



ADDENDUM NO. 1

07/17/2026

GRAND ISLAND PUBLIC SCHOOLS GATES ELEMENTARY SCHOOL

513 S. CURTIS STREET, GRAND ISLAND, NEBRASKA

BID DATE IS 07/30/2026 AT 2:00 PM

The original Project Manual and Drawings for the project noted above are amended as noted in this Addendum. Included in this Addendum are Specification, Architectural, & Engineering items.

Please review all sheets and incorporate them into your set of Contract Documents.

The receipt of this Addendum shall be acknowledged by inserting its number and date in the space provided on the Bid Form.

PRE-BID MEETING

An optional Pre-Bid Meeting was held on site on Thursday, July 16th, 2026. Agenda notes and Sign-In Sheet are attached as part of the addendum.

SPECIFICATIONS

SECTION - 05 21 00 STEEL JOIST FRAMING

- A. **ADD** - Attached specification to the project manual.

SECTION - 05 31 00 STEEL DECKING

- A. **ADD** - Attached specification to the project manual.

SECTION – 08 71 00 DOOR HARDWARE

A. REISSUE SPECIFICATIONS

1. Delete Paragraph 2.07 MORTISE LOCKS and all associated sub-paragraphs.
2. Modify Paragraph 2.10/A/1. to read "Scheduled Manufacturer and Product: HID 40NKS"
3. Delete Paragraph 2.010/B that read "Requirements: Read Only Multi-technology Contactless reader..." and all associated sub-paragraphs.
4. Delete Paragraphs 2.14/C/1 through 2.14/C/4. and all associated sub-paragraphs.
5. Delete Paragraph 2.19/B that read "Provide door stops...." and all associated sub-paragraphs.
6. See attached revised specification for reference.

SECTION – 13 48 18 – POST FRAME BUILDING

- A. ADD** – Attached specification to the project manual.

DRAWINGS

SHEET T0.01 – TITLE SHEET

- A. REISSUE SHEET** – Removed Progress Print Stamp from drawing. Title Sheet and all subsequent drawings previously issued are "final" for bidding and construction purposes except as modified or reissued via Addendum.

SHEET A2.10 – INTERIOR FINISH PLAN – AREA A

- A. REISSUE SHEET** – SCOPE OF WORK TO INCLUDE FLOORING AND BASE IN THE FOLLOWING ROOMS:

1. Resource 197 to have RF-1 and RB-1.
2. Restroom 196 to have FAF-1.
3. Skills 195 to have RF-1 and RB-1.

SHEET A5.00 – DOORS AND WINDOWS

- A. MODIFY** – Schedule Keynote 5 to read " MODIFY EXISTING DOOR AND HARDWARE AS NECESSARY FOR INSTALLATION OF NEW HARDWARE."

SHEET A6.01 – INTERIOR ELEVATIONS

- A. REISSUE SHEET** – REMOVE SURFACE-MOUNTED ELECTRICAL RACEWAYS IN ELEVATIONS 9, 10, AND 11.

ARCHITECTURAL PRODUCT APPROVALS

The following materials or equipment furnished by the manufacturer listed may be substituted as equivalent, provided that each item and piece of equipment conforms to the design, quality and requirements of the specifications and drawings.

SECTION	ITEM	APPROVED
03 30 00	MVRA	AVECS

END OF ARCHITECTURAL ADDENDUM



**GRAND ISLAND PUBLIC SCHOOLS
GATES ELEMENTARY**
PRE-BID MEETING

7/16/2026 AT 2:00 PM

I. INTRODUCTIONS & CONTACTS

- A. Owner: Grand Island Public Schools
Client Contact: Dan Petsch – Director of Building and Grounds
- B. Architect: CMBA Architects
Jim Brisnehan – Principal in Charge
Matt Kreutzer – Associate Principal / Project Manager
Crayton Maurer – Architectural Designer
Trevor Kliever – Interior Designer
- C. Civil Engineering: Olsson
Adrian Tarango – Civil Engineer
- D. Structural Engineering: R.O. Youker
Mark Otte – Structural Engineer
- E. Mechanical Engineer: Engineering Technologies Inc. (ETI)
Derek Kotschwar – Mechanical Engineer
- F. Electrical Engineer: Engineering Technologies Inc. (ETI)
Tom Ernst – Electrical Engineer

II. PROJECT OVERVIEW

- A. General Description: Renovation of the existing Gates Elementary School and addition of a new main entrance, office and classroom space, and a new kitchen and commons.

