April 25, 2023

ADDENDUM NUMBER ONE (1)

Project: City of Gluckstadt Police Station and Municipal Court
City of Gluckstadt
PN: 22093

FROM: Dean Architecture, P.A.
661 Sunnybrook Road, Suite 140
Ridgeland, MS 39157
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The following additions, changes, clarifications and/or substitutions to the Project Drawings as indicated, are hereby made a part of the Contract Documents. Acknowledge receipt of this Addendum by inserting its number and date in the Proposal Form where indicated.

Architectural Specifications:

Item #1: Section 012100 – Allowances, as follows:

Replace in its entirety.

Item #2: Section 015213 – Field Offices and Sheds, as follows:

Replace in its entirety.

Item #3: Section 081113 – Hollow Metal Doors and Frames, as follows:

Replace in its entirety.

Item #4: Section 081416 – Flush Wood Doors, as follows:

Replace in its entirety.

Item #5: Section 084313 – Metal-Framed Storefronts and Windows, as follows:

Replace in its entirety

Refer to Architectural Drawings:

Item #1: Sheet A001, replace in its entirety.

Item #2: Sheet A002, replace in its entirety.

Item #3: Sheet A101.1, replace in its entirety.

Item #4: Sheet A101.2, replace in its entirety.

Item #5: Sheet A102, replace in its entirety.

Item #6: Sheet A103, replace in its entirety.

Item #7: Sheet A601, replace in its entirety.

Item #8: Sheet A901, replace in its entirety.

Mechanical

SEE ATTACHED MECHANICAL ITEMS PROVIDED BY HESM&A CONSULTING ENGINEERS

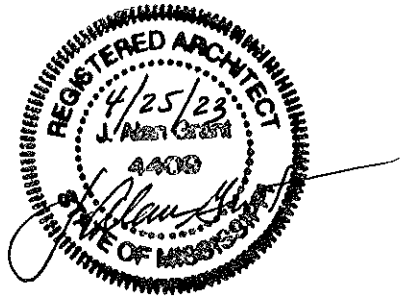
Electrical

SEE ATTACHED ELECTRICAL ITEMS PROVIDED BY THE POWER SOURCE

END OF ADDENDUM NUMBER TWO (2)

Dean Architecture, P.A.

J. Alan Grant, AIA, Principal



PLEASE ATTACH THIS ADDENDUM TO THE INSIDE FRONT COVER OF EACH SET OF SPECIFICATIONS.

SECTION 012100
ALLOWANCES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Cash allowances.

B. Contingency allowance.

C. Payment and modification procedures relating to allowances.

1.02 RELATED REQUIREMENTS

A. Section 012000 - PRICE AND PAYMENT PROCEDURES: Additional payment and modification procedures.

1.03 CASH ALLOWANCES

A. Costs Included in Cash Allowances: Cost of product to Contractor or subcontractor, less applicable trade discounts, less cost of delivery to site, less applicable taxes.

B. Costs Not Included in Cash Allowances and included in the Contract Sum: Product handling at the site, including unloading, uncrating, and storage; protection of products from elements and from damage; and labor for installation and finishing..

C. Architect Responsibilities:
   1. Consult with Contractor for consideration and selection of products, suppliers, and installers.
   2. Select products in consultation with Owner and transmit decision to Contractor.

D. Contractor Responsibilities:
   1. Assist Architect in selection of products, suppliers, and installers.
   2. Obtain proposals from suppliers and installers and offer recommendations.
   3. On notification of which products have been selected, execute purchase agreement with designated supplier and installer.
   4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
   5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.

E. Differences in costs will be adjusted by Change Order.

1.04 CONTINGENCY ALLOWANCE

A. At closeout of Contract, funds remaining in Contingency Allowance will be credited to Owner by Change Order.

1.05 ALLOWANCES SCHEDULE

A. Section 087100 - Hardware: Include the stipulated sum of $107,000.00 for purchase and delivery to job site of Door Hardware. Installation to be included in base bid as per Section 087100 Door Hardware. Refer to additional notes on Sheet A601.

B. Section 101400 - Signage: Include the stipulated sum of $25,000 for purchase, delivery, and installation of signage. Design and Installation of all signs to be performed by signage supplier of the Owner's choice.

C. Section 260511 - Electrical: Include the stipulated sum of $15,000 for purchase and delivery of Courtroom AVL cableing, equipment, and installation. Allowance to include the purchase and installation of TV controller, wiring, speakers, amplifier, wireless handheld, wireless microphone, amplifier rack, and cabeling for connections. TVs and Mounting brackets to be purchased and installed per Section 112013 - Commercial Equipment and Appliances.

D. Contingency Allowance: Include the stipulated sum/price of $75,000.00 for use upon Owner's instructions. Contingency Allowance is only to be spend upon the approval of Owner and Architect.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 015213
FIELD OFFICES AND SHEDS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Temporary field offices for use of Contractor.

B. Maintenance and removal.

1.02 RELATED REQUIREMENTS

A. Section 015000 - TEMPORARY FACILITIES AND CONTROLS:

B. Section 015000: Parking and access to field offices.

1.03 USE OF PERMANENT FACILITIES

A. When permanent facilities are enclosed with operable utilities, relocate offices into building, with written agreement of Owner, and remove temporary buildings.

PART 2 PRODUCTS

2.01 MATERIALS, EQUIPMENT, FURNISHINGS

A. Materials, Equipment, Furnishings: Serviceable, new or used, adequate for required purpose.

2.02 CONSTRUCTION

A. Portable or mobile buildings, or buildings constructed with floors raised above ground, securely fixed to foundations, with steps and landings at entrance doors.

B. Construction: Structurally sound, secure, weather tight enclosures for office. Maintain during progress of Work; remove when no longer needed.

C. Fire Extinguishers: Appropriate type fire extinguisher at each office.

2.03 ENVIRONMENTAL CONTROL

A. Heating, Cooling, and Ventilating: Automatic equipment to maintain comfort conditions.

2.04 CONTRACTOR OFFICE AND FACILITIES

A. Size: Sized appropriately for Contractor's personnel and job site OAC meetings.
   1. Utlities, furnishings, and equipment provided by contractor for their specific needs.
   2. Cost: Contractor to provide their own office facility

B. Furnishings in Meeting Area: Conference table and chairs to seat at least eight persons; racks and files for Contract Documents, submittals, and project record documents.

C. Other Furnishings: Contractor's option.

PART 3 EXECUTION

3.01 PREPARATION

A. Fill and grade sites for temporary structures to provide drainage away from buildings.

3.02 INSTALLATION

A. Install office spaces ready for occupancy 15 days after date fixed in Notice to Proceed.

3.03 MAINTENANCE AND CLEANING

A. Maintain approach walks free of mud, water, and snow.

3.04 REMOVAL

A. At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.

END OF SECTION

SECTION 081113
HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Non-fire-rated hollow metal doors and frames.

B. Hollow metal frames for wood doors.

C. Fire-rated hollow metal doors and frames.

D. Commercial security hollow metal doors and frames.

E. Detention security hollow metal doors and frames.

F. Bullet-resistant hollow metal doors and frames.

G. Accessories, including glazing, louvers, and matching panels.

1.02 RELATED REQUIREMENTS

A. Section 087100 - Door Hardware.

B. Section 088000 - Glazing: Glass for doors and borrowed lites.

C. Section 099000 - Painting and Coating

1.03 REFERENCE STANDARDS

A. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2011.

B. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2014.

C. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2011.

D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.

E. NAAMM HMMA 840 - Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames; 2007.

F. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames; 2006.

G. SDI 117 - Manufacturing Tolerances for Standard Steel Doors and Frames; 2013.

H. UL 752 - Standard for Bullet-Resisting Equipment; Current Edition, Including All Revisions.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced grade standard.

C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and identifying location of different finishes, if any.

D. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.

E. Manufacturer's Qualification Statement.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years documented experience.

B. Maintain at project site copies of reference standards relating to installation of products specified.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Hollow Metal Doors and Frames:
   1. Ceco Door Products: www.cecodoor.com.
   2. Republic Doors: www.republicdoor.com.
   3. Steelcraft: www.steelcraft.com.
   4. Substitutions: See Section 016000 - PRODUCT REQUIREMENTS.

B. Bullet-Resistant, Commercial Security, and Detention Security Hollow Metal Doors and Frames:
   1. Fleming Door Products, an Assa Abloy Group company; : www.assaabloydss.com/#sle.
   2. Republic Doors, an Allegion brand; : www.republicdoor.com/#sle.
   3. Substitutions: See Section 016000 - PRODUCT REQUIREMENTS.

2.02 PERFORMANCE REQUIREMENTS

A. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.03 HOLLOW METAL DOORS

A. Exterior Doors: Thermally insulated.
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 1 - Standard-duty.
      b. Physical Performance Level C, 250,000 cycles; in accordance with ANSI/SDI A250.4.
      c. Model 1 - Full Flush.
      d. Door Face Metal Thickness: 16 gage, 0.053 inch (1.3 mm), minimum.
   2. Door Core Material: Manufacturers standard core material/construction and in compliance with requirements.
   3. Door Thickness: 1-3/4 inch (44.5 mm), nominal.
   4. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with manufacturer's standard coating thickness.
   5. Weatherstripping: Refer to Section 087100.
   6. Exterior doors to be seemless with closed and watertight tops.
   7. Provide Peep Hole and Detention Grade Wire Glass at door locations as noted in drawings.

B. Commercial Security, Detention Security, and Bullet-Resistant Doors; Interior and Exterior:
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 2 - Heavy-duty.
      b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
      c. Model 1 - Full Flush.
      d. Door Face Metal Thickness: 16 gage, 0.053 inch (1.3 mm), minimum.
      e. Provide 14 gage door at doors 147A, 148A, 154A, 155A, and 156A
   2. Bullet Resistance: UL 752, Threat Level Rating - Level 7.
   3. Door Core Material: Manufacturers standard core material/construction in compliance with requirements.
   4. Door Thickness: As required to meet requirements indicated.
   5. Door Finish: Factory primed and field finished.

6. Hinge Rail and Reinforcement: Non-beveled edge, reinforced with continuous steel channel, 12 gage, 0.093 inch (2.3 mm) minimum metal thickness, welded at 5 inch (127 mm) on center maximum, and compatible with 4-1/2 inch (114 mm) full mortise template and continuous geared hinges.
7. Provide Detention Grade Wire Glass at door locations as noted in drawings.

2.04 HOLLOW METAL FRAMES

A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.

B. General:
   1. Comply with the requirements of grade specified for corresponding door.
      a. Frames for Wood Doors: Comply with frame requirements in accordance with ANSI/SDI A250.8 (SDI-100), Level 1, 18 gage, 0.042 inch (1.0 mm), minimum thickness.
      b. Frames for Exterior Steel Doors: Comply with frame requirements specified in ANSI A250.8 for Level 3, 14 gage.
   2. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.
   3. Doors noted to have electronic strikes, frames (interior and exterior) to be prepped to receive power, communications, and electronic strike device. Refer to Section 087100 - Hardware for schedule.

C. Exterior Door Frames: Face welded, seamless with joints filled.
   1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A40/ZF120 coating.
   2. Frame Finish: Factory primed and field finished.
   3. Weatherstripping: Separate, see Section 087100.

D. Interior Door Frames, Non-Fire Rated: Knockdown type.
   1. Frame Finish: Factory primed and field finished.

E. Door Frames, Fire-Rated: Knock-down type.
   1. Fire Rating: Same as door, labeled.
   2. Frame Finish: Factory finished.

F. Bullet-Resistant Door Frames: Comply with UL 752, with same level of bullet resistance as door; face welded construction, ground smooth, fully prepared and reinforced for hardware installation.
   1. Frame Finish: Factory primed and field finished.

G. Commercial and/or Detention Security-Resistant Door Frames: With same security resistance as door; face welded or full profile/continuously welded construction, ground smooth, fully prepared and reinforced for hardware installation.
   1. Frame Metal Thickness: 14 gauge, 0.067 inch (1.7 mm), minimum.
   2. Provide 12 gauge frames for doors 147A, 148A, 154A, 155A, and 156A
   3. Frame Finish: Factory primed and field finished.

2.05 FINISHES

A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

2.06 ACCESSORIES

A. Louvers: Roll formed steel with overlapping frame; finish same as door components; factory-installed.

B. Glazing: As specified in Section 088000, factory installed.
   1. Provide detention grade glazing to meet same requirements of security and bullet resistance as door and frame.

C. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.

D. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that opening sizes and tolerances are acceptable.

C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 INSTALLATION

A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.

B. Coordinate frame anchor placement with wall construction.

C. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.

D. Install door hardware as specified in Section 087100.

E. Comply with glazing installation requirements of Section 088000.

F. Coordinate installation of electrical connections to electrical hardware items.

G. Touch up damaged factory finishes.

3.03 TOLERANCES

A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.

B. Maximum Diagonal Distortion: 1/16 inch (1.6 mm) measured with straight edge, corner to corner.

3.04 ADJUSTING

A. Adjust for smooth and balanced door movement.

3.05 SCHEDULE

A. Refer to Door and Frame Schedule on the drawings.

B. Refer to Hardware Schedule in Section 087100 - Hardware.

END OF SECTION

SECTION 081416
FLUSH WOOD DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Flush wood doors; flush and flush glazed configuration; fire rated, non-rated, acoustical, and bullet resistant.

1.02 RELATED REQUIREMENTS

A. Section 081113 - Hollow Metal Doors and Frames.

B. Section 087100 - Door Hardware.

C. Section 088000 - Glazing.

1.03 REFERENCE STANDARDS

A. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2009.

B. ASTM E413 - Classification for Rating Sound Insulation; 2010.

C. AWI/AWMAC (QSI) - Architectural Woodwork Quality Standards Illustrated; Architectural Woodwork Institute and Architectural Woodwork Manufacturers Association of Canada; 2005, 8th Ed., Version 2.0.

D. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2016.

E. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.

F. UL 752 - Standard for Bullet-Resisting Equipment; Current Edition, Including All Revisions.

G. UL 1784 - Standard for Air Leakage Tests of Door Assemblies; Current Edition, Including All Revisions.

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.

C. Specimen warranty.

D. Test Reports: Show compliance with specified requirements for the following:
   1. Sound-retardant doors and frames; sealed panel tests are not acceptable.
   2. Bullet resistant doors and frames.

E. Shop Drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required, special beveling, special blocking for hardware, factory machining criteria, factory finishing criteria, identify cutouts for glazing and louvers.

F. Samples: Submit two samples of door construction, 12 by 12 inch (mm) in size cut from top corner of door.

G. Samples: Submit two samples of door veneer, 12 x12 inch (mm) in size illustrating factory applied finish for wood grain, stain color, and sheen.

H. Manufacturer's Installation Instructions: Indicate special installation instructions.

I. Warranty, executed in Owner's name.

1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.

B. Installed Fire Rated Door Assembly: Conform to NFPA 80 for fire rated class as indicated.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Package, deliver and store doors in accordance with specified quality standard.

B. Accept doors on site in manufacturer's packaging. Inspect for damage.

C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges with tinted sealer if stored more than one week. Break seal on site to permit ventilation.

1.07 PROJECT CONDITIONS

A. Coordinate the work with door opening construction, door frame and door hardware installation.

1.08 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty reuquirements.

B. Interior Doors: Provide manufacturer's warranty for the life of the installation.

C. Provide warranty for the following term:
   1. Interior Doors: Life of installation.

D. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Wood Veneer Faced Doors:
   1. Graham Wood Doors: www.grahamdoors.com.
   2. Eggers Industries: www.eggersindustries.com/#sle.
   3. Marshfield DoorSystems, Inc: www.marshfielddoors.com/#sle.
   4. VT Industries: www.vtindustries.com
   5. Substitutions: See Section 016000 - PRODUCT REQUIREMENTS.

B. Sound-Rated Wood Doors:
   1. Masonite Architectural; Acoustically-Rated Door Solutions: www.architectural.masonite.com/#sle.
   2. Overly Door Company; : www.overly.com/#sle.
   3. Substitutions: See Section 016000 - PRODUCT REQUIREMENTS.

C. Bullet Resistant Wood Doors:
   1. Overly Door Company: www.overly.com/#sle.
   2. Graham Wood Doors; www.grahamdoors.com.
   3. Substitutions: See Section 016000 - PRODUCT REQUIREMENTS.

2.02 DOORS

A. Doors: Refer to drawings for locations and additional requirements.
   1. Quality Level: Custom Grade, in accordance with AWI/AWMAC Architectural Woodwork Quality Standards Illustrated, Section 13000.
   2. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.

B. Interior Doors: 1-3/4 inches (44 mm) thick unless otherwise indicated; flush construction.
   1. Provide solid core doors at each location.
   2. Fire Rated Doors: Tested to ratings indicated on drawings in accordance with UL 10C - Positive Pressure; Underwriters Laboratories Inc (UL) or Intertek/Warnock Hersey (WHI) labeled without any visible seals when door is open.
   3. Smoke and Draft Control Doors (Indicated as "S" on Drawings): In addition to required fire rating, provide door assemblies tested in accordance with UL 1784 with maximum air leakage of 3.0 cfm per sq ft (0.01524 cu m/s/sq m) of door opening at 0.10 inch wg (24.9 Pa) pressure at both ambient and elevated temperatures for "S" label; if necessary, provide additional gasketing or edge sealing.
   4. Sound-Rated Doors: Minimum STC of 56, calculated in accordance with ASTM E413, tested in accordance with ASTM E90.

a. Provide sound seals at head, jamb, and floor condition.
5. Bullet Resistant Doors: UL 752, Level 7 - match adjacent wall in protection.
6. Wood veneer facing with factory transparent stained finish .

2.03 DOOR AND PANEL CORES

A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.

B. Fire-Rated Doors: Mineral core type, with fire resistant composite core (FD), plies and faces as indicated above; with core blocking as required to provide adequate anchorage of hardware without through-bolting.

C. Sound-Rated Doors: Equivalent to type, with particleboard core (PC) construction as required to achieve STC rating specified; plies and faces as indicated above.

D. Bullet Resistant Doors: Equivalent to type, with bonded particleboard core (PC); rating; plies and faces as indicated above.

2.04 DOOR FACINGS

A. Veneer Facing for Transparent Finish: White Maple, veneer grade in accordance with quality standard indicated, plain sliced (flat cut), with book match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.
1. Vertical Edges: Same species as face veneer.

2.05 ACCESSORIES

A. Glazing: As specified in Section 088000 - Glazing.

B. Glazing Stops: Wood, of same species as door facing, mitered corners; prepared for countersink style fasteners.

C. Astragals for Fire Rated Double Doors: Steel, T shaped, overlapping and recessed at face edge, specifically for double doors.

D. Provide sound seals at head, jamb, and floor condition in doors129A, 130A, 163A, and 163B.

2.06 DOOR CONSTRUCTION

A. Fabricate doors in accordance with door quality standard specified.

B. Cores Constructed with stiles and rails:

C. Provide solid blocks at lock edge for hardware reinforcement.
1. Provide solid blocking for other throughbolted hardware.

D. Fit door edge trim to edge of stiles after applying veneer facing.

E. Fit door edge trim to edge of stiles after applying veneer facing.

F. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.

G. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.

H. Provide edge clearances in accordance with the quality standard specified.

2.07 FACTORY FINISHING - WOOD VENEER DOORS

A. Factory finish doors in accordance with approved sample.
1. Color: As selected from Manufacturer's full range of colors.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that opening sizes and tolerances are acceptable.

C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.02 INSTALLATION

A. Install doors in accordance with manufacturer's instructions and specified quality standard.
   1. Install fire-rated doors in accordance with NFPA 80 requirements.
B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
C. Trim door height by cutting bottom edges to a maximum of 3/4 inch (19 mm).
D. Use machine tools to cut or drill for hardware.
E. Coordinate installation of doors with installation of frames and hardware.
F. Coordinate installation of glazing.

3.03 TOLERANCES

A. Comply with specified quality standard for fit and clearance tolerances.
B. Comply with specified quality standard for telegraphing, warp, and squareness.

3.04 ADJUSTING

A. Adjust doors for smooth and balanced door movement.
B. Adjust closers for full closure.

3.05 SCHEDULE

A. Refer to Door and Frame Schedule See Drawings.

END OF SECTION

SECTION 084313
METAL-FRAMED STOREFRONTS AND WINDOWS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Aluminum-framed storefront, with vision glass.

B. Infill panels of metal.

C. Aluminum doors and frames.

D. Weatherstripping.

E. Perimeter sealant.

1.02 RELATED REQUIREMENTS

A. Section 079005 - Joint Sealers: Perimeter sealant and back-up materials.

B. Section 087100 - Door Hardware: Hardware items other than specified in this section.

C. Section 088000 - Glazing: Glass and glazing accessories.

1.03 REFERENCE STANDARDS

A. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; 2015.

B. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2012.

C. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021a.

D. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2014.

E. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes [Metric]; 2013.

