.
- AE. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
- AF. ASTM D2103 - Standard Specification for Polyethylene Film and Sheeting.
- AG. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.
- AH. CRSI (DA4) - Manual of Standard Practice.
- AI. ICC (IBC)-2015 - International Building Code.

1.04 Definitions

- A. Cold Weather: A period when for more than three successive days the average daily outdoor temperature drops below 40 F. The average daily temperature is the average of the highest and lowest temperature during the period from midnight to midnight. When temperatures above 50 F occur during more than half of any 24 hr duration, the period shall no longer be regarded as cold weather.

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- B. Hot Weather: Hot weather is any combination of the following conditions that tends to impair the quality of freshly mixed or hardened concrete by accelerating the rate of moisture loss and rate of cement hydration, or otherwise causing detrimental results:
 - 1. High ambient temperature
 - 2. High concrete temperature
 - 3. Low relative humidity
 - 4. Wind speed
 - 5. Solar radiation

1.05 Submittals

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- C. Mix Design: Submit proposed concrete mix design.
 - 1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.
 - 2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 26 - Concrete Documents and Inspection.
- D. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.
- E. Test Reports: Submit report for each test or series of tests specified.
- F. Manufacturer's Installation Instructions: For concrete accessories, indicate installation procedures and interface required with adjacent construction.
- G. Formwork Design Submittal: As required by authorities having jurisdiction.
- H. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
- I. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.06 Quality Assurance

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

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- D. For slabs required to include moisture vapor reducing admixture (MVRA), do not proceed with placement unless manufacturer's representative is present for placement as required by the manufacturer's warranty.

1.07 Warranty

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- C. Slabs with Moisture Vapor Reducing Admixture (MVRA):
Provide warranty to cover cost of flooring failures due to moisture migration from slabs for life of the concrete.
 - 1. Include cost of repair or removal of failed flooring, placement of topical moisture remediation system, and replacement of flooring with comparable flooring system.
 - 2. Provide warranty by manufacturer of MVRA matching terms of flooring adhesive or primer manufacturer's material defect warranty.

PART 2 PRODUCTS

2.01 Formwork

- A. Formwork Design and Construction: Comply with guidelines of ACI 347R to provide formwork that will produce concrete complying with tolerances of ACI 117.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
 - 1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance.
 - 2. Earth Cuts: Do not use earth cuts as forms for vertical surfaces of trenched footings unless expressly allowed in the General Notes in the structural drawings. Natural rock formations that maintain a stable vertical edge may be used as side forms for below-grade concrete.
 - 3. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
 - 4. Form Ties: Cone snap type that will leave no metal within the clear cover zone of the concrete surface as specified in the Minimum Concrete Cover for Cast-in-Place Non-Prestressed Members table included in the General Notes of the structural drawings.

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2.02 Reinforcement Materials

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
 - 1. Type: Deformed billet-steel bars.
 - 2. Finish: Unfinished, unless otherwise indicated.
- B. Reinforcing Steel: ASTM A706/A706M, deformed low-alloy steel bars, weldable.
 - 1. Unfinished.
- C. Reinforcement Accessories:
 - 1. Joint Dowel Bars: ASTM A615/A615M, Grade 60 (60,000 psi) plain-steel bars, cut true to length with ends square and free of burrs.
 - 2. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch.
 - 3. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
 - a. Continuous slab bolsters shall be used to support the bottom reinforcing bars of all reinforced slabs-on-grade.
 - 4. Provide stainless steel, galvanized, plastic, or plastic coated steel components for placement of reinforcing steel within 1-1/2 inches of weathering surfaces and for concrete surfaces that will be exposed to view.
- D. Fabrication of Reinforcing:
 - 1. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.
 - 2. Welding of reinforcement is permitted only with the specific approval of Architect/Engineer. Perform welding in accordance with AWS D1.4/D1.4M.
 - 3. Locate reinforcing splices not indicated on drawings at point of minimum stress.

2.03 Concrete Materials

- A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
 - 1. Acquire cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
 - 1. Acquire aggregates for entire project from same source.
- C. Fly Ash: ASTM C618, Class C or F.
- D. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

2.04 Admixtures

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C260/C260M.
- C. Water Reducing and Retarding Admixture: ASTM C494/C494M Type D.
- D. Water Reducing Admixture: ASTM C494/C494M Type A.

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- E. Moisture Vapor Reducing Admixture (MVRA): Liquid, inorganic admixture free of volatile organic compounds (VOCs) and formulated to close capillary systems formed during curing to reduce moisture vapor emission and transmission with no adverse effect on concrete properties or finish flooring.
 - 1. Provide admixture in slabs to receive adhesively applied flooring.
 - 2. Manufacturers:
 - a. Barrier One, Inc; Barrier One Moisture Vapor Reduction Admixture: www.barrierone.com/#sle.
 - b. Substitutions: Substitutions shall comply with the use of concrete staining/dye products. See Section 01 6000 - Product Requirements.
- 2.05 Accessory Materials
- A. Non-Shrink Cementitious Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
 - 1. Grout: Comply with ASTM C1107/C1107M.
- 2.06 Bonding And Jointing Products
- A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M, Type II.
 - B. Epoxy Bonding System:
 - 1. Complying with ASTM C881/C881M and of Type required for specific application.
 - C. Waterstops: Bentonite and butyl rubber, complying with NSF 61 and NSF 372.
 - D. Slab Isolation Joint Filler: 1/2 inch (13 mm) thick, height equal to slab thickness.
 - 1. Material: ASTM D1751, cellulose fiber.
- 2.07 Evaporation Retarders
- A. Evaporation Retarder: Liquid thin film-forming compound that reduces rapid moisture loss caused by high temperature, low humidity, and high winds; intended for application immediately after concrete placement. These products provide a protective film shield over plastic concrete, dissipate as soon as the concrete is no longer plastic, and are not curing products.
 - 1. Manufacturers:
 - a. Euclid Chemical Company ; EUCOBAR: www.euclidchemical.com/#sle.
 - b. SpecChem, LLC; SpecFilm Concentrate or SpecFilm: www.specchemllc.com/#sle.
 - c. W. R. Meadows, Inc ; Evapre or Evapre-RTU: www.wrmeadows.com/#sle.
 - d. Substitutions: See Section 01 6000 - Product Requirements.

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2.08 Curing Materials

- A. Moisture-Retaining Sheet: ASTM C171.
 - 1. Polyethylene film, white opaque, minimum nominal thickness of 4 mil, 0.004 inch.
 - 2. White-burlap-polyethylene sheet, weighing not less than 3.8 ounces per square yard.
- B. Polyethylene Film: ASTM D2103, 4 mil, 0.004 inch thick, clear.
- C. Water: Potable, not detrimental to concrete.

2.09 Concrete Mix Design

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
 - 1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.
- C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
- D. Normal Weight Concrete: Refer Structural General Notes for mix requirements for various classes of concrete.

2.10 Mixing

- A. Transit Mixers: Comply with ASTM C94/C94M.
- B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

PART 3 EXECUTION

3.01 Examination

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 Preparation

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
- B. Verify that forms are clean and free of rust before applying release agent.
- C. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- D. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent according to bonding agent manufacturer's instructions.

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1. Use epoxy bonding system for bonding to damp surfaces, for structural load-bearing applications, and where curing under humid conditions is required.
 2. Use latex bonding agent only for non-load-bearing applications.
- E. Where new concrete with integral waterproofing is to be bonded to previously placed concrete, prepare surfaces to be treated in accordance with waterproofing manufacturer's instructions. Saturate cold joint surface with clean water, and remove excess water before application of coat of waterproofing admixture slurry. Apply slurry coat uniformly with semi-stiff bristle brush at rate recommended by waterproofing manufacturer.
- F. In locations where new concrete is doweled to existing work, drill holes in existing concrete, clean out drilled holes, inject the adhesive indicated on drawings and/or General Notes, and insert steel dowels, all in accordance with adhesive manufacturer's installation instructions.
- G. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade in accordance with manufacturer's instructions, ASTM E1643, ASTM F710 and ACI 302.2R.
1. Install compactible granular fill before placing vapor retarder as indicated on drawings. Do not use sand.
 2. Lap vapor retarder sheet over footings and seal to previously placed concrete foundations.
 3. Lap joints minimum 6 inches (150 mm).
 4. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions.
 5. No penetration of vapor retarder is allowed except for reinforcing steel and permanent utilities.
 6. Repair damaged vapor retarder before covering with other materials.
 7. Vapor Retarder Over Granular Fill: Install compactible granular fill before placing vapor retarder as indicated on drawings. Do not use sand.
- 3.03 Installing Reinforcement And Other Embedded Items
- A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
 - B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.
 - C. Verify that anchors, seats, plates, reinforcement, waterstops and other items to be cast into concrete are

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accurately placed, positioned securely, and will not interfere with concrete placement.

3.04 Placing Concrete

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.
- C. Notify Architect not less than 48 hours prior to commencement of placement operations.
- D. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- E. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- F. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.
- G. Finish slab-on-grade and shored elevated floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.05 Slab Jointing

- A. Locate and install joints as indicated on drawings and Slab-On-Grade Schedule or as submitted by Contractor and approved by structural engineer.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler, total height equal to thickness of slab, set flush with top of slab.
 - 1. Install wherever necessary to separate slab from other building members, including columns, walls, equipment foundations, footings, stairs, manholes, sumps, and drains.
- D. Load Transfer Construction and Contraction Joints: Install load transfer devices as indicated; saw cut joint at surface as indicated for contraction joints.
- E. Saw Cut Contraction Joints: Saw cut joints shall be installed with early-entry dry-cut saw before concrete begins to cool, within 1 to 4 hours after completing the slab finishing operations; commence in approximately 1 hour in hot weather or approximately 4 hours in cold weather. Use 3/16 inch thick blade and cut at least 1 inch deep but not less than one quarter (1/4) the depth of the slab. Refer to Slab-On-Grade Schedule in drawings for additional requirements.

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3.06 Floor Flatness And Levelness Tolerances

- A. An independent testing agency, as specified in Section 01 4000, will inspect finished slabs for compliance with specified tolerances.
- B. Maximum Variation of Surface Flatness:
 - 1. Exposed Concrete Floors: 1/4 inch in 10 feet.
 - 2. Under Seamless Resilient Flooring: 1/4 inch in 10 feet.
 - 3. Under Carpeting: 1/4 inch in 10 feet.
- C. Correct the slab surface if surface variations exceed specified tolerances.
- D. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.07 Concrete Finishing

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
- C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:
 - 1. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.
- D. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
 - 1. Surfaces to Receive Thick Floor Coverings: "Wood float" as described in ACI 302.1R; thick floor coverings include quarry tile, ceramic tile, and Portland cement terrazzo with full bed setting system.
 - 2. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, resinous matrix terrazzo, thin set quarry tile, and thin set ceramic tile.
 - 3. Decorative Exposed Surfaces: Trowel as described in ACI 302.1R; take measures necessary to avoid black-burnish marks; decorative exposed surfaces include surfaces to be stained or dyed, pigmented concrete, surfaces to receive liquid hardeners, surfaces to receive dry-shake hardeners, surfaces to be polished, and all other exposed slab surfaces.
 - 4. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

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- E. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 1:100 nominal (approximately 1/8 inch per foot).
- 3.08 Curing And Protection
- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
 - B. Uniformly apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss due to evaporation approaching 0.2 lb/sq.ft./h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing. A methodology for calculating the moisture loss due to evaporation is provided in ACI 305.1.
 - C. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
 - 1. Normal concrete: Not less than seven (7) days.
 - D. Formed Surfaces: Cure by moist curing with forms in place for full curing period.
 - E. Surfaces Not in Contact with Forms:
 - 1. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than seven (7) days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
 - a. Ponding: Maintain 100 percent coverage of water over floor slab areas, continuously for seven (7) days.
 - b. Spraying: Spray water over floor slab areas and maintain wet.
 - c. Saturated Burlap: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides; maintain in place.
 - 2. Final Curing: The surface shall be protected against rapid moisture loss upon the termination of initial curing by replacing wet burlap or similar coverings with plastic sheets until the surface has dried under the sheets.
 - a. Moisture-Retaining Sheet: Lap strips not less than 3 inches and seal with waterproof tape or adhesive; secure at edges.
- 3.09 Field Quality Control
- A. An independent testing agency will perform Special Inspections and field quality control tests as required by

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Chapter 17 of ICC (IBC)-2015. The testing outlined below includes some, but not all, of the testing and observations required to meet the Special Inspection provisions of the building code. Refer to the following parts of the structural drawings for additional Special Inspection requirements:

1. Statement of Special Inspection Notes
 2. Table 1705.3 titled "Required Special Inspections and Tests of Concrete Construction"
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
 - C. Submit approved mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
 - D. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.
 - E. Compressive Strength Tests: ASTM C39/C39M, for each test, mold and cure four concrete test cylinders. Obtain test samples for every 100 cubic yards or less of each class of concrete placed each day.
 - F. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
 - G. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.
 - H. Air Content: ASTM C173/C173M, one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 - I. Concrete Temperature: ASTM C1064/C1064M, one test hourly when air temperature is 40 deg F and below or 80 deg F and above, and one test for each composite sample.
 - J. Slab Testing: Cooperate with manufacturer of specified moisture vapor reducing admixture (MVRA) to allow access for sampling and testing concrete for compliance with warranty requirements.
- 3.10 Defective Concrete
- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
 - B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
 - C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.

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D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

3.11 Protection

A. Do not permit traffic over unprotected concrete floor surface until fully cured.

END OF SECTION

DIVISION 5 - STRUCTURAL STEEL

SECTION 05500 - METAL FABRICATIONS - ADDENDUM NO. 1

PART 1 - GENERAL

1.01 Section Includes

- A. Shop fabricated steel items.

1.02 Related Requirements - WHERE APPLICABLE.

- A. Section 03 3000 - Cast-in-Place Concrete: Placement of metal fabrications in concrete.
- B. Section 04 2000 - Unit Masonry: Placement of metal fabrications in masonry.
- C. Section 05 1200 - Structural Steel Framing: Structural steel column anchor bolts.
- D. Section 05 2100 - Steel Joist Framing: Structural joist bearing plates, including anchorage.
- E. Section 05 3100 - Steel Decking: Bearing plates for metal deck bearing, including anchorage.
- F. Section 05 5100 - Metal Stairs.

1.03 Reference Standards

- A. For all reference standards listed below, comply with the version year in the governing building code adopted by the Authority Having Jurisdiction. For those reference standards that are not directly referenced by the building code, use the latest edition unless noted otherwise.
- B. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
- C. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- D. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- E. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.
- F. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.
- G. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
- H. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength.
- I. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination.
- J. AWS D1.1/D1.1M - Structural Welding Code - Steel.
- K. MPI #79 - Primer, Alkyd, Anti-Corrosive for Metal.
- L. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic").

DIVISION 5 - STRUCTURAL STEEL

SECTION 05500 - METAL FABRICATIONS - ADDENDUM NO. 1

1.04 Submittals

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
 - 2. Design data: Submit drawings and supporting calculations, signed and sealed by a qualified professional structural engineer.
 - a. Include the following, as applicable:
 - 1) Design criteria.
 - 2) Engineering analysis depicting stresses and deflections.
 - 3) Member sizes and gauges.
 - 4) Details of connections.
 - 5) Support reactions.
 - 6) Bracing requirements.

PART 2 - PRODUCTS

2.01 Materials - Steel

- A. Steel Sections: ASTM A36/A36M.
- B. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.
- C. Plates: ASTM A283/A283M.
- D. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.
- E. Mechanical Fasteners: Same material as or compatible with materials being fastened; type consistent with design and specified quality level.
- F. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.
- G. Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, plain.
- H. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- I. Shop and Touch-Up Primer: As required below, complying with VOC limitations of authorities having jurisdiction.
 - 1. Steel Exposed to Exterior Weather or an Uncontrolled Environment: Two-component, high performance, zinc-rich, aromatic urethane, compatible with topcoat and complying with SSPC-Paint 20.
 - 2. Interior Steel: Fabricator's standard lead- and chromate-free, non-asphaltic, rust-inhibiting primer complying with MPI #79 and compatible with topcoat.

DIVISION 5 - STRUCTURAL STEEL

SECTION 05500 - METAL FABRICATIONS - ADDENDUM NO. 1

- J. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, complying with VOC limitations of authorities having jurisdiction.
- 2.02 Fabrication
- A. Fit and shop assemble items in largest practical sections, for delivery to site.
 - B. Fabricate items with joints tightly fitted and secured.
 - C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
 - D. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- 2.03 Fabricated Items
- A. Ledge Angles, Shelf Angles, Channels, and Plates Not Attached to Structural Framing: For support of metal decking and joists; prime paint finish.
 - B. Lintels: As detailed; prime paint finish.
 - C. Door Frames for Overhead Door Openings and Wall Openings: Channel sections; prime paint finish.
 - D. Elevator Hoistway Divider Beams: Beam sections; prime paint finish.
 - E. Toilet Partition Suspension Members: Steel channel sections; prime paint finish.
- 2.04 Finishes - Steel
- A. Prime paint steel items.
 - 1. Exceptions: Galvanize items to be embedded in concrete and items to be embedded in masonry.
 - 2. Exceptions: Do not prime surfaces in direct contact with concrete, where field welding is required, and items to be covered with sprayed fireproofing.
 - B. Prepare surfaces to be primed in accordance with SSPC-SP3 for interior steel or SSPC-SP6 for all steel exposed to exterior weather or an uncontrolled environment.
 - C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
 - D. Prime Painting: One coat.
 - E. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating.
 - F. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.
- 2.05 Fabrication Tolerances
- A. Squareness: 1/8 inch maximum difference in diagonal measurements.
 - B. Maximum Offset Between Faces: 1/16 inch.

DIVISION 5 - STRUCTURAL STEEL

SECTION 05500 - METAL FABRICATIONS - ADDENDUM NO. 1

- C. Maximum Misalignment of Adjacent Members: 1/16 inch.
- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

PART 3 - EXECUTION

3.01 Examination

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 Preparation

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Supply setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.03 Installation

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components as indicated on drawings.
- D. Perform field welding in accordance with AWS D1.1/D1.1M.
- E. Obtain approval prior to site cutting or making adjustments not scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.

3.04 Tolerances

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.
- C. Maximum Out-of-Position: 1/4 inch.

END OF SECTION

DIVISION 7 - THERMAL & MOISTURE PROTECTION

SECTION 07900 - SEALANTS - ADDENDUM NO. 1

Part 1 - General

1.01 Work Included:

- A. All materials, labor services, and incidentals necessary for the completion of this section of the work.

1.02 Quality Assurance:

- A. Standards:
 - 1. TT-S-00230C, Sealing Compound, One Component.
 - 2. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.

1.03 Submittals:

- A. Submit manufacturer's specifications and color chart for each type of sealant.
- B. Samples: For each kind and color of joint sealant required.
- C. Joint-Sealant Schedule: Include the following information:
 - 1. Joint-sealant application, joint location, and designation.
 - 2. Joint-sealant manufacturer and product name.
 - 3. Joint-sealant formulation.
 - 4. Joint-sealant color.
- D. Product test reports.
- E. Preconstruction compatibility and adhesion test reports.
- F. Preconstruction field-adhesion test reports.
- G. Field-adhesion test reports.