The school will remain occupied during construction. GC will need to maintain utility service throughout for the existing building, coordinating any interruption with the Owner in advance. Student access to the gym/ cafeteria/ kitchen will need to be maintained around or through the construction area. All required barriers, fencing, signs, etc. will need to be provided by G.C. Life safety systems will need to be maintained as required the Fire Marshal.

Space will be provided onsite for trailers and material lay-down, however, parking onsite will be limited during times the school is occupied.

- B. Site Location: 513 S. Curtis Street, Grand Island, NE 68803

III. FRONT END DOCUMENTS

- A. Invitation to Bid

- a. Bid Date: Thursday, July 30th at 2:00 PM in the Board Room of the Michael S. Kneale Administration Building, 123 S. Webb Road, Grand Island, NE 68803.
- b. Project delivery method: Design - Bid - Build
- c. Sealed Bids are to be enclosed in a separate envelope and shall be marked "GRAND ISLAND PUBLIC SCHOOLS"
- d. Bids received after the designated time will be returned unopened
- e. Faxed bids will not be accepted
- f. Bids shall include the following (1 copy is required):

Bid Form - Included in Specification Manual

Bid Security - In the form of a Bid Bond AIA A310 or cashier's check in the amount of 5% of the bid made out to Grand Island Public Schools.

- B. Performance Bond/Labor and Material Payment Bond - Required per City's Performance, Payment, and Maintenance Requirements outlined in Specification Manual.
- C. Building Permit - Shall be the responsibility of the General Contractor to secure and pay the cost of all building permits and fees.
- D. Builder's Risk Insurance - Builder's Risk Insurance will be by the Owner.
- E. Sales Tax - The project is sales tax exempt.
- F. Substitution Requests - All product substitution requests must be submitted seven days prior to the bid date. Acceptable substitutions will be issued in addendum.
- G. Insurance Requirements - Included in Specification Manual - Supplementary Conditions to General Conditions
- H. General Conditions - AIA Document A201.
- I. Award Schedule: Bids Due Back by Thursday, July 30th. Facility and Finance Meeting to recommend approval shall be the following Tuesday, August 4th. Approval by School Board shall be Thursday, August 13th.
- J. Existing Building Information - There are limited drawings of the previous additions to the school.
 - a. Roofs: With the exception of the existing gym roof, the existing roofs are fairly new and must be protected and maintained during construction.
 - b. Utility Tunnels: Existing utility tunnels wrap the perimeter of most of the existing building. These locations are shown on the existing drawings that are available. Some underpinning is required as shown on the structural drawings.
 - c. Temporary Relocation: The Owner has developed plans to temporarily relocate the school's main entrance and administrative office to the east side of the building when the current space is needed for renovation. The timing of this move and work required will need to be coordinated between the GC and the Owner.
- K. Building Access - After today's meeting, and before the bid date, access to the school to review existing conditions can be coordinated with the Owner, by contacting CMBA Architects.
- L. Alternates - This project has three add alternates. *See Specifications and Drawings for additional information on Alternates.*

IV. SPECIFICATIONS/DRAWINGS/ADDENDA

- A. Specifications, drawings, and addenda are available at CMBA or the Plan Rooms listed in the Supplementary Instruction to Bidders.
- B. Notes and Sign-In Sheet from today will be included in the first addendum.
- C. Pole Barn Storage Shed will be provided by General Contractor as shown on drawings. Specifications will be issued with additional information.
- D. Construction Staging and Site Access: Discussion with GIPS
- E. Project Phasing and Anticipated Schedule:
 - a. Addition to commence this fall 2026
 - b. Temporary Office will be set up in Classroom 186.
 - c. Renovation Schedule: General expectation is that the commons addition would start first. At some point the front admin addition will start at which point the temporary office will need to be set-up.
 - d. If the commons addition is able to come online during the school year, GIPS would work with the contractor to then free-up some of the existing classrooms so that renovation work could occur in those. If work needs to continue into the following school year, again GIPS would work with the contractor to allow renovation work to occur in empty classrooms and shift classrooms as needed.
 - e. Final Completion: While ideally work would be completed by August 2027, it is realized that this would be a hefty goal and work is likely to continue into the 2027 school year. GIPS will work with contractor to allow renovation work to continue within the building as needed.