F. ASTM E283/E283M - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2019.

G. ASTM E283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2004 (Reapproved 2012).

H. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014.

I. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2009).

J. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2009).

K. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate with installation of other components that comprise the exterior enclosure.

1.05 PERFORMANCE REQUIREMENTS

A. Design and size components to withstand the following load requirements without damage or permanent set, when tested in accordance with ASTM E 330, using loads 1.5 times the design wind loads and 10 second duration of maximum load.

1. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.

B. Movement: Accommodate movement between storefront and perimeter framing and deflection of lintel, without damage to components or deterioration of seals.

C. Air Infiltration: Limit air infiltration through assembly to 0.06 cu ft/min/sq ft (0.3 L/s/sq m) of wall area, measured at a reference differential pressure across assembly of 1.57 psf (75 Pa) as measured in accordance with ASTM E 283.

D. Water Leakage: None, when measured in accordance with ASTM E 331 with a test pressure difference of 2.86 lbf/sq ft (140 Pa).

E. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.

F. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F (95 degrees C) over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.

1.06 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, and internal drainage details.

C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.

D. Design Data: Provide framing member structural and physical characteristics, engineering calculations, and dimensional limitations.

E. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.

F. Samples: Submit two samples 12 x 12 inches (mm) in size illustrating finished aluminum surface, glass, glazing materials.

G. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.

H. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.07 QUALITY ASSURANCE

A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State in which the Project is located.

B. Manufacturer and Installer Qualifications: Company specializing in manufacturing aluminum glazing systems with minimum 5 years of documented experience.

1.08 MOCK-UP

A. Work of this section to be included in the required mock-up wall as specified in Section 014000 - Quality Requirements.

B. Locate where directed. Locate mock up to receive Southern sun exposure for proper viewing and approval.

C. Approved mock-up shall remain until final acceptance of the project and shall serve as standard of quality for all masonry work.

D. Mock-up may not remain as part of the Work.

1.09 PRE-INSTALLATION MEETING

A. Convene one week before starting work of this section.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Handle products of this section in accordance with AAMA CW-10.

B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

1.11 FIELD CONDITIONS

A. Do not install sealants when ambient temperature is less than 40 degrees F (5 degrees C). Maintain this minimum temperature during and 48 hours after installation.

1.12 WARRANTY

A. See Section 017800 - Closeout Submittals, for additional warranty requirements.

B. Correct defective Work within a 1 year period after Date of Substantial Completion.

C. Provide 10 year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.

D. Provide 10 year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of DesignKawneer; Product Trifab VG 451T, and Tuffline 350 series doors and frames). Locations as noted on drawings.

B. Aluminum-Framed Storefront and Doors:
   1. Kawneer North America: www.kawneer.com/#sle.
   2. United States Aluminum Corp: www.usalum.com.
   3. Oldcastle Building Envelope: www.oldcastlebe.com/#sle.
   4. YKK AP America Inc: www.ykkap.com.
   5. Substitutions: See Section 016000 - PRODUCT REQUIREMENTS.

2.02 STOREFRONT

A. TRIFAB VG 451T: Aluminum-Framed Storefront, Windows and Frames: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
   1. Glazing Position: Centered (front to back).
   2. Mullion Dimensions: 2 inches wide by 4-1/2 inches deep (50 mm wide by 114 mm deep).
   3. Water Leakage Test Pressure Differential:.059 lbf/sq ft (2.86 Pa).
   4. Air Infiltration Test Pressure Differential: 1.57 psf (75 Pa).
   5. Finish: Class I color anodized.
      a. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.
   6. Finish Color: Black Anondized.
   7. Location: As noted on drawings.
   8. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
   9. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
   10. Glass Stop: Provide glass stop for 1/4" glazing at interior locations as located and detailed in drawings.

B. Performance Requirements:
   1. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
      a. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.

2. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 8 psf (390 Pa).
3. Air Leakage: 0.06 cfm/sq ft (0.3 L/sec sq m) maximum leakage of storefront wall area when tested in accordance with ASTM E283/E283M at 1.57 psf (75 Pa) pressure difference.
4. Air Infiltration: Limit air infiltration through assembly to 0.06 cu ft/min/sq ft (0.3 L/s/sq m) of wall area, measured at specified differential pressure across assembly in accordance with ASTM E283.

2.03 COMPONENTS

A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
1. Framing members for interior applications need not be thermally broken. Locations as noted in drawings.
2. Glazing Stops: Flush.
3. Cross-Section: As indicated on drawings.
4. Structurally Reinforced Members: Extruded aluminum with internal reinforcement of structural steel member. As required by faming manufacturer.

B. Glazing: As specified in Section 088000.

C. Infill Panels: Insulated, aluminum, with edges formed to fit glazing channel and sealed.
1. Total Nominal Thickness: 1 inch (25.4 mm).
2. Core: Rigid expanded polystyrene insulation core with R-value of 19 (RSI-value of).
3. Reinforcement Layer: Manufacturer's standard reinforced thermoset plastic.
4. Finish: Same as storefront.
5. Products:
a. Nudo Products, Inc; Endurex 500: www.nudo.com/#sle.
b. Substitutions: See Section 016000 - PRODUCT REQUIREMENTS.

D. Swing Doors: Glazed aluminum.
1. Thickness: 2 inches (50 mm).
2. Frame: Door frame moldings 4 1/2" in depth, which provide structural support for the doors, shall be full tubular sections with minimum wall thicknesses of 3/16" at exposed faces and sides, 5/16" at recessed sidewalls receiving mortised or concealed hardware.
3. Top Rail: 8 inches (203 mm) wide.
4. Vertical Stiles: 6 inches (152 mm) wide.
5. Bottom Rail: 10 inches (254 mm) wide.
6. Glazing Stops: Beveled.
7. Finish:
a. Interior Doors: Match Storefront finish.
b. Exterior Doors: Match Storefront finish.

2.04 MATERIALS

A. Extruded Aluminum: ASTM B221 (ASTM B221M).

B. Sheet Aluminum: ASTM B209/B209M.

C. Fasteners: Stainless steel.

D. Perimeter Sealant: Type 2 specified in Section 079005.

E. Glass: As specified in Section 088000.

F. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

G. Touch-Up Primer for Galvanized Steel Surfaces: SSPC-Paint 20, zinc rich.

2.05 FINISHES

A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A42 Integrally colored anodic coating not less than 0.7 mils (0.018 mm) thick.

B. Color: Black Anodized.

C. Touch-Up Materials: As recommended by coating manufacturer for field application.

2.06 HARDWARE

A. Other Door Hardware: See Section 087100.

B. Exterior filler panel: Filler panels as shown and detailed in drawings to be same material and finish as aluminum window system.

C. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.

D. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.

E. Threshold: Extruded aluminum, one piece per door opening, ribbed surface; provide on all doors.

F. Hinges: Single acting continuous hinge.
   1. Provide on all doors.

G. Push/Pull Set: As specified in Section 087100 Door Hardware

H. Exit Devices: Von Duprin 98 Series with concealed rod.
   1. Provide on doors as indicated.
   2. Provide electrified panics and coordinate requirements with access control vendor. Provide on doors 100A and 100B.

I. Closers: LCN 4040 Heavy Duty.
   1. Provide on doors as indicated.

J. Locks: Dead latch with keyed cylinder inside; keyed cylinder outside.
   1. Provide on doors as indicated.

K. Access Control: Provide access control per electrical sections on doors as indicated in schedule.

L. Automatic Door Operators and Actuators: Install at entrances doors 100A and 100B. Provide button on exterior and interior to operate one leaf in each set.

2.07 FABRICATION

A. Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.

B. Accurately fit and secure joints and corners. Make joints flush, hairline, and weatherproof.

C. Prepare components to receive anchor devices. Fabricate anchors.

D. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.

E. Arrange fasteners and attachments to conceal from view.

F. Reinforce framing members for imposed loads.

G. Finishing: Apply factory finish to all surfaces that will be exposed in completed assemblies.
   1. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify dimensions, tolerances, and method of attachment with other work.

B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.02 INSTALLATION

A. Install wall system in accordance with manufacturer's instructions.

B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.

C. Provide alignment attachments and shims to permanently fasten system to building structure.

D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.

E. Provide thermal isolation where components penetrate or disrupt building insulation.

F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.

G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.

H. Coordinate attachment and seal of perimeter air and vapor barrier materials.

I. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

J. Set thresholds in bed of sealant and secure.
   1. Install hardware using templates provided.

K. Install glass and infill panels in accordance with Section 088000, using glazing method required to achieve performance criteria.

L. Install perimeter sealant in accordance with Section 079005.

M. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.03 TOLERANCES

A. Maximum Variation from Plumb: 0.06 inch per 3 feet (1.5 mm per m) non-cumulative or 0.06 inch per 10 feet (1.5 mm per 3 m), whichever is less.

B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch (0.8 mm).

3.04 FIELD QUALITY CONTROL

3.05 ADJUSTING

A. Adjust operating hardware and sash for smooth operation.

3.06 CLEANING

A. Remove protective material from pre-finished aluminum surfaces.

B. Remove excess sealant by method acceptable to sealant manufacturer.

3.07 PROTECTION

A. Protect installed products from damage until Date of Substantial Completion.

END OF SECTION

April 25, 2023

ADDENDUM NUMBER TWO (2)

PROJECT: City of Gluckstadt
Police Station and Municipal Court
Gluckstadt, MS
Project No. 22093

FROM: HESM&A Consulting Engineers
1 Woodgreen Place, Suite 210
Madison, Mississippi 39110
Phone: (601) 856-5138
Fax: (601) 856-5331

The following additions, changes, clarifications and substitutions to the specifications and drawings are to be included as part of the contract documents. Changes made by addenda shall take precedence over documents of an earlier date. Acknowledge receipt of this addendum by inserting its number and date in the proposal form where indicated.

MECHANICAL DRAWINGS

ITEM 1: Clarification – Contractor shall reference Architectural Reflected Ceiling Plan on sheet A102 for exact location of grilles, registers, and diffusers.

ITEM 2: Reference Plumbing Floor Plan on sheet P202 – Add gas piping to serve unit heater (UH-1) in Sallyport as shown on attached revised drawing.

ITEM 3: Reference Plumbing Roof Plan on sheet P203 – Add gas piping to serve unit heater (UH-1) in Sallyport as shown on attached revised drawing.

END OF ADDENDUM TWO

SECTION 263215
DIESEL GENERATOR SETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes packaged engine-generator sets suitable for use in applications with the features as specified and indicated where the engine generators will be used as the Standby power source for the system.

1.3 DEFINITIONS

A. Emergency Standby Power (ESP): Per ISO 8528: The maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output (Ppp) over 24 hours of operation shall not exceed 70 percent of the ESP unless otherwise agreed by the RIC engine manufacturer.

B. Operational Bandwidth: The total variation from the lowest to highest value of a parameter over the range of conditions indicated, expressed as a percentage of the nominal value of the parameter.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of packaged engine generator indicated. Include rated capacities, operating characteristics, and furnished specialties and accessories. In addition, include the following:

1. Thermal damage curve for generator.
2. Time-current characteristic curves for generator protective device.
3. Sound test data, based on a free field requirement.
4. Computer generated Recommended Generator Sizing Report.

B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, and location and size of each field connection.

1. Dimensioned outline plan and elevation drawings of engine-generator set and other components specified.

2. Wiring Diagrams: Control interconnection, Customer connections.

C. Certifications:

1. Submit statement of compliance which states the proposed product(s) is certified to the emissions standards required by the location for EPA, stationary emergency application.

2. Submit statement of compliance which states the proposed product(s) are seismically certified in compliance with local requirements signed and sealed by a qualified professional engineer.

1.5 INFORMATIONAL SUBMITTALS

A. Manufacturer Seismic Qualification Certification: Submit certification that the engine-generator set and components will withstand seismic forces defined in Division 26 Section "Vibration and Seismic Controls for Electrical Systems." Include the following:

1. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.

2. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

B. Source quality-control test reports.

1. Certified summary of prototype-unit test report. See requirements in Part 2 "Source Quality Control" Article Part A. Include statement indicating torsional compatibility of components.

2. Certified Test Report: Provide certified test report documenting factory test per the requirements of this specification, as well as certified factory test of generator set sensors per NFPA110 level 1.

3. Report of exhaust emissions and compliance statement certifying compliance with applicable regulations.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

B. Manufacturer Qualifications: A ISO 9001 qualified manufacturer. Maintain, within 125 miles of Project site, a service center capable of providing training, parts, and emergency maintenance repairs.

C. Source Limitations: Obtain packaged generator sets and auxiliary components through one source from a single manufacturer.

D. Comply with NFPA 37 (Standard For the Installation and Use of Stationary Combustion Engines and Gas Turbines).

E. Comply with NFPA 70 (National Electrical Code. Equipment shall be suitable for use in systems in compliance to Article 700, 701, and 702).

F. Comply with NFPA 110 (Emergency and Standby Power Systems) requirements for Level 1 emergency power supply system.

G. Must be UL 2200.

H. The Standby Emergency Generator manufacturer shall be certified to ISO 9001 International Quality Standard and shall have third party certification verifying quality assurance in design/development, production, installation, and service, in accordance with ISO 9001.

1.7 WARRANTY

A. Base Warranty: Manufacturer shall provide base warranty coverage on the material and workmanship of the generator set for a minimum of twenty-four (24) months for Standby product and twelve (12) months for Prime/Continuous product from registered commissioning and start-up.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: The basis for this specification is Cummins Power Generation equipment Model C175D6D, approved equals may be considered if equipment performance is shown to meet the requirements herein.

B. Quoted products shall meet the following;

1. Engine must be Minimum 6 Cylinders, 1800RPM.
2. Gross Engine Power Output, minimum of 242 kWm, 324 BHP.
3. Alternator sKVA Rating, minimum of 791.

2.2 ENGINE-GENERATOR SET

A. Factory-assembled and -tested, engine-generator set.

B. Mounting Frame: Maintain alignment of mounted components without depending on concrete foundation; and have lifting attachments.

1. Rigging Information: Indicate location of each lifting attachment, generator-set center of gravity, and total package weight in submittal drawings.

C. Capacities and Characteristics:

1. Power Output Ratings: Electrical output power rating for Standby operation of not less than 175.0kW, at 80 percent lagging power factor, 120/208V, Three phase, 4 -wire, 60 hertz. Package to include a 100% rated output circuit breaker.

2. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of component. The engine-generator nameplate shall include information of the power output rating of the equipment.

D. Generator-Set Performance:

1. Steady-State Voltage Operational Bandwidth: 1.0 percent of rated output voltage from no load to full load.

2. Transient Voltage Performance: Not more than 20 percent variation for 50 percent step-load increase or decrease. Voltage shall recover and remain within the steady-state operating band within 5 seconds. On application of a 100% load step the generator set shall recover to stable voltage within 10 seconds.

3. Steady-State Frequency Operational Bandwidth: 0.5 percent of rated frequency from no load to full load.

4. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.

5. Transient Frequency Performance: Not more than 15 percent variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within 5 seconds. On application of a 100% load step the generator set shall recover to stable frequency within 10 seconds.

6. Output Waveform: At full load, harmonic content measured line to line or line to neutral shall not exceed 5 percent total and 3 percent for any single harmonic. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50.

7. Sustained Short-Circuit Current: (For engine-generator sets using a PMG-excited alternator) For a 3-phase, bolted short circuit at system output terminals, system shall supply a minimum of 300 percent of rated full-load current for not less than 8 seconds without damage to generator system components. For a 1-phase, bolted short circuit at system output terminals, system shall regulate both voltage and current to prevent over-voltage conditions on the non-faulted phases.

8. Start Time: Comply with NFPA 110, Level 1, Type 10, system requirements.

9. Ambient Condition Performance: Engine generator shall be designed to allow operation at full rated load in an ambient temperature under site conditions, based on highest ambient condition. Ambient temperature shall be as measured

at the air inlet to the engine generator for enclosed units, and at the control of the engine generator for machines installed in equipment rooms.

2.3 ENGINE

A. Fuel: Diesel

B. Rated Engine Speed: 1800RPM.

C. Lubrication System: The following items are mounted on engine or skid:

1. Lube oil pump: shall be positive displacement, mechanical, full pressure pump.

2. Filter and Strainer: Provided by the engine manufacturer of record to provide adequate filtration for the prime mover to be used.

3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.

D. Engine Fuel System: The engine fuel system shall be installed in strict compliance to the engine manufacturer's instructions

E. Coolant Jacket Heater: Electric-immersion type, factory installed in coolant jacket system. Comply with NFPA 110 requirements for Level 1 equipment for heater capacity and performance.

1. Designed for operation on a single 120 VAC, Single phase, 60Hz power connection. Heater voltage shall be shown on the project drawings.

2. Installed with isolation valves to isolate the heater for replacement of the element without draining the engine cooling system or significant coolant loss.

3. Coolant drain extended to outside of enclosure.

4. Provided with a 12VDC thermostat, installed at the engine thermostat housing

F. Governor: Adjustable isochronous, with speed sensing. The governing system dynamic capabilities shall be controlled as a function of engine coolant temperature to provide fast, stable operation at varying engine operating temperature conditions. The control system shall actively control the fuel rate as appropriate to the state of the engine generator. Fuel rate shall be regulated as a function of starting, accelerating to start disconnect speed, accelerating to rated speed, and operating in various isochronous states.

G. Cooling System: Closed loop, liquid cooled

1. The generator set manufacturer shall provide prototype test data for the specific hardware proposed demonstrating that the machine will operate at rated standby load in an indoor ambient condition of 54 deg C/129 deg F.

2. Coolant: Solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with anticorrosion additives as recommended by engine manufacturer.

3. Size of Radiator overflow tank: Adequate to contain expansion of total system coolant from cold start to 110 percent load condition.

4. Expansion Tank: Constructed of welded steel plate and rated to withstand maximum closed-loop coolant system pressure for engine used. Equip with gage glass and petcock.

5. Temperature Control: Self-contained, thermostatic-control valve modulates coolant flow automatically to maintain optimum constant coolant temperature as recommended by engine manufacturer.

6. Duct Flange: Generator sets installed indoors shall be provided with a flexible radiator duct adapter flange.

H. Muffler/Silencer: Selected with Critical sound level performance as required to meet sound requirements of the application, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.

I. Air-Intake Filter: Engine-mounted air cleaner with replaceable dry-filter element and restriction indicator.

J. Starting System: 12V, as recommended by the engine manufacturer; electric, with negative ground.

1. Components: Sized so they will not be damaged during a full engine-cranking cycle with ambient temperature at maximum specified in Part 1 "Project Conditions" Article.

2. Cranking Cycle: As required by NFPA 110 for level 1 systems.

3. Battery Cable: Size as recommended by engine manufacturer for cable length as required. Include required interconnecting conductors and connection accessories.

4. Battery Compartment: Factory fabricated of metal with acid-resistant finish.

5. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation. The battery charging alternator shall have sufficient capacity to recharge the batteries with all parasitic loads connected within 4 hours after a normal engine starting sequence.

6. Battery Chargers: Unit shall comply with UL 1236, provide fully regulated, constant voltage, current limited, battery charger for each battery bank. It will include the following features:

    a. Operation: Equalizing-charging rate based on generator set manufacturer's recommendations shall be initiated automatically after battery has lost charge until an adjustable equalizing voltage is achieved at battery terminals. Unit shall then be automatically switched to a lower float-charging mode and shall continue to operate in that mode until battery is discharged again.

    b. Automatic Temperature Compensation: Adjust float and equalize voltages for variations in ambient temperature from minus 20 deg C to plus 40 deg C to prevent overcharging at high temperatures and undercharging at low temperatures.

    c. Automatic Voltage Regulation: Maintain constant output voltage regardless of input voltage variations up to plus or minus 10 percent.

    d. Safety Functions: Sense abnormally low battery voltage and close contacts providing low battery voltage indication on control and monitoring panel. Sense high battery voltage and loss of ac input or dc output of battery charger. Either condition shall close contacts that provide a battery-charger malfunction indication at system control and monitoring panel.

    e. Provide LED indication of general charger condition, including charging, faults, and modes. Provide a LCD display to indicate charge rate and battery voltage. Charger shall provide relay contacts for fault conditions as required by NFPA110.

    f. Enclosure and Mounting: NEMA, Type 1, wall-mounted cabinet.

7. Sub-Base Fuel Tank: Provide double walled sub-base fuel tank with a minimum of 350 Gallons and 24hr capacity. Tank shall conform to standards for outdoor installation.
    a. Provide supply and return pickup tubes that extend to the bottom of the tank.
    b. Provide required emergency and normal vents.
    c. Provide lockable fuel cap.
    d. Provide Rupture basin alarm contact.
    e. Provide low level fuel contact.
    f. Installing Contractor shall fill tank to 100% prior to startup and refill after.