1.04 Warranty:

- A. All work done under this section of the work shall be guaranteed for a period of two years from date of final acceptance of the building. Guarantee shall include materials and workmanship required to repair any leaks or the repairs thereof.
- B. Special Warranty: Manufacturer's standard form in which joint sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section for a period of 10 years from date of final acceptance.

1.05 **Products of certain manufacturers are specified herein to simplify descriptions of design, construction, and/or materials only. Proprietary names are not intended to imply that products of named manufacturer are required to the exclusion of equivalent products of other manufacturers.**

Part 2 - Products

2.01 Materials:

- A. Building Sealant: One part high performance polyurethane waterproofing sealant, FS-TT-S-00230C.
 - 1. Acceptable Manufacturer: Sonneborn NP1 Building Sealant.
 - 2. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall

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comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

- a. Architectural Sealants: 250 gIL.
 - b. Sealant Primers for Nonporous Substrates: 250 gIL.
 - c. Sealant Primers for Porous Substrates: 775 gIL.
3. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
 - a. Suitability for Immersion in Liquids. Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.
 4. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
 5. Suitability for Contact with Food: Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.
- B. Silicone Joint Sealants:
1. Mildew-Resistant Neutral-Curing Silicone Joint Sealant: ASTM C 920.
 - a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 1. BASF Building Systems.
 2. Dow Corning Corporation.
 3. GE Advanced Materials - Silicones.
 4. Pecora Corporation.
 5. Sika Corporation; Construction Products Division.
 6. Tremco Incorporated.
- C. Urethane Joint Sealants: Urethane Joint Sealant: ASTM C 920.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work

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SECTION 07900 - SEALANTS - ADDENDUM NO. 1

- include, but are not limited to, the following:
- a. BASF Building Systems.
 - b. Bostik, Inc.
 - c. Lymtal, International, Inc.
 - d. Pecora Corporation.
 - e. Sika Corporation; Construction Products Division.
 - f. Tremco Incorporated.
- D. Latex Joint Sealants: Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BASF Building Systems.
 - b. Bostik, Inc.
 - c. Pecora Corporation.
 - d. Tremco Incorporated.
- E. Preformed Joint Sealants: Preformed Foam Joint Sealant: Manufacturer's standard preformed, precompressed, open-cell foam sealant manufactured from urethane foam with minimum density of 10 lb/cu. ft. and impregnated with a nondrying, water-repellent agent. Factory produce in precompressed sizes in roll or stick form to fit joint widths indicated; coated on one side with a pressure-sensitive adhesive and covered with protective wrapping.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Dayton Superior Specialty Chemicals.
 - b. EM SEAL Joint Systems, Ltd.
 - c. Sandell Manufacturing Co.
 - d. Schul International, Inc.
 - e. Willseal USA, LLC.
- F. Acoustical Joint Sealants: Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Pecora Corporation.
 - b. USG Corporation.

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SECTION 07900 - SEALANTS - ADDENDUM NO. 1

- G. Joint Sealant Backing: cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) Type 0 (open-cell material) or any of the preceding types, as approved in writing by joint sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
 - 1. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.
- H. Miscellaneous Materials: as recommended by sealant manufacturer.
 - 1. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
 - 2. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
 - 3. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.
 - 4. Joint Cleaner
 - 5. Joint Primer/Sealer
 - 6. Bond Breaker Tape
 - 7. Joint Backer-Rod: Closed-cell compressible rod stock, size and shape as required by application.
- I. Caulking compound: Watertight, gun consistency, conforming to FS-TT-C-598, Type 1.
- J. Accessories: As recommended by sealant manufacturer.
- K. Color: to be selected from manufacturer's standard colors.

Part 3 - Execution

- 3.01 Preparation:
 - A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
 - 1. Remove laitance and form-release agents from concrete.
 - 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
 - B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to

DIVISION 7 - THERMAL & MOISTURE PROTECTION

SECTION 07900 - SEALANTS - ADDENDUM NO. 1

areas of joint sealant bond; do not allow spillage or migration onto adjoining surfaces.

- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.02 Installation: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

- A. Do not leave gaps between ends of sealant backings.
- B. Do not stretch, twist, puncture, or tear sealant backings.
- C. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
- G. Acoustical Sealant Installation: Comply with ASTM C 919 and with manufacturer's written recommendations.
- H. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning

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SECTION 07900 - SEALANTS - ADDENDUM NO. 1

materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.03 Joint Sealant Schedule:

- A. Joint-Sealant Application: Exterior joints in horizontal traffic surfaces.
- B. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.
- C. Joint-Sealant Application: Interior joints in horizontal traffic surfaces.
- D. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal non traffic surfaces.
- E. Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal non-traffic surfaces.
- F. Joint-Sealant Application: Interior acoustical joints in vertical surfaces and horizontal non traffic surfaces.

3.04 Additional Information:

- A. Application: All sight exposed caulking, and all exterior applications.
- B. Comply with sealant manufacturer's printed instructions.
- C. Any surfaces requiring priming, shall be prepared according to manufacturer's recommendations.
- D. Install sealants to depths as shown or as recommended by sealant manufacturer. Smooth uneven surfaces.
- F. Do not disturb compound by touching, washing, or otherwise until it has cured tack free.
- G. Excess compound shall be removed from surfaces after curing.
- H. Follow manufacturer's recommendations for painting over sealant.

End of Section

DIVISION 8 - DOORS & WINDOWS

SECTION 08700 - FINISH HARDWARE - ADDENDUM NO. 1

Part 1 - General

1.01 Work Included:

- A. All materials, labor services and incidentals necessary for the completion of this section of the work.

1.02 Related Work Specified Elsewhere:

Not applicable.

1.03 Quality Assurance:

- A. This material shall be procured from a source of supply approved by the Architect as having a member of their firm registered by the American Society of Contracting Architectural Hardware Consultants, and with a proven record of several years of satisfactory experience in contract builder's hardware, both in furnishing material and properly servicing jobs. The supplier also must be an established contract builder's hardware firm who meets all the above requirements, and who maintains and operates an office, display room and stock.

1.04 Submittals:

- A. Prepare a complete schedule including all items processed for each opening and other miscellaneous item and submit four copies to the Architect for approval within 30 days submitted within that time, the supplier shall furnish the hardware specified by catalog number.
- B. Indicate on schedule name of manufacturer after each item.
- C. Upon receiving the approved schedule, the hardware supplier shall immediately forward a copy to the metal frame suppliers, when applicable; and as soon as they receive approved shop drawings, they will immediately forward a complete set to the hardware supplier who can then check the applications and make any necessary minor revisions. If revisions are necessary, notify Architect immediately.
- D. Mark each item of hardware for opening on which it is to be used and deliver a complete schedule to the contractor when hardware is delivered.

1.05 Schedule:

- A. This specification describes the quality, character and function that is required of items of hardware; however, it is not intended to mention each particular item.
- B. It is the responsibility of the supplier to thoroughly detail the entire project to assure that the items specified will properly function in the indicated locations.
- C. Quantities shall be determined by the bidder. Part 2, following, indicates the type and function of material applicable to the typical opening. Should an unlisted opening require different type of function of hardware than that specified, for similar opening, notify the Architect, and provide hardware for unlisted openings within the bid.

DIVISION 8 - DOORS & WINDOWS

SECTION 08700 - FINISH HARDWARE - ADDENDUM NO. 1

Part 2 - Products

2.01 Finish Hardware:

- A. Standards of Quality:
 - 1. Codes, specifications and published recommendations, latest editions of the following are hereby made part of this section of the specifications in so far as they apply to the material or work called for.
 - a. National Builders Hardware Association (NBHA)
 - b. American Society for Testing Materials (ASTM)
 - c. Underwriters Laboratories (UL)
 - d. National Fire Protection Association (NFPA)
 - e. Code of Ethics of ASAH & NBHA
 - f. Federal Emergency Management Agency (FEMA)
 - 2. Federal Specification, (ANSI Specifications):
 - a. Hinges: FF-H-116C (ANSI A156.1)
 - b. Locks and Door Trim: FF-H-106A (ANSI A 156.2)
 - c. Auxiliary Locks: FF-H-106A (ANSI A 156.5)
 - d. Exit Devices: FF-H-106A, FF-H-111B, FF-L486 (ANSI A156.3).
 - e. Door Closers: FF-H-121C (ANSI A 156.4)
 - f. All Door hardware: Comply with ADAAG where applicable.
- B. General:
 - 1. All hardware relating to hollow metal doors and frames shall be to standard templates of each respective hardware manufacturer for items furnished.
 - a. The related suppliers such as hollow metal doors and frames and such others as may be required will furnish the hardware supplier one copy of each of their approved shop drawings for proper coordination of their work and the finish hardware.
- C. Manufacturers and Requirements:
 - 1. Hardware manufacturers and brand names are for a guide as to type and standard required and all such hardware furnished must meet these standards as far as quality, weight, finish and design.
- D. Keying:
 - 1. All locks and cylinders to be masterkeyed as directed by the Architect/Owner. Supplier / Subcontractor shall be responsible for providing ALL materials for a complete and properly functioning installation.
 - 2. Keys: Furnish the following keys:
 - a. 2 change keys each lock or cylinder
 - b. 6 masterkeys
 - c. **all EXTERIOR locks and cylinders shall be Primus Schlage Key System and keyed to Owner's Primus Master Key system. All remaining interior locks and cylinders shall be Classic Schlage and keyed to the Owner's Primus Master Key System.**

DIVISION 8 - DOORS & WINDOWS

SECTION 08700 - FINISH HARDWARE - ADDENDUM NO. 1

2.02 Hardware Sets:

Hardware Group No. 001: Provide at existing exterior hollow metal SGL door with the following:

Quantity	Description	Model Number	Finish	Mfr
1	EA PANIC HARDWARE	CD99L-03-HM LENGTH AS REQUIRED	626	VON
2	EA PRIMUS CORE	20-740	626	SCH
1	EA RIM CYLINDER	20-057 ICX	626	SCH
1	EA MORTISE CYLINDER	20-061 ICX	626	SCH

Existing hardware to remain shall be inspected and revised / repaired as necessary to properly work with new hardware components noted above. Any adjustments required to provide a fully functioning installation shall be made by hardware subcontractor at no additional cost to the Owner.

Hardware Group No. 002: Provide at existing interior wood SGL door with the following:

Quantity	Description	Model Number	Finish	Mfr
1	EA PANIC HARDWARE	CD99L-03-WD LENGTH AS REQUIRED	626	VON
2	EA CLASSIC CORE	23-030	626	SCH
1	EA RIM CYLINDER	20-057 ICX	626	SCH
1	EA MORTISE CYLINDER	20-061 ICX	626	SCH
1	EA SURFACE CLOSER 4040XP SHCUSH MTG BKTS, SPCRS & PLATES AS REQ		689	LCN

Existing hardware to remain shall be inspected and revised / repaired as necessary to properly work with new hardware components noted above. Any adjustments required to provide a fully functioning installation shall be made by hardware subcontractor at no additional cost to the Owner.

The following list of products and manufactures are acceptable for this project.

<u>Product</u>	<u>Manufacture and Approved Equals</u>
1. Key System	A. Schlage (No substitutions)
2. Lock/Latch	A. Schlage (No substitutions)
3. Exit Devices	A. Von Duprin (No substitutions)

Each Product, by category, shall be the product of one manufacturer. Complete lockset, including keyed lock cylinder, shall be the product of one manufacturer unless noted otherwise.

DIVISION 8 - DOORS & WINDOWS

SECTION 08700 - FINISH HARDWARE - ADDENDUM NO. 1

Part 3 - Execution

3.01 Installation:

- A. Install all finish hardware in strict accordance with the manufacturer's recommendations and printed instructions. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, install each item completely and then remove and store in a secure place during the finish application. After completion of the finishes, reinstall each item. Do not install surface mounted items until finishes have been completed on the substrate.
- B. All hardware relating to hollow metal and frames shall be to standard templates of each respective hardware manufacturer for items furnished.
- C. Mounting Heights: Mount Hardware units at heights recommended by the National Builders Hardware Association, except as specifically indicated or required to comply with governing regulations, or as may be otherwise directed by the Architect - match mounting heights of existing devices.

3.02 Prior to the Final Inspection:

- A. The supplier shall verify the keying to ensure proper location of locksets and shall assist the Contractor in correcting faulty operation of any locks.
- B. Within 30 days after the acceptance of the entire project, the Contractor shall be responsible for this supplier meeting with the maintenance custodian at the job site for the purpose of instructing him thoroughly in the proper repair and adjustment of all finish hardware items, and items, and shall present to the custodian a full complement of tools to be used.

End of Section

DIVISION 9 - FINISHES

SECTION 09120 - CEILING SUSPENSION SYSTEMS - ADDENDUM NO. 1

Part 1 - General

1.01 Work Included:

- A. All materials, labor, services and incidentals necessary for the completion of this section of the work.

1.02 Related Work Specified Elsewhere:

- A. Acoustical Treatment - Section 09500

1.03 Quality Assurance:

A. Standards:

1. American Society for Testing and Materials
 - a. ASTM C-635, Metal Suspension Systems for Acoustical Tile and Lay-In-Panel Ceilings.
 - b. ASTM C-636, Recommended Practice of Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In-Panels.
2. All materials to comply with NFPA 101, 16-3.3.2, where applicable.

B. Submittals:

1. Provide submittals in the form of samples, and documentation, to the Architect for review.

- 1.04 Products of certain manufacturers are specified herein to simplify descriptions of design, construction, and/or materials only. Proprietary names are not intended to imply that products of named manufacturer are required to the exclusion of equivalent products of other manufacturers.**

Part 2 - Products

2.01 Materials:

- A. Suspended Acoustical Ceiling - Exposed Grid: ASTM C-635, intermediate structural classification.
 1. Main Beams, Cross Tees and Concealed Members: .015 cold rolled zinc coated steel.
 2. Wall Angle: .020 cold rolled zinc coated steel.
 3. Special Members: Provide special shaped members as shown on the Drawings.
 4. Member Finish: Exposed surfaces shall be flat white low-gloss grid.
 5. Hanger Wire: No. 12 gauge cold drawn, annealed, galvanized.
 6. Accessories: Provide wall clips, hold-down clips (shall be removable without damage to boards; two each panels opposite sides), beam clamps leveling splines, hanger clips, splice plates), (keep to a minimum), for a complete installation.

DIVISION 9 - FINISHES

SECTION 09120 - CEILING SUSPENSION SYSTEMS - ADDENDUM NO. 1

7. Acceptable Manufacturer: 200 Snap-Grid System, Chicago Metallic Corporation

Part 3 - Execution

3.01 General:

- A. Coordinate with electrical and mechanical contractors in placement of light fixtures, grilles, etc. to conform with ceiling pattern.
- B. Construct necessary scaffolding, adequate and safe, in accordance with applicable laws and ordinances. Maintain during this work and remove after completion.
- C. Provide thorough and competent foreman and skilled mechanics.

3.02 Installation:

- A. Suspended Acoustical Ceiling:
 1. Deflection of any component shall not exceed 1/360 of the span.
 2. Main tees shall be suspended on 48" centers by 12 gauge wire spaced not more than 48" o.c. along main tee.
 3. Cross tees shall be placed at 24" o.c. or as required by the Drawings.
 4. Install wall angles at intersection of suspended ceiling and all vertical surfaces. Miter corners where wall molding intersects.
 5. Install grid system and ceiling panels with faces in a plane.
 6. Provide intersection clips at intersection of all tees.
 7. Provide additional hangar wire at four corners of light fixtures.
 8. Provide additional hangar wires to insure proper placement and alignment of grid system.
 9. Prior to the final acceptance of the building, examine and adjust water level to be certain that all planes and lines are plumb, square and smooth. Replace all marked, marred or otherwise damaged materials.

3.03 Clean-Up:

- A. Completely remove from the job site, at the completion of the work, all cartons, packaging, etc., and all other scraps and waste caused by this trade.

End of Section



MOORE PUBLIC SCHOOLS DISTRICT NO. I-2
CLEVELAND COUNTY MOORE, OKLAHOMA

WAYLAND BONDS 2025 HVAC

14025 S. MAY AVE
OKLAHOMA CITY, OK. 73170

AGP | the Abla Griffin
Partnership

313 S.E. 5TH STREET MOORE, OK. 73160
405.735.3477 AGP@theAGP.net www.theAGP.net



[Signature]
1/28/26

CONSTRUCTION MANAGER



1909 S. EASTERN AVE.
MOORE, OK 73160

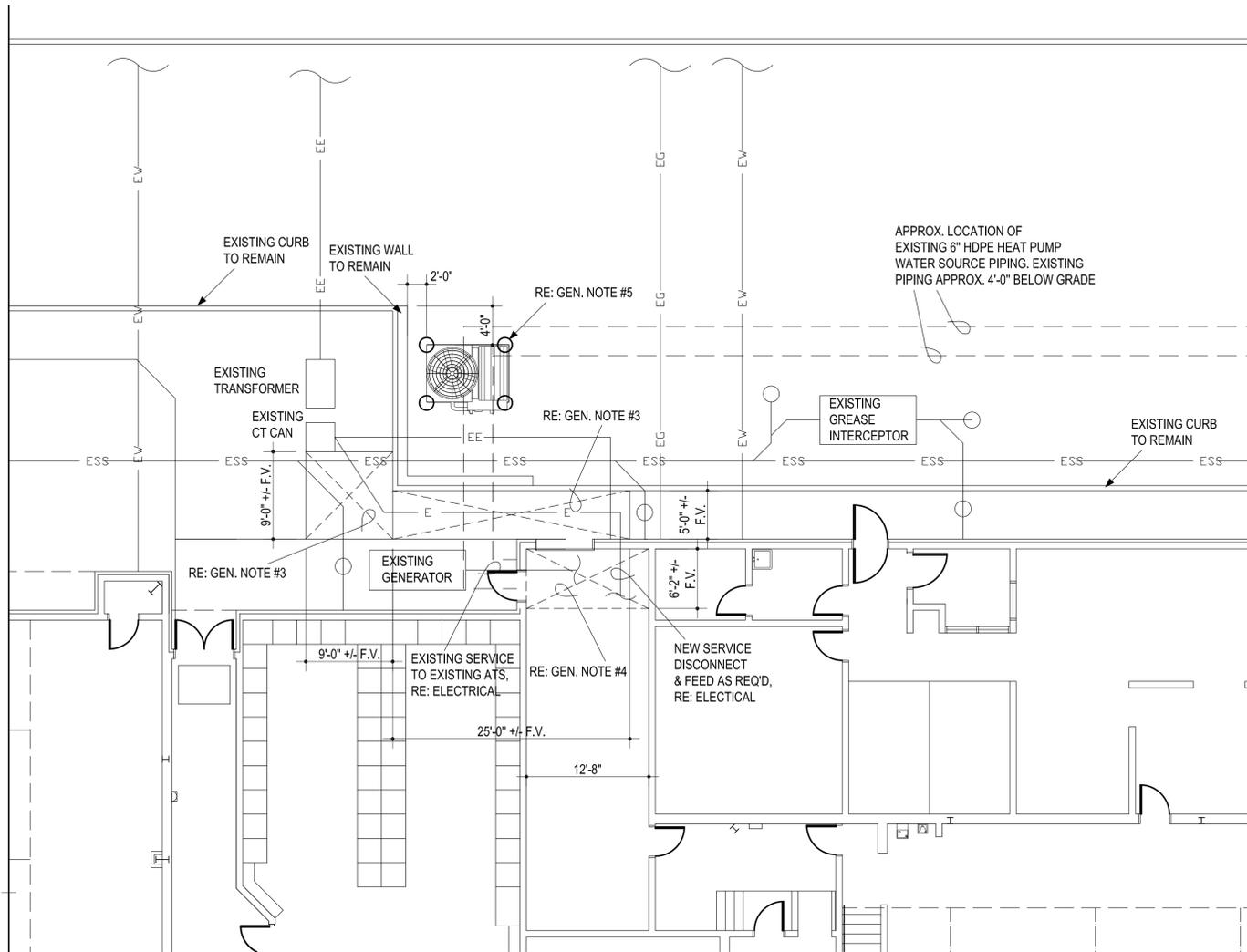
INDEX TO DRAWINGS

SHEET NUMBER	DESCRIPTION
C	COVER SHEET
C100	COOLING TOWER PLAN
S300	FRAMING PLAN / SECTIONS
A100	DEMOLITION CEILING PLAN / REFLECTED CEILING PLAN
A101	DEMOLITION CEILING PLAN
M000	MECHANICAL LEGEND AND NOTES
MD101	MECHANICAL DEMOLITION PLAN - EAST
MD102	MECHANICAL DEMOLITION PLAN - WEST
M101	MECHANICAL PLAN - EAST
M102	MECHANICAL PLAN - WEST
M501	MECHANICAL DETAILS
M601	MECHANICAL SCHEDULES
M901	MECHANICAL 3D VIEWS
E000	ELECTRICAL NOTES AND LEGENDS
ED201	ELECTRICAL DEMOLITION POWER PLAN - EAST
ED202	ELECTRICAL DEMOLITION POWER PLAN - WEST
E201	ELECTRICAL POWER PLAN - EAST
E202	ELECTRICAL POWER PLAN - WEST
E401	ELECTRICAL ONE-LINE DIAGRAM
E402	ELECTRICAL ONE-LINE DIAGRAM
E501	ELECTRICAL DETAILS
E601	ELECTRICAL SCHEDULES
E602	ELECTRICAL SCHEDULES

WAYLAND BONDS 2025

SET NO.