V. PROJECT OVERVIEW / FINAL QUESTIONS

- A. Project Highlights
 - a. Brick on CMU Back-Up Exterior Wall System
 - b. Approximately 8500 SF Addition
 - c. Existing School is approximately 42,000 SF
 - d. Most of the buildings see some sort of upgrade
 - i. Flooring
 - ii. Ceiling
 - iii. Lights
 - iv. Paint
 - v. Hallway modifications
- B. Mechanical Highlights:
- C. Electrical Highlights:
- D. Questions?

PRE-BID MEETING

CLIENT NAME: GIPS - GATES ELEMENTARY

DATE: 07/16/2026

Name	Phone	Company	Email
Joe Reiter	402-477-6745	Cheever Construction	jreiter@cheeverconstruction.com
Justin Kurtzer	402-477-6745	Cheever Construction	jkurtzer@cheeverconstruction.com
Matt Middleton	308-382-2550	Middleton Electric	mattm@middletonelectric.com
Tony Peters	402-705-2383	Rutt's Heating & Air	tpeters@ruttsheating.com
Robert Chambers	402-705-4805	Midlands Mechanical	rchambers@midmechinc.com
Ryan Dygert	402-604-5227	Hamilton Telecom.	ryan.dygert@hamiltontel.com
Mike Mchugh	308-389-7429	Chief	mike.mchugh@chiefind.com
Ben Harris	402-213-1682	Scheele Kayton Construction	ben@scheelekayton.com
Lily Asche	308-675-3330	White Castle Roofing	kjohnson@whitecastelroofing.com
David Crook	308-982-2389	Control Services Inc	dcrook@controlservices.com
Josh Albright	402-613-2911	Hausmenn	josh.albright@hausmann.build
Mike Hollister	308-379-3338	Cardinal Construction	cardcomike@gmail.com
Jon Niebuhr	308-258-2694	Cardinal Construction	cardcojon@gmail.com
Pat O'Neill	308-380-6032	O'Neill Demolition	Pat@oneillwr.com
Doug Penner	402-694-8818	Hamilton Business Tech	doug.penner@hamiltontel.com
Tammy Krichau	42-476-1273	ETI	tkrichau@eti-engineers.com



PRE-BID MEETING

CLIENT NAME: GIPS - GATES ELEMENTARY

DATE: 07/16/2026

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**SECTION 05 21 00
STEEL JOIST FRAMING**

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. K-series steel joists.
 - 2. Steel joist accessories.

1.02 DEFINITIONS

- A. SJI's "Specifications": Steel Joist Institute's "Standard Specifications, Load Tables and Weight Tables for Steel Joists and Joist Girders."

1.03 ACTION SUBMITTALS

- A. Product Data: For each type of joist, accessory, and product.
- B. Shop Drawings:
 - 1. Include layout, designation, number, type, location, and spacing of joists.
 - 2. Include joining and anchorage details; bracing, bridging, and joist accessories; splice and connection locations and details; and attachments to other construction.
 - 3. Indicate locations and details of bearing plates to be embedded in other construction.

1.04 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer.
- B. Welding certificates.
- C. Manufacturer certificates.
- D. Field quality-control reports.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A manufacturer certified by SJI to manufacture joists complying with applicable standard specifications and load tables in SJI's "Specifications."
 - 1. Manufacturer's responsibilities include providing professional engineering services for designing special joists to comply with performance requirements.
- B. Welding Qualifications: Qualify field-welding procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle joists as recommended in SJI's "Specifications."
- B. Protect joists from corrosion, deformation, and other damage during delivery, storage, and handling.

1.07 SEQUENCING

- A. Deliver steel bearing plates to be built into masonry construction.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. New Millennium Building Systems, LLC.
 - 2. Vulcraft/Verco Group; a division of Nucor Corp.

2.02 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide special joists and connections capable of withstanding design loads indicated on Drawings.
 - 1. Use ASD; data are given at service-load level.
 - 2. Design special joists to withstand design loads with live-load deflections no greater than the following:
 - a. Roof Joists: Vertical live load deflection of 1/360 of the span.