8. Outdoor Weather-Protective Sound Attenuated Enclosure

    The generator set shall be provided with an Aluminum outdoor enclosure, with the entire package listed under UL2200. The package shall comply with the requirements of the National Electrical Code for all wiring materials and component spacing. The total assembly of generator set, enclosure, shall be designed to be lifted into place using spreader bars. Housing shall provide ample

airflow for generator set operation at rated load in an ambient temperature of 100F. The housing shall have hinged access doors as required to maintain easy access for all operating and service functions. All doors shall be lockable, and include retainers to hold the door open during service. Enclosure roof shall be cambered to prevent rainwater accumulation. Openings shall be screened to limit access of rodents into the enclosure. All electrical power and control interconnections shall be made within the perimeter of the enclosure.

All sheet metal shall be primed for corrosion protection and finish coating with the manufacturer's standard color using a two-step electrocoating paint process, or equal meeting the performance requirements specified below. All surfaces of all metal parts shall be primed and painted. The painting process shall result in a coating that meets the following requirements:

Primer thickness, 0.5-2.0 mils. Top coat thickness, 0.8-1.2 mils.

Gloss, per ASTM D523-89, 80% plus or minus 5%. Gloss retention after one year shall exceed 50%.

Crosshatch adhesion, per ASTM D3359-93, 4B-5B.

Impact resistance, per ASTM D2794-93, 120-160 inch-pounds.

Salt Spray, per ASTM B117-90, 1000+ hours.

Humidity, per ASTM D2247-92, 1000+ hours.

Water Soak, per ASTM D2247-92, 1000+ hours.

Painting of hoses, clamps, wiring harnesses, and other non-metallic service parts shall not be acceptable. Fasteners used shall be corrosion resistant, and designed to minimize marring of the painted surface when removed for normal installation or service work.

A factory-mounted exhaust silencer shall be installed inside the enclosure. The exhaust shall exit the enclosure through a rain collar and terminate with a rain cap. Exhaust connections to the generator set shall be through seamless flexible connections.

Enclosure shall be insulated to reduce the average sound level to 73dBa at 23 feet.

The enclosure shall include the following maintenance provisions:

Flexible coolant and lubricating oil drain lines, that extend to the exterior of the enclosure, with internal drain valves

External radiator fill provision.

2.4 CONTROL AND MONITORING

A. Engine generator control shall be microprocessor based and provide automatic starting, monitoring, protection and control functions for the unit.

B. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts

in one or more separate automatic transfer switches initiate starting and stopping of generator set. When mode-selector switch is switched to the on position, generator set starts. The off position of same switch initiates generator-set shutdown. (Switches with different configurations but equal functions are acceptable.) When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of the local (generator set-mounted) and/or remote emergency-stop switch also shuts down generator set.

C. Manual Starting System Sequence of Operation: Switching on-off switch on the generator control panel to the on position starts generator set. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of the local (generator set-mounted) and/or remote emergency-stop switch also shuts down generator set.

D. Configuration: Operating and safety indications, protective devices, system controls, engine gages and associated equipment shall be grouped in a common control and monitoring panel. Mounting method shall isolate the control panel from generator-set vibration. AC output power circuit breakers and other output power equipment shall not be mounted in the control enclosure.

E. Indicating and Protective Devices and Controls: As required by NFPA 110 for Level 1 system, and the following:

1. AC voltmeter (3-phase, line to line and line to neutral values).
2. AC ammeter (3-phases).
3. AC frequency meter.
4. AC kVA output (total and for each phase). Display shall indicate power flow direction.
5. Ammeter-voltmeter displays shall simultaneously display conditions for all three phases.
6. Emergency Stop Switch: Switch shall be a red “mushroom head” pushbutton device complete with lock-out/tag-out provisions. Depressing switch shall cause the generator set to immediately stop the generator set and prevent it from operating.
7. Fault Reset Switch: Supply a dedicated control switch to reset/clear fault conditions.
8. DC voltmeter (alternator battery charging).
9. Engine-coolant temperature gage.

10. Engine lubricating-oil pressure gage.

11. Running-time meter.

12. Generator-voltage and frequency digital raise/lower switches. Rheostats for these functions are not acceptable. The control shall adjustment of these parameters in a range of plus or minus 5% of the voltage and frequency operating set point (not nominal voltage and frequency values.)

13. AC Protective Equipment: The control system shall include over/under voltage, over current, short circuit, loss of voltage reference, and over excitation shut down protection. There shall be an overload warning, and overcurrent warning alarm.

14. Status LED indicating lamps to indicate remote start signal present at the control, existing alarm condition, not in auto, and generator set running.

15. A graphical display panel with appropriate navigation devices shall be provided to view all information noted above, as well as all engine status and alarm/shutdown conditions (including those from an integrated engine emission control system). The display shall also include integrated provisions for adjustment of the gain and stability settings for the governing and voltage regulation systems.

16. Panel lighting system to allow viewing and operation of the control when the generator room or enclosure is not lighted.

17. DC control Power Monitoring: The control system shall continuously monitor DC power supply to the control, and annunciate low or high voltage conditions. It shall also provide an alarm indicating imminent failure of the battery bank based on degraded voltage recover on loading (engine cranking).

18. Remote Alarm Annunciator: Comply with NFPA 110. An LED labeled with proper alarm conditions shall identify each alarm event and a common audible signal shall sound for each alarm condition.

2.5 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

A. Comply with NEMA MG 1.

B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.

C. Electrical Insulation: Class H

D. Temperature Rise: 120 environment.

E. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, over speed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity.

F. Permanent Magnet Generator (PMG) shall provide excitation power for optimum motor starting and short circuit performance.

G. Enclosure: Drip-proof.

H. Voltage Regulator: SCR type, Separate from exciter, providing performance as specified. The voltage regulation system shall be microprocessor-controlled, full wave rectified, and provide a pulse-width modulated signal to the exciter. No exceptions or deviations to these requirements will be permitted.

I. Windings: Two-thirds pitch stator winding and fully linked amortisseur winding.

J. Subtransient Reactance: 15 percent maximum, based on the rating of the engine generator set.

2.6 VIBRATION ISOLATION DEVICES

A. Vibration Isolation: Generators installed on grade shall be provided with elastomeric isolator pads integral to the generator, unless the engine manufacturer requires use of spring isolation.

2.7 FINISHES

A. Components: Powder-coated and baked over corrosion-resistant pretreatment and compatible primer. Manufacturer’s standard color.

2.8 SOURCE QUALITY CONTROL

A. Prototype Testing: Factory test engine-generator set using same engine model, constructed of identical or equivalent components and equipped with identical or equivalent accessories.

1. Tests: Comply with NFPA 110, Level 1 Energy Converters. In addition, the equipment engine, skid, cooling system, and alternator shall have been subjected to actual prototype tests to validate the capability of the design under the abnormal conditions noted in NFPA110. Calculations and testing on similar equipment which are allowed under NFPA110 are not sufficient to meet this requirement.

B. Project-Specific Equipment Tests: Before shipment, factory test engine-generator set manufactured specifically for this Project. Perform tests at rated load and power factor. Include the following tests:

1. Test engine generator set manufactured for this Project to demonstrate compatibility and functionality.

2. Full load run.
3. Maximum power.
4. Voltage regulation.
5. Steady-state governing.
6. Single-step load pickup.
7. Simulated safety shutdowns.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with packaged engine-generator manufacturers' written installation, application, and alignment instructions and with NFPA 110.

B. Equipment shall be installed by the contractor in accordance with final submittals and contract documents. Installation shall comply with applicable state and local codes as required by the authority having jurisdiction. Install equipment in accordance with manufacturer's instructions and instructions included in the listing or labeling of UL listed products.

C. Installation of equipment shall include furnishing and installing all interconnecting wiring between all major equipment provided for the on-site power system. The contractor shall also perform interconnecting wiring between equipment sections (when required), under the supervision of the equipment supplier.

D. Equipment shall be installed on concrete housekeeping pads. Equipment shall be permanently fastened to the pad in accordance with manufacturer’s instructions and seismic requirements of the site.

E. Equipment shall be initially started and operated by representatives of the manufacturer. All protective settings shall be adjusted as instructed by the consulting engineer.

F. All equipment shall be physically inspected for damage. Scratches and other installation damage shall be repaired prior to final system testing. Equipment shall be thoroughly cleaned to remove all dirt and construction debris prior to initial operation and final testing of the system.

G. On completion of the installation by the electrical contractor, the generator set supplier shall conduct a site evaluation to verify that the equipment is installed per manufacturer’s recommended practice.

3.2 ON-SITE ACCEPTANCE TEST

A. The complete installation shall be tested to verify compliance with the performance requirements of this specification following completion of all site work. Testing shall be conducted by representatives of the manufacturer, with required fuel supplied by Contractor. The Engineer shall be notified in advance and shall have the option to witness the tests. The generator set manufacturer shall provide a site test specification covering the entire system. Tests shall include:

B. Prior to start of active testing, all field connections for wiring, power conductors, and bus bar connections shall be checked for proper tightening torque.

C. Installation acceptance tests to be conducted on site shall include a "cold start" test, a two hour full load (resistive) test, and a one-step rated load pickup test in accordance with NFPA 110. Provide a resistive load bank and make temporary connections for full load test, if necessary.

D. Perform a power failure test on the entire installed system. This test shall be conducted by opening the power supply from the utility service, and observing proper operation of the system for at least 2 hours. Coordinate timing and obtain approval for start of test with site personnel.

3.3 TRAINING

A. The equipment supplier shall provide training for the facility operating personnel covering operation and maintenance of the equipment provided. The training program shall be not less than 4 hours in duration and the class size shall be limited to 5 persons. Training date shall be coordinated with the facility owner.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

3.5 SERVICE AND SUPPORT

A. The generator set supplier shall maintain service parts inventory for the entire power system at a central location which is accessible to the service location 24 hours per day, 365 days per year. The inventory shall have a commercial value of $3 million or more. The manufacturer of the generator set shall maintain a central parts inventory to support the supplier, covering all the major components of the power system, including engines, alternators, control systems, paralleling electronics, and power transfer equipment.

B. The generator set shall be serviced by a local service organization that is trained and factory certified in generator set service. The supplier shall maintain an inventory of critical power system replacement parts in the local service location. Service vehicles shall be stocked with critical replacement parts. The service organization shall be on

call 24 hours per day, 365 days per year. The service organization shall be physically located within 100 miles of the site.

C. The manufacturer shall maintain model and serial number records of each generator set provided for at least 20 years.

END OF SECTION

SECTION 263623
AUTOMATIC TRANSFER SWITCHES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes transfer switches rated 600 V and less, including the following:

1. Automatic transfer switches, Cummins Model OTEC, 800A, 3P, 4W, 120/208V, Nema 1 or size as per shown on the drawings.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include rated capacities, weights, operating characteristics, furnished specialties, and accessories.

1. Technical data on all major components of all transfer switches and other products described in this section. Data is required for the transfer switch mechanism, control system, cabinet, and protective devices specifically listed for use with each transfer switch. Include steady state and fault current ratings, weights, operating characteristics, and furnished specialties and accessories.

2. Single Line Diagram: Show connections between transfer switch, power sources and load

B. Shop Drawings: Dimensioned plans, elevations, sections, and details showing minimum clearances, conductor entry provisions, gutter space, installed features and devices, and material lists for each switch specified.

1. Dimensioned outline drawings of assembly, including elevations, sections, and details including minimal clearances, conductor entry provisions, gutter space, installed features and devices and material lists for each switch specified.

2. Internal electrical wiring and control drawings.

3. Interconnection wiring diagrams, showing recommended conduit runs and point-to-point terminal connections to generator set.

4. Installation and mounting instructions, including information for proper installation of equipment to meet seismic requirements.

C. Manufacturer and Supplier Qualification Data

1. The transfer switch manufacturer shall be certified to ISO 9001 International Quality Standard and shall have third party certification verifying quality assurance in design/development, production, installation, and service, in accordance with ISO 9001.

2. The manufacturer of this equipment shall have produced similar equipment for a minimum period of 10 years. When requested, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.

D. Operation and Maintenance Data: For each type of product to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:

1. Features and operating sequences, both automatic and manual.

2. List of all factory settings of relays, timers and protective devices; provide setting and calibration instructions where applicable.

E. Warranty documents demonstrating compliance with the project's contract requirements.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: The equipment supplier shall maintain a service center capable of providing training, parts, maintenance and emergency repairs to equipment, including transfer switch generator sets and remote monitoring equipment (if applicable) at the site within a response period of less than (eight hours or appropriate time period designated for Project) from time of notification.

1. The transfer switch shall be serviced by technicians employed by, and specially trained and certified by, the generator set supplier and the supplier shall have a service organization that is factory-certified in both generator set and transfer switch service. The supplier shall maintain an inventory of critical replacement parts at the local service organization, and in service vehicles. The service organization shall be on call 24 hours per day, 365 days per year.

2. Submit names, experience level, training certifications, and locations for technicians that will be responsible for servicing equipment at this site.

3. The manufacturer shall maintain model and serial number records of each transfer switch provided for at least 20 years.

B. Source Limitations: All transfer switches are to be obtained through one source from a single manufacturer. The generator set manufacturer shall warrant transfer switches to provide a single source of responsibility for products provided.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked as suitable for use in emergency, legally required or optional standby use as appropriate for the connected load.

D. The automatic transfer switch installation and application shall conform to the requirements of the following codes and standards:

1. Transfer switches and enclosures shall be UL 1008 listed and labeled as suitable for use in emergency, legally required, and optional standby applications.
2. CSA 282, Emergency Electrical Power Supply for Buildings, and CSA C22.2, No. 14-M91 Industrial Control Equipment
3. NFPA 70, National Electrical Code. Equipment shall be suitable for use in systems in compliance with Articles 700, 701 and 702.
4. Comply with NEMA ICS 10-1993 AC Automatic Transfer Switches
5. IEEE 446 – Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
6. EN55011, Class B Radiated Emissions and Class B Conducted Emissions
7. IEC 1000-4-5 (EN 61000-4-5); AC Surge Immunity
8. IEC 1000-4-4 (EN 61000-4-4) Fast Transients Immunity
9. IEC 1000-4-2 (EN 61000-4-2) Electrostatic Discharge Immunity
10. IEC 1000-4-3 (EN 61000-4-3) Radiated Field Immunity
11. IEC 1000-4-6 Conducted Field Immunity
12. IEC 1000-4-11 Voltage Dip Immunity
13. IEEE 62.41, AC Voltage Surge Immunity
14. IEEE 62.45, AC Voltage Surge Testing

E. Comply with NFPA 99 – Essential Electrical Systems for Healthcare Facilities

F. Comply with NFPA 110 – Emergency and Standby Power Systems. The transfer switch shall meet all requirements for Level 1 systems, regardless of the actual circuit level.

G. The manufacturer shall warrant the material and workmanship of the transfer switch equipment for a minimum of two (2) year from the warranty start date. The warranty start date is the date of registered commissioning and start up or eighteen (18) months from date of shipment, whichever is sooner.

H. The warranty shall be comprehensive. No deductibles shall be allowed for travel time, service hours, repair parts cost, and etc. during the minimum noted warranty period described above.

1.5 PROJECT CONDITIONS

A. Interruption of Existing Electrical Service: Do not interrupt electrical service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electrical service:

1. Notify (Architect/Construction Manager/Owner) no fewer than (insert appropriate number) days in advance of proposed interruption of electrical service.

2. Do not proceed with interruption of electrical service without (Architect/Construction Manager/Owner's) written permission.

3. Do not energize any new service or distribution equipment without notification and permission of the (Architect/Construction Manager/Owner).

1.6 COORDINATION

A. Size and location of concrete bases and anchor bolt inserts shall be coordinated. Concrete, reinforcement and formwork must meet the requirements specified in Division 03. See section "INSTALLATION" for additional information on installation

PART 2 - PRODUCTS

2.1 MANUFACTURERS

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

1. Cummins Power Generation.

2. Eaton

3. ASCO

B. Equipment specifications for this Project are based on automatic transfer switches manufactured by Cummins Power Generation. Switches manufactured by other manufacturers that meet the requirement of this specification are acceptable, if approved not less than two weeks before scheduled bid date. Proposals must include a line-by-line compliance statement based on this specification.

C. Transfer switches utilizing molded case circuit breakers do not meet the requirements of this specification and will not be accepted.

2.2 GENERAL TRANSFER-SWITCH PRODUCT REQUIREMENTS

A. Provide transfer switches in the number and ratings that are shown on the drawings.

B. Indicated Current Ratings: Apply as defined in UL 1008 for continuous loading and total system transfer.

C. Fault-Current Closing and Withstand Ratings: UL 1008 WCR ratings must be specifically listed as meeting the requirements for use with protective devices at installation locations, under specified fault conditions. Withstand and closing ratings shall be based on use of the same set of contacts for the withstand test and the closing test.

D. Solid-State Controls: All settings should be accurate to +/- 2% or better over an operating temperature range of - 40 to + 60 degrees C (- 40 to + 140 degrees F).

E. Resistance to Damage by Voltage Transients: Components shall meet or exceed voltage-surge withstand capability requirements when tested according to IEEE C62.41. Components shall meet or exceed voltage-impulse withstand test of NEMA ICS 1.

F. Electrical Operation: Accomplished by a non-fused, momentarily energized solenoid or electric motor operator mechanism, mechanically and electrically interlocked in both directions (except that mechanical interlock is not required for closed transition switches).

G. Switch Characteristics: Designed for continuous-duty repetitive transfer of full-rated current between active power sources.

    1. Switches using molded-case switches or circuit breakers, or insulated case circuit breaker components are not acceptable.

    2. Transfer switches shall be double-throw, electrically and mechanically interlocked, and mechanically held in the Source 1 and Source 2 positions.

    3. Main switch contacts shall be high pressure silver alloy. Contact assemblies shall have arc chutes for positive arc extinguishing. Arc chutes shall have insulating covers to prevent inter-phase flashover.

    4. Contacts shall be operated by a high-speed electrical mechanism that causes contacts to open or close within three electrical cycles from signal.

    5. Transfer switch shall be provided with flame retardant transparent covers to allow viewing of switch contact operation but prevent direct contact with components that could be operating at line voltage levels.

    6. The transfer switch shall include the mechanical and control provisions necessary to allow the device to be field-configured for operating speed. Transfer switch operation with motor loads shall be as is recommended in NEMA MG1.

a. Phase angle monitoring/timing equipment is not an acceptable substitute for this functionality

7. Transfer switches designated on the drawings as “3-pole” shall have a full current-rated neutral bar with lugs.

H. Factory wiring: Transfer switch internal wiring shall be composed of pre-manufactured harnesses that are permanently marked for source and destination. Harnesses shall be connected to the control system by means of locking disconnect plug(s), to allow the control system to be easily disconnected and serviced without disconnecting power from the transfer switch mechanism

I. Terminals: Terminals shall be pressure type and appropriate for all field wiring. Control wiring shall be equipped with suitable lugs, for connection to terminal strips.

J. Enclosures: All enclosures shall be third-party certified for compliance to NEMA ICS 6 and UL 508, unless otherwise indicated:

1. The enclosure shall provide wire bend space in compliance to the latest version of NFPA70, regardless of the direction from which the conduit enters the enclosure.

2. Exterior cabinet doors shall provide complete protection for the system’s internal components. Doors must have permanently mounted key-type latches. Bolted covers or doors are not acceptable.

3. Transfer switches shall be provided in enclosures that are third party certified for their intended environment per NEMA requirements.

2.3 AUTOMATIC TRANSFER SWITCHES

A. Indicated current ratings:

1. Refer to the Project drawings for specifications on the sizes and types of transfer switch equipment, withstand and closing ratings, number of poles, voltage and ampere ratings, enclosure type, and accessories.

2. Main contacts shall be rated for 600 VAC minimum.

3. ATS shall have a minimum of 65kAIC WCR at 600V..

4. Transfer switches shall be rated to carry 100% of rated current continuously in the enclosure supplied, in ambient temperatures of -40 to +60 degrees C (-40 to +140 degrees F), relative humidity up to 95% (non-condensing), and altitudes up to 10,000 feet (3000 meters).

B. Transfer switches that are designated on the drawings as 3-pole shall be provided with a neutral bus and lugs. The neutral bus shall be sized to carry 100% of the current designated on the switch rating.

C. Cable Lugs: Mechanical, #250 AWG to 500 MCM, 4 per pole

D. Automatic Transfer Switch Control Features

1. Voltage sensing shall be monitored based on the normal voltage at the site. Systems that utilize voltage monitoring based on standard voltage conditions that are not field configurable are not acceptable.

2. All transfer switch sensing shall be configurable from an operator panel or from a Windows XP or later PC-based service tool.

3. The transfer switch shall provide a relay contact signal prior to transfer or re-transfer. The time period before and after transfer shall be adjustable in a range of 0 to 60 seconds.

4. The control system shall be designed and prototype tested for operation in ambient temperatures from - 40 degrees C to + 60 degrees C (- 40 to +140 degrees F). It shall be designed and tested to comply with the requirements of the noted voltage and RFI/EMI standards.