<p><u>STRUCTURAL</u></p> <p>KFC ENGINEERING</p> <p>1300 N. WALKER, SUITE 200 OKLAHOMA CITY, OK 73103</p>	<p><u>MECHANICAL/ELECTRICAL/PLUMBING</u></p> <p>SALAS O'BRIEN</p> <p>2900 S. TELEPHONE RD., SUITE 120 MOORE, OKLAHOMA 73160</p>			<p>revisions:</p> <p>ADDENDUM #1</p>	<p>sheet no:</p> <p>C</p> <p>date:</p> <p>JANUARY 2026</p>
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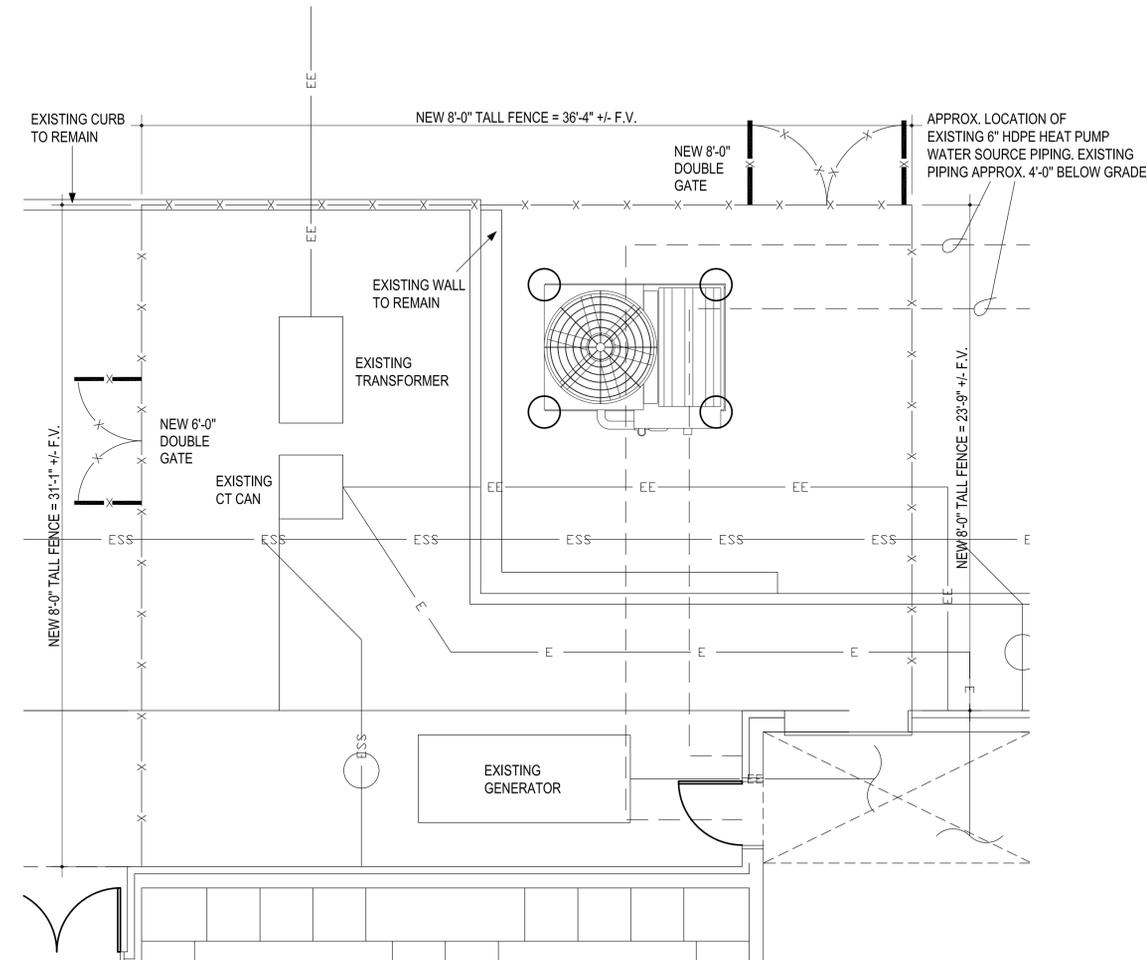
1 **COOLING TOWER PLAN**
1/8" = 1'-0"

GENERAL NOTES:

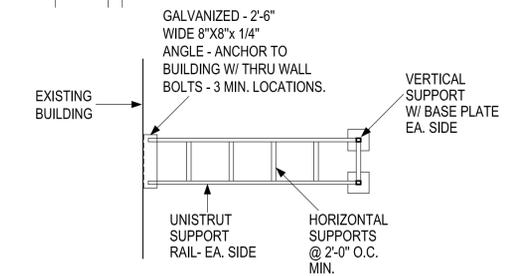
- EXISTING UNDERGROUND UTILITY LOCATIONS HAVE BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK & COORDINATE W/ ARCHITECT.
- LOCATE & PROTECT EXISTING UNDERGROUND UTILITIES TO REMAIN.
- DEMO EXISTING SIDEWALK AS INDICATED. PROVIDE NEW CONC. SIDEWALK AS REQ'D - MATCH EXISTING
- DEMO EXISTING SLAB AS INDICATED. PROVIDE NEW CONC. SLAB AS REQ'D - MATCH EXISTING
- NEW COOLING TOWER: RE: STRUCTURAL FOR NEW FOUNDATION. RE: MECHANICAL & ELECTRICAL. ADJUST LOCATION AS REQUIRED DUE TO EXISTING UTILITIES, COORDINATE WITH ARCHITECT.

LEGEND :

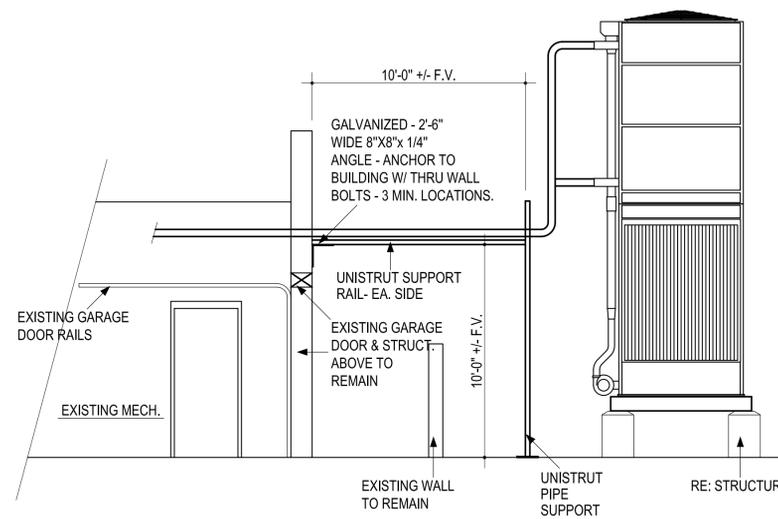
- ESS — EXISTING SANITARY SEWER
- EW — EXISTING WATERLINE
- EE — EXISTING ELECTRICAL SERVICE
- EG — EXISTING GAS LINE
- E — NEW ELECTRICAL



2 **FENCE PLAN**
1/4" = 1'-0"



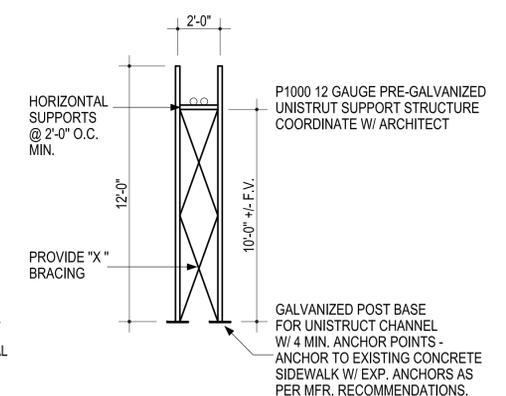
PIPE SUPPORT PLAN
1/4" = 1'-0"



GENERAL NOTES:

- CORE DRILL EXISTING CMU / VENEER WALL AS REQUIRED. VERIFY HEIGHT AND CLEARANCE REQUIRED FOR A COMPLETE INSTALLATION. SEAL AND INSULATE TO WATERTIGHT.
- ATTACH UNISTRUT SUPPORT TO WALL ANGLE
- ALL UNISTRUT MATERIALS TO BE 12 GAUGE PRE-GALVANIZED

3 **PIPE SUPPORT ELEVATION**
1/4" = 1'-0"



PIPE SUPPORT ELEVATION
1/4" = 1'-0"



CG	drawn by
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WAYLAND BONDS
2025 HVAC

sheet no:

C100

COOLING TOWER PLAN

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Michael L. Abla
1/28/26

CG

drawn by

MA

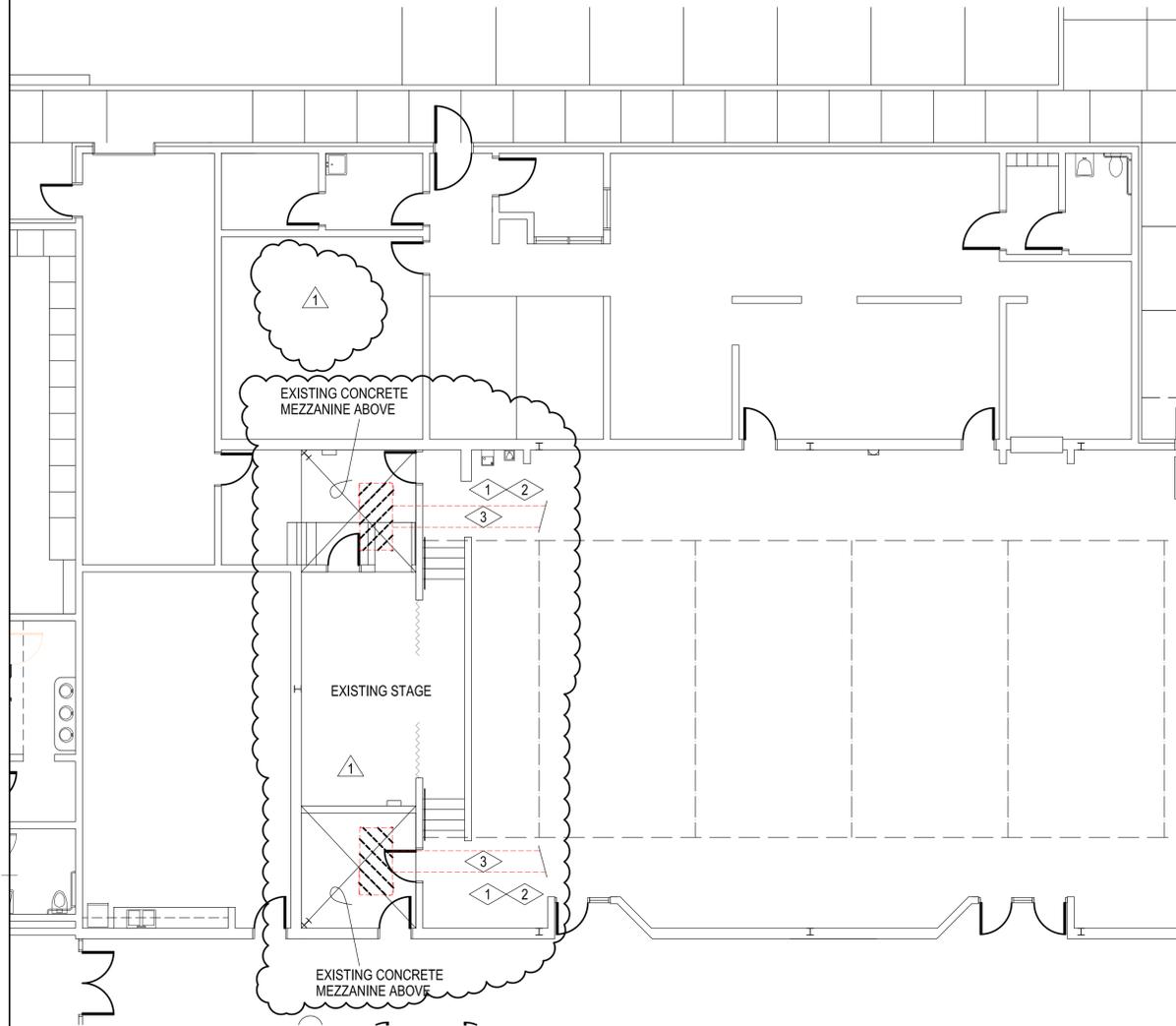
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JANUARY 2026

date

revisions

▲ ADDENDUM #1



1

DEMOLITION PLAN

1/8" = 1'-0"

RE: SHEET A101 FOR
ADDITIONAL CEILING WORK

GENERAL NOTES:

- CONTRACTOR TO VISIT SITE PRIOR TO PREPARING BID, & VERIFY ALL ITEMS TO BE DEMOLISHED. ANY ADDITIONAL ITEMS REQUIRING DEMOLITION THAT ARE NOT INCLUDED IN THESE DOCUMENTS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND INCLUDED IN THE BASE BID.
- ALL SALVAGEABLE ITEMS TO REMAIN OWNER'S PROPERTY & SHALL BE STORED OR DISPOSED OF AS PER OWNER'S INSTRUCTIONS.
- CONSTRUCTION SHALL MEET ALL APPLICABLE CODES, ORDINANCES, REGULATIONS & STANDARDS REQUIRED BY THE CITY OF OKLAHOMA CITY, OKLAHOMA.
- CONSTRUCTION SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE AMERICANS W/ DISABILITIES ACT INCLUDING ANY SUPPLEMENTAL REQUIREMENTS BY THE CITY OF OKLAHOMA CITY, OKLAHOMA.
- CONTRACTOR SHALL COORDINATE ACCESS TO SITE W/ OWNER PRIOR TO STARTING WORK. OBTAIN APPROVAL FROM OWNER FOR ON-SITE MATERIAL STORAGE, ETC. CONTRACTOR SHALL PROVIDE PROPER SEPARATION BTWN. WORK & STUDENTS.
- ALL EXISTING ITEMS TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCTION. ANY ITEMS, CONCRETE SIDEWALKS, ASPHALT PAVING, CONC. CURB & GUTTER, ETC. SHALL BE REPAIRED / REPLACED TO MATCH EXISTING.

DEMOLITION NOTES:

- ▲ 1 CAREFULLY REMOVE AND REINSTALL EXISTING 2X2 ACOUSTICAL LAY-IN CEILING SYSTEM AS REQUIRED TO REMOVE EXISTING MECHANICAL EQUIPMENT, RE: MECHANICAL & ELECTRICAL. REPLACE ANY DAMAGED ITEMS WITH LIKE MATERIALS.
- ◆ 2 WHERE APPLICABLE REINSTALL ALL CEILING MOUNTED ITEMS (ELECTRICAL, MECHANICAL, TECHNOLOGY, FIRE SUPPRESSION, ETC) TO WORKING ORDER, CEILING ITEMS ARE NOT SHOWN COORDINATE LOCATIONS PRIOR TO REINSTALLATION W/ ARCHITECT.
- ◆ 3 REMOVE / DEMO EXISTING DUCT WORK AS REQUIRED FOR INSTALLATION OF NEW HEAT PUMP, RE: MECHANICAL / ELECTRICAL.