2.03 STEEL JOISTS

- A. K-Series Steel Joist: Manufactured steel joists of type indicated according to "Standard Specification for Open Web Steel Joists, K-Series" in SJI's "Specifications," with steel-angle top- and bottom-chord members, underslung ends, and parallel top chord.
 - 1. Joist Type: K-series steel joists.
 - 2. Provide holes in chord members for connecting and securing other construction to joists.
 - 3. Extended Ends: Extend bearing ends of joists with SJI's Type R extended ends where indicated on Drawings, complying with SJI's "Specifications."
 - 4. Camber joists according to SJI's "Specifications."
 - 5. Equip bearing ends of joists with manufacturer's standard beveled ends or sloped shoes if joist slope exceeds **1/4 inch per 12 inches (1:48)**.

2.04 PRIMERS

- A. Primer:

1. SSPC-Paint 15, or manufacturer's standard shop primer complying with performance requirements in SSPC-Paint 15.

2.05 STEEL JOIST ACCESSORIES

- A. Bridging:
 1. Provide bridging anchors and number of rows of horizontal or diagonal bridging of material, size, and type required by SJI's "Specifications" for type of joist, chord size, spacing, and span. Furnish additional erection bridging if required for stability.
- B. Furnish ceiling extensions, either extended bottom-chord elements or a separate extension unit of enough strength to support ceiling construction.
 1. Extend ends to within **1/2 inch (13 mm)** of finished wall surface unless otherwise indicated on Drawings.
 2. Finish: Plain, uncoated.
- C. High-Strength Bolts, Nuts, and Washers: ASTM F3125/F3125M, **Grade A325 (Grade A325M)**, Type 1, heavy-hex steel structural bolts; **ASTM A563, Grade DH, (ASTM A563M, Class 10S)** heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers.
 1. Finish: Plain.
- D. Welding Electrodes: Comply with AWS standards.
- E. Furnish miscellaneous accessories including splice plates and bolts required by joist manufacturer to complete joist assembly.

2.06 CLEANING AND SHOP PAINTING

- A. Clean and remove loose scale, heavy rust, and other foreign materials from fabricated joists and accessories by hand-tool cleaning, SSPC-SP 2 or power-tool cleaning, SSPC-SP 3.
- B. Apply one coat of shop primer to joists and joist accessories to be primed to provide a continuous, dry paint film not less than **1 mil (0.025 mm)** thick.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine supporting substrates, embedded bearing plates, and abutting structural framing for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Do not install joists until supporting construction is in place and secured.

- B. Install joists and accessories plumb, square, and true to line; securely fasten to supporting construction according to SJI's "Specifications," joist manufacturer's written instructions, and requirements in this Section.
 - 1. Before installation, splice joists delivered to Project site in more than one piece.
 - 2. Space, adjust, and align joists accurately in location before permanently fastening.
 - 3. Install temporary bracing and erection bridging, connections, and anchors to ensure that joists are stabilized during construction.
 - 4. Delay rigidly connecting bottom-chord extensions to columns or supports until dead loads are applied.
- C. Field weld joists to supporting steel bearing plates and framework. Coordinate welding sequence and procedure with placement of joists. Comply with AWS requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.
- D. Bolt joists to supporting steel framework using high-strength structural bolts. Comply with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for high-strength structural bolt installation and tightening requirements.
- E. Install and connect bridging concurrently with joist erection, before construction loads are applied. Anchor ends of bridging lines at top and bottom chords if terminating at walls or beams.

3.03 REPAIRS

- A. Touchup Painting:
 - 1. Immediately after installation, clean, prepare, and prime or reprime field connections, rust spots, and abraded surfaces of prime-painted joists, bearing plates, abutting structural steel, and accessories.
 - a. Clean and prepare surfaces by SSPC-SP 2 hand-tool cleaning or SSPC-SP 3 power-tool cleaning.
 - b. Apply a compatible primer of same type as primer used on adjacent surfaces.

3.04 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Visually inspect field welds according to AWS D1.1/D1.1M.
- C. Visually inspect bolted connections.
- D. Prepare test and inspection reports.

END OF SECTION

**SECTION 05 31 00
STEEL DECKING**

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Roof deck.

1.02 ACTION SUBMITTALS

A. Product Data:

1. Roof deck.

B. Shop Drawings:

1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.03 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Product Certificates: For each type of steel deck.