5. The control shall have optically isolated logic inputs, high isolation transformers for AC inputs and relays on all outputs, to provide optimum protection from line voltage surges, RFI and EMI.

E. Transfer Switch Control Panel: The transfer switch shall have a sophisticated microprocessor-based control with a sealed membrane panel incorporating pushbuttons for operator-controlled functions, and LED lamps for system status indicators. The panel shall also include an alphanumeric display for detailed system information. Panel display and indicating lamps shall include permanent labels.

1. The indicator panel LEDs shall display:

a. Which source the load is connected to (Source 1 or Source 2)

b. Which source or sources are available

c. When switch is not set for automatic operation, the control is disabled

d. When the switch is in test/exercise mode

2. The indicator shall have pushbuttons that allow the operator to activate the following functions:

a. Activate pre-programmed test sequence

b. Override programmed delays, and immediately go to the next operation

c. Reset the control by clearing any faults

d. Test all of the LEDs by lighting them simultaneously

F. Control Functions: Functions managed by the control shall include:

1. Software adjustable time delays:

a. Engine start (prevents nuisance genset starts in the event of momentary power fluctuation): 0 to 10 hours (default 3 sec)

b. Transfer normal to emergency (allows genset to stabilize before load is transferred): 0 to 60 minutes (default 3 sec)

c. Re-transfer emergency to normal (allows utility to stabilize before load is transferred from genset): 0 to 5 hours (default 3 sec)

d. Engine cooldown: 0 to 1 hour (default 10 min)

e. Programmed transition: 0.5 sec to 10 minutes (default 3 sec)

2. Undervoltage sensing: three-phase normal, three-phase emergency source.

3. Over-voltage sensing: three-phase normal, three-phase emergency source.

a. 3-phase normal, 3-phase emergency
b. Accuracy: ±2 % of full-scale phase to phase
c. Phase to neutral voltage range 52Vac to 416Vac.
d. Phase to phase voltage range 90Vac to 720Vac.

4. Over/under frequency sensing:

a. Normal and emergency
b. Accuracy: ±0.2 Hz
c. Frequency range 3.5 – 75 Hz

5. Voltage imbalance sensing:

a. Dropout: 2 to 10% (default 4%)

b. Pickup: 90% of dropout

c. Time delay: 2.0 to 20 seconds (default 5 sec)

6. Phase rotation sensing:

a. Time delay: 100 msec

7. Loss of single-phase detection:

a. Time delay: 100 msec

G. Control features shall include:

1. Programmable genset exerciser: A field-programmable control shall periodically start and run the generator with or without transferring the load for a preset time period, then re-transfer and shut down the generator after a preset cool-down period.

2. In event of a loss of power to the control, all control settings, real-time clock setting and the engine start-time delay setting will be retained.

3. The system continuously logs information including the number of hours each source has been connected to the load, the number of times transferred, and the total number of times each source has failed. An event recorder stores information, including time and date-stamp, for up to 50 events.

4. Re-Transfer Inhibit Switch: Inhibits automatic re-transfer control so automatic transfer switch will remain connected to emergency power source as long as it is available regardless of condition of normal source.

5. Transfer Inhibit Switch: Inhibits automatic transfer control so automatic transfer switch will remain connected to normal power source regardless of condition of emergency source.

H. Control Interface

1. Provide one set Form C auxiliary contacts on both sides, operated by transfer switch position, rated 10 amps 250 VAC.

I. Engine Starting Contacts

1. Provide two (2) sets of isolated and normally closed contacts rated 10A at 600 VAC minimum.

2. Reay terminals accept (1) 18 gauge to (2) 12 gauge wires per terminal

PART 3 - EXECUTION

3.1 INSTALLATION

A. Design each fastener and support to carry load indicated by seismic requirements and according to seismic-restraint details. See Division 26 Section "Vibration and Seismic Controls for Electrical Systems."

B. Identify components according to Division 26 Section "Identification for Electrical Systems."

C. Set field-adjustable intervals and delays, relays, and engine exerciser clock.

3.2 CONNECTIONS

A. Wiring to Remote Components: Match type and number of cables and conductors to control and communication requirements of transfer switches as recommended by manufacturer. Increase raceway sizes at no additional cost to Owner if necessary to accommodate required wiring.

B. Field control connections shall be made on a common terminal block that is clearly and permanently labeled.

C. Transfer switch shall be provided with AL/CU mechanical lugs sized to accept the full output rating of the switch. Lugs shall be suitable for the number and size of conductors shown on the drawings.

D. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."

E. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."

3.3 SOURCE QUALITY CONTROL

A. Prior to shipping, factory shall test and inspect components, assembled switches, and associated equipment to ensure proper operation.

B. Factory shall check transfer time and voltage, frequency, and time-delay settings for compliance with specified requirements.

C. Factory shall perform dielectric strength test complying with NEMA ICS 1.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: The supplier of the transfer switch(es) and associated equipment shall inspect, test, and adjust components, assemblies, and equipment installations, including connections, and report results in writing.

B. Manufacturer’s representative shall perform tests and inspections and prepare test reports.

C. After installing equipment and after electrical circuitry has been energized, installer shall test for compliance with requirements.

1. Perform recommended installation tests as recommended in manufacturer’s installation and service manuals.

2. After energizing circuits, demonstrate interlocking sequence and operational function for each switch.

a. Simulate power failures of normal source to automatic transfer switches and of emergency source with normal source available.

b. Verify time-delay settings.

c. Verify that the transfer switch is accurately metering AC voltage.

d. Verify proper sequence and correct timing of automatic engine starting, transfer time delay, retransfer time delay on restoration of normal power, and engine cool-down and shutdown.

3.5 DEMONSTRATION

A. After generator set installation, the generator and transfer switch supplier shall conduct a complete operation, basic maintenance, and emergency service seminar covering generator set and transfer switch equipment.

END OF SECTION

SECTION 281301

ACCESS CONTROL SYSTEM CONDUITS

PART 1 - GENERAL

1.1 Provide a complete system of raceways, power, and fire alarm connections for the Access Control system including, but not limited to conduits, raceways, receptacles, outlet boxes, circuitry, and pullwires.

PART 2 – PRODUCTS

2.1 Outlet boxes shall be furnished per Specification Section 260533.

2.2 Raceways shall be furnished per Specification Section 260533. Minimum conduit size shall be ¾" nominal trade size unless noted otherwise on drawings.

2.3 The Access System Control Panel, devices, and circuitry shall be provided and installed by others outside of this project.

PART 3 - EXECUTION

~~3.1 Coordinate with the Access Control System vendor for the system fire alarm connection. The Access System control panel shall be configured to accept a single input from the fire alarm control panel to release each magnetically locked door upon an alarm condition. Provide all conduit, raceways, and relays required to release the magnetic doors upon an alarm condition.~~

3.2 Provide an outlet box and conduit with pullstring to above the accessible ceiling for each card reader, push-to-exit pushbutton, motion detector, etc. Verify the mounting height, box type, and box quantities with the Access Control System vendor prior to installation.

3.3 All devices shall be mounted with their boxes flush in the walls.

END OF SECTION

ARCHITECTURAL ABBREVIATIONS

ACOUS.	ACOUSTICAL
A/C	AIR CONDITIONING
A.T.	ACOUSTICAL TILE
A.F.F.	ABOVE FINISHED FLOOR
ADJ.	ADJUSTABLE
AL. or ALT.	ALTERNATE
A.C.M.	ALUMINUM COMPOSITE MATERIAL
A.P.C.	ARCHITECTURAL PRECAST CONCRETE
APPROX.	APPROXIAMTE
ARCH.	ARCHITECTURAL
A.D.	AREA DRAIN
ASPH.	ASPHALT
∠	ANGLE
BM.	BEAM
B.M.	BENCH MARK
BIT.	BITUMINOUS
BLK.	BLOCKING
BD.	BOARD
B.O.C.	BOTTOM OF CURB
BOT.	BOTTOM
BLDG.	BUILDING
B.U. or B/U	BUILT UP
CPT.	CARPET
C.B.	CATCH BASIN
C.O.	CLEAN OUT
CLG.	CEILING
CEM.	CEMENT
℄ OR CL.	CENTERLINE
C.T.	CERAMIC TILE
[OR CH.	CHANNEL
COL.	COLUMN
CONC.	CONCRETE
C.M.U.	CONCRETE MASONRY UNIT
CONT.	CONTINUOUS
C.J.	CONTROL JOINT
CONF.	CONFERENCE
C.R. CH.	COLD ROLL CHANNEL
DP.	DAMPPROOFING
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DS.	DOWNSPOUT
DWGS.	DRAWINGS
E.R.D.	EMERGENCY ROOF DRAIN
E.	ELEVATOR
EA.	EACH
ELEC.	ELECTRICAL
E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM
ELEV. or EL.	ELEVATION
E.J.or EXP JT.	EXPANSION JOINT
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXP.	EXPANSION
EXST.	EXISTING
EXT.	EXTERIOR
FIN.	FINISH
FIN. FL.	FINISH FLOOR
F.H.C.	FIRE HOSE CABINET
F.H.	FIRE HYDRANT
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FL.	FLOOR
F.D.	FLOOR DRAIN
FTG.	FOOTING
F.S.	FULL SIZE
FURR	FURRING
GALV.	GALVANIZED
GA.	GAUGE
GL.	GLASS
G.B.	GRAB BAR
GYP.	GYPSUM
GYP.BD.	GYPSUM BOARD
G.C.	GENERAL CONTRACTOR
HCP. or H/C	HANDICAP
HDW.	HARDWARE
HGT. or HT.	HEIGHT
H.C.	HOLLOW CORE
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.B.	HOSE BIB
I.D.	INSIDE DIAMETER (DIM.)
INSUL.	INSULATION
INT.	INTERIOR
INV.	INVERT
JAN.	JANITOR
J.B.	JOIST BEARING
JT.	JOINT
LAM.	LAMINATE
L.A.T.	LAY-IN-ACOUSTICAL TILE
LT. WT.	LIGHT WEIGHT

MTL.	METAL
M.H.	MOP HANGER
MH.	MANHOLE
M.O.	MASONRY OPENING
MAX.	MAXIMUM
MECH.	MECHANICAL
MEMB.	MEMBRANE
MISC.	MISCELLANEOUS
M.R. GYP.BD.	MOISTURE RESISTANT GYPSUM BOARD
MTD.	MOUNTED
NOM.	NOMINAL
N.I.C.	NOT IN CONTRACT
NO. OR #	NUMBER
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
OH.	OVERHEAD
OPP.	OPPOSITE
O.D.	OUTSIDE DIAMETER (DIM.)
PTD.	PAINTED
PR.	PAIR
PTN.	PARTITION
PVMT.	PAVEMENT
PLAS.	PLASTER
PL.	PLATE
POL.	POLISHED
LBS.	POUNDS
P.I.P.	POURED-IN-PLACE
PRE-FAB.	PRE-FABRICATED
PC. CONC.	PRECAST CONCRETE
P.T.D.	PAPER TOWEL DISPENSER
P.LAM.	PLASTIC LAMINATE
PWD.	PLYWOOD
ℙ OR P.L.	PROPERTY LINE
RAD.	RADIUS
REF.	REFERENCE
R.C.P.	REINFORCED CONCRETE PIPE
REINF.	REINFORCEMENT
REQ.	REQUIRED
RESIL.	RESILIENT
R.	RISER
R.D.	ROOF DRAIN
RM.	ROOM
Ø or RD.	ROUND
R.B.	RUBBER BASE
RV	REVEAL
S.N.D.	SANITARY NAPKIN DISPENSER
SLT.	SEALANT
SEC.	SECURITY
SEC. GL.	SECURITY GLASS
S.H.M.	SECURITY HOLLOW METAL
SER. S.	SERVICE SINK
SCHD.	SCHEDULE
SHT.	SHEET
S.V.	SHEET VINYL
SIM.	SIMILAR
S.D.	SOAP DISPENSER
S.C.	SOLID CORE
SPEC.	SPECIFICATION
SQ.	SQUARE
SQ. FT.	SQUARE FEET
STD.	STANDARD
S.ST.	
STL.	
STOR.	STORAGE
ST.DR.	STORM DRAIN
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
SYM.	SYMMETRICAL
TELE.	TELEPHONE
T'HOLD	THRESHOLD
TLT.	TOILET
T.P.H.	TOILET PAPER HOLDER
T.O.C.	TOP OF CURB
T.O.S.	TOP OF STEEL
T.B.	TOWEL BAR
T.	TREAD
TRT'D	TREATED
TYP.	TYPICAL
T.O.W.	TOP OF WALL
U.N.O.	UNLESS NOTED OTHERWISE
V.B.	VINYL BASE
V.C.T.	VINYL COMPOSITION TILE
V.W.C.	VINYL WALL COVERING
VERT.	VERTICAL
VEST.	VESTIBULE
V.O.J.	VERIFY ON JOBSITE
V.T.R.	VENT THRU ROOF
W.H.	WATER HEATER
W.P.	WATER PROOF
W.W.M.	WELDED WIRE MESH
W. GL.	WIRE GLASS
W.C.	WATER CLOSET
W/	WITH
W/O	WITHOUT
WSCT.	WAINSCOT
WT.	WEIGHT
WD.	WOOD
WK PT	WORKING POINT

1" = 1'-0" GRAPHIC SCALE
0 6" 1 2

3/8" = 1'-0" GRAPHIC SCALE
0 4" 8 16

1/2" = 1'-0" GRAPHIC SCALE
0 4" 8 1 2

3/4" = 1'-0" GRAPHIC SCALE
0 6" 1 2 3

1 1/2" = 1'-0" GRAPHIC SCALE
0 2" 4" 1 2

3" = 1'-0" GRAPHIC SCALE
0 2" 4" 1

CITY OF GLUCKSTADT POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS
22093

ARCHITECTURAL GRAPHIC SYMBOLS

- TOILET ACCESSORIES TYPE
- COLUMN GRID LINE
- WINDOW TYPE
- NUMBER OF SECTION / NUMBER OF SHEET
- BUILDING/WALL SECTION
- ELEVATION / VIEW
- DETAIL

- CONCRETE
- ACOUSTICAL TILE
- CARPET
- INSULATION (BATT)
- INSULATION (RIGID)
- GYPSUM BOARD
- METAL (SECTION)
- PLYWOOD
- WOOD BLOCKING
- ROOM NAME AND NUMBER (ROOM NAME / 00000)
- DOOR NUMBER (100A)
- C.M.U. (SECTION)
- FINISHED WOOD

CODE NOTES

- INTERNATIONAL BUILDING CODE.....2018 EDITION
- INTERNATIONAL FIRE CODE.....2018 EDITION
- INTERNATIONAL MECHANICAL CODE.....2018 EDITION
- INTERNATIONAL PLUMBING CODE.....2018 EDITION
- NATIONAL ELECTRICAL CODE.....2018 EDITION
- LIFE SAFETY CODE - NFPA 101.....2018 EDITION
- ADA STANDARDS FOR ACCESSIBLE DESIGN.....2010 EDITION
- INTERNATIONAL CODE COUNCIL/ ANSI A117.1.....2018 EDITION

- ***USE AND OCCUPANCY CLASSIFICATION: SECTION 304***

  OCCUPANCY: GROUP B - BUSINESS
  GROUP I-3 - INSTITUTIONAL, CONDITION 5

  BUILDING PHYSICAL PROPERTIES: ONE STORY BUILDING
  'B' OCCUPANCY.....13,547 GSF
  'I' OCCUPANCY.....1,188 SF
  TOTAL AREA .....14,735 GSF

- ***BUILDING HEIGHTS AND AREAS SECTIONS/TABLES 504.3, 504.4, 506.2***

  MAXIMUM ALLOWABLE BUILDING HEIGHT - TABLE 504.3
  MAXIMUM ALLOWABLE BUILDING HEIGHT.....75'-0"
  ACTUAL BUILDING HEIGHT.....26'-3" A.F.F.

  MAXIMUM NUMBER OF STORIES ABOVE GRADE - TABLE 504.4
  MAXIMUM NUMBER OF STORIES.....4
  ACTUAL NUMBER OF STORIES.....1

  MAXIMUM ALLOWABLE BUILDING AREA - TABLE 506.2
  92,000 S.F. PER FLOOR

  ALLOWABLE AREA INCREASE - SECTION 506.2.3 N/A
  TOTAL ALLOWABLE BUILDING AREA = 92,000 S.F.
  TOTAL ACTUAL BUILDING AREA = 14,735 S.F.

- ***CONSTRUCTION TYPE: SECTIONS 602, 603, TABLE 601***

  TYPE II-B UNPROTECTED w/ AUTOMATIC SPRINKLER SYSTEM

  FIRE RESISTANT RATING REQUIREMENTS (HOURS) - TABLE 601
  STRUCTURAL FRAME, COLUMNS.....0
  ROOF CONSTRUCTION.....0
  BEARING WALLS.....0
  FLOOR CONSTRUCTION.....0

- ***OCCUPANT LOAD TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT***

  BUSINESS AREAS.....1 OCCUPANT PER 150 GROSS SQ. FT.
  TOTAL FLOOR AREA.....13,547 ÷ 150
  TOTAL OCCUPANT LOAD.....90

  INSTITUTIONAL AREAS.....1 OCCUPANT PER 120 GROSS SQ. FT.
  TOTAL FLOOR AREA.....1,188 ÷ 120
  TOTAL OCCUPANT LOAD.....10

- ***EGRESS WIDTH PER OCCUPANT SERVED - PARAGRAPH 1005.3.1*** *(STAIRWAYS)*

  NOT APPLICABLE/NO STAIRWAYS

- ***EGRESS WIDTH PER OCCUPANT SERVED - PARAGRAPH 1005.3.2*** *(OTHER EGRESS COMPONENTS)*

  MUST PROVIDE 0.20" OF EXIT/EGRESS WIDTH PER OCCUPANT
  TOTAL REQUIRED CLEAR EXIT WIDTH: 98 OCC. x 0.20" = 19.6"
  TOTAL PROVIDED CLEAR EXIT WIDTH: 4 EXIT DOORS
  CLEAR DOOR WIDTHS (64", 32", 32", 32") = 160"

- ***EXIT ACCESS TRAVEL DISTANCE FOR OCCUPANCY TABLE 1017.2*** *(WITH AUTOMATIC SPRINKLER SYSTEM)*

  OCCUPANCY 'B': MAXIMUM DISTANCE ALLOWED.....300' MAXIMUM DISTANCE (ACTUAL).....140'
  OCCUPANCY 'I-3': MAXIMUM DISTANCE ALLOWED.....200' MAXIMUM DISTANCE (ACTUAL).....107'

- ***CORRIDOR FIRE RESISTANT RATING (HOURS) TABLE 1020.1*** *(WITH AUTOMATIC SPRINKLER SYSTEM)*

  OCCUPANCY 'B': HOURS REQUIRED.....0
  OCCUPANCY 'I-3': HOURS REQUIRED.....1

- ***MINIMUM CORRIDOR WIDTH TABLE 1020.2***

  MINIMUM CORRIDOR WIDTH ALLOWED.....44"
  MINIMUM CORRIDOR WIDTH (ACTUAL).....54"

- ***MAXIMUM DEAD END CORRIDOR DISTANCE PARAGRAPH 1020.4*** *(EXCEPTION NUMBER 2, WITH AUTOMATIC SPRINKLER SYSTEM)*

  DEAD END CORRIDOR DISTANCE ALLOWED.....50'-0"
  DEAD END CORRIDOR DISTANCE (ACTUAL).....N/A

INDEX TO DRAWINGS

DESIGN TEAM

SPENCER ENGINEERS, INC - CIVIL
McCRORY & ASSOCIATES - LANDSCAPE DESIGN
DEAN ARCHITECTURE - ARCHITECTURAL
SPENCER ENGINEERS, INC. - STRUCTURAL
HESM&A, Inc. - HVAC / PLUMBING / FIRE PROTECTION
THE POWER SOURCE, PLLC - ELECTRICAL

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REGISTERED ARCHITECT J. ALAN GRANT 4409 STATE OF MISSISSIPPI
4/25/2023
J. Alan Grant
4409

CONSTRUCTION DOCUMENTS

Project No. : 22093
Date: APRIL 5, 2023
Drawn: JMD, MP, JAG, MGL, AH
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CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:
A001
DRAWING INDEX
CODE ANALYSIS

CITY OF GLUCKSTADT POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS
22093

⅛" =1'-0" GRAPHIC SCALE | ¼" =1'-0" GRAPHIC SCALE | ½" =1'-0" GRAPHIC SCALE | ¾" =1'-0" GRAPHIC SCALE | 1" =1'-0" GRAPHIC SCALE | 1½" =1'-0" GRAPHIC SCALE | 3" =1'-0" GRAPHIC SCALE

EXIT INFORMATION
- SINGLE DOOR @ 38" TOTAL CLEAR WIDTH
32" DIVIDED BY 0.15 = 213 OCCUPANTS.
THIS EXIT PROVIDES CAPACITY FOR
213 PEOPLE

BUILDING OCCUPANCY:
- HATCHED AREA DESIGNATES
BUILDING OCCUPANCY:
I-3 (INSTITUTIONAL) CONDITION 5
- SQUARE FOOTAGE: 1188

EXIT INFORMATION
- SINGLE DOOR @ 38" TOTAL CLEAR WIDTH
32" DIVIDED BY 0.15 = 213 OCCUPANTS.
THIS EXIT PROVIDES CAPACITY FOR
213 PEOPLE

EXIT INFORMATION
- SINGLE DOOR @ 38" TOTAL CLEAR WIDTH
32" DIVIDED BY 0.15 = 213 OCCUPANTS.
THIS EXIT PROVIDES CAPACITY FOR
213 PEOPLE

EXIT INFORMATION
- PAIR OF DOORS @ 72" TOTAL CLEAR WIDTH
64" DIVIDED BY 0.15 = 426 OCCUPANTS.
THIS EXIT PROVIDES CAPACITY FOR
426 PEOPLE

FIRE EXTINGUISHER TRAVEL DISTANCE LIMITS 75'-0"

FIRE EXTINGUISHER TRAVEL DISTANCE LIMITS 75'-0"

TRAVEL DISTANCE 88'-0"

TRAVEL DISTANCE 58'-0"

TRAVEL DISTANCE 99'-2"

TRAVEL DISTANCE 87'-9"

TRAVEL DISTANCE 140'-0"

TRAVEL DISTANCE 106'-8"

TRAVEL DISTANCE 75'-0"

TRAVEL DISTANCE 66'-0"

TRAVEL DISTANCE 110'-5"

TRAVEL DISTANCE 41'-8"

F.E.C.