WAYLAND BONDS
2025 HVAC

sheet no:

A100

DEMOLITION PLAN

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1 ADDENDUM #1



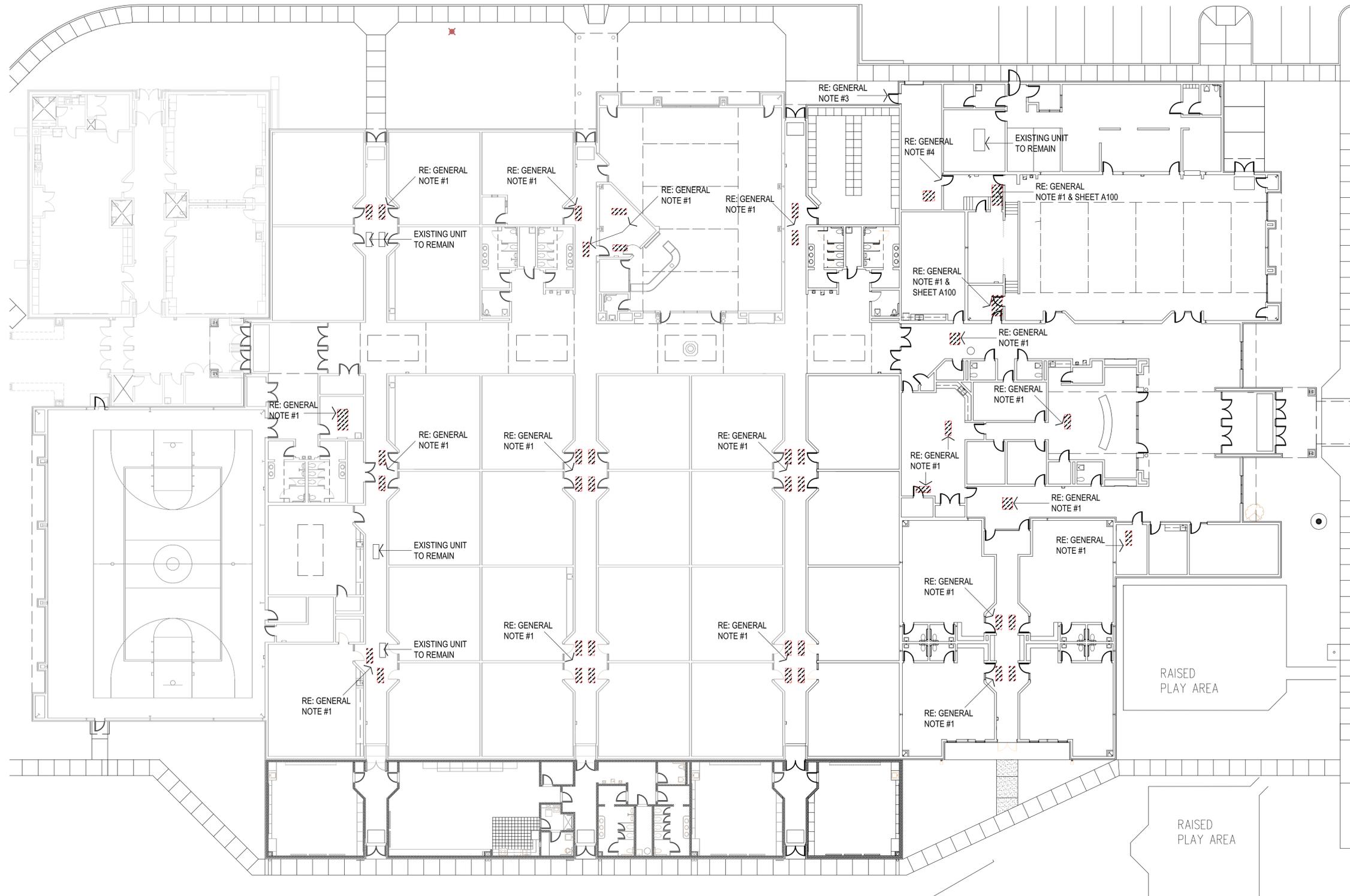
WAYLAND BONDS
2025 HVAC

sheet no:

A101

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1

DEMOLITION PLAN

1/16" = 1'-0"

GENERAL NOTES:

1. CAREFULLY REMOVE AND REINSTALL EXISTING 2X2 ACOUSTICAL LAY-IN CEILING SYSTEM AS REQUIRED TO REMOVE EXISTING MECHANICAL EQUIPMENT. RE: MECHANICAL & ELECTRICAL. REPLACE ANY DAMAGED ITEMS WITH LIKE MATERIALS.
2. WHERE APPLICABLE REINSTALL ALL CEILING MOUNTED ITEMS (ELECTRICAL, MECHANICAL, TECHNOLOGY, FIRE SUPPRESSION, ETC.) TO WORKING ORDER. CEILING ITEMS ARE NOT SHOWN. COORDINATE LOCATIONS PRIOR TO REINSTALLATION W/ ARCHITECT.
3. REFER SPEC'S FOR NEW HARDWARE FOR THIS DOOR.
4. REFER SPEC'S FOR NEW HARDWARE FOR THIS DOOR.



ADDENDUM 01

Issue Date: February 24, 2026

Project Information

Client: Abla Griffin Partnership
Project Name: Wayland Bonds Elem – HVAC
Project Location: OKC, OK
Owner: Moore Public Schools
Engineer: Salas O'Brien, LLC

Project No. 2550-01871-00



To Prospective Bidders

▲ This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated January 28, 2026, (and previous Addenda), with amendments and additions noted below.

▲ This Addendum consists of (03) pages and (15) attachments.

- Index of Attachments
 - Earthsmart Controls Proposal
 - ED201 MD101
 - ED202 MD102
 - E201 M101
 - E202 M102
 - E501 M501
 - E602 M601
 - M000 M901

▲ Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may disqualify Bidder.

CHANGES TO BIDDING REQUIREMENTS

▲ The attached Earthsmart Temperature Control proposal shall be included as part of the mechanical bid for this project.



CHANGES TO THE DRAWINGS

Revisions have been made to the following drawings and are issued in the form of full-size plans. Edits are indicated by a revision delta and a cloud surrounding the affected portion of the drawing.

- ▲ ED201 – ELECTRICAL DEMOLITION POWER PLAN - EAST
 - Refer to clouds and deltas for changes on plan.
- ▲ ED202 – ELECTRICAL DEMOLITION POWER PLAN - WEST
 - Refer to clouds and deltas for changes on plan.
- ▲ E201 – ELECTRICAL POWER PLAN - EAST
 - Refer to clouds and deltas for changes on plan.
- ▲ E202 – ELECTRICAL POWER PLAN - WEST
 - Refer to clouds and deltas for changes on plan.
- ▲ E501 – ELECTRICAL DETAILS
 - Refer to clouds and deltas for changes on plan.
- ▲ E602 – ELECTRICAL SCHEDULES
 - Refer to clouds and deltas for changes on plan.
- ▲ M000 – MECHANICAL TITLE SHEET
 - Refer to clouds and deltas for changes on plan.
- ▲ MD101 – MECHANICAL DEMOLITION PLAN - EAST
 - Refer to clouds and deltas for changes on plan.
- ▲ MD102 – MECHANICAL DEMOLITION PLAN - WEST
 - Refer to clouds and deltas for changes on plan.
- ▲ M101 – MECHANICAL PLAN - EAST
 - Refer to clouds and deltas for changes on plan.
- ▲ M102 – MECHANICAL PLAN - WEST
 - Refer to clouds and deltas for changes on plan.
- ▲ M501 – MECHANICAL DETAILS
 - Refer to clouds and deltas for changes on plan.
- ▲ M601 – MECHANICAL SCHEDULES
 - Refer to clouds and deltas for changes on plan.
- ▲ M901 – MECHANICAL 3D VIEWS
 - Refer to clouds and deltas for changes on plan.



END OF ADDENDUM [01]



5305 N Santa Fe Avenue
Oklahoma City, OK 73118

www.earthsmartcontrols.com

Phone: (405) 778-8008
Fax: (866) 676-5602

To: Moore Wayland Bonds HVAC Bidders
Attn: Estimator

February 20, 2026

This is a proposal to provide controls for the Moore Wayland Bonds HVAC project.

Heat Pumps (48)

- Provide and install Honeywell controls.
- Install communication, controller, supply air sensor, leaving water temp, fan status, compressor status, digital space temperature sensor and CO2 sensor to control outside air damper (damper actuator provided by EarthSmart Controls).
- Commission the units to ensure proper operation.

Mechanical Room (Cooling Tower / Pumps (4) / Heat Exchanger)

- Provide and install Honeywell controls. Includes panel, transformer, controller, temperature sensors, pressure sensor, bypass valve, 1” domestic water valve, pulse meter, VFD controls, CT controls and demolition of existing panel.
- Commission the system to ensure proper operation.

Honeywell WEBS N4 Frontend

- Tie to existing N4 supervisor station (graphical user interface).
- Provide a 50 Device JACE to accommodate devices.
- Provide 4 hours of user training.
- ***Provide 1-year parts and labor warranty.***
- Provide graphical representations of equipment listed above.
- Provide custom trending and alarming.
- Provide scheduling capabilities and remote access.

The total price for the control work above is: \$162,109.00
One Hundred and Sixty-Two Thousand One Hundred and Nine Dollars

We thank you for the opportunity to bid and look forward to working with you soon.

If you have any questions, please feel free to contact us at (405) 778-8008.

Continued on next page...

EARTHSMART CONTROLS

5305 N Santa Fe Avenue
Oklahoma City, OK 73118

www.earthsmartcontrols.com

Phone: (405) 778-8008
Fax: (866) 676-5602

Exclusions for total job: Any wiring above 24V, any control valves on HPs, any other control valves besides the bypass valve, carbon monoxide sensors, smoke detectors and anything not mentioned in this proposal.



Erin Bevill Controls Manager
EarthSmart Controls, LLC

Company: _____

Signature: _____

Date: _____

Printed Name: _____

Title: _____

PO #: _____



DWG
drawn by

TVO
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JANUARY 2026
date

REVISIONS

Δ	DESCRIPTION	DATE
1	ADD 01	02/24/2026



WAYLAND BONDS
2025 HVAC

sheet no:

ED201

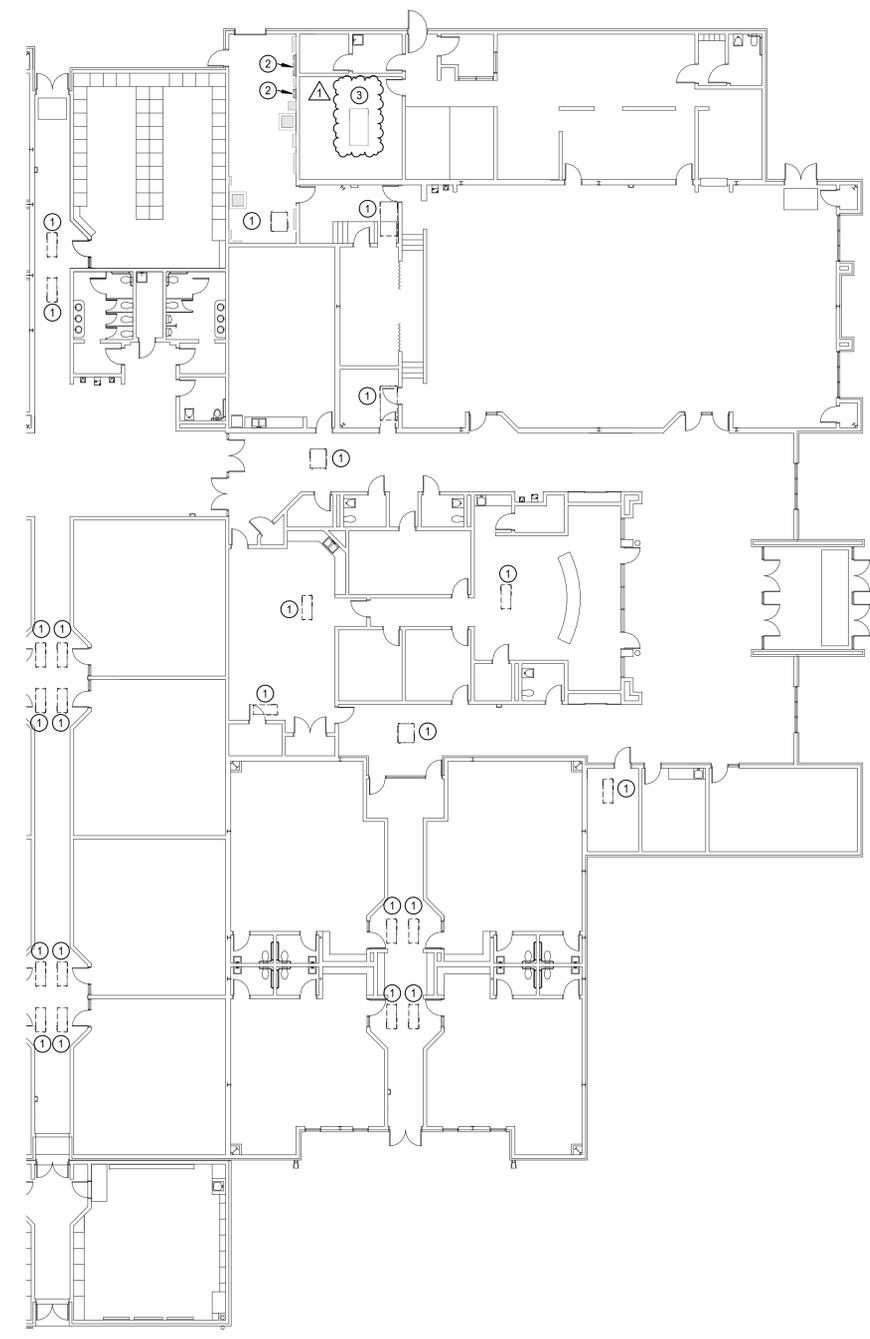
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DEMOLITION GENERAL NOTES

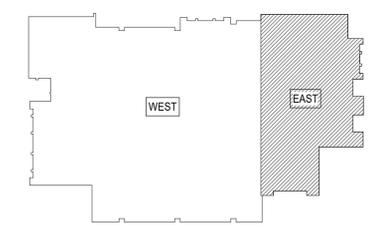
1. THESE DEMOLITION PLANS HAVE BEEN PREPARED TO ASSIST THE CONTRACTOR IN DETERMINING THE SCOPE OF DEMOLITION WORK TO BE INCLUDED IN THIS PROJECT. THE CONTRACTOR SHOULD REVIEW ALL DRAWINGS AND SPECIFICATIONS, INCLUDING DEMOLITION SHOWN FOR OTHER TRADES, AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS, IN ORDER TO DETERMINE THE SCOPE OF DEMOLITION WORK.
2. EXISTING CONDUIT AND WIRING MAYBE REUSED IF IN SERVICEABLE CONDITION, OTHERWISE PROVIDE NEW CONDUIT AND WIRE AS REQUIRED. NEW DEVICES AND FIXTURES SHALL BE CIRCUITED TO NEW PANELS AS INDICATED. EC SHALL FIELD VERIFY EXISTING CONDITIONS AND REPORT ANY ANOMALIES TO THE ARCHITECT AND ENGINEER PRIOR TO PROCEEDING.
3. DEMOLITION PLAN INFORMATION SHOWN AT TIME OF DESIGN. EC SHALL FIELD VERIFY EXISTING CONDITIONS AND MAKE ANY NECESSARY CHANGES TO COMPLETE THE WORK.
4. REMOVE ALL UNUSED WIRING AND CONDUIT AS PART OF THE DEMOLITION PROCESS.

ELECTRICAL KEYED NOTES

1. EXISTING WATER SOURCE HEAT PUMP TO BE DEMOLISHED AND REPLACED WITH NEW. RETAIN CONDUIT/WIRING FOR CONNECTION TO NEW UNIT. REFER TO SHEET 'E201' FOR ADDITIONAL INFORMATION.
2. DEMOLISH EXISTING ELECTRICAL PANEL. RETAIN BRANCH CIRCUIT FEEDERS FOR RECONNECTION IN NEW ELECTRICAL PANEL. REFER TO SHEET 'E201' FOR MORE INFORMATION.
3. EXISTING WATER SOURCE HEAT PUMP TO REMAIN. REFER TO SHEET 'E201' FOR ADDITIONAL INFORMATION.



1 ELECTRICAL DEMOLITION POWER PLAN - EAST
Scale: 1/16" = 1'-0"



KEY PLAN

Salas O'Brien
Oklahoma City
2900 S. Telephone Road, Suite 120
Moore, OK 73160
CA#: 7058 Expiration Date: 06/30/2027
Salas O'Brien Project Number: 2550-01872-00



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WAYLAND BONDS
2025 HVAC

sheet no:

ED202

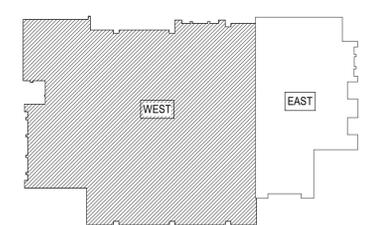
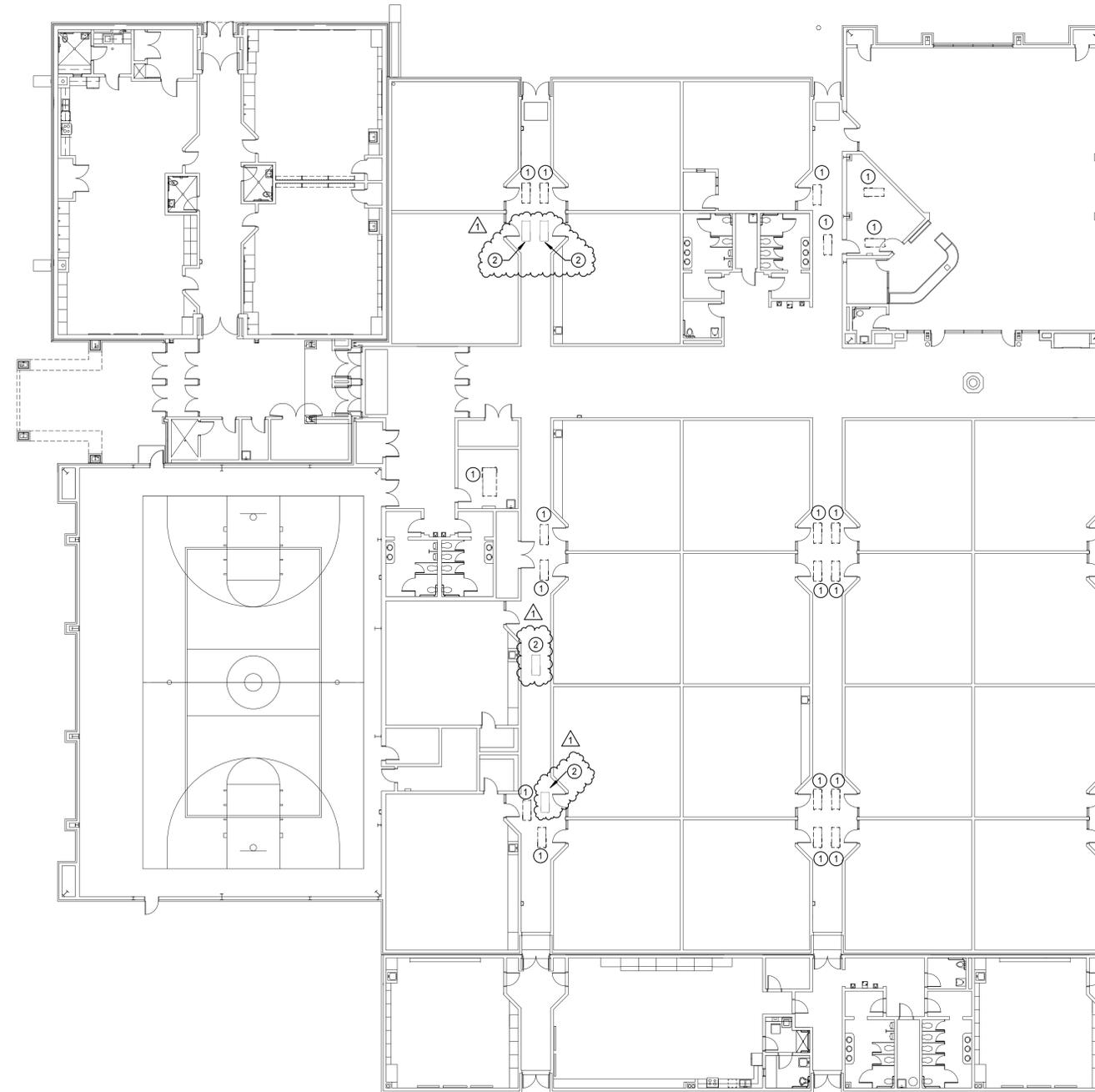
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DEMOLITION GENERAL NOTES

1. THESE DEMOLITION PLANS HAVE BEEN PREPARED TO ASSIST THE CONTRACTOR IN DETERMINING THE SCOPE OF DEMOLITION WORK TO BE INCLUDED IN THIS PROJECT. THE CONTRACTOR SHOULD REVIEW ALL DRAWINGS AND SPECIFICATIONS, INCLUDING DEMOLITION SHOWN FOR OTHER TRADES, AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS, IN ORDER TO DETERMINE THE SCOPE OF DEMOLITION WORK.
2. EXISTING CONDUIT AND WIRING MAYBE REUSED IF IN SERVICEABLE CONDITION. OTHERWISE PROVIDE NEW CONDUIT AND WIRE AS REQUIRED. NEW DEVICES AND FIXTURES SHALL BE CIRCUITED TO NEW PANELS AS INDICATED. EC SHALL FIELD VERIFY EXISTING CONDITIONS AND REPORT ANY ANOMALIES TO THE ARCHITECT AND ENGINEER PRIOR TO PROCEEDING.
3. DEMOLITION PLAN INFORMATION SHOWN AT TIME OF DESIGN. EC SHALL FIELD VERIFY EXISTING CONDITIONS AND MAKE ANY NECESSARY CHANGES TO COMPLETE THE WORK.
4. REMOVE ALL UNUSED WIRING AND CONDUIT AS PART OF THE DEMOLITION PROCESS.