C. Field Quality-Control Submittals:

1. Field quality-control reports.

D. Qualification Statements: For welding personnel.

1.04 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with SDI QA/QC and the following welding codes:

1. AWS D1.1/D1.1M.
2. AWS D1.3/D1.3M.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage, and handling.

- B. Store products in accordance with SDI MOC3. Stack steel deck on platforms or pallets and slope to provide drainage. Protect with a waterproof covering and ventilate to avoid condensation.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. AISI Specifications: Comply with calculated structural characteristics of steel deck in accordance with AISI S100.

2.02 ROOF DECK

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Epic Metals Corporation.
 - 2. New Millennium Building Systems, LLC.
 - 3. Vulcraft/Verco Group; a division of Nucor Corp.
- B. Fabrication of Roof Deck: Fabricate panels, without top-flange stiffening grooves, to comply with SDI RD and with the following:
 - 1. Galvanized-Steel Sheet: ASTM A653/A653M, Structural Steel (SS), Grade 33 (230), G60 (Z180) zinc coating.
 - 2. Deck Profile: As indicated.
 - 3. Profile Depth: As indicated.
 - 4. Design Uncoated-Steel Thickness: As indicated.
 - 5. Span Condition: Triple span or more.
 - 6. Side Laps: Overlapped.

2.03 ACCESSORIES

- A. Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.
- B. Side-Lap Fasteners: Corrosion-resistant, hexagonal washer head; self-drilling, carbon-steel screws, No. 10 (4.8-mm) minimum diameter.
- C. Flexible Closure Strips: Vulcanized, closed-cell, synthetic rubber.
- D. Miscellaneous Sheet Metal Deck Accessories: Steel sheet, minimum yield strength of 33,000 psi (230 MPa), not less than 0.0359-inch (0.91-mm) design uncoated thickness, of same material and finish as deck; of profile indicated or required for application.
- E. Pour Stops and Girder Fillers: Steel sheet, minimum yield strength of 33,000 psi (230 MPa), of same material and finish as deck, and of thickness and profile recommended by SDI standards for overhang and slab depth.
- F. Column Closures, End Closures, Z-Closures, and Cover Plates: Steel sheet, of same material, finish, and thickness as deck unless otherwise indicated.

- G. Recessed Sump Pans: Single-piece steel sheet, 0.0747 inch (1.90 mm) thick, of same material and finish as deck, with 3-inch- (76-mm-) wide flanges and level recessed pans of 1-1/2-inch (38-mm) minimum depth. For drains, cut holes in the field.
- H. Galvanizing Repair Paint: ASTM A780/A780M.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine supporting frame and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION, GENERAL

- A. Install deck panels and accessories in accordance with SDI C, SDI NC, and SDI RD, as applicable; manufacturer's written instructions; and requirements in this Section.
- B. Locate deck bundles to prevent overloading of supporting members.
- C. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.
- D. Place deck panels flat and square and fasten to supporting frame without warp or deflection.
- E. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.
- F. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.
- G. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used for correcting welding work.

3.03 INSTALLATION OF ROOF DECK

- A. Fasten roof-deck panels to steel supporting members by arc spot (puddle) welds of the surface diameter indicated or arc seam welds with an equal perimeter that is not less than 1-1/2 inches (38 mm) long, and as follows:
 - 1. Weld Diameter: 5/8 inch (16 mm), nominal.
 - 2. Weld Spacing: Weld edge and interior ribs of deck units with a minimum of two welds per deck unit at each support. Space welds as indicated.
- B. Side-Lap and Perimeter Edge Fastening: Fasten side laps and perimeter edges of panels between supports, at intervals not exceeding the lesser of one-half of the span or 18 inches (460 mm), and as follows:

1. Mechanically fasten with self-drilling, No. 10 (4.8-mm-) diameter or larger, carbon-steel screws.
2. Refer to Drawings for special fastening requirements at gymnasium.
- C. End Bearing: Install deck ends over supporting frame with a minimum end bearing of 1-1/2 inches (38 mm), with end joints as follows:
 1. End Joints: Lapped 2 inches (50 mm) minimum.
- D. Roof Sump Pans and Sump Plates: Install over openings provided in roof deck and weld flanges to top of deck. Space welds not more than 12 inches (300 mm) apart with at least one weld at each corner.
 1. Install reinforcing channels or zees in ribs to span between supports and weld.
- E. Miscellaneous Roof-Deck Accessories: Install ridge and valley plates, finish strips, end closures, and reinforcing channels in accordance with deck manufacturer's written instructions. Weld to substrate to provide a complete deck installation.
 1. Weld cover plates at changes in direction of roof-deck panels unless otherwise indicated.
- F. Flexible Closure Strips: Install flexible closure strips over partitions, walls, and where indicated. Install with adhesive in accordance with manufacturer's written instructions to ensure complete closure.