F.E.C.

F.E.C.

CITY OF GLUCKSTADT POLICE
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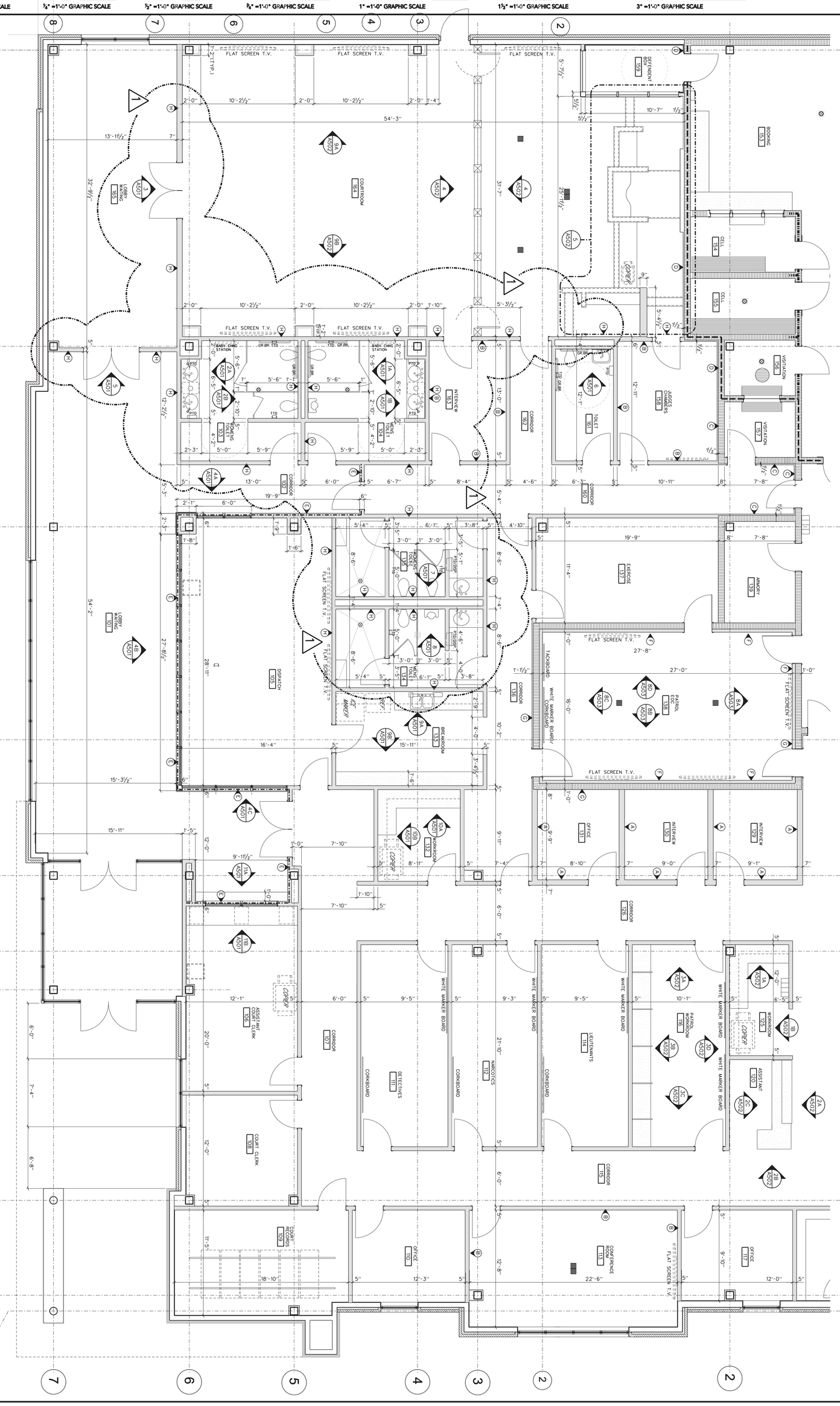
⅛" =1'-0" GRAPHIC SCALE | ¼" =1'-0" GRAPHIC SCALE | ½" =1'-0" GRAPHIC SCALE | ¾" =1'-0" GRAPHIC SCALE | 1" =1'-0" GRAPHIC SCALE | 1½" =1'-0" GRAPHIC SCALE | 3" =1'-0" GRAPHIC SCALE

1 / A101.1

PARTIAL FLOOR PLAN

SCALE : ¼" = 1'-0"



LIFE SAFETY/WALL LEGEND

SYMBOL	DESCRIPTION
	NON-RATED 2" NOMINAL WALL (4⅝" ACTUAL) 3⅝" METAL STUDS @ 16" O.C.W/ 1 LAYER ⅝" GYP. BD. EACH SIDE EXTEND WALL TO U.S. FLOOR PLENUM W/ FIRE SAFE ACOUSTICAL INSULATION

1 / A101.2 PARTIAL FLOOR PLAN

SCALE : 1/4 " = 1'-0"

CONCRETE SLAB/CAP OVER EOC/ PATROL ROOM (SEE STRUCTURAL DWGS FOR REINFORCING, THICKNESS, ETC.)

TOP OF CONCRETE 10'-8" A.F.F.

CMU WALL (BELOW)

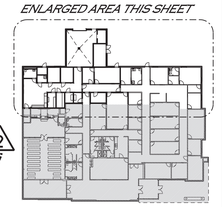
LIFE SAFETY/WALL LEGEND

SYMBOL	DESCRIPTION
	NON-RATED 5" NOMINAL WALL (4⅝" ACTUAL) 3⅝" METAL STUDS @ 16" O.C. W/ 1 LAYER ⅝" GYP. BD. EACH SIDE. EXTEND WALL TO 6" ABOVE THE PLANE OF THE LAY IN ACOUSTICAL TILE CEILING SYSTEM.
A	NON-RATED 7" NOMINAL WALL (6⅝" ACTUAL) 3⅝" METAL STUDS @ 12" O.C. W/ 1 LAYER ⅝" GYP. BD. EACH SIDE. EXTEND WALL TO 6" ABOVE THE PLANE OF THE LAY IN ACOUSTICAL TILE CEILING SYSTEM STAGGER STUDS @ 12" O.C. AND WEAVE SOUND BATT INSULATION BETWEEN STUDS.
B	NON-RATED 5" NOMINAL WALL (4⅝" ACTUAL) 3⅝" METAL STUDS @ 16" O.C. W/ 1 LAYER ⅝" GYP. BD. EACH SIDE. EXTEND WALL TO 6" ABOVE THE PLANE OF THE LAY IN ACOUSTICAL TILE CEILING SYSTEM. FILL STUD CAVITY WITH BATT INSULATION.
C	NON-RATED 8" NOMINAL WALL (7⅝" ACTUAL) 3⅝" METAL STUDS @ 16" O.C. W/ LEVEL 7 BULLET RESISTANT FIBERGLASS WALL PANEL ON ONE SIDE. EXTEND PROTECTION TO 9'-0" ABOVE FINISH FLOOR. COVER BOTH SIDES OF PARTITION WITH 1 LAYER OF ⅝" GYPSUM BOARD. EXTEND STUDS AND GYPSUM BOARD TO BOTTOM OF ROOF DECK ABOVE.
D	NON-RATED 8" NOMINAL WALL (7⅝" ACTUAL) 8" CONCRETE BLOCK. EXTEND WALL TO 10'-0" ABOVE FINISH FLOOR
2	1 HOUR RATED 8" NOMINAL WALL (7⅝" ACTUAL) 8" CONCRETE BLOCK. EXTEND WALL TO THE BOTTOM OF THE ROOF STRUCTURE ABOVE. FILL ALL CELLS OF BLOCK WITH 3000 PSI CONCRETE. CMU BLOCK TO HAVE 1 HOUR RATING.

LIFE SAFETY/WALL LEGEND (cont...)

SYMBOL	DESCRIPTION
2	WALL TYPE NOT USED
E	NON-RATED 9" NOMINAL WALL (9¼" ACTUAL) 8" CONCRETE BLOCK, WITH ⅞" FURRING CHANNELS AND ⅝" GYP BD ON ONE SIDE. EXTEND WALL TO 10'-0" ABOVE FINISH FLOOR.
G	NON-RATED 8" NOMINAL WALL (8⅛" ACTUAL) 8" CONCRETE BLOCK, WITH ⅞" FURRING CHANNELS AND ⅝" GYP BD ON ONE SIDE. EXTEND WALL TO BOTTOM OF ROOF STRUCTURE ABOVE. FILL ALL CELLS OF BLOCK (CMU) WITH 3000 PSI CONCRETE.
F	NON-RATED 7'-0" NOMINAL WALL (11⅝" ACTUAL) 8" CONCRETE BLOCK, WITH 3⅝" METAL STUDS @ 16" O.C. AND ⅝" GYP BD ON ONE SIDE. EXTEND WALL TO 10'-0" ABOVE FINISH FLOOR.
H	NON-RATED 7'-11½" NOMINAL WALL (7'-11⅝" ACTUAL) 8" CONCRETE BLOCK, WITH 3⅝" METAL STUDS @ 16" O.C. AND ⅝" GYP BD ON ONE SIDE AND ⅞ FURRING CHANNELS AND ⅝" GYP BD ON THE OTHER SIDE. EXTEND WALL TO 10'-0" ABOVE FINISH FLOOR.
J	NON-RATED 5" NOMINAL WALL (4⅝" ACTUAL) 3⅝" METAL STUDS @ 16" O.C. W/ 1 LAYER ⅝" GYP. BD. EACH SIDE. EXTEND WALL TO BOTTOM OF ROOF DECK ABOVE. BRACE WITH "KICKERS"/DIAGONAL BRACING AS REQUIRED
F.E.C.	F.E.C.: SEMI-RECESSED (NOTE: ANY CABINET IN A RATED WALL MUST BE RATED TO MEET THE REQUIREMENTS OF THE WALL) CAULK CABINETS TO WALL. TYPICAL F.E.C.'s

ENLARGED AREA THIS SHEET



KEY PLAN

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REGISTERED ARCHITECT J. ALAN GRANT 4409 JACKSON, MS STATE OF MISSISSIPPI

4/25/2023

Project No. : 22093
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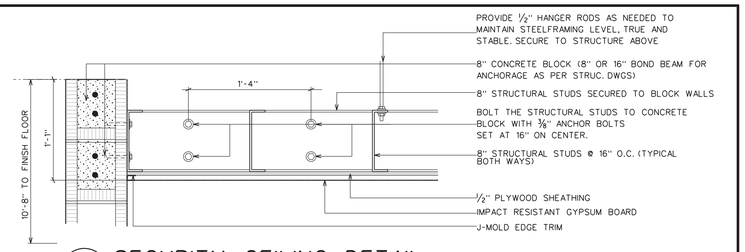
Drawn: JMD, MP, JAG, MGL, AH
Checked: JAG
Revisions: 1 APRIL 17, 2023, ADDENDUM #1
2 APRIL 25, 2023, ADDENDUM #2

Sheet Number:

A101.2

(EAST SIDE) PARTIAL FLOOR PLAN

3" = 1'-0" GRAPHIC SCALE
1½" = 1'-0" GRAPHIC SCALE
1" = 1'-0" GRAPHIC SCALE
¾" = 1'-0" GRAPHIC SCALE
½" = 1'-0" GRAPHIC SCALE
⅜" = 1'-0" GRAPHIC SCALE



2 A102 SECURITY CEILING DETAIL

SCALE : 1½" = 1'-0"

1 A102 REFLECTED CEILING PLAN

SCALE : 3/16" = 1'-0"

CEILING LEGEND

- 2x4 FLUORESCENT CEILING FIXTURE
- 2 X 2 FLOURESCENT CEILING FIXTURE
- LINEAR CEILING FIXTURE
- SUSPENDED OR SURFACE-MOUNTED LIGHT
- RECESSED CAN LIGHT
- RECESSED CAN LIGHT (SQUARE)
- PENDANT LIGHTS
- SUSPENDED LIGHT FIXTURE
- LED LINEAR LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- 2x2 HVAC SUPPLY GRILLE / 2x2 HVAC RETURN REGISTER
- 2'-0" X 2'-0" L.A.T. SUSPENDED CEILING SYSTEM (9'-0" A.F.F., UNO)
- 1/2" GYPSUM BOARD CEILING/ FURR DOWN (CLG FRAMING @ 24" O.C. TYPICAL) (1)
- 2'-0" X 2'-0" L.A.T. CEILING SYSTEM W/ 6" BATT INSULATION ABOVE CEILING (10'-0" A.F.F., UNO). INSTALL SECURITY HOLD DOWN CLIPS TO ALL CEILING TILES.
- 2'-0" X 2'-0" L.A.T. CEILING SYSTEM (9'-0" A.F.F. UNO). INSTALL SECURITY HOLD DOWN CLIPS TO ALL CEILING TILES.
- 5/8" IMPACT RESISTANT GYP BD. OVER 1/2" PLYWOOD SHEATHING ON 8" STEEL STUD FRAMING SET AT 9'-7" A.F.F. SEE DETAIL 2/A102.
- 5/8" GYP BD. ON SUSPENDED STEEL GRILLAGE, HUNG FROM STRUCTURE ABOVE. 9'-0" A.F.F.
- ALUMINUM CLAD SUNSCREEN

CEILING NOTES

(C1) PROVIDE FOR THE INSTALLATION OF SECURITY HOLD DOWN CLIPS TO ALL OF THE LAY IN ACOUSTICAL TILE CEILING PANELS, THIS AREA.

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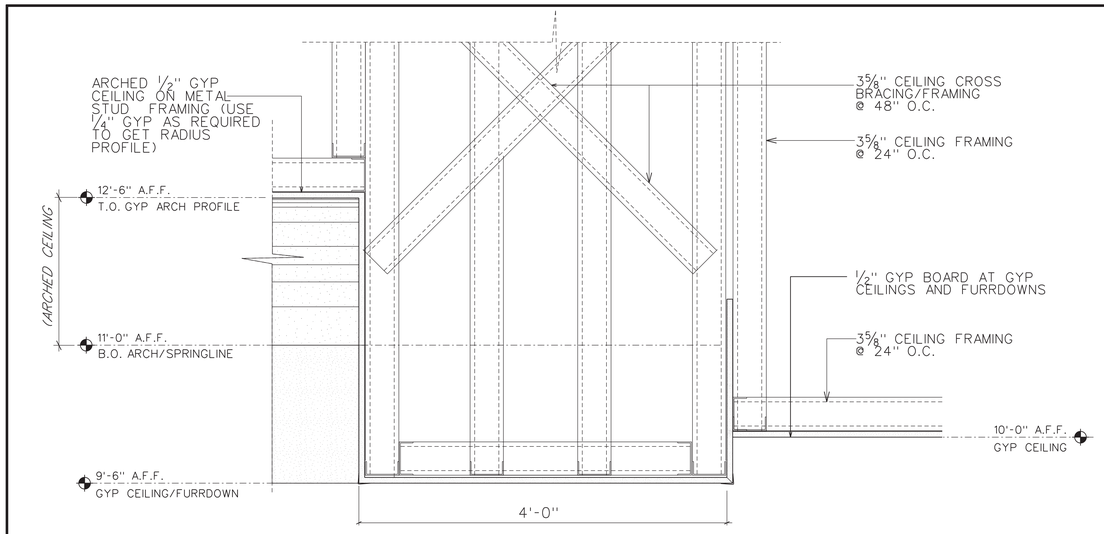
CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number: A102

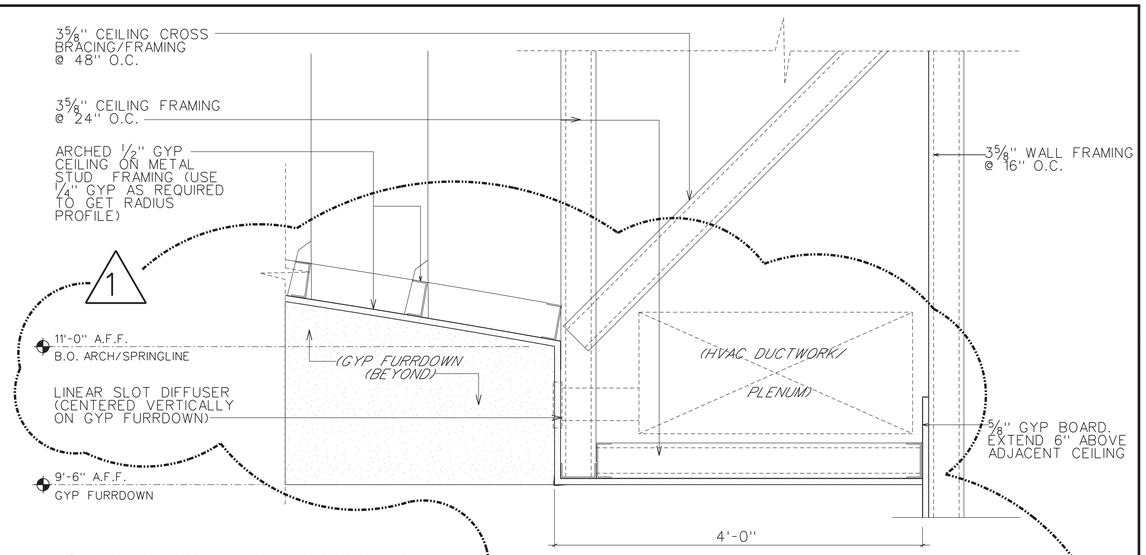
REFLECTED CEILING PLAN

CITY OF GLUCKSTADT POLICE STATION AND MUNICIPAL COURT GLUCKSTADT, MS 22093

3" =1'-0" GRAPHIC SCALE
1½" =1'-0" GRAPHIC SCALE
1" =1'-0" GRAPHIC SCALE
¾" =1'-0" GRAPHIC SCALE
½" =1'-0" GRAPHIC SCALE
⅜" =1'-0" GRAPHIC SCALE



1 / A103 CEILING DETAIL AT COURTROOM 164
SCALE : 1½" = 1'-0"

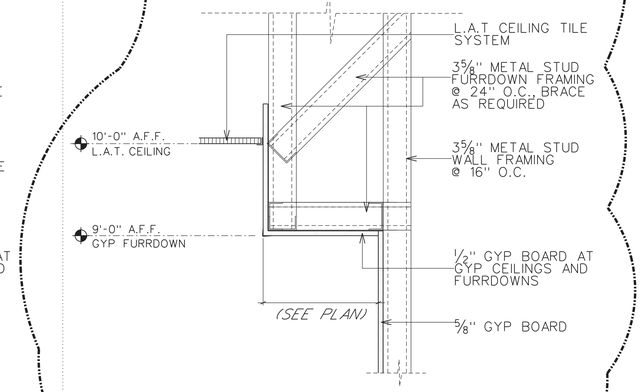


2 / A103 CEILING DETAIL AT COURTROOM 164
SCALE : 1½" = 1'-0"

3 / A103 CEILING/FURRDOWN DETAIL AT WAITING 165
SCALE : 1½" = 1'-0"

4 / A103 CEILING/FURRDOWN DETAIL @ LOBBY 101
SCALE : 1½" = 1'-0"

5 / A103 CEILING DETAIL AT CORRIDOR 107 & 126
SCALE : 1½" = 1'-0"