ELECTRICAL KEYED NOTES

1. EXISTING WATER SOURCE HEAT PUMP TO BE DEMOLISHED AND REPLACED WITH NEW. RETAIN CONDUIT/WIRING FOR CONNECTION TO NEW UNIT. REFER TO SHEET E202 FOR ADDITIONAL INFORMATION.
2. EXISTING WATER SOURCE HEAT PUMP TO REMAIN. REFER TO SHEET E202 FOR ADDITIONAL INFORMATION.



KEY PLAN

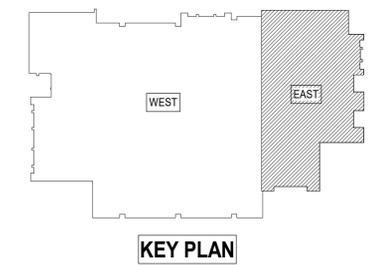
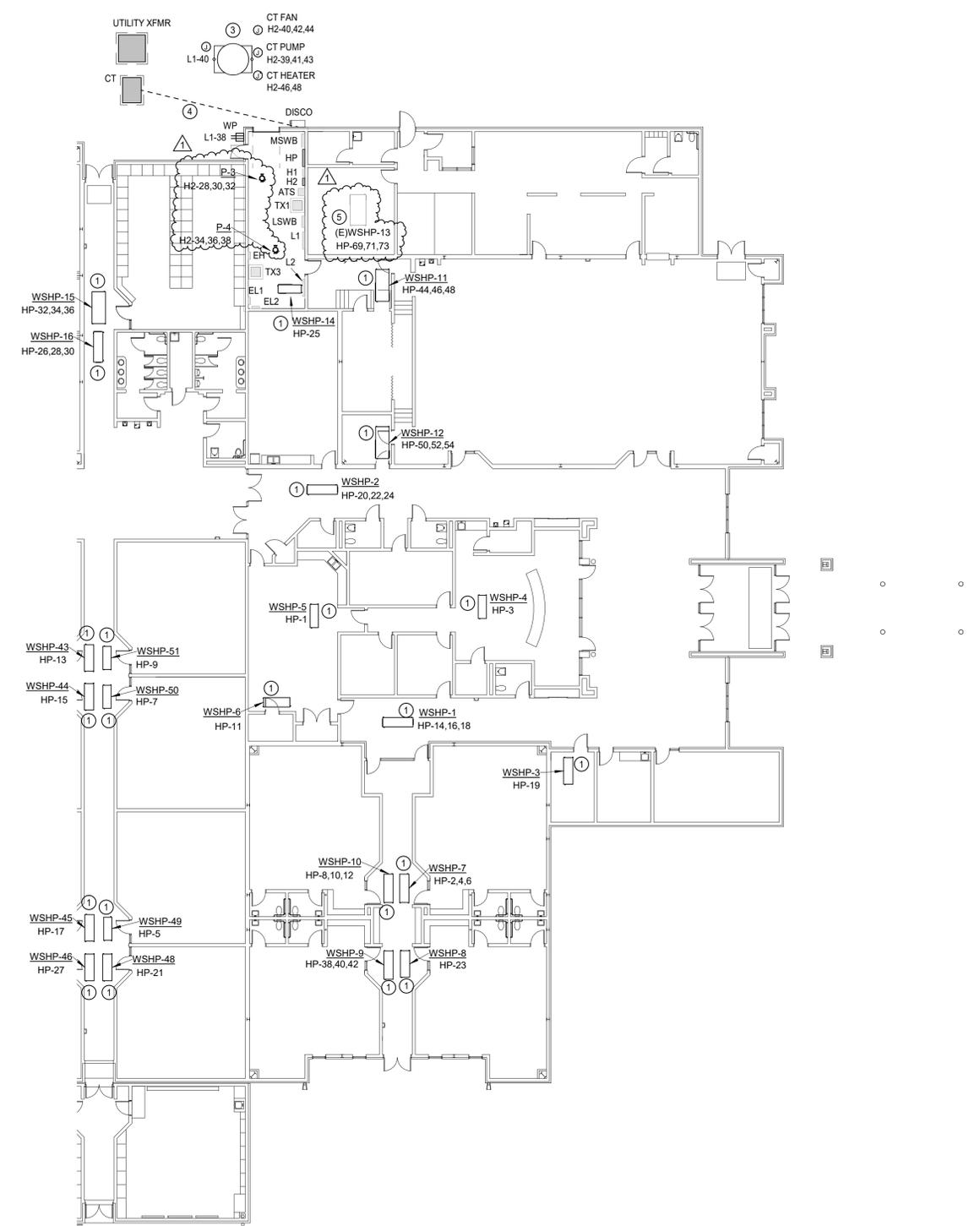
1 ELECTRICAL DEMOLITION POWER PLAN - WEST
Scale: 1/16" = 1'-0"

Salas O'Brien
Oklahoma City
2900 S. Telephone Road, Suite 120
Moore, OK 73160
CA#: 7058 Expiration Date: 06/30/2027
Salas O'Brien Project Number: 2550-01872-00



- GENERAL NOTES**
- COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATION OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.
 - COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES.
 - COORDINATE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS AND MANUFACTURER FOR ADDITIONAL INFORMATION.
 - COORDINATE EXACT LOCATION OF PLUMBING EQUIPMENT WITH PLUMBING CONTRACTOR. REFER TO PLUMBING PLANS AND MANUFACTURER FOR ADDITIONAL INFORMATION.
 - COORDINATE THE EXACT REQUIREMENTS OF ALL POWER CONNECTION FIXTURES AND DEVICES WITH THE ARCHITECT, OWNER AND MANUFACTURER PRIOR TO ROUGH-IN.
 - ALL RECEPTACLES LOCATED AT COUNTERTOP HEIGHT SHALL BE ORIENTED HORIZONTALLY.
 - FIRE STOP ALL PENETRATIONS IN FIRE AND SMOKE RATED WALLS. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND ADDITIONAL INFORMATION

- ELECTRICAL KEYED NOTES**
- CONNECT NEW WATER SOURCE HEAT PUMP TO THE REPLACEMENT ELECTRICAL PANEL 'HP'. PROVIDE NEW BREAKER, CONDUIT, AND WIRING AS REQUIRED TO FEED NEW UNIT. EXISTING CONDUIT AND WIRING RETAINED FROM DEMO MAY BE REUSED WHERE IN SERVICEABLE CONDITION AND SIZED APPROPRIATELY FOR NEW UNIT CONNECTION. ALL REUSED MATERIALS SHALL BE WARRANTED AS IF NEW. REFER TO SHEET 'E601' FOR MORE INFORMATION.
 - PROVIDE MULTIPLE ELECTRICAL CONNECTIONS FOR COOLING TOWER AS INDICATED. INCOMPLETE CONNECTION INFORMATION PROVIDED FROM THE EQUIPMENT MANUFACTURER AT THE TIME OF DESIGN. COORDINATE EXACT CONNECTION REQUIREMENTS WITH MANUFACTURER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. ADJUST CONNECTION QUANTITIES AND RATINGS AS NECESSARY. COORDINATE ANY CHANGES WITH THE ENGINEER PRIOR TO PROCEEDING.
 - INTERCEPT EXISTING FEED BETWEEN CT CABINET AND MSWB TO ADD NEW EXTERIOR RATED SERVICE DISCONNECT. EXISTING CONDUIT AND WIRING MAY BE REUSED WHERE IN SERVICEABLE CONDITION AND RATED APPROPRIATELY. OTHERWISE, PROVIDE NEW CONDUIT AND WIRING AS INDICATED.
 - REC TO RECONNECT EXISTING WATER SOURCE HEAT PUMP TO REPLACEMENT ELECTRICAL PANEL 'HP'. PROVIDE BREAKER AS INDICATED ON SHEET 'E602'.



1 ELECTRICAL POWER PLAN - EAST
Scale: 1/16" = 1'-0"

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date

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1	ADD 01	02/24/2026



WAYLAND BONDS
2025 HVAC

sheet no:

E201

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Oklahoma City
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Moore, OK 73160
CA#: 7058 Expiration Date: 06/30/2027
Salas O'Brien Project Number: 2550-01872-00

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date

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Δ	DESCRIPTION	DATE
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WAYLAND BONDS
2025 HVAC

sheet no:

E202

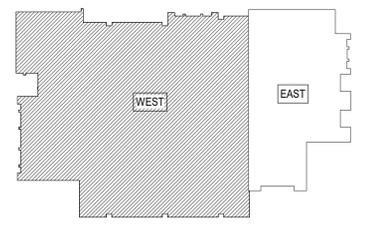
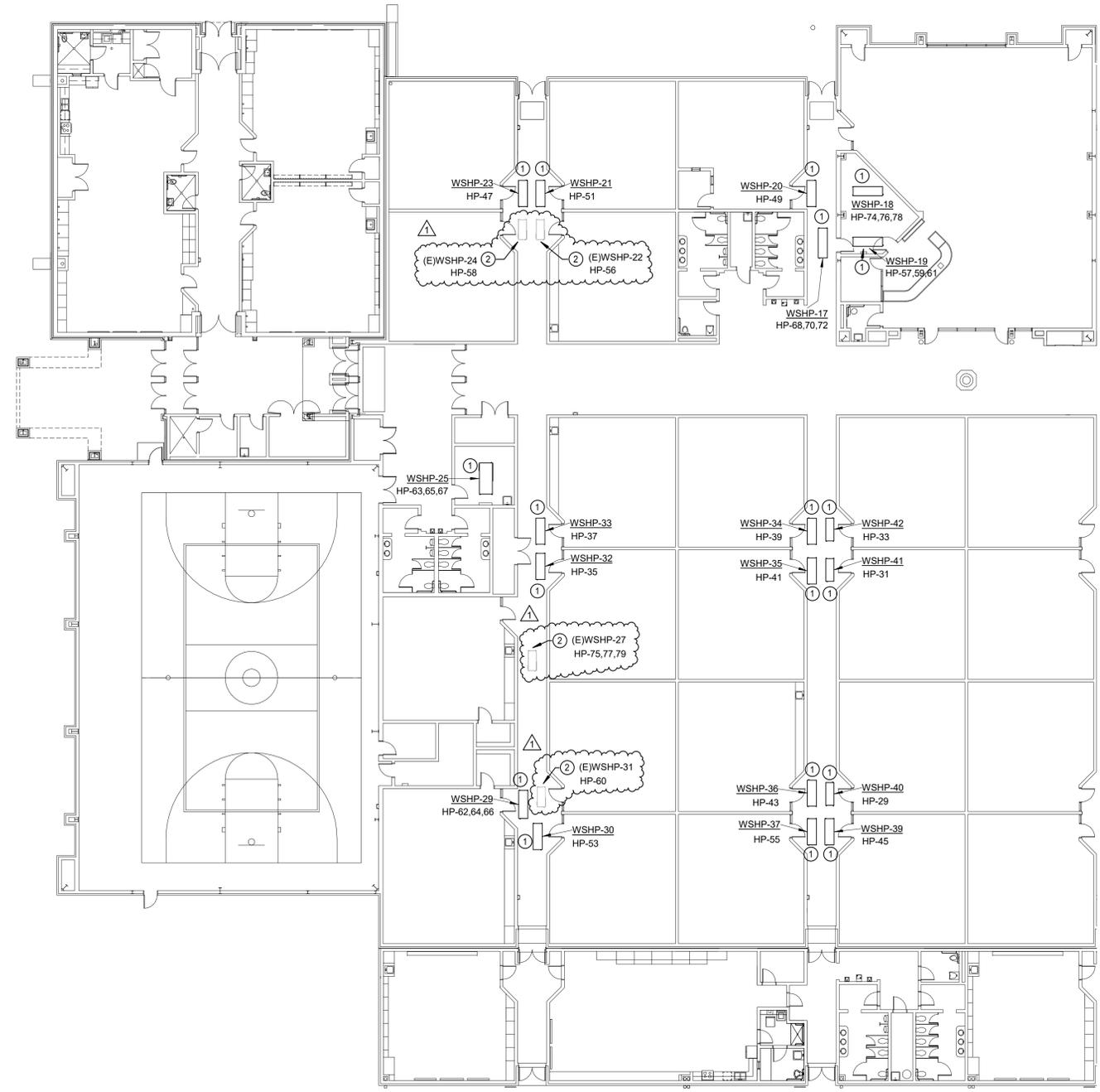
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GENERAL NOTES

- COORDINATE EXACT LOCATIONS OF DEVICES SHOWN WITH OTHER EQUIPMENT. COORDINATE EXACT LOCATION OF CEILING MOUNTED DEVICES WITH LIGHTS, HVAC EQUIPMENT, AND OTHER DEVICES.
- COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL RELAYS, CONNECTIONS, AND ALL DEVICES NECESSARY TO INTERLOCK EXHAUST FANS, DAMPERS, ETC WITH PROPER CONTROL DEVICES.
- COORDINATE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS AND MANUFACTURER FOR ADDITIONAL INFORMATION.
- COORDINATE EXACT LOCATION OF PLUMBING EQUIPMENT WITH PLUMBING CONTRACTOR. REFER TO PLUMBING PLANS AND MANUFACTURER FOR ADDITIONAL INFORMATION.
- COORDINATE THE EXACT REQUIREMENTS OF ALL POWER CONNECTION FIXTURES AND DEVICES WITH THE ARCHITECT, OWNER AND MANUFACTURER PRIOR TO ROUGH-IN.
- ALL RECEPTACLES LOCATED AT COUNTERTOP HEIGHT SHALL BE ORIENTED HORIZONTALLY.
- FIRE STOP ALL PENETRATIONS IN FIRE AND SMOKE RATED WALLS. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND ADDITIONAL INFORMATION

ELECTRICAL KEYED NOTES

- CONNECT NEW WATER SOURCE HEAT PUMP TO THE REPLACEMENT ELECTRICAL PANEL 'HP'. PROVIDE NEW BREAKER, CONDUIT, AND WIRING AS REQUIRED TO FEED NEW UNIT. EXISTING CONDUIT AND WIRING RETAINED FROM DEMO MAY BE REUSED WHERE IN SERVICEABLE CONDITION AND SIZED APPROPRIATELY FOR NEW UNIT CONNECTION. REFER TO SHEET 'E01' FOR MORE INFORMATION.
- REC TO RECONNECT EXISTING WATER SOURCE HEAT PUMP TO REPLACEMENT ELECTRICAL PANEL 'HP'. PROVIDE BREAKER AS INDICATED ON SHEET 'E02'.

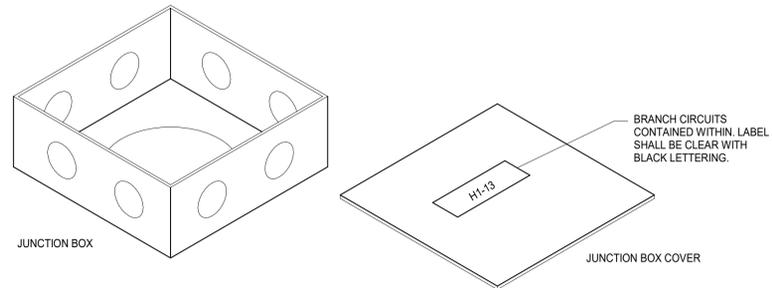


KEY PLAN

1 ELECTRICAL POWER PLAN - WEST

Scale: 1/16" = 1'-0"

Salas O'Brien
Oklahoma City
2900 S. Telephone Road, Suite 120
Moore, OK 73160
CA#: 7058 Expiration Date: 06/30/2027
Salas O'Brien Project Number: 2550-01872-00



1 TYP. JUNCTION BOX DETAIL
Scale: N.T.S.

MECHANICAL EQUIPMENT COORDINATION SCHEDULE									
TAG	Description	Voltage	Phase	Apparent Load	MCA	MOCP	Disconnect Type	Disco. Furnished By	Disco. Installed By
(E)WSHP-13	EXISTING WATER SOURCE HEAT PUMP	480	3	25.3 kVA	33.8	40	EXISTING	EXISTING	EXISTING
(E)WSHP-22	EXISTING WATER SOURCE HEAT PUMP	277	1	3.3 kVA	15.6	20	EXISTING	EXISTING	EXISTING
(E)WSHP-24	EXISTING WATER SOURCE HEAT PUMP	277	1	4.0 kVA	15.6	20	EXISTING	EXISTING	EXISTING
(E)WSHP-27	EXISTING WATER SOURCE HEAT PUMP	480	3	7.5 kVA	15.6	20	EXISTING	EXISTING	EXISTING
(E)WSHP-31	EXISTING WATER SOURCE HEAT PUMP	277	1	4.0 kVA	15.6	20	EXISTING	EXISTING	EXISTING
P-3	PUMP	480	3	25.3 kVA	33.8	40	VFD	MC	EC
P-4	PUMP	480	3	25.3 kVA	33.8	40	VFD	MC	EC
WSHP-1	WATER SOURCE HEAT PUMP	480	3	11.7 kVA	15.6	20	NON-FUSED	MC	EC
WSHP-2	WATER SOURCE HEAT PUMP	480	3	11.7 kVA	15.6	20	NON-FUSED	MC	EC
WSHP-3	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-4	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
WSHP-5	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
WSHP-6	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-7	WATER SOURCE HEAT PUMP	480	3	11.7 kVA	15.6	20	NON-FUSED	MC	EC
WSHP-8	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-9	WATER SOURCE HEAT PUMP	480	3	11.7 kVA	15.6	20	NON-FUSED	MC	EC
WSHP-10	WATER SOURCE HEAT PUMP	480	3	11.7 kVA	15.6	20	NON-FUSED	MC	EC
WSHP-11	WATER SOURCE HEAT PUMP	480	3	17.2 kVA	23.0	30	NON-FUSED	MC	EC
WSHP-12	WATER SOURCE HEAT PUMP	480	3	17.2 kVA	23.0	30	NON-FUSED	MC	EC
WSHP-14	WATER SOURCE HEAT PUMP	277	1	4.2 kVA	17.0	25	NON-FUSED	MC	EC
WSHP-15	WATER SOURCE HEAT PUMP	480	3	12.0 kVA	16.0	20	NON-FUSED	MC	EC
WSHP-16	WATER SOURCE HEAT PUMP	480	3	11.7 kVA	15.6	20	NON-FUSED	MC	EC
WSHP-17	WATER SOURCE HEAT PUMP	480	3	12.0 kVA	16.0	20	NON-FUSED	MC	EC
WSHP-18	WATER SOURCE HEAT PUMP	480	3	12.0 kVA	16.0	20	NON-FUSED	MC	EC
WSHP-19	WATER SOURCE HEAT PUMP	480	3	12.0 kVA	16.0	20	NON-FUSED	MC	EC
WSHP-20	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-21	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-23	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-25	WATER SOURCE HEAT PUMP	480	3	12.0 kVA	16.0	20	NON-FUSED	MC	EC
WSHP-29	WATER SOURCE HEAT PUMP	480	3	11.7 kVA	15.6	20	NON-FUSED	MC	EC
WSHP-30	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-32	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-33	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-34	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-35	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-36	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-37	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-39	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-40	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
WSHP-41	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
WSHP-42	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
WSHP-43	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-44	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-45	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-46	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-48	WATER SOURCE HEAT PUMP	277	1	4.0 kVA	16.2	25	NON-FUSED	MC	EC
WSHP-49	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
WSHP-50	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
WSHP-51	WATER SOURCE HEAT PUMP	277	1	3.5 kVA	14.0	20	NON-FUSED	MC	EC
CT FAN	COOLING TOWER FAN	480	3	21.8 kVA	26	35	VFD	MC	EC
CT PUMP	COOLING FAN TOWER PUMP	480	3	3.5 kVA	4	20	VFD	MC	EC
CT HEATER	COOLING TOWER HEATER	480	1	6.0 kVA	13	20	NON-FUSED	EC	EC