3.04 REPAIR

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on both surfaces of deck with galvanized repair paint in accordance with ASTM A780/A780M and manufacturer's written instructions.

3.05 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Tests and Inspections:
 1. Special inspections and qualification of welding special inspectors for cold-formed steel floor and roof deck in accordance with quality-assurance inspection requirements of SDI QA/QC.
 - a. Field welds will be subject to inspection.
 2. Steel decking will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

END OF SECTION

SECTION 08 71 00 - DOOR HARDWARE

GENERAL

1.01 REFERENCE STANDARDS

- A. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames; 2020.
- B. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2017.
- C. ASTM B117 - Standard Practice for Operating Salt Spray (Fog) Apparatus; 2019.
- D. BHMA A156.1 - Standard for Butts and Hinges; 2025.
- E. BHMA A156.2 - Bored and Preassembled Locks and Latches; 2017.
- F. BHMA A156.3 - Exit Devices; 2025.
- G. BHMA A156.4 - Door Closers and Pivots; 2024.
- H. BHMA A156.5 - Cylinders and Input Devices for Locks; 2020.
- I. BHMA A156.13 - Mortise Locks & Latches Series 1000; 2017.
- J. BHMA A156.19 - Power Assist and Low Energy Power Operated Swinging Doors; 2019.
- K. BHMA A156.28 - Standard for Recommended Practices for Mechanical Keying Systems; 2023.
- L. BHMA A156.31 - Electric Strikes and Frame Mounted Actuators; 2024.
- M. ISO 9000 - Quality Management — Fundamentals and Vocabulary; 2026.
- N. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- O. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2022.
- P. NFPA 105 - Standard for Smoke Door Assemblies and Other Opening Protectives; 2022.
- Q. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2022.
- R. UL 10B - Standard for Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- S. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- T. UL 294 - Access Control System Units; Current Edition, Including All Revisions.
- U. UL 305 - Standard for Panic Hardware; Current Edition, Including All Revisions.
- V. UL 1784 - Standard for Air Leakage Tests of Door Assemblies; Current Edition, Including All Revisions.

1.02 RELATED DOCUMENTS

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

1.03 SUMMARY

- A. Section includes:
 - 1. Mechanical and electrified door hardware for:
 - a. Swinging doors.
 - 2. Electronic access control system components, including:
 - a. Electronic access control devices.
 - 3. Field verification, preparation and modification of existing doors and frames to receive new door hardware.
 - 4. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

- B. Exclusions: Unless specifically listed in hardware sets, hardware is not specified in this section for:
 - 1. Windows
 - 2. Cabinets (casework), including locks in cabinets
 - 3. Signage
 - 4. Toilet accessories
 - 5. Overhead doors
- C. Related Sections:
 - 1. Division 01 Section "Alternates" for alternates affecting this section.
 - 2. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
 - 3. Division 26 sections for connections to electrical power system and for low-voltage wiring.
 - 4. Division 28 sections for coordination with other components of electronic access control system.

1.04 REFERENCES

- A. UL - Underwriters Laboratories
 - 1. UL 10B - Fire Test of Door Assemblies
 - 2. UL 10C - Positive Pressure Test of Fire Door Assemblies
 - 3. UL 1784 - Air Leakage Tests of Door Assemblies
 - 4. UL 305 - Panic Hardware
- B. DHI - Door and Hardware Institute
 - 1. Sequence and Format for the Hardware Schedule
 - 2. Recommended Locations for Builders Hardware
 - 3. Key Systems and Nomenclature
- C. ANSI - American National Standards Institute
 - 1. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties

1.05 SUBMITTALS

- A. General:
 - 1. Submit in accordance with Conditions of Contract and Division 01 requirements.
 - 2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
 - 3. Prior to forwarding submittal, comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, "EXAMINATION" article, herein.
- B. Action Submittals:
 - 1. Product Data: Technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
 - 2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.