6 / A103 CEILING DETAIL AT CONFERENCE ROOM 113
SCALE : 1½" = 1'-0"

1" = 1'-0" GRAPHIC SCALE
0 6" 1
3" = 1'-0" GRAPHIC SCALE
0 2" 6"
1½" = 1'-0" GRAPHIC SCALE
0 2" 4"
1" = 1'-0" GRAPHIC SCALE
0 6" 1
3" = 1'-0" GRAPHIC SCALE
0 2" 6"
½" = 1'-0" GRAPHIC SCALE
0 1 2 3 4
⅛" = 1'-0" GRAPHIC SCALE
0 1 2 3 4

CITY OF GLUCKSTADT POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS
22093

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4/25/2023

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CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:
A103
CEILING DETAILS

DOOR & FRAME SCHEDULE

NO.	DOOR SIZE W	DOOR SIZE H	DOOR THK	DOOR MTL.	DOOR ELV.	DOOR GLASS	DOOR LOUVER	FRAME MTL.	FRAME ELV.	FRAME DETAIL HEAD	FRAME DETAIL JAMB	FRAME DETAIL SILL	FIRE RATING LABEL	
100A	PR.3'-0"	8'-0"	1¾"	ALUM	F			ALUM	D					
100B	PR.3'-0"	8'-0"	1¾"	ALUM	F			ALUM	7					
103A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
104A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
105A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PUSH SIDE)
106A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PUSH SIDE)
107A	PR.3'-0"	8'-0"	1¾"	WD	D			HM	4	7/A602	8/A602			NOTE *1 (PULL SIDE) AND NOTE *4
108A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
109A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PULL SIDE)
110A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
111A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
111B	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
112A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
112B	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
113A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
114A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
114B	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
116A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
116B	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
117A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
118A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
119A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
121A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
122A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			TOILET LOCK
123A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
126A	3'-0"	7'-0"	1¾"	HM	A			HM	1	15/A602	16/A602	14/A602		NOTE *1 (PUSH SIDE)
127A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			TOILET LOCK
128A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
129A	3'-0"	7'-0"	1¾"	WD	C			HM	3	3/A602	4/AA02			SOUND SEAL KIT
130A	3'-0"	7'-0"	1¾"	WD	C			HM	3	3/A602	4/A602			SOUND SEAL KIT
131A	3'-0"	7'-0"	1¾"	WD	C			HM	3	3/A602	4/A602			
132A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
133A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PULL SIDE)
134A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
134B	2'-10"	5'-8"	1¾"	WD	G			HM	3	1/A602	2/A602			CABANA DOOR WITH SLATS AND 7'-0" FRAME, TOILET LOCK
135A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
135B	2'-10"	5'-8"	1¾"	WD	G			HM	3	1/A602	2/A602			CABANA DOOR WITH SLATS AND 7'-0" FRAME, TOILET LOCK
136A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
136B	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (BOTH SIDES)
137A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			
137B	3'-0"	7'-0"	1¾"	WD	C			HM	3	19/A602 (SIMILAR)	20/A602 (SIMILAR)			
138A	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	19/A602	20/A602			
138B	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	19/A602	20/A602			
138C	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	19/A602 (SIMILAR)	20/A602 (SIMILAR)			NOTE *1 (PUSH SIDE)
139A	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	5/A602	6/A602			NOTE *1 (PUSH SIDE)
140A	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	5/A602	6/A602			NOTE *1 (PULL SIDE)
140B	3'-0"	7'-0"	1¾"	SHM	E	10" X 10"		SHM	5	9/A602	10-11/A602			NOTE *1 (PULL SIDE)
141A	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	5/A602	6/A602			NOTE *1 (PUSH SIDE)
141B	3'-0"	7'-0"	1¾"	HM	A			HM	1	12/A602	13/A602	14/A602		NOTE *1 (PUSH SIDE)
142A	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	5/A602	6/A602			NOTE *1 (PUSH SIDE)
142B	3'-0"	7'-0"	1¾"	WD	C			HM	3	5/A602	6/A602			NOTE *1 (PUSH SIDE)
143A	PR.3'-0"	7'-0"	1¾"	HM	B			HM	2	12/A602	13/A602	14/A602		
145A	10'-0"	12'-0"			H			STEEL	6	POWER OPERATED OVERHEAD COILING DOOR				
145B	3'-0"	7'-0"	1¾"	HM	A			HM	1	12/A602	13/A602	14/A602		NOTE *1 (PULL SIDE)
146A	3'-0"	7'-0"	1¾"	SHM	E	10" X 10"		SHM	5	9/A602	10-11/A602			NOTE *1 (BOTH SIDES), NOTE *2
147A	3'-0"	7'-0"	1¾"	SHM	E	10" X 10"		SHM	5	9/A602	10-11/A602			NOTE *2, *3
148A	3'-0"	7'-0"	1¾"	SHM	E	10" X 10"		SHM	5	9/A602	10-11/A602			NOTE *2,*3
150A	3'-0"	7'-0"	1¾"	HM	A			HM	1	12/A602	13/A602	14/A602		
151A	3'-0"	7'-0"	1¾"	WD	C			HM	3	5/A602	6/A602			
152A	3'-0"	7'-0"	1¾"	WD	C			HM	3	5/A602	5/A602			
154A	3'-0"	7'-0"	1¾"	SHM	E	10" X 10"		SHM	5	9/A602	10-11/A602			NOTE *2, *3
155A	3'-0"	7'-0"	1¾"	SHM	E	10" X 10"		SHM	5	9/A602	10-11/A602			NOTE *2, *3
156A	3'-0"	7'-0"	1¾"	SHM	E	10" X 10"		SHM	5	9/A602	10-11/A602			NOTE *2, *3
157A	3'-0"	7'-0"	1¾"	WD	C			HM	3	5/A602	6/A602			
158A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PULL SIDE)
158B	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PULL SIDE)
159A	3'-0"	7'-0"	1¾"	WD	C			HM	3	5/A602	6/A602			
160A	3'-0"	7'-0"	1¾"	WD	C			HM	3	7/A602	8/A602			NOTE *1 (PULL SIDE)
160B	3'-0"	7'-0"	1¾"	SHM	E	NO GLASS		SHM	3	5/A602	6/A602			NOTE *1 (PULL SIDE)
161A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			TOILET LOCK
162A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PULL SIDE)
163A	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			NOTE *1 (PULL SIDE), SOUND SEAL KIT
163B	3'-0"	7'-0"	1¾"	WD	C			HM	3	1/A602	2/A602			SOUND SEAL KIT
164A	PR.3'-0"	8'-0"	1¾"	WD	D			HM	4	1/A602	2/A602			NOTE *4
164B	3'-0"	7'-0"	1¾"	HM	A			HM	1	17/A602	18/A602	14/A602		
165A	PR.3'-0"	8'-0"	1¾"	WD	D			HM	4	1/A602	2/A602			NOTE *4

GLASS TYPE LEGEND

DESCRIPTION: *SEE SPECIFICATIONS FOR FULL DESCRIPTION OF GLASS/GLAZING TYPES, SECTION 088000.*

T1	GLASS TYPE 1 - 1" INSULATED GLASS UNIT TEMPERED (EXTERIOR LOCATIONS)
T2	GLASS TYPE 2 - ¼" TEMPERED (EXTERIOR DOOR LOCATIONS)
T3	GLASS TYPE 3 - ¼" TEMPERED (INTERIOR LOCATIONS)
T4	GLASS TYPE 4 - ¼" TEMPERED • REEDED (INTERIOR LOCATIONS)
T5	GLASS TYPE 5 - ¼" TEMPERED, CARBONATE SECURITY GLASS (INTERIOR LOCATIONS)
T6	GLASS TYPE 6 - 1" THICK BULLET RESISTANT/SECURITY GLAZING, WITH 3M REFLECTIVE/ (ONE-WAY) FILM
T7	GLASS TYPE 7 - 1" THICK BULLET RESISTANT/SECURITY GLAZING
T8	GLASS TYPE 8 - 1" INSULATED - ETCHED GLASS

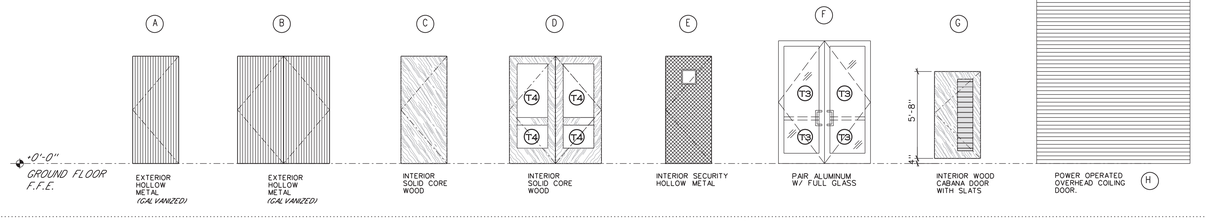
WINDOW AND DOOR NOTES:

1. AT THIS DOOR PROVIDE KEY FOB SECURITY ACCESS HARDWARE. SEE SCHEDULE FOR MOUNTING SIDE.
2. THE GLAZING IN THE VIEW WINDOW SHALL BE ½" SECURITY GLAZING.
3. THESE SECURITY HOLLOW METAL DOORS/FRAMES SHALL HAVE MANUAL SECURITY LOCKS.
4. PROVIDE REEDED GLAZING PANELS.

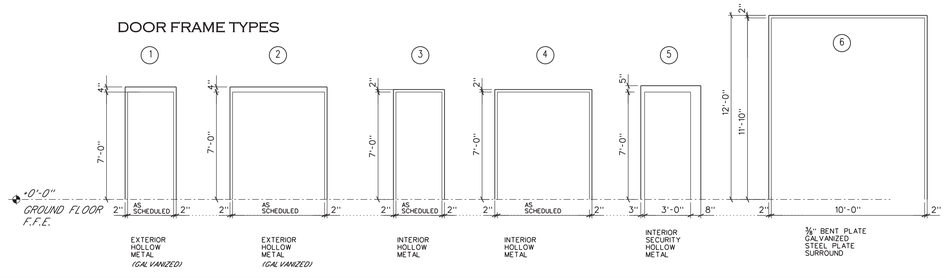
HARDWARE ALLOWANCE NOTES:

1. DECORATIVE HARDWARE (PUSH PLATES AND PULLS) AS INDICATED IN SPECIFICATIONS SECTION 087100 DOOR HARDWARE ARE TO BE INCLUDED AS A PART OF THE HARDWARE ALLOWANCE.
2. ALL ELECTRIC STRIKES REQUIRED ARE TO BE INCLUDED AS PART OF THE HARDWARE ALLOWANCE.
3. ALL ELECTRIFIED PANICS, CONTINUOUS HINGES, AND EPTs FOR BOTH PAIRS OF ALUMINUM DOORS ARE TO BE INCLUDED AS PART OF THE HARDWARE ALLOWANCE.
4. ALUMINUM DOOR CLOSERS, THRESHOLDS, AND WEATHER STRIPPING ARE TO BE PROVIDED BY THE ALUMINUM DOOR SUPPLIER OUTSIDE THE HARDWARE ALLOWANCE.
5. AUTOMATIC DOOR OPERATORS ARE TO BE INCLUDED ON BOTH PAIRS OF ALUMINUM DOORS OUTSIDE THE HARDWARE ALLOWANCE.
6. CARD READERS, CCTV, CAMERAS, AND ACCESS CONTROL SYSTEM COMPONENTS ARE TO BE PROVIDED OUTSIDE THE HARDWARE ALLOWANCE. REFER TO ELECTRICAL SPECIFICATIONS.

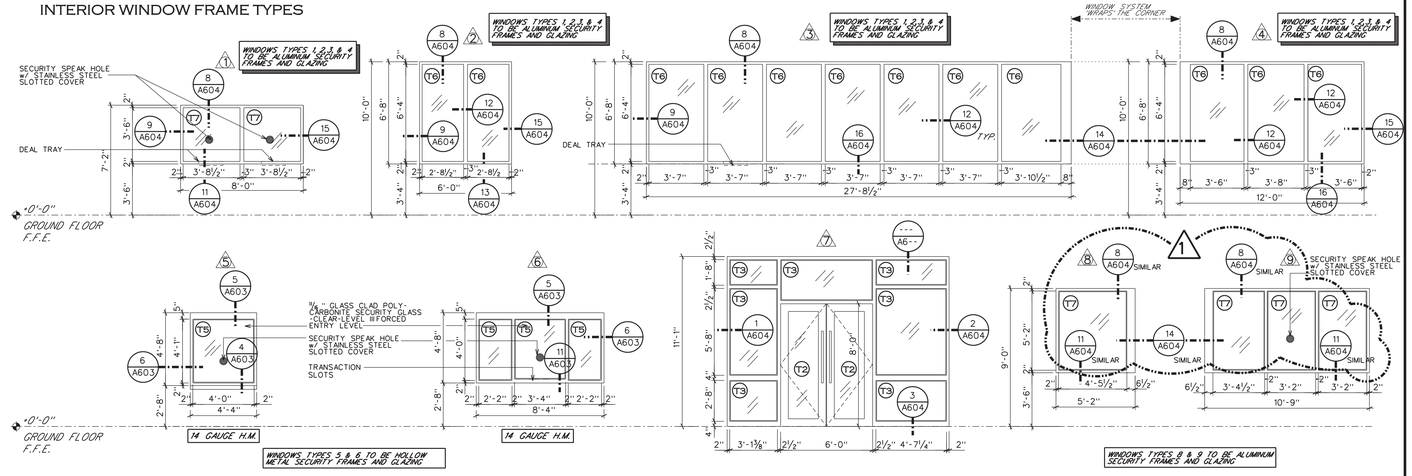
DOOR TYPES



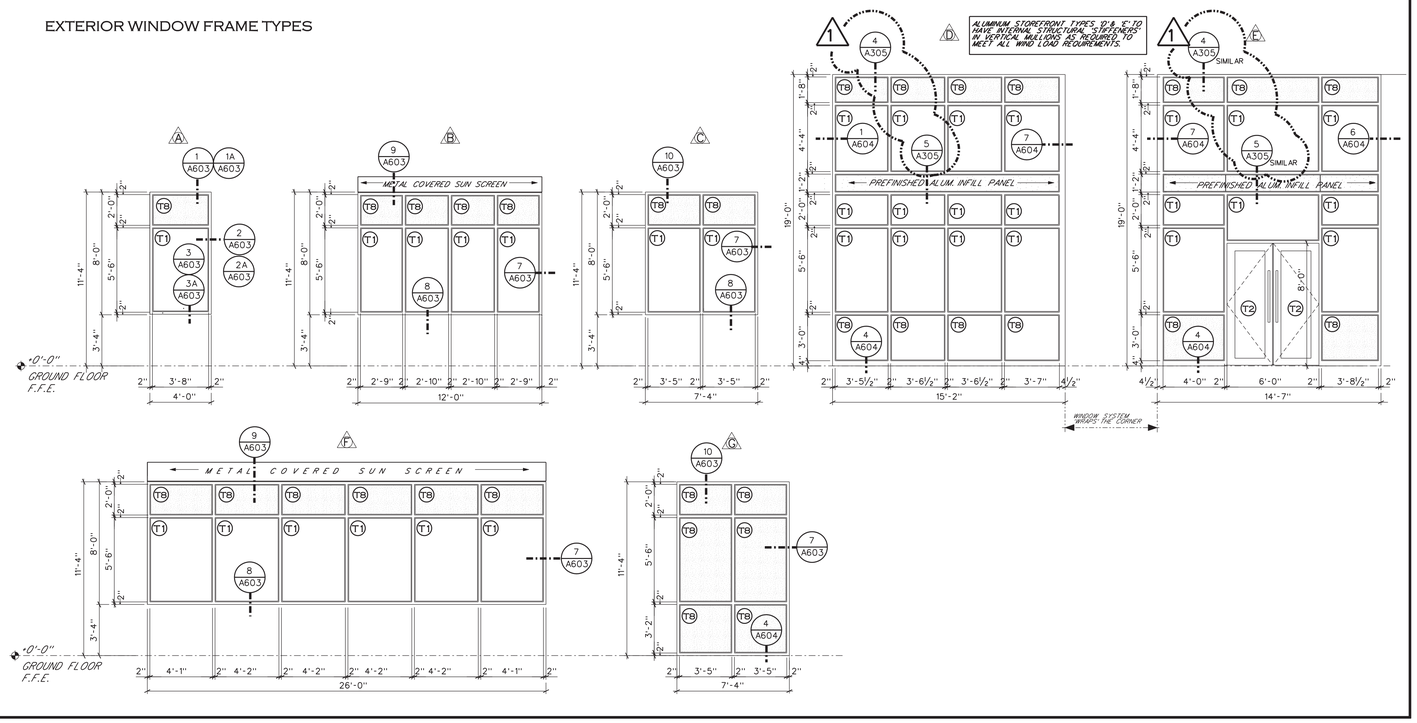
DOOR FRAME TYPES



INTERIOR WINDOW FRAME TYPES



EXTERIOR WINDOW FRAME TYPES



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4/25/2023

CONSTRUCTION DOCUMENTS

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CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:

A601

CITY OF GLUCKSTADT POLICE STATION AND MUNICIPAL COURT GLUCKSTADT, MS 22093

3" = 1'-0" GRAPHIC SCALE
1½" = 1'-0" GRAPHIC SCALE
1" = 1'-0" GRAPHIC SCALE
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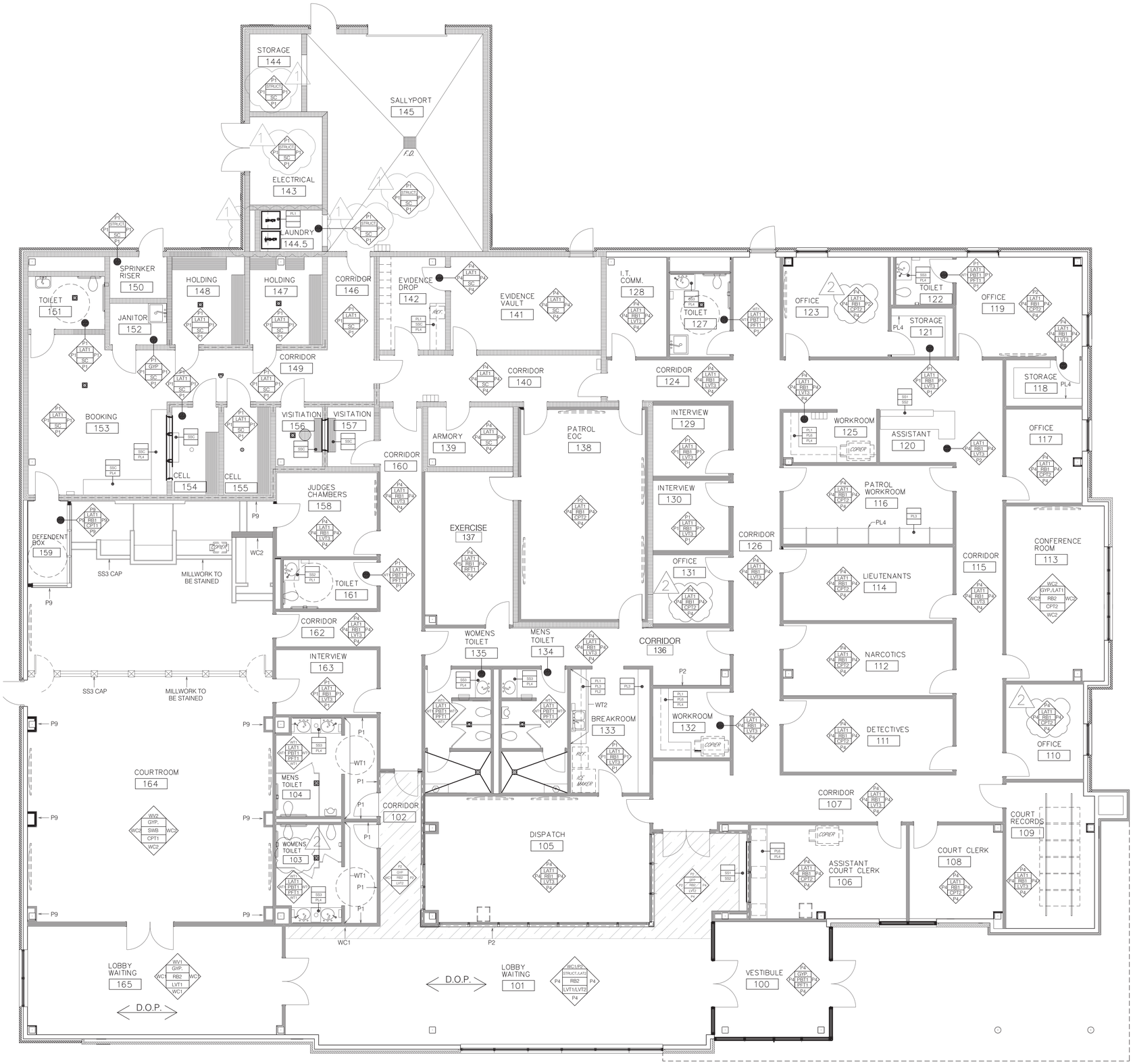