DWG
drawn by
TVO
checked by
JANUARY 2026
date

REVISIONS		
Δ	DESCRIPTION	DATE
1	ADD 01	02/24/2026



sheet no:



REVISIONS		
Δ	DESCRIPTION	DATE
1	ADD 01	02/24/2026



ABBREVIATIONS		
A	AMP	I/O INPUT/OUTPUT
ADD	ADDENDUM	IN INCH
ADJ	ADJUSTABLE	LAT LEAVING AIR TEMPERATURE
AFF	ABOVE FINISH FLOOR	LB POUND
AHU	AIR HANDLER UNIT	LWT LEAVING WATER TEMPERATURE
AI	ANALOG INPUT	MAX MAXIMUM
ALT	ALTERNATE	MBH 1000 BTU PER HOUR
AO	ANALOG OUTPUT	MC MECHANICAL CONTRACTOR
APPRX	APPROXIMATE	MCA MINIMUM CIRCUIT AMPS
ARCH	ARCHITECT, ARCHITECTURAL	MECH MECHANICAL
BDD	BACK DRAFT DAMPER	MIN MINIMUM
BLDG	BUILDING	MFR MANUFACTURER
BTUH	BRITISH THERMAL UNIT PER HOUR	NTS NOT TO SCALE
C	CENTER	OA OUTSIDE AIR
CD	CEILING DIFFUSER	OC ON CENTER
CFM	CUBIC FEET PER MINUTE	P PUMP
CO	CLEAN OUT	PC PLUMBING CONTRACTOR
COND	CONDENSATE	PLBG PLUMBING
CONT	CONTINUOUS	PSI POUNDS PER SQUARE INCH
COP	COEFFICIENT OF PERFORMANCE	QTY QUANTITY
DB	DRY BULB	RA RETURN AIR
DET	DETAIL	REQD REQUIRED
DG	DOOR GRILLE	REV REVERSE OR REVISION
DI	DIGITAL INPUT	RG RETURN AIR GRILLE
DIA/Ø	DIAMETER	RPM REVOLUTIONS PER MINUTE
DIM	DIMENSION	RTU ROOF TOP UNIT
DN	DOWN	SA SUPPLY AIR
DO	DIGITAL OUTPUT	SOFT SQUARE FEET
DWG	DRAWING	SG SUPPLY GRILLE
EA	EXHAUST AIR	SP STATIC PRESSURE
EAT	ENTERING AIR TEMPERATURE	SPEC SPECIFICATIONS
EC	ELECTRICAL CONTRACTOR	SS STAINLESS STEEL
EER	ENERGY EFFICIENCY RATIO	T&B TEST AND BALANCE
EF	EXHAUST FAN	TEMP TEMPERATURE OR TEMPORARY
EG	EXHAUST GRILLE	TG TRANSFER GRILLE
ELEC	ELECTRICAL	TYP TYPICAL
ERV	ENERGY RECOVERY VENTILATOR	V VOLT
ESP	EXTERNAL STATIC PRESSURE	VAR VARIABLE OR VARIES
EWT	ENTERING WATER TEMPERATURE	VEL VELOCITY
EXIST	EXISTING	VFD VARIABLE FREQUENCY DRIVE
FA	FRESH AIR	VTR VENT THRU ROOF
FFM	FEET PER MINUTE	W WITH
FT	FOOT (FEET)	WIN WITHIN
GA	GAUGE/GAGE	W/O WITH OUT
GALV	GALVANIZED	WB WET BULB
GC	GENERAL CONTRACTOR	WC WATER COLUMN (INCHES OF)
GPM	GALLONS PER MINUTE	WT WEIGHT
GYP	GYPSUM	
HORIZ	HORIZONTAL	
HP	HORSEPOWER	
HT	HEIGHT	

MECHANICAL SYMBOL LEGEND		
SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)	PIPING
GENERAL		
Ⓝ	KEY NOTE TAG	-CWS&R- CONDENSER WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
Ⓜ	REVISION TAG	-CWS- CONDENSER WATER SUPPLY
Ⓜ	NEW EQUIPMENT	-CWR- CONDENSER WATER RETURN
EQUIP-1	EQUIPMENT TAG	-CHWS&R- CHILLED WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
DUCTWORK		
Ⓜ	SUPPLY AIR DUCTWORK	-CHWS- CHILLED WATER SUPPLY
Ⓜ	RETURN AIR AND OUTSIDE AIR DUCTWORK	-CHWR- CHILLED WATER RETURN
Ⓜ	EXHAUST AIR DUCTWORK	-HWS&R- HOT WATER FOR HYDRONIC HEATING SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
Ⓜ	FLEXIBLE DUCTWORK	-HWS- HOT WATER FOR HYDRONIC HEATING SUPPLY
Ⓜ	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION	-HWR- HOT WATER FOR HYDRONIC HEATING RETURN
Ⓜ	RETURN AIR DUCTWORK THROUGH HORIZONTAL PARTITION	-D- CONDENSATE DRAIN LINE
Ⓜ	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION	-AD- AUXILIARY CONDENSATE DRAIN LINE
Ⓜ	ROUND DUCTWORK	-RLR- REFRIGERANT LIQUID & GAS RECIRCULATION LINE (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
Ⓜ	FIRE DAMPER (VERTICAL)	-RL- REFRIGERANT LIQUID LINE
Ⓜ	FIRE DAMPER (HORIZONTAL)	-HG- REFRIGERANT HOT GAS LINE
Ⓜ	SMOKE DAMPER (VERTICAL)	-RS- REFRIGERANT SUCTION LINE
Ⓜ	SMOKE DAMPER (HORIZONTAL)	-EO- ELBOW UP
Ⓜ	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)	-ED- ELBOW DOWN
Ⓜ	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)	Ⓜ 90° ELBOW
Ⓜ	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)	Ⓜ 45° ELBOW
Ⓜ	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)	Ⓜ TEE
SENSORS		
Ⓜ	THERMOSTAT AND TEMPERATURE SENSOR	Ⓜ TEE DOWN
Ⓜ	HUMIDISTAT	Ⓜ TEE UP
Ⓜ	SMOKE DETECTOR	Ⓜ TOP BRANCH CONNECTION
Ⓜ	HEAT DETECTOR	Ⓜ BOTTOM BRANCH CONNECTION
AIR DEVICES		
Ⓜ	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)	Ⓜ FLANGE
Ⓜ	SUPPLY AIR GRILLE WITH FOUR-WAY THROW	Ⓜ CAP
Ⓜ	SUPPLY AIR GRILLE WITH THREE-WAY THROW	Ⓜ CONTINUATION
Ⓜ	SUPPLY AIR GRILLE WITH TWO-WAY THROW	Ⓜ FLOOR DRAIN (REFER TO PLUMBING DRAWINGS)
Ⓜ	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW	Ⓜ GATE VALVE
Ⓜ	SUPPLY AIR GRILLE WITH ONE-WAY THROW	Ⓜ GLOBE VALVE
Ⓜ	RETURN AIR GRILLE	Ⓜ CHECK VALVE
Ⓜ	RETURN AIR GRILLE WITH SOUND BOOT	Ⓜ BUTTERFLY VALVE
Ⓜ	EXHAUST AIR GRILLE	Ⓜ BUTTERFLY VALVE WITH OPERATOR
Ⓜ	SUPPLY AIR SIDEWALL GRILLE	Ⓜ PLUG VALVE
Ⓜ	RETURN AIR SIDEWALL GRILLE	Ⓜ TWO-WAY CONTROL VALVE
Ⓜ	RETURN AIR OPENING ABOVE CEILING	Ⓜ THREE-WAY CONTROL VALVE
RENOVATIONS		
Ⓜ	POINT OF CONNECTION FROM NEW TO EXISTING	Ⓜ PRESSURE REDUCING VALVE
Ⓜ	ITEM TO REMAIN	Ⓜ PRESSURE RELIEF VALVE
Ⓜ	ITEM TO BE REMOVED	Ⓜ BALL VALVE
		Ⓜ STRAINER
		Ⓜ UNION
		Ⓜ THERMOMETER WELL
		Ⓜ PETE'S PLUG
		Ⓜ PRESSURE GAUGE
		Ⓜ TEMPERATURE SENSOR IN PIPE
		Ⓜ VENTURI FLOW METER
		Ⓜ FLOW SWITCH
		Ⓜ FLOW MEASURING STATION
		Ⓜ EXPANSION JOINT
		Ⓜ FLEXIBLE CONNECTION
		Ⓜ GAUGE COCK
		Ⓜ SITE GLASS
		Ⓜ DIFFERENTIAL PRESSURE SENSOR
		Ⓜ TURBINE FLOW METER
		Ⓜ ANCHOR
		Ⓜ PIPE GUIDE

GENERAL MECHANICAL NOTES		
1.	ALL WORK SHALL BE IN COMPLIANCE WITH STATE AND LOCAL CODES.	
2.	THE CONTRACTOR SHALL PAY FOR ALL FEES, PERMITS, LICENSES, ETC., NECESSARY FOR PROPER COMPLETION OF THE WORK.	
3.	INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.	
4.	VERIFY ALL EXISTING CONDITIONS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN CONTRACT DRAWINGS AND ACTUAL CONDITIONS.	
5.	EXISTING UTILITIES TO BE ABANDONED SHALL BE PROPERLY DISCONNECTED AND CAPPED AS REQUIRED BY CODE OR LOCAL ORDINANCE.	
6.	THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. ADDITIONAL DATA SHALL BE FROM THE ENGINEER THROUGH WRITTEN CLARIFICATION ONLY. VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, AND DIMENSIONS BEFORE PROCEEDING WITH ANY PORTION OF ANY WORK. THE CONTRACTOR SHALL PROVIDE ALL OFFSETS AND TRANSITIONS REQUIRED TO MEET EXISTING CONDITIONS.	
7.	THE CONTRACTOR SHALL PERFORM WORK IN A SKILLED AND PROFESSIONAL MANNER.	
8.	ALL CONTRACTORS ARE RESPONSIBLE TO FIELD COORDINATE WORK SCHEDULE WITH OWNER REPRESENTATIVE.	
9.	THE CONTRACTOR SHALL WORK AND COORDINATE WITH THE OTHER TRADES.	
10.	ALL EQUIPMENT SHALL BE NEW AND IN UNDAMAGED CONDITION. ANY EQUIPMENT FOUND DEFECTIVE SHALL BE IMMEDIATELY REMOVED FROM THE PROJECT.	
11.	PROVIDE 3 COPIES OF AN OPERATION AND MAINTENANCE MANUAL FOR ALL MAJOR EQUIPMENT REQUIRING SERVICE. MAJOR EQUIPMENT INCLUDES BUT IS NOT LIMITED TO COILS, FANS, AND CONTROL WIRING DIAGRAMS. EACH PIECE OF EQUIPMENT SHALL STATE THE CONTRACT DATE AND THE NAME, ADDRESS AND PHONE NUMBER FOR THE PRIME CONTRACTOR, SUBCONTRACTOR PERFORMING THE INSTALLATION, AND THE LOCAL VENDOR FOR SPARE PARTS. THE MANUALS SHALL CONTAIN MAINTENANCE INSTRUCTIONS REQUIRED FOR THE INSTALLED EQUIPMENT. MANUALS SHALL BE BOUND IN A THREE RING HARD COVER BINDER. O & M MANUALS SHALL BE SUBMITTED TO THE OWNER PRIOR TO FINAL WALK THROUGH OF THE PROJECT.	
12.	PROVIDE 8 HOURS OF OWNER TRAINING FOR THE INSTALLED EQUIPMENT. TRAINING SHALL BE HELD ONLY AFTER ALL OF THE EQUIPMENT IS INSTALLED AND PROPER OPERATION IS VERIFIED.	
13.	CONTRACTOR SHALL SUBMIT A CERTIFIED REPORT INDICATING SYSTEM PERFORMANCE INCLUDING, BUT NOT LIMITED TO, VOLTAGE AND AMPERAGE MEASUREMENTS OF ALL EQUIPMENT GREATER THAN 1/3 H.P. WATER BALANCE MEASUREMENTS OF EACH COIL AND PUMP. AIR BALANCE MEASUREMENTS OF OUTSIDE AIR DELIVERY, AIR HANDLING UNIT SUPPLY, SUPPLY DIFFUSERS, EXHAUST AND RETURN GRILLES. AIR BALANCE SHALL BE WITHIN 10% OF DESIGN CONDITIONS. THE REPORT CERTIFICATION SHALL BE AS FOLLOWS: I (name of company) CERTIFY THAT ALL MEASUREMENTS, FIGURES AND STATEMENTS INDICATED IN THIS REPORT WERE TAKEN BY ME OR UNDER MY SUPERVISION AND ARE ACCURATE AS OF (date). DESIGN FLOWS WERE BASED UPON PLANS DATED (xxx/xx/xx).	
14.	DUCT MATERIAL SHALL BE GALVANIZED OR ALUMINUM CONSTRUCTION IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARD 2005 FOR THE PRESSURE AND SEAL CLASS LISTED IN DUCTWORK/INSULATION SCHEDULE.	
15.	DUCT SIZES LISTED ON PLANS ARE THE REQUIRED CLEAR INTERIOR DIMENSIONS.	
16.	SUPPLY AND RETURN BRANCH DUCTS MAY BE INSULATED FLEX DUCT IF THE RUN IS LESS THAN 5 FEET IN LENGTH. ANY LENGTHS OVER 5 FEET SHALL BE RIGID DUCTWORK. DUCT SHALL BE THE SAME SIZE AS THE LISTED DIFFUSER THROAT UNLESS NOTED OTHERWISE.	
17.	PROVIDE VOLUME CONTROL DAMPERS WHERE INDICATED AND AT ALL TAKEOFFS, BOTH SUPPLY AND RETURN SYSTEMS, AND MAJOR DUCT RUNS. DAMPERS SHALL BE FACTORY-FABRICATED WITH ZINC-PLATED, DIE-CAST CONTROL HARDWARE. CONTROL HARDWARE SHALL INCLUDE HEAVY GAUGE DIAL AND HANDLE WITH ELEVATED PLATFORM FOR INSULATED DUCT MOUNTING.	
18.	PROVIDE TURNING VANES IN ALL RECTANGULAR ELBOWS CONFORMING TO SMACNA DUCT CONSTRUCTION STANDARD 2005 FIG. 4-2 TYPE RE-3 WITH STANDARD RADIUS. WHERE SPACE PERMITS, PROVIDE RADIUS ELBOWS IN ACCORDANCE WITH FIGURES 4-2, TYPE RE-1.	
19.	ALL RECTANGULAR MAIN TO RECTANGULAR BRANCH CONNECTIONS, BOTH CONVERGING AND DIVERGING CONFIGURATIONS, SHALL HAVE A 45 DEG. ENTRY TAP CONSTRUCTED IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARD 2005 FIG. 4-6.	
20.	DIFFUSER PATTERN 4-WAY UNLESS OTHERWISE INDICATED. PROVIDE FIBERGLASS DUCT INSULATION WITH VAPOR BARRIER AS SCHEDULED UNLESS NOTED OTHERWISE.	
21.	MECHANICAL CONTRACTOR TO REPAIR ANY DAMAGE DONE TO THE FIRE PROOFING WHILE INSTALLING THE MECHANICAL TRADES. SEAL ALL PENETRATIONS THROUGH RATED STRUCTURES WITH UL LISTED FIRE SEAL DESIGNED FOR THE SPECIFIED APPLICATION.	
22.	THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION.	
23.	THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OR AS OTHERWISE REQUIRED IN THE SPECIFICATIONS.	
24.	MECHANICAL CONTRACTOR TO INCLUDE THE TEST AND BALANCE, AND ANY PERMIT FEES IN THEIR BID.	
25.	MECHANICAL CONTRACTOR SHALL VERIFY ALL ROOFTOP EQUIPMENT WEIGHTS, SIZES, LOCATIONS AND OPENINGS REQUIRED AND SHALL COORDINATE ANY CHANGES WITH THE ARCHITECT.	
26.	UPON PROJECT COMPLETION, RECORD (AS-BUILT) DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR TO THE BUILDING OWNER. ALL CHANGES MADE TO EQUIPMENT, DUCTWORK, AND GENERAL DESIGN SHALL BE NOTED ON THE DRAWINGS. PROVIDE IN PDF FORMAT OR PRINTED SET AT THE OWNER'S REQUEST.	