1 A901 FINISH PLAN
SCALE: 3/16"=1'-0"

FINISH LEGEND

FLOORS:

LVT - LUXURY VINYL TILE

LVT1 - GENERAL - LOBBY & COURTROOM LOBBY
MANUFACTURER: EF CONTRACT
PATTERN: STAINED CONCRETE
COLOR: LIMESTONE
INSTALL: ASHLAR
MIL THICKNESS: 20MIL
SIZE: 18" X 36"

LVT2 - ACCENT - LOBBY
MANUFACTURER: TARKETT
PATTERN: ID LATITUDES
COLOR: CHARCOAL
INSTALL: MONLITHIC
MIL THICKNESS: 20MIL
SIZE: 18" X 18"

LVT3 - GENERAL THROUGHOUT
MANUFACTURER: TARKETT
PATTERN: ID LATITUDES
COLOR: HEARTHSTONE
INSTALL: VERTICAL ASHLAR
MIL THICKNESS: 20MIL
SIZE: 18" X 18"

CPT - CARPET

CPT1 - COURTROOM
MANUFACTURER: EF CONTRACT
PATTERN: POLARIS
COLOR: NORTH STAR
INSTALL: MONOLITHIC
SIZE: 24" X 24"

CPT2 - OFFICES & CONFERENCE ROOM
MANUFACTURER: EF CONTRACT
PATTERN: SIMPLE WEAVE
COLOR: MIDNIGHT BEAM
INSTALL: ASHLAR
SIZE: 24" X 24"

PFT - PORCELAIN FLOOR TILE

PFT1 - VESTIBULE & RESTROOMS
MANUFACTURER: LANDMARK CERAMICS
SERIES: JOURNEY
COLOR: CONTEMPORARY DARK
FINISH: MATTE
SIZE: 12" X 24"
INSTALL: 1/3 RUNNING BOND
GROUT: MAPEI: 107 IRON

RFT - RUBBER FLOOR TILE

RFT1 - EXERCISE
MANUFACTURER: TARKETT
SERIES: REPLAY
COLOR: SPECKLED SKY
SIZE: 24" X 24"

SC - SEALED CONCRETE

BASES:

RB - RUBBER BASE

RB1 - GENERAL
MANUFACTURER: JOHNSONITE / TARKETT
COLOR: 48 GREY
PROFILE: 4" COVE BASE

RB2 - LOBBY, WAITING, & CONFERENCE
MANUFACTURER: JOHNSONITE / TARKETT
SERIES' MILLWORK
PROFILE: REVEAL 6"
COLOR: 48 GREY

SWB - STAINED WOOD BASE

PBT - PORCELAIN TILE BASE

PBT1 - VESTIBULE AND RESTROOMS
MANUFACTURER: LANDMARK CERAMICS
SERIES: JOURNEY
COLOR: CONTEMPORARY DARK
SIZE: 3" X 24"
GROUT: MAPEI: 107 IRON

CEILINGS:

LAT - LAY IN ACOUSTICAL TILE

LAT- GENERAL
MANUFACTURER: ARMSTRONG
SERIES: ULTIMA TEGULAR
SIZE: 24" X 24"
COLOR: WHITE
EDGE: BEVELED TEGULAR 15/16"

LAT- SUSPENDED CEILING IN LOBBY
MANUFACTURER: ARMSTRONG
SERIES: OPTIMA
SIZE: 6' X 42" & 6' X 48"
COLOR: WHITE
EDGE: SQUARE TEGULAR 9/16"

FINISH TAG:

WALL / CEILING / WALL / BASE / WALL / FLOOR / WALL

MILLWORK TAG:

UPPER CABINET / COUNTER / BASE CABINET

FLOORING SYMBOLS:

D.O.P. — DIRECTION OF PLANK

WALLS:

WT - WALL TILE

WT1 - RESTROOMS
MANUFACTURER: LANDMARK CERAMICS
SERIES: JOURNEY
COLOR: CONTEMPORARY DARK
FINISH: MATTE
SIZE: 12" X 24"
INSTALL: 1/3 RUNNING BOND
GROUT: MAPEI: 107 IRON

WT2 - BREAKROOM
MANUFACTURER: CROSSVILLE
SERIES: NATIVE METAL
COLOR: GRAPHITE BLACK
FINISH: UNPOLISHED
SIZE: 10X11 HEXAGON MOSAIC
GROUT: MAPEI: 107 IRON

P- PAINT

P1 - GENERAL GREY
MANUFACTURER: BENJAMIN MOORE
COLOR: TIMBER WOLF
FINISH: EGGSHELL

P2 - NAVY ACCENT
MANUFACTURER: BENJAMIN MOORE
COLOR: HUDSON BAY
FINISH: EGGSHELL

P3 - DARK GREY ACCENT
MANUFACTURER: BENJAMIN MOORE
COLOR: GRAY 2121-10
FINISH: EGGSHELL

P4 - GENERAL LIGHT GREY
MANUFACTURER: BENJAMIN MOORE
COLOR: METRO GREY
FINISH: EGGSHELL

P5 - BLACK ACCENT
MANUFACTURER: BENJAMIN MOORE
COLOR: SPACE BLACK
FINISH: EGGSHELL

P6 - GYP. CEILINGS
MANUFACTURER: BENJAMIN MOORE
COLOR: CHANTILLY LACE
FINISH: FLAT

P7 - OPEN CEILINGS AND EXPOSED COLUMNS
MANUFACTURER: BENJAMIN MOORE
COLOR: GRAY 2121-10
FINISH: FLAT

P8 - DOOR FRAMES
MANUFACTURER: BENJAMIN MOORE
COLOR: GRAY 2121-10
FINISH: SEMI-GLOSS

P9 - COURT ROOM
MANUFACTURER: BENJAMIN MOORE
COLOR: HEARTHSTONE
FINISH: EGGSHELL

WC- WALLCOVERING

WC1 - PROTECTIVE WALLCOVERING
DISTRIBUTOR: MOMENTUM
MANUFACTURER: P3TEC
PATTERN: SAHARA SILK
COLOR: SALE GREY

WC2 - COURTROOM WALLCOVERING AND CONFERENCE ROOM
MANUFACTURER: MOMENTUM
PATTERN: A CAPPELLA WC
COLOR: STEEL DRUM

WV- WOOD VENEER

WC3 - WOOD VENEER
MANUFACTURER: WOLF-GORDON
PATTERN: WOOD VENEER: NATURAL WALLCOVERING.02
COLOR: WALNUT FC

MILLWORK:

PL - PLASTIC LAMINATE

PL1- CABINETRY
MANUFACTURER: FORMICA
COLOR: MOUSE
FINISH: MATTE

PL2 - CABINETRY
MANUFACTURER: FORMICA
COLOR: BLACK
FINISH: MATTE

PL3 - COUNTERTOPS AND DIVIDER PANELS
MANUFACTURER: FORMICA
COLOR: FOLKSTONE
FINISH: MATTE

PL4 - CABINETRY AND WINDOW SILLS
MANUFACTURER: FORMICA
COLOR: STORM
FINISH: MATTE

PL5 - DECORATIVE PANELS
MANUFACTURER: FORMICA
COLOR: BRUSHED BLACK ALUMINUM
FINISH: MATTE

PL6 - COUNTERTOPS
MANUFACTURER: FORMICA
COLOR: BRITE WHITE
FINISH: MATTE

SS - SOLID SURFACE

SS1 - GENERAL
MANUFACTURER: CORIAN
COLOR: SILVERITE

SS2 - ACCENT
MANUFACTURER: CORIAN
COLOR: DEEP TITANIUM

SS3 - COURTROOM
MANUFACTURER: DURASEIN
COLOR: BLOSSOMING

SSC - STAINLESS STEEL COUNTERTOP

NOTES:

1. CONTRACTOR TO PAINT 4'x4' TEST PATCH OF ALL PAINT COLORS FOR REVIEW AND APPROVAL BY DEAN ARCHITECTURE BEFORE FULL INSTALLATION
2. SUBMITTALS OF ALL FINISHES/FIXTURES MUST BE PROVIDED TO DEAN ARCHITECTURE FOR APPROVAL
3. ALL DOOR FRAMES TO BE CAULKED AT FLOOR. CAULK TO MATCH DOOR FRAME PAINT COLOR UNLESS OTHERWISE NOTED
4. PROVIDE SCHLUTER THRESHOLD FOR ALL FLOORING TRANSITIONS.
5. ALL EXPOSED STRUCTURE AND DECKING TO BE PAINTED P7.
6. ALL GYP. CEILINGS TO BE PAINTED P6 UNLESS OTHERWISE NOTED ON THE INTERIOR ELEVATIONS.
7. ALL HOLLOW METAL FRAMES TO BE PAINTED P8.
8. EXTERIOR WINDOW SILLS TO BE PL4.
9. MARBLE THRESHOLD TO BE PROVIDED AT SHOWER DOOR ROOM 134 AND 135.

FLOOR PATTERN LEGEND

LVT2 - ACCENT LOBBY
TARKETT: ID LATITUDES: CHARCOAL

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REGISTERED ARCHITECT 4409 J. Alan Grant STATE OF MISSISSIPPI 4/25/2023

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CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:
A901
FINISH PLAN

GLUCKSTADT POLICE STATION
GLUCKSTADT, MS
22093

3" =1'-0" GRAPHIC SCALE
1½" =1'-0" GRAPHIC SCALE
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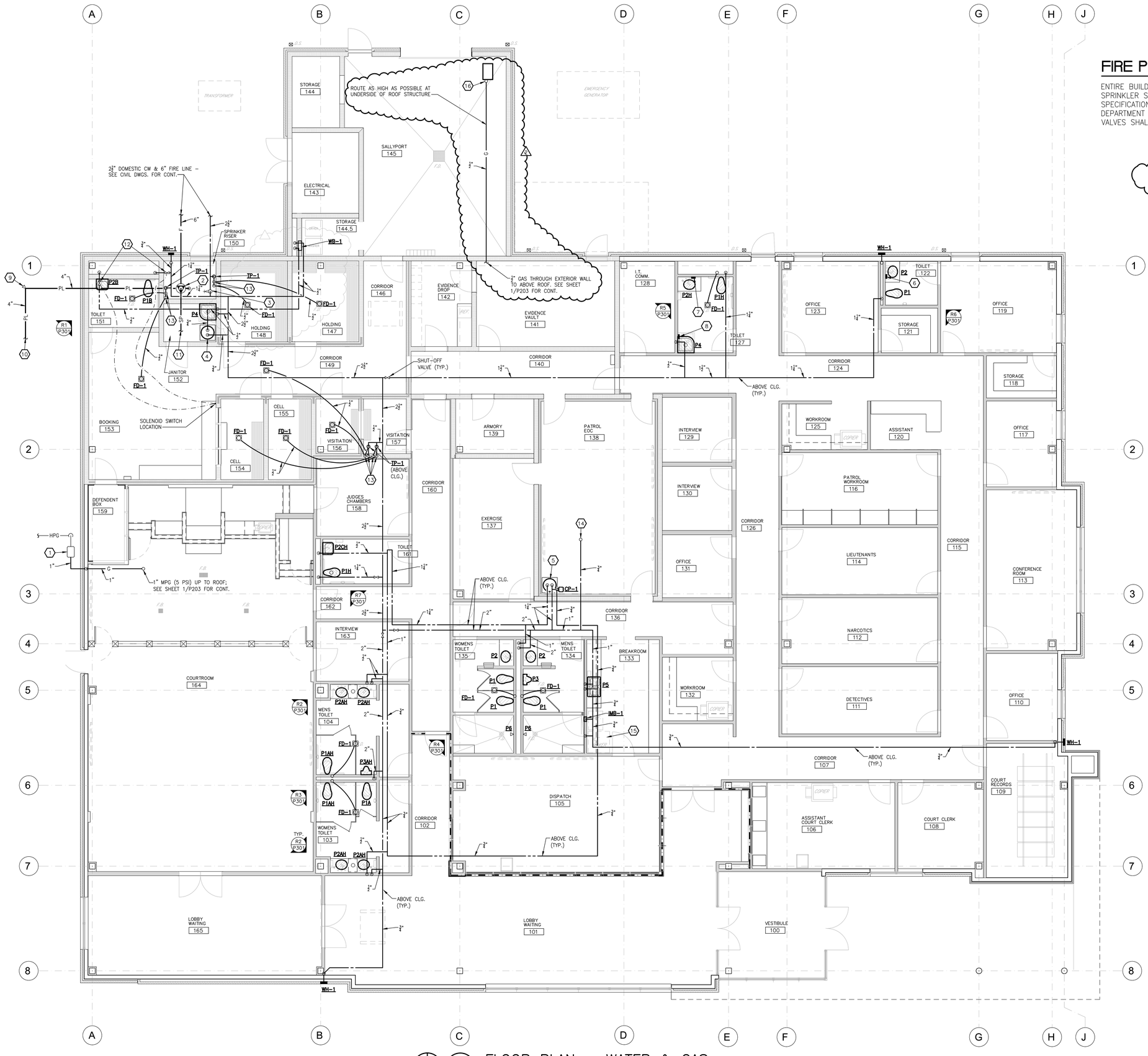

FIRE PROTECTION NOTE:

ENTIRE BUILDING SHALL BE PROTECTED WITH AN AUTOMATIC WET SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH NFPA 13, SPECIFICATIONS SECTION 15501, AND CITY OF GLUCKSTADT FIRE DEPARTMENT REQUIREMENTS. ALL FLOW SWITCHES AND SUPERVISED VALVES SHALL BE INTERLOCKED WITH LOCAL ELECTRIC BELL.

NOTES

1. GAS METER, REGULATOR, & HIGH PRESS. GAS LINE TO BE SIZE, FURNISHED, & INSTALLED BY CENTERPOINT ENERGY AT CONTRACTOR'S EXPENSE – TOTAL DEMAND = 825 CFH @ 5 PSI.
2. SPRINKLER RISER; SEE DETAIL 1/P301.
3. 2½" DOUBLE CHECK BACKFLOW PREVENTER IN VERTICAL RISER.
4. WATER HEATER (**DWH-1**) MOUNTED AS HIGH AS POSSIBLE ON WALL.
5. WATER HEATER (**DWH-2**) ON CONCRETE CAP ABOVE PATROL EOC.
6. WATER HEATER (**DWH-3**) MOUNTED BENEATH SINK.
7. WATER HEATER (**DWH-4**) MOUNTED BENEATH SINK.
8. WATER HEATER (**DWH-5**) MOUNTED ABOVE CEILING.
9. CONCRETE THRUST BLOCK.
10. 4" PUMPER LINE TO FREE STANDING SIAMESE FIRE CONNECTION – SEE CIVIL DWGS. FOR CONT.
11. SPRINKLER MAIN TO SERVE SPRINKLER SYSTEM. SEE FIRE PROTECTION NOTE ON THIS SHEET.
12. INSTALL SOLENOID VALVE IN CW & HW SUPPLY TO WATER CLOSET & LAVATORY. VALVE TO BE INSTALLED ABOVE CLG. AS NEAR AS POSSIBLE TO PLBG. CHASE. SOLENOID VALVE SHALL BE EQUAL TO ASCO MODEL 8210G33 & SHALL BE NORMALLY CLOSE. VALVE SHALL BE INTERLOCKED WITH WALL SWITCH LOCATED OUTSIDE TOILET. SEE ELECTRICAL DWGS. FOR SWITCH LOCATION.
13. ¾" TRAP PRIMER LINE DOWN TO BELOW FLOOR & EXTEND TO FLOOR DRAIN AS SHOWN.
14. 3" CW UP TO ROOF HYDRANT ON ROOF.
15. VALVE & CONNECT 1" CW TO ICE MACHINE.
16. VALVE & CONNECT GAS TO UNIT HEATER. PROVIDE SHUT-OFF VALVE, DRIP LEG, & UNION AT CONNECTION TO UNIT (UH-1).

NORTH

1 / P202 FLOOR PLAN – WATER & GAS

SCALE: 3/16" = 1'-0"

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GLUCKSTADT, MS
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Project No.: 22093
Date: APRIL 5, 2023
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Revisions: 1 APRIL 17, 2023, 2 APRIL 24, 2023

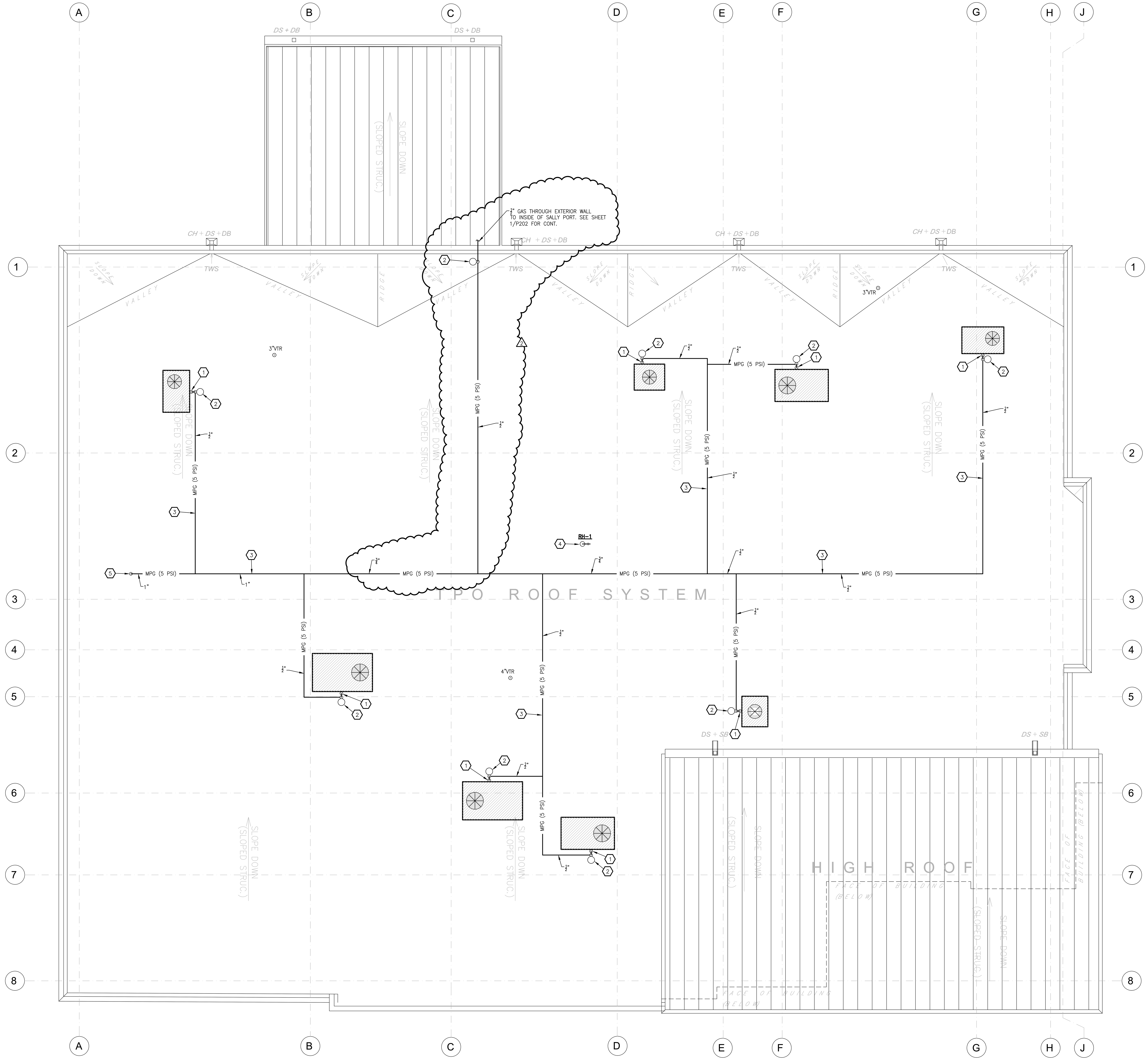
CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:

P202

FLOOR PLAN - WATER & GAS

HESM&A CONSULTING ENGINEERS
1 WOODGREEN PLACE
SUITE 210
MADISON, MISSISSIPPI 39110
(601) 856-5116 • FAX (601) 856-5331
MISSISSIPPI ENG. FIRM: #2398
HESM&A P.N. 23013



ROOF PLAN – PLUMBING

SCALE: 3/16" = 1'-0"

NOTES

1. VALVE & CONNECT GAS TO RTU ON ROOF. PROVIDE SHUT-OFF VALVE, DRIP LEG, & UNION AT CONNECTION TO UNIT.
2. INSTALL GAS REGULATOR TO REDUCE PRESS. FROM 5 PSI TO 7" W.C.
3. SUPPORT NEW PIPING ON ROOF WITH HOT DIPPED GALVANIZED PIPE SUPPORTS EQUAL TO PHP SYSTEMS/DESIGN PP10 WITH CHANNEL. PROVIDE ADJUSTABLE HEAVY DUTY GALVANIZED STEEL THREADED RODS AS RECOMMENDED BY SUPPORT MANUFACTURER. PROVIDE TRAFFIC PAD BETWEEN SUPPORT BASE AND ROOF. INSTALL SUPPORTS AT 5'-0" O.C. FOR 1" & SMALLER & 10'-0" FOR 1¼" & LARGER. PROVIDE SUPPORT WITHIN A FOOT OF EVERY ELBOW (TYP.).
4. ¾" CW FROM BELOW; INSTALL FREEZEPROOF ROOF HYDRANT (RH-1) ABOVE ROOF.
5. 1" GAS FROM BELOW; SEE SHEET 1/P202 FOR CONT.

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Project No.: 22093
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Drawn: RJB
Checked: WPI
Revisions: 1 APRIL 17, 2023; 2 APRIL 24, 2023

CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:
P203
ROOF PLAN - PLUMBING

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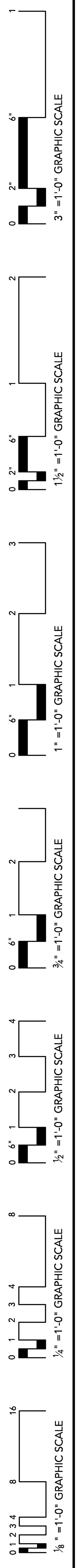
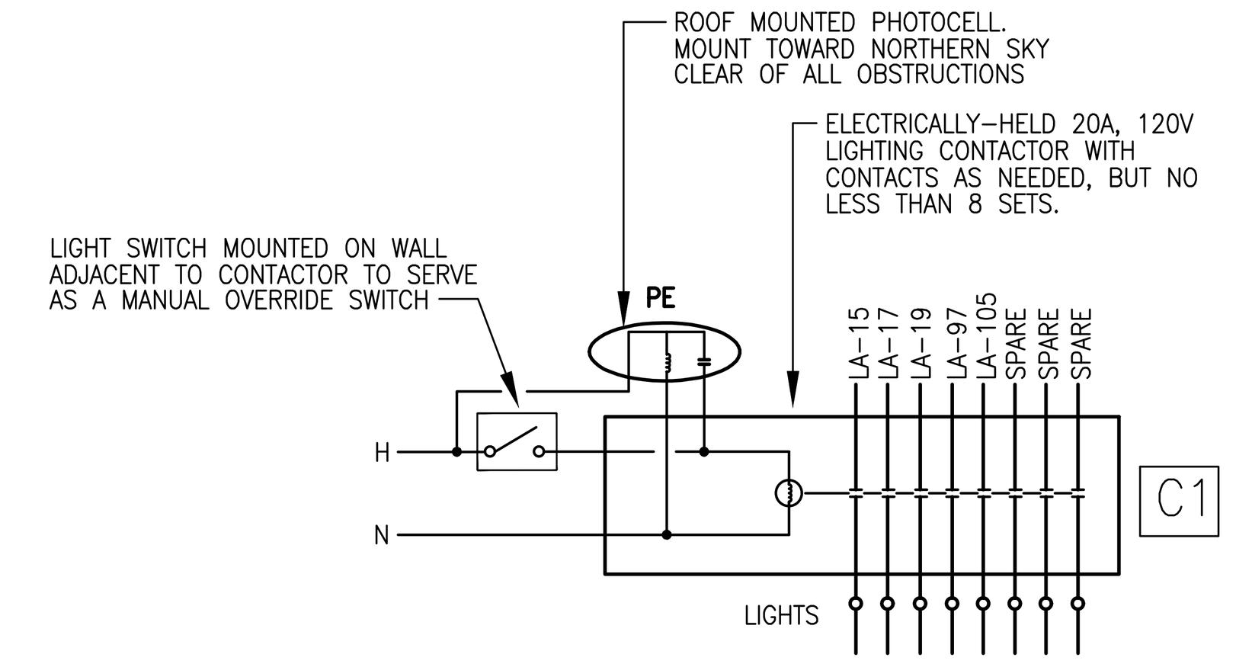
HESM&A P.N. 23013

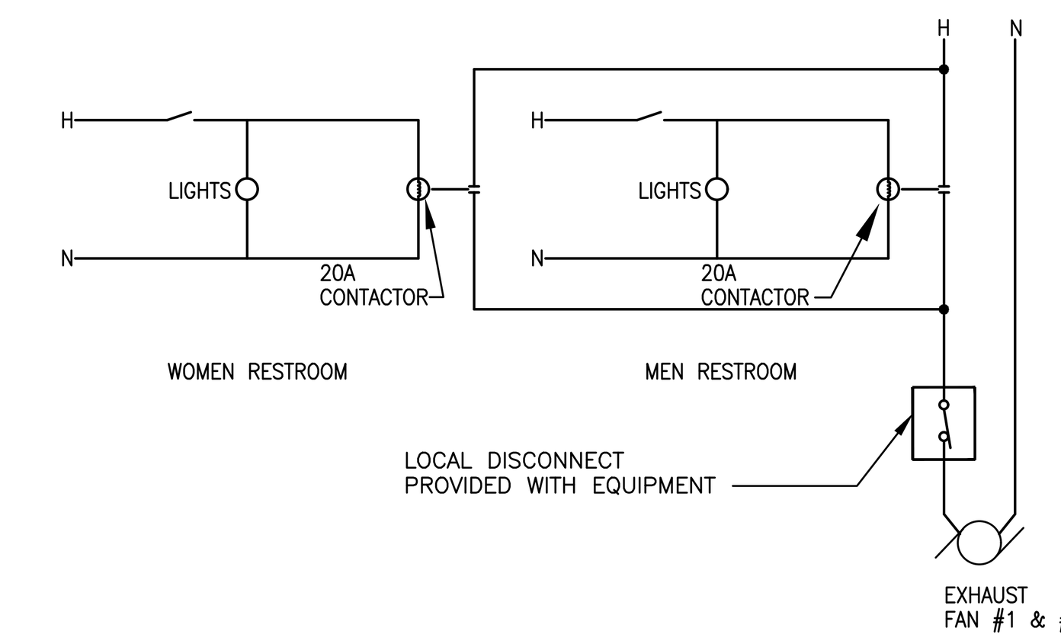


MASTER KEYED NOTES	
Mark	**Description**
1	EXHAUST FAN SERVES MULTIPLE ROOMS. INTERLOCK EXHAUST FAN WITH LIGHTS. SEE DETAIL 2/E100

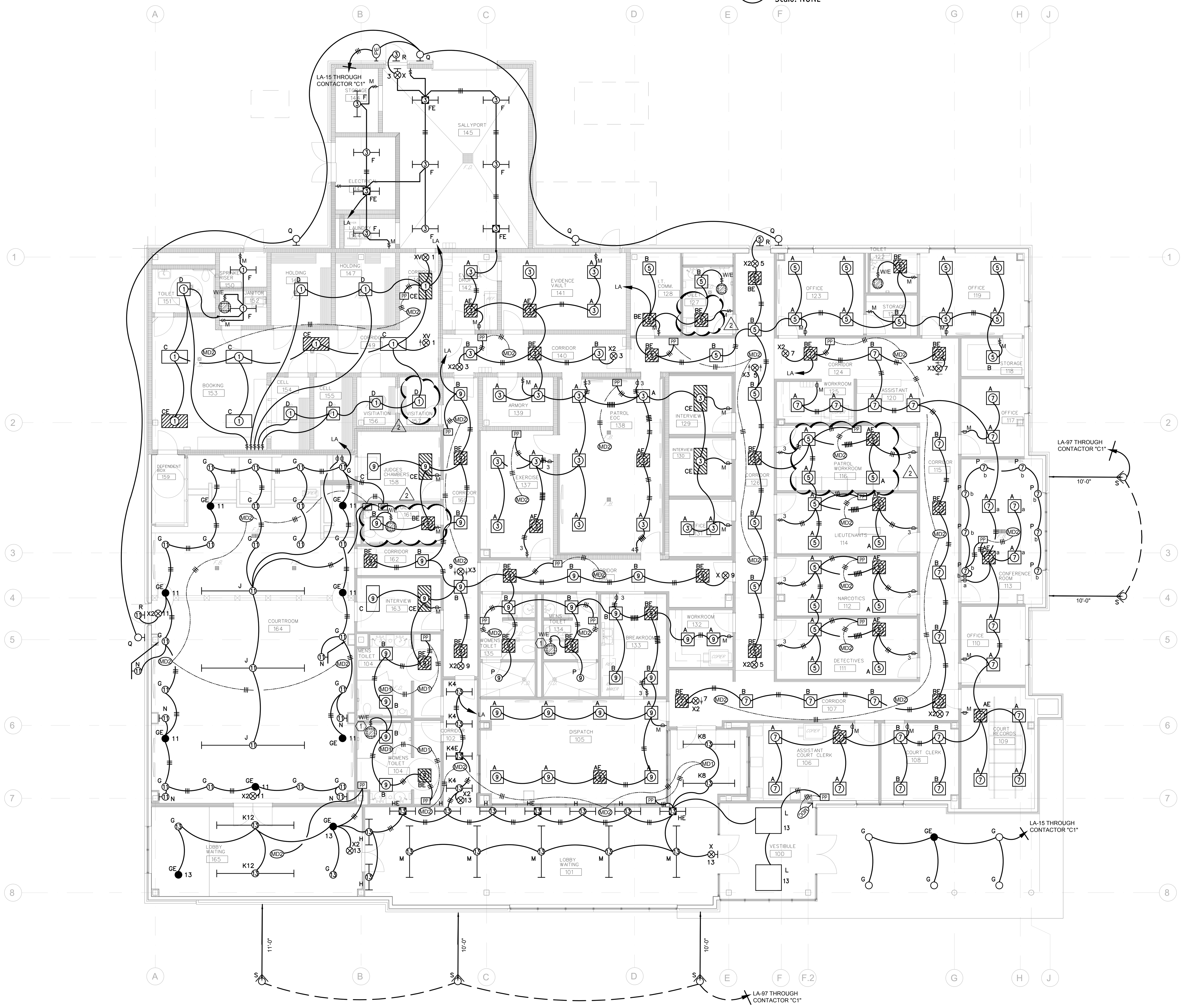
NOTE:
IF A KEYED NOTE IS NOT SHOWN ON A DRAWING, THEN THE KEYED NOTE SHALL BE IGNORED FOR THAT PARTICULAR DRAWING. THIS SHALL DIFFER FROM DRAWING TO DRAWING.



3/E100 **LIGHTING CONTACTOR DETAIL**
Scale: NONE



1/E101 **EXHAUST FAN DETAIL**
Scale: NONE



1/E101 **LIGHTING PLAN**
Scale: 1/8" = 1'-0"

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CHRISTOPHER L. GREEN
LICENSED PROFESSIONAL ENGINEER
04/05/2023
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STATE OF MISSISSIPPI

CONSTRUCTION DOCUMENTS

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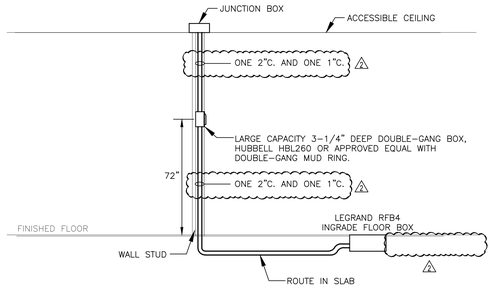
Revisions: 2 APRIL 25, 2023

CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

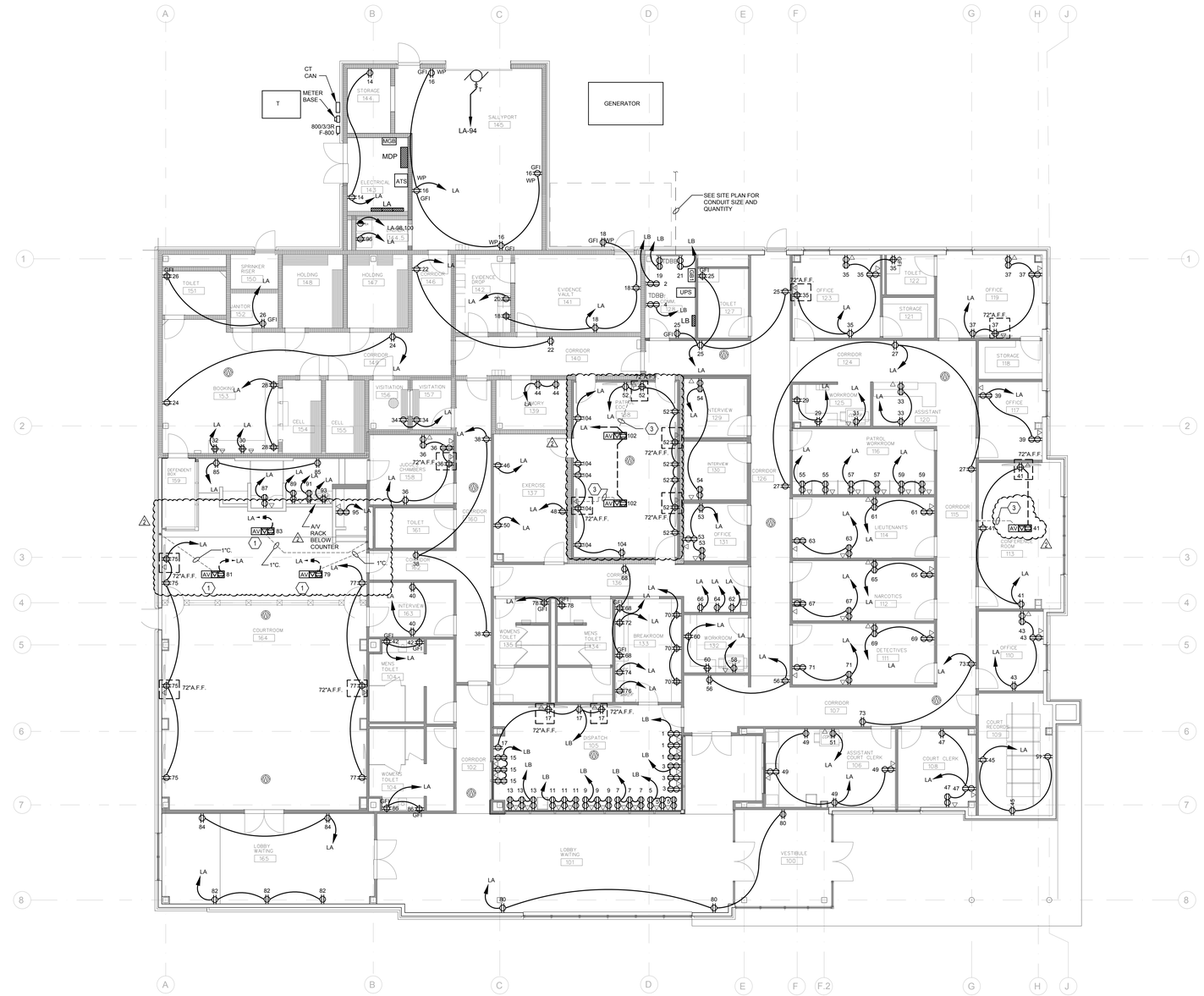
Sheet Number:
E100
LIGHTING PLAN

KEYED NOTES

Mark	Description
1	STUB UP 2"C. AT A/V RACK UNDER COUNTER IN COURT ROOM.
2	NOT USED
3	SEE DETAIL 2/E200.



2 / E200 CONFERENCE ROOM AND EOC AV PROVISIONS DETAIL
Scale: NONE



1 / E200 POWER PLAN
Scale: 1/8" = 1'-0"

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CHRISTOPHER L. GREEN — REGISTERED ARCHITECT — 01677 — 04/05/2023 — STATE OF MISSISSIPPI

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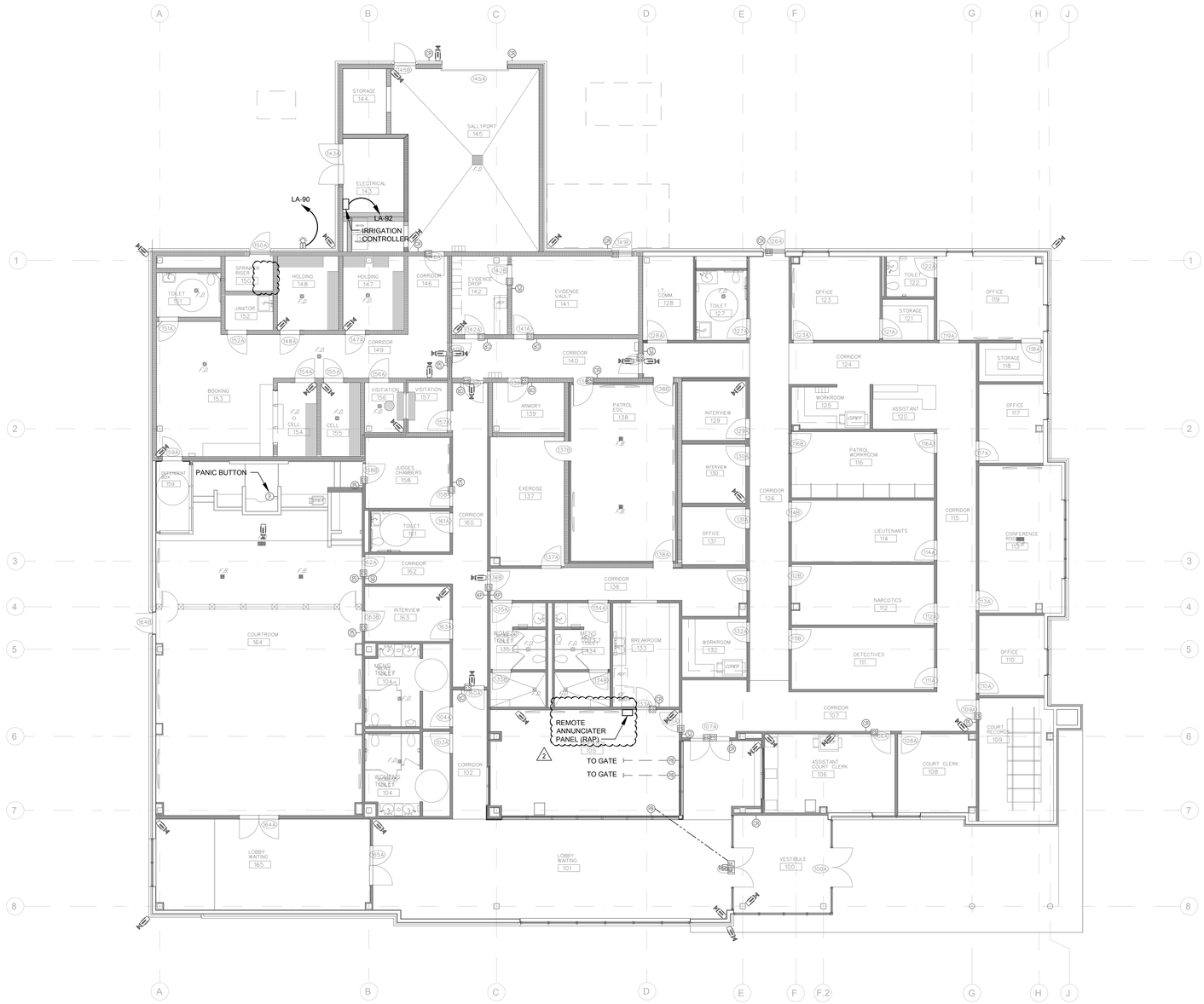
CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:
E200
POWER PLAN

GLUCKSTADT POLICE STATION
GLUCKSTADT, MS
23093

3/4" = 1'-0" GRAPHIC SCALE
3/8" = 1'-0" GRAPHIC SCALE
1/4" = 1'-0" GRAPHIC SCALE
1/8" = 1'-0" GRAPHIC SCALE



1 / E300 **AUXILIARY PLAN**
Scale: 1/8" = 1'-0"

3" =1'-0" GRAPHIC SCALE
1½" =1'-0" GRAPHIC SCALE
1" =1'-0" GRAPHIC SCALE
¾" =1'-0" GRAPHIC SCALE
½" =1'-0" GRAPHIC SCALE
¼" =1'-0" GRAPHIC SCALE
⅛" =1'-0" GRAPHIC SCALE

GLUCKSTADT POLICE STATION
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22093

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CHRISTOPHER L. GREER REGISTERED ARCHITECT 04/05/2023 1677 STATE OF MISSISSIPPI

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CITY OF GLUCKSTADT
POLICE STATION AND MUNICIPAL COURT
GLUCKSTADT, MS

Sheet Number:
E300
AUXILIARY PLAN