MECHANICAL SHEET INDEX	
M000	MECHANICAL TITLE SHEET
MD101	MECHANICAL DEMOLITION PLAN - EAST
MD102	MECHANICAL DEMOLITION PLAN - WEST
M101	MECHANICAL PLAN - EAST
M102	MECHANICAL PLAN - WEST
M501	MECHANICAL DETAILS
M900	MECHANICAL SCHEDULES
M901	MECHANICAL 3D VIEWS





KF
drawn by
DG
checked by
JANUARY 2026
date

REVISIONS		
Δ	DESCRIPTION	DATE
1	ADD 01	02/24/2026



WAYLAND BONDS
2025 HVAC

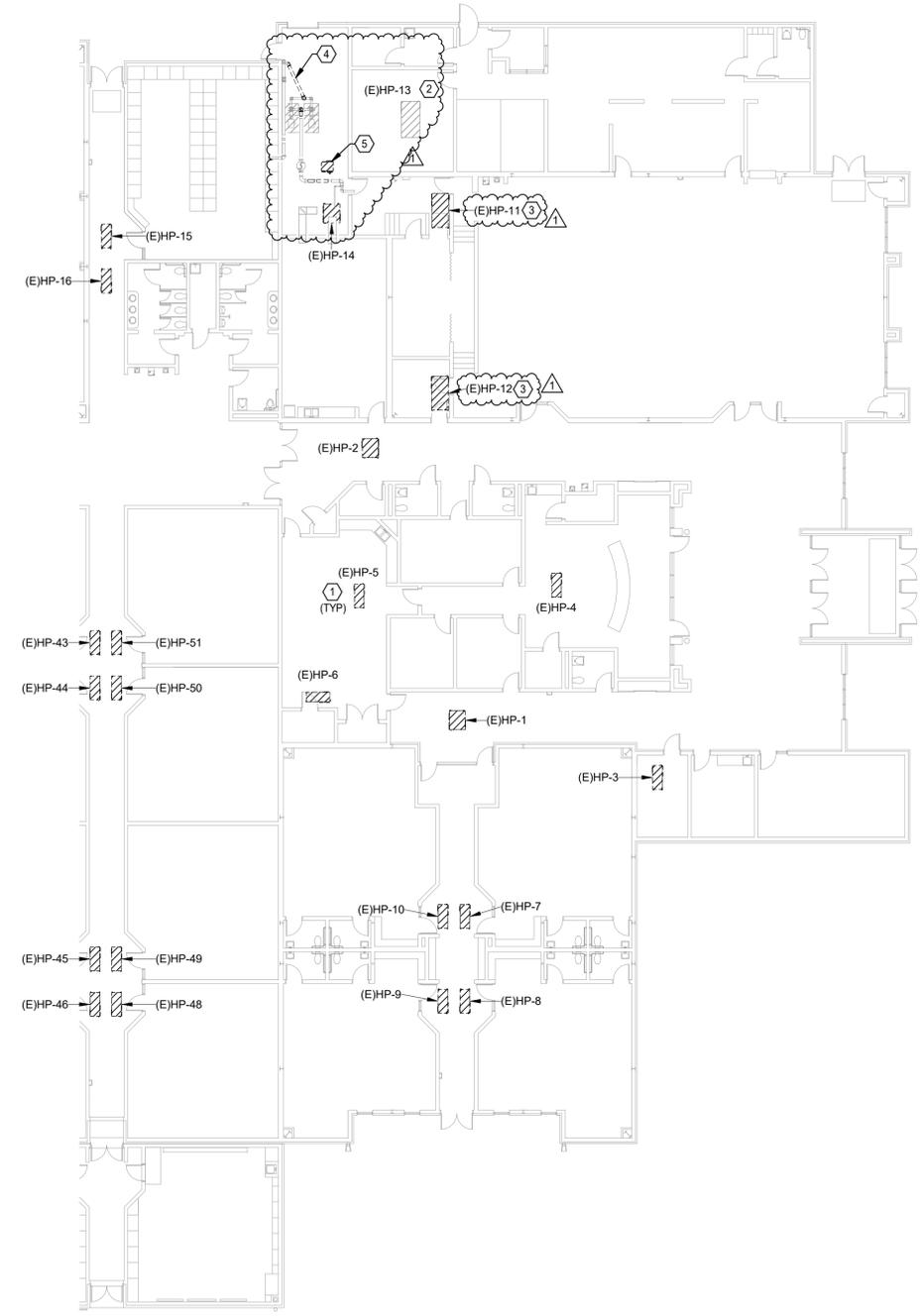
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MD101

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AGP EXPRESSLY RESERVES ITS
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RIGHTS OF ALL PLANS AND DRAWINGS
DESIGNED AND/OR PRODUCED. PLANS
AND DRAWINGS ARE NOT TO BE
REPRODUCED IN ANY FORM OR MANNER
WITHOUT THE EXPRESSED WRITTEN
CONSENT OF AGP.

GENERAL DEMOLITION NOTES	
1.	PROVIDE OWNER WITH FIRST RIGHT OF REFUSAL ON ALL DEMOD EQUIPMENT.
2.	DISPOSE OF ALL DEMOD EQUIPMENT THAT IS NOT BEING RETAINED IN A LEGAL MANNER.
3.	PATCH ALL PENETRATIONS THAT ARE NOT BEING REUSED. COORDINATE WITH GENERAL CONTRACTOR.
4.	VERIFY FLOW ORIENTATION FOR EXISTING WSHPS PRIOR TO DEMOLITION. NEW UNITS SHALL MATCH FLOW ORIENTATION TO MINIMIZE DUCTWORK MODIFICATIONS.

MECHANICAL KEYED NOTES	
1	REMOVE ALL WATER SOURCE HEAT PUMPS. PREPARE EXISTING PIPE CONNECTIONS FOR FUTURE CONNECTION TO NEW UNIT. SUPPLY AND RETURN DUCTWORK TO BE REUSED WITH NEW UNIT.
2	HEAT PUMP IS EXISTING TO REMAIN.
3	DEMOLISH DUCTWORK BACK AND CAP FOR ACCESS TO DEMOLISH HEAT PUMP. INSTALL NEW WSHWP THEN CONNECT NEW DUCTWORK FROM UNIT TO EXISTING DUCTWORK.
4	DEMOLISH PIPES TO LOCATIONS SHOWN. PREPARE PIPES FOR NEW CONNECTIONS SHOWN ON M101.
5	DEMOLISH GAS HEATER. REMOVE FLUE FROM HEATER TO ROOF PENETRATION. CAP AND SEAL PENETRATION AIR TIGHT. CAP AND SEAL GAS PIPING CONNECTION.



2 MECHANICAL DEMOLITION PLAN - EAST
Scale: 1/16" = 1'-0"

Salas O'Brien
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2900 S. Telephone Road, Suite 120
Moore, OK 73160
CA#: 7058 Expiration Date: 06/30/2027
Salas O'Brien Project Number: 2550-01872-00



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WAYLAND BONDS
 2025 HVAC

sheet no:
MD102

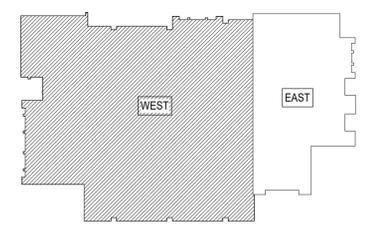
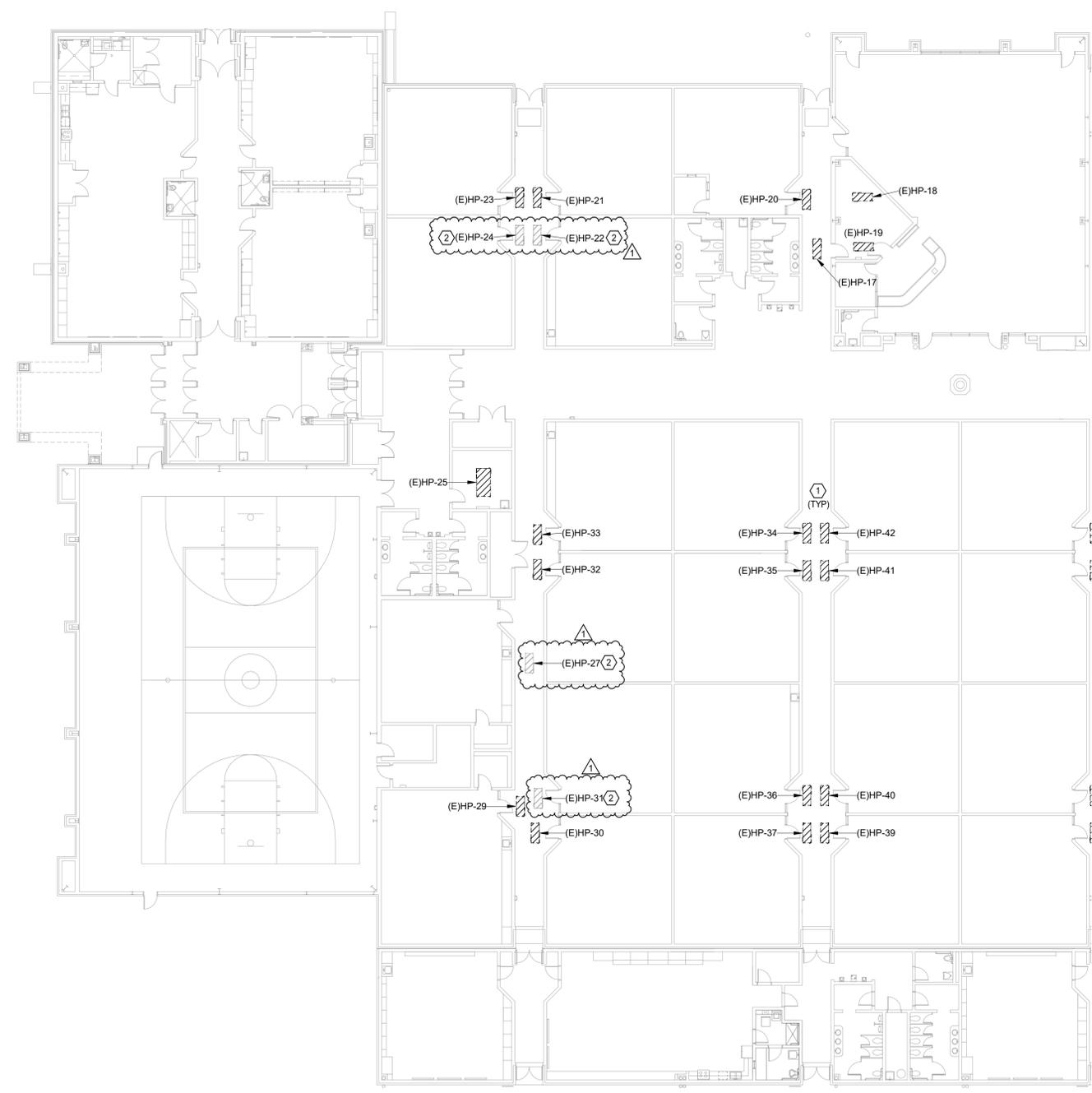
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GENERAL DEMOLITION NOTES

1. PROVIDE OWNER WITH FIRST RIGHT OF REFUSAL ON ALL DEMO'D EQUIPMENT.
2. DISPOSE OF ALL DEMO'D EQUIPMENT THAT IS NOT BEING RETAINED IN A LEGAL MANNER.
3. PATCH ALL PENETRATIONS THAT ARE NOT BEING REUSED. COORDINATE WITH GENERAL CONTRACTOR.
4. VERIFY FLOW ORIENTATION FOR EXISTING WSHPS PRIOR TO DEMOLITION. NEW UNITS SHALL MATCH FLOW ORIENTATION TO MINIMIZE DUCTWORK MODIFICATIONS.

MECHANICAL KEYED NOTES

- 1 REMOVE ALL WATER SOURCE HEAT PUMPS. PREPARE EXISTING PIPE CONNECTIONS FOR FUTURE CONNECTION TO NEW UNIT. SUPPLY AND RETURN DUCTWORK TO BE REUSED WITH NEW UNIT.
- 2 HEAT PUMP IS EXISTING TO REMAIN.



KEY PLAN

MECHANICAL DEMOLITION PLAN - WEST
 Scale: 1/16" = 1'-0"

Salas O'Brien
 Oklahoma City
 2900 S. Telephone Road, Suite 120
 Moore, OK 73160
 CA#: 7058 Expiration Date: 06/30/2027
 Salas O'Brien Project Number: 2550-01872-00



KF
drawn by
DG
checked by
JANUARY 2026
date

REVISIONS		
Δ	DESCRIPTION	DATE
1	ADD 01	02/24/2026



WAYLAND BONDS
2025 HVAC

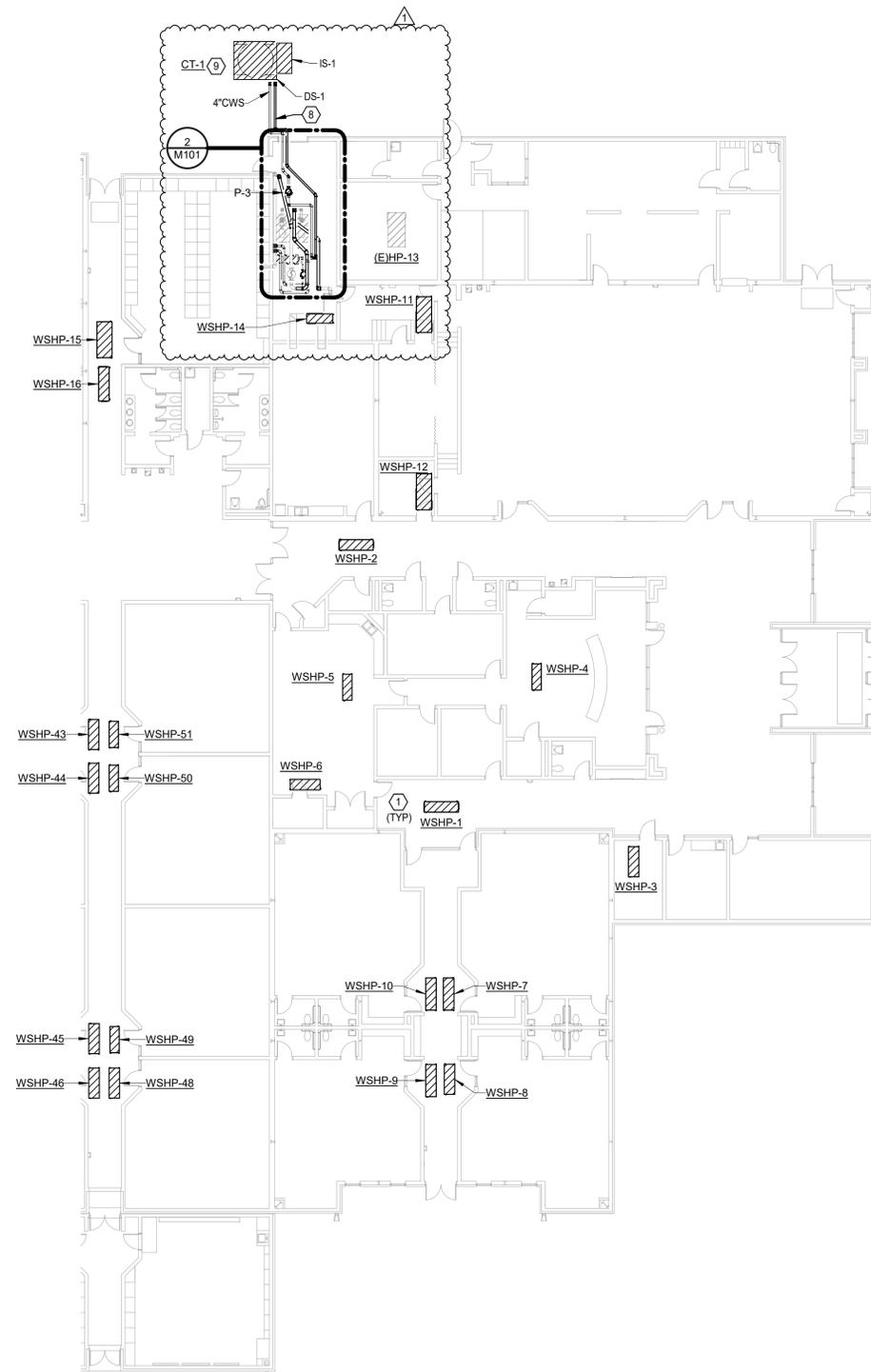
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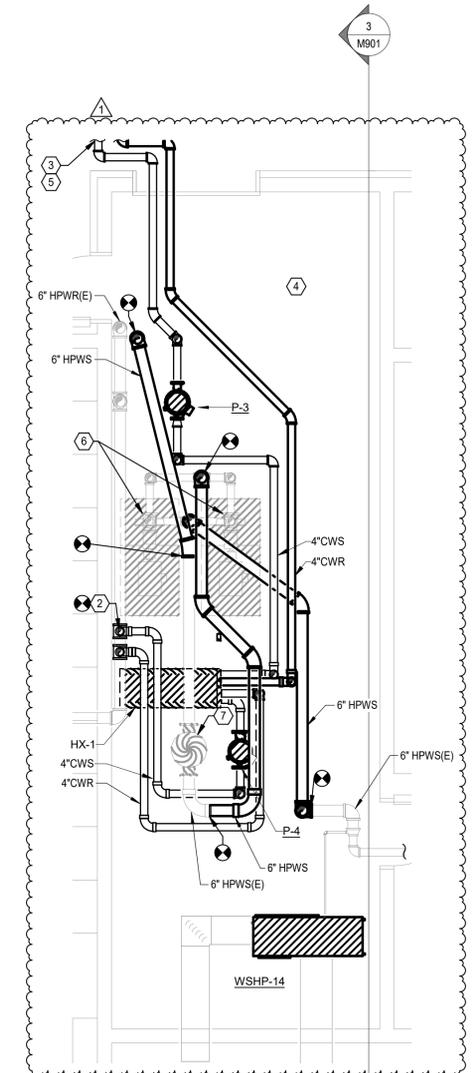
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- GENERAL NOTES**
- COORDINATE WORK WITH ALL TRADES ON SITE.
 - COORDINATE LOCATION OF THERMOSTATS AND CARBON MONOXIDE DETECTOR WITH ELECTRICAL CONTRACTOR, ROUGH-IN BY ELECTRICAL CONTRACTOR.
 - CEILING SPACE IS LIMITED. COORDINATE EXACT DUCT ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION OF SPRINKLERS, CONDUITS, LIGHTING ETC.

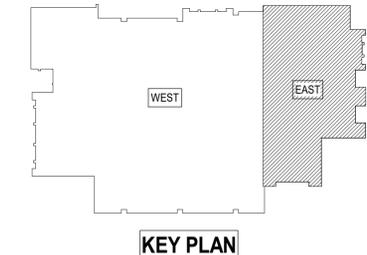
- MECHANICAL KEYED NOTES**
- CONNECT NEW WSHP TO EXISTING HYDRONIC PIPES, CONDENSATE PIPE, AND DUCTWORK. PROVIDE TRANSITION DUCTWORK AS NEEDED TO FIT.
 - CONNECT PIPE TO EXISTING GEOTHERMAL LOOP RETURN PIPE. REFER TO DIAGRAM ON M501.
 - PIPE TO CONTINUE TO EXTERIOR TO CONNECT TO FLUID COOLER.
 - COORDINATE EXACT LOCATION OF P-3, P-4, AND HX-1 WITH MOORE PUBLIC SCHOOL STAFF AND EXISTING EQUIPMENT IN MECHANICAL/ELECTRICAL ROOM.
 - THE FLUID COOLER LOOP IS A 25% GLYCOL MIXTURE.
 - EXISTING GEOTHERMAL LOOP PUMPS.
 - REROUTE AIR SEPARATOR PIPING SUCH THAT IT DISCHARGES TO THE PUMP INLETS.
 - PROVIDE SHIELDING AND INSULATION ON EXTERIOR PIPES.
 - COORDINATE CT-1 LOCATION WITH MOORE PUBLIC SCHOOLS. COORDINATE WITH EXISTING EQUIPMENT NEARBY.



1 MECHANICAL PLAN - EAST
Scale: 1/16" = 1'-0"



2 MECHANICAL ROOM ENLARGED
Scale: 1/4" = 1'-0"



Salas O'Brien
Oklahoma City
2900 S. Telephone Road, Suite 120
Moore, OK 73160
CA#: 7058 Expiration Date: 06/30/2027
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1	ADD 01	02/24/2026



WAYLAND BONDS
 2025 HVAC

sheet no:

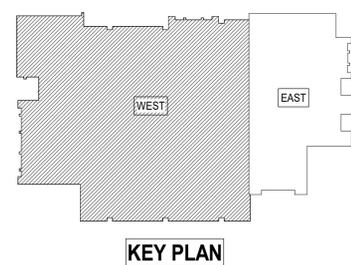
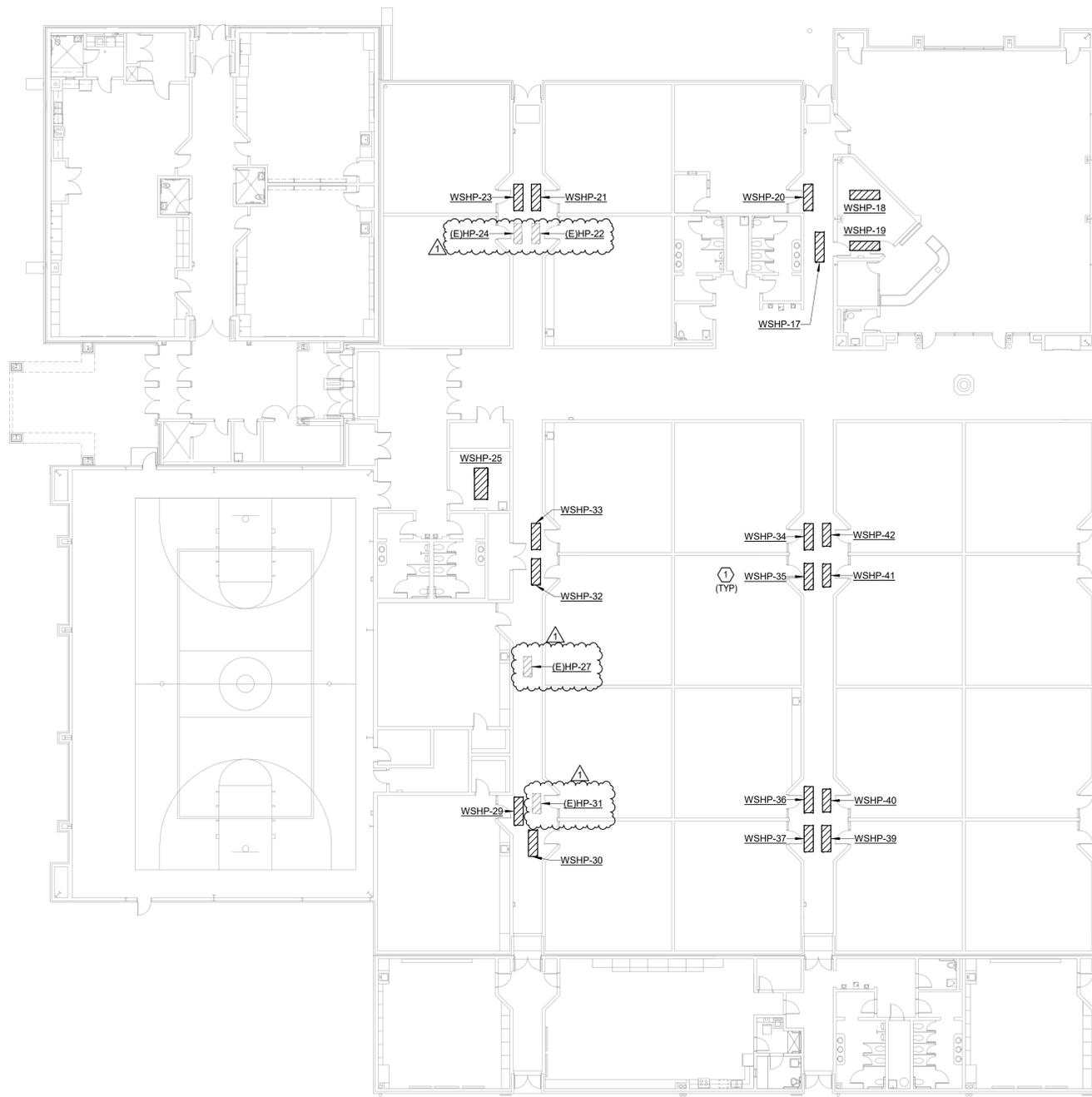
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- GENERAL NOTES**

 - COORDINATE WORK WITH ALL TRADES ON SITE.
 - COORDINATE LOCATION OF THERMOSTATS AND CARBON MONOXIDE DETECTOR WITH ELECTRICAL CONTRACTOR, ROUGH-IN BY ELECTRICAL CONTRACTOR.
 - FURNACES TO BE SUSPENDED FROM STRUCTURE ABOVE. MAINTAIN REQUIRED SERVICE CLEARANCE ON ALL SIDES. SEE DETAIL 2/14501 FOR ADDITIONAL INFORMATION.
 - CEILING SPACE IS LIMITED. COORDINATE EXACT DUCT ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION OF SPRINKLERS, CONDUITS, LIGHTING ETC.
- MECHANICAL KEYED NOTES**

 - CONNECT NEW WSHP TO EXISTING HYDRONIC PIPES, CONDENSATE PIPE, AND DUCTWORK. PROVIDE TRANSITION DUCTWORK AS NEEDED TO FIT.



1
MECHANICAL PLAN - WEST
 Scale: 1/16" = 1'-0"

Salas O'Brien
Oklahoma City
 2900 S. Telephone Road, Suite 120
 Moore, OK 73160
 CA#: 7058 Expiration Date: 06/30/2027
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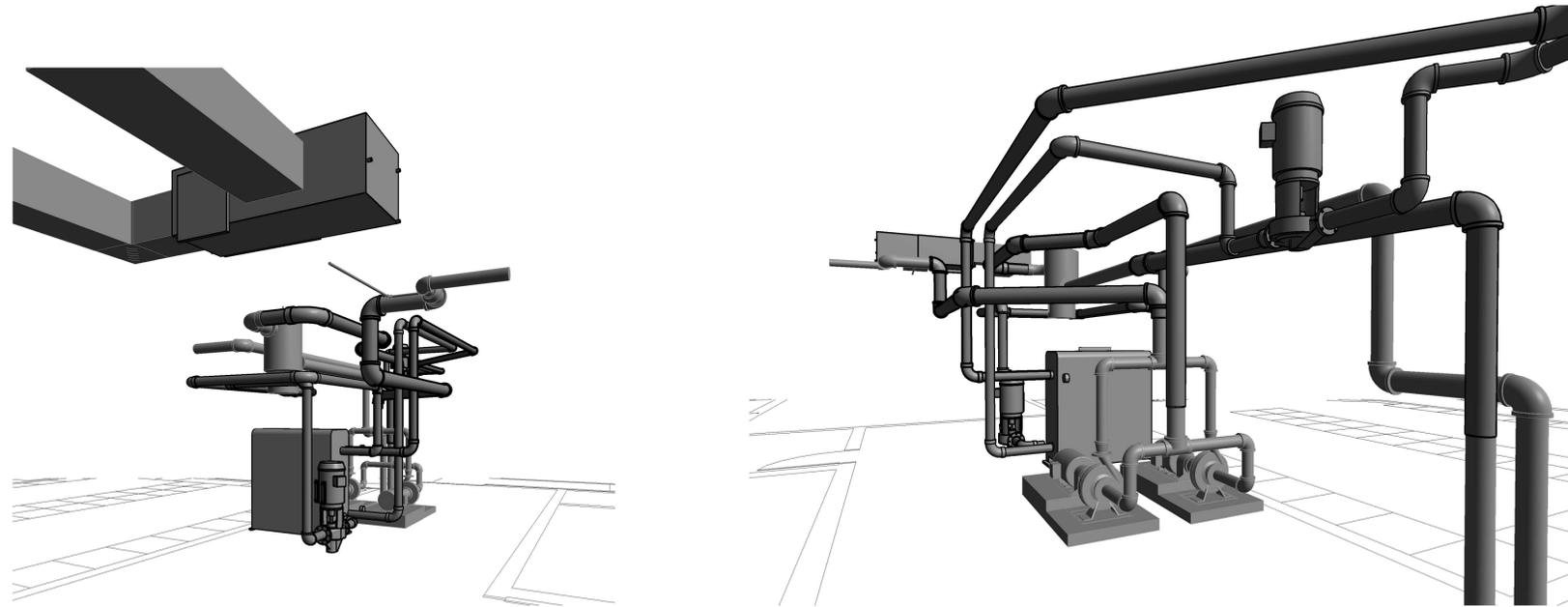
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WATER SOURCE HEAT PUMP UNIT SCHEDULE

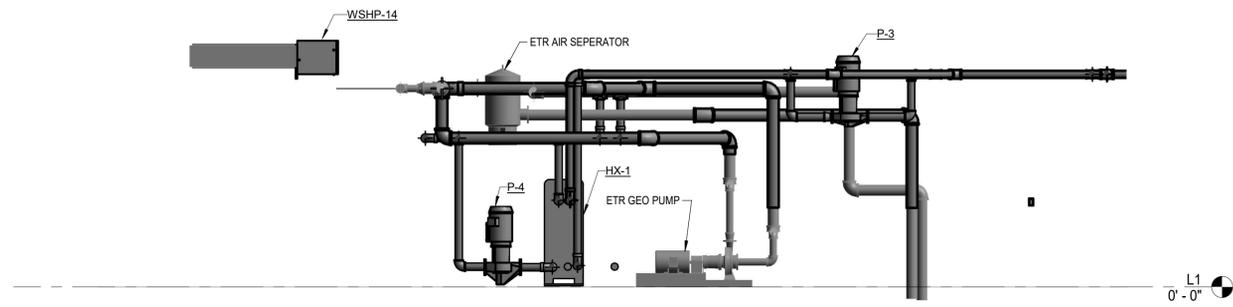
UNIT	TYPE	AIRFLOW CFM	FAN DATA EXTERNAL S.P. (IN. W.G.)	SENSIBLE CAPACITY (MBH)	TOTAL CAPACITY (MBH)	COIL DATA				HEATING				COOLING				CONDENSER DATA				SINGLE POINT POWER CONNECTION				REMARKS				
						EAT (°F)		LAT (°F)		TOTAL CAPACITY	EAT DB	NUM. OF STAGES	LAT DB	EWT (°F)	LWT (°F)	ΔP (FT. WG.)	GPM	EWT	LWT	ΔP (FT. WG.)	MCA	MOCP	V	PH	SEER		C.O.P.	MANUFACTURER	MODEL NUMBER	WEIGHT
						DB	WB	DB	WB																					
WSHP-1	HORIZONTAL	1760	0.66	43.4	57.0	75	63	52	51	55.0	72	1	101	90	101	6.10	13	50	43	7.80	16	20	480	3	14.8	4.3	CLIMATE MASTER	SE-060	475.00	ALL
WSHP-2	HORIZONTAL	1880	0.49	44.7	58.2	75	63	53	52	56.0	72	1	100	90	101	6.10	13	50	43	7.80	16	20	480	3	14.6	4.3	CLIMATE MASTER	SE-060	475.00	ALL
WSHP-3	HORIZONTAL	1100	0.34	42.4	35.1	75	63	55	51.7	36.7	72	1	103	90	102	4.00	8	50	42	4.60	16	25	277	1	15.3	4.7	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-4	HORIZONTAL	850	0.20	21.2	34.2	75	63	51.9	48.3	35.3	72	1	110	90	101	4.00	8	50	42	4.60	14	20	277	1	16	4.5	CLIMATE MASTER	SE-024	360.00	ALL
WSHP-5	HORIZONTAL	730	0.16	16.4	23.4	75	63	54	51.6	24.0	72	1	103	90	102	0.80	5	50	43	1.20	14	20	277	1	14	4.4	CLIMATE MASTER	SE-024	298.00	ALL
WSHP-6	HORIZONTAL	870	0.56	21.2	34.1	75	63	51.9	48.3	35.3	72	1	110	90	101	4.00	8	50	43	4.60	16	25	277	1	16	4.5	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-7	HORIZONTAL	1480	0.23	36.0	49.0	80	66	58	55	60.0	68	1	105	86	98	4.40	10	68	58	4.50	16	20	480	3	15.6	5.1	CLIMATE MASTER	SE-048	450.00	ALL
WSHP-8	HORIZONTAL	1250	0.34	24.7	35.7	75	63	56.7	53	37.6	72	1	100	90	102	4.00	8	50	42	4.60	16	25	277	1	14.9	4.9	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-9	HORIZONTAL	1530	0.88	32.6	46.3	75	63	55	52	48.0	72	1	101	90	101	4.40	10	50	42	4.80	16	20	480	3	14.2	4.4	CLIMATE MASTER	SE-048	450.00	ALL
WSHP-10	HORIZONTAL	1545	0.13	32.7	46.3	75	63	55	52	48.0	72	1	101	90	101	4.40	10	50	42	4.80	16	20	480	3	14.2	4.4	CLIMATE MASTER	SE-048	450.00	ALL
WSHP-11	HORIZONTAL	4360	0.26	85.4	115.0	75	63	57	54	127.8	72	1	99	90	102	12.80	25	50	43	14.30	23	30	480	3	11.2	3.8	CLIMATE MASTER	SE-120	700.00	ALL
WSHP-12	HORIZONTAL	4450	0.22	86.0	115.0	75	63	57	54	128.0	72	1	99	90	102	12.80	25	50	43	14.30	23	30	480	3	11.2	3.8	CLIMATE MASTER	SE-120	700.00	ALL
WSHP-14	HORIZONTAL	1200	0.43	24.3	35.5	75	63	56.3	52.6	37.3	72	1	101	90	102	4.00	8	50	42	4.00	17	25	277	1	15	4.8	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-15	HORIZONTAL	3800	0.11	73.6	94.7	75	63	57	54	104.0	72	1	97	90	102	10.40	20	50	42	12.60	16	20	480	3	12.4	4.2	CLIMATE MASTER	SE-096	645.00	ALL
WSHP-16	HORIZONTAL	1975	0.38	45.7	58.5	75	63	53	52	57.0	72	1	100	90	102	6.10	13	50	43	7.80	16	20	480	3	14.5	4.4	CLIMATE MASTER	SE-060	475.00	ALL
WSHP-17	HORIZONTAL	1975	0.38	45.7	58.5	75	63	53	52	57.0	72	1	100	90	102	6.10	13	50	43	7.80	16	20	480	3	14.5	4.4	CLIMATE MASTER	SE-060	475.00	ALL
WSHP-18	HORIZONTAL	2100	0.28	51.4	68.4	75	63	52	51	64.0	72	1	100	90	101	8.70	15	50	44	10.80	16	20	480	3	13.3	3.7	CLIMATE MASTER	SE-072	475.00	ALL
WSHP-19	HORIZONTAL	2100	0.32	51.4	68.4	75	63	52	51	64.0	72	1	100	90	101	8.70	15	50	44	10.80	16	20	480	3	13.3	3.7	CLIMATE MASTER	SE-072	475.00	ALL
WSHP-20	HORIZONTAL	1190	0.44	24.2	35.6	75	63	56.2	52.5	37.2	72	1	101	90	102	4.00	8	50	42	4.60	16	25	277	1	15.1	4.8	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-21	HORIZONTAL	1215	0.41	24.4	35.6	75	63	56.4	52.7	37.4	72	1	101	90	102	4.00	8	50	42	4.60	16	25	277	1	15	4.8	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-23	HORIZONTAL	1100	0.34	23.4	35.1	75	63	55.3	51.7	36.7	72	1	103	90	102	4.00	8	50	42	4.60	16	25	277	1	15.3	4.7	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-25	HORIZONTAL	2945	0.22	64.8	92.2	75	63	55	52	99.0	72	1	103	90	102	10.40	20	50	42	12.60	16	20	480	3	12.4	4.2	CLIMATE MASTER	SE-096	645.00	ALL
WSHP-29	HORIZONTAL	1500	0.20	32.3	46.2	75	63	55	52	48.0	72	1	102	90	101	4.40	10	50	42	4.80	16	20	480	3	14.3	4.3	CLIMATE MASTER	SE-048	450.00	ALL
WSHP-30	HORIZONTAL	1250	0.32	24.7	35.7	75	63	56.7	53	37.6	72	1	100	90	102	4.00	8	50	42	4.60	16	25	277	1	14.9	4.9	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-32	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.60	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-33	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.60	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-34	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.60	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-35	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.60	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-36	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.60	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-37	HORIZONTAL	1250	0.32	24.7	35.7	75	63	56.7	53	37.6	72	1	100	90	102	4.00	8	50	42	4.60	16	25	277	1	14.9	4.9	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-39	HORIZONTAL	960	0.48	22.2	34.6	75	63	53.6	50	35.9	72	1	107	90	101	4.00	8	50	42	4.60	16	25	277	1	15.7	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-40	HORIZONTAL	800	0.30	17.1	23.7	75	63	55	52.6	24.0	72	1	100	90	102	0.80	5	50	42	1.20	14	20	277	1	13.8	4.5	CLIMATE MASTER	SE-024	298.00	ALL
WSHP-41	HORIZONTAL	800	0.30	17.1	23.7	75	63	55	53	24.0	72	1	100	90	102	0.80	5	50	42	1.20	14	20	277	1	13.8	4.5	CLIMATE MASTER	SE-024	298.00	ALL
WSHP-42	HORIZONTAL	800	0.30	17.1	23.7	75	63	55	53	24.0	72	1	100	90	102	0.80	5	50	42	1.20	14	20	277	1	13.8	4.5	CLIMATE MASTER	SE-024	298.00	ALL
WSHP-43	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.60	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-44	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.60	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-45	HORIZONTAL	900	0.54	21.6	34.4	75	63	52.7	49.1	35.5	72	1	109	90	101	4.00	8	50	43	4.00	16	25	277	1	15.8	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-46	HORIZONTAL	1250	0.32	24.7	35.7	75	63	56.7	53	37.6	72	1	100	90	102	4.00	8	50	42	4.60	16	25	277	1	14.9	4.9	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-48	HORIZONTAL	960	0.48	22.2	34.6	75	63	53.6	50	35.9	72	1	107	90	101	4.00	8	50	42	4.60	16	25	277	1	15.7	4.6	CLIMATE MASTER	SE-036	360.00	ALL
WSHP-49	HORIZONTAL	800	0.30	17.1	23.7	75	63	55	53	24.0	72	1	100	90	102	0.80	5	50	42	1.20	14	20	277	1	13.8	4.5	CLIMATE MASTER	SE-024	298.00	ALL
WSHP-50	HORIZONTAL	800	0.30	17.1	23.7	75	63	55	53	24.0	72	1	100	90	102	0.80	5	50	42	1.20	14	20	277	1	13.8	4.5	CLIMATE MASTER	SE-024	298.00	ALL
WSHP-51	HORIZONTAL	800	0.30	17.1	23.7	75	63	55	53	24.0	72	1	100	90	102	0.80	5	50	42	1.20	14	20	277	1	13.8	4.5	CLIMATE MASTER	SE-024	298.00	ALL

GENERAL NOTES:
 1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
 2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.
 REMARKS:
 1. UNIT CAPACITIES ARE BASED ON THE ENTERING AIR AND WATER CONDITIONS IN SCHEDULE.
 2. MC TO PROVIDE DISCONNECT. EC TO INSTALL DISCONNECT. COORDINATE WITH EC.
 3. FIELD VERIFY UNIT



2 **3D Mech from SE**
Scale:

1 **3D Mech from NE**
Scale:



3 **MECH ROOM SECTION**
Scale: 1/4" = 1'-0"

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