- 4) Risers.
 3. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:
 - a. Door Index; include door number, heading number, and Architects hardware set number.
 - b. Opening Lock Function Spreadsheet: List locking device and function for each opening.
 - c. Quantity, type, style, function, size, and finish of each hardware item.
 - d. Name and manufacturer of each item.
 - e. Fastenings and other pertinent information.
 - f. Location of each hardware set cross-referenced to indications on Drawings.
 - g. Explanation of all abbreviations, symbols, and codes contained in schedule.
 - h. Mounting locations for hardware.
 - i. Door and frame sizes and materials.
 - j. Name and phone number for local manufacturer's representative for each product.
 - k. Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components).
Operational description should include operational descriptions for: egress, ingress (access), and fire/smoke alarm connections.
 - 1) Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work that is critical in Project construction schedule.
 4. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory or shop prepared for door hardware installation.
- C. Informational Submittals:
1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
 2. Product data for electrified door hardware:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 3. Warranty: Special warranty specified in this Section.
- D. Closeout Submittals:
1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representatives for each manufacturer.
 - d. Parts list for each product.
 - e. Final approved hardware schedule edited to reflect conditions as installed.
 - f. Final keying schedule
 - g. Copies of floor plans with keying nomenclature
 - h. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
 - i. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

1.06 QUALITY ASSURANCE

- A. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
 - 1. Warehousing Facilities: In Project's vicinity.
 - 2. Scheduling Responsibility: Preparation of door hardware and keying schedules.
 - 3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies like those indicated for this Project.
 - 4. Coordination Responsibility: Assist in coordinating installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.
 - a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.
- B. Architectural Hardware Consultant Qualifications: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - 1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC).
 - 2. Can provide installation and technical data to Architect and other related subcontractors.
 - 3. Can inspect and verify components are in working order upon completion of installation.
 - 4. Capable of producing wiring diagrams.
 - 5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.
- C. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
- D. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- E. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
- F. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in "REFERENCES" article, herein.
- G. Pre-installation Conference
 - 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Inspect and discuss preparatory work performed by other trades.
 - 3. Inspect and discuss electrical roughing-in for electrified door hardware.
 - 4. Review sequence of operation for each type of electrified door hardware.
 - 5. Review required testing, inspecting, and certifying procedures.
- H. Coordination Conferences:

1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
2. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.
 1. Deliver each article of hardware in manufacturer's original packaging.
- C. Project Conditions:
 1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
 2. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- D. Protection and Damage:
 1. Promptly replace products damaged during shipping.
 2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
 3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

1.08 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.09 WARRANTY

- A. Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 1. Warranty Period: Beginning from date of Substantial Completion, for durations indicated.
 - a. Closers:
 - 1) Mechanical: LCN 4000 series, 30 years.
 - 2) Electrified: 2 years.
 - b. Automatic Operators: LCN, 2 years.
 - c. Exit Devices:
 - 1) Mechanical: 3 years.

- 2) Electrified: 1 year.
 - d. Locksets:
 - 1) Mechanical: Schlage ND series, 10 years.
 - e. Key Blanks: Lifetime
- 2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

1.10 MAINTENANCE

- A. Maintenance Tools: Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PRODUCTS

2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
 - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.

2.02 MATERIALS

- A. Fasteners
 - 1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
 - 2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
 - 3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru bolts are required.
 - 4. Install hardware with fasteners provided by hardware manufacturer.

2.03 HINGES

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product: Ives 5BB series.
 - 2. Acceptable Manufacturers and Products: Hager BB series.
- B. Requirements:
 - 1. Provide hinges conforming to ANSI/BHMA A156.1.
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches high
 - b. Interior: Standard weight, steel, 4-1/2 inches high
 - 2. Provide three hinges per door leaf for doors 90 inches or less in height, and one additional hinge for each 30 inches of additional door height.
 - 3. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
 - 4. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:

- a. Steel Hinges: Steel pins
- b. Non-Ferrous Hinges: Stainless steel pins
- c. Out-Swinging Exterior Doors: Non-removable pins
- d. Out-Swinging Interior Lockable Doors: Non-removable pins
- e. Interior Non-lockable Doors: Non-rising pins

2.04 ELECTRIC POWER TRANSFER

- A. Manufacturers:
 - 1. Scheduled Manufacturer: Von Duprin EPT-10.
 - 2. Acceptable Manufacturers: NO SUBSTITUTION.
- B. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
- C. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.05 FLUSH BOLTS

- A. Manufacturers:
 - 1. Scheduled Manufacturer: Ives.
 - 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Requirements:
 - 1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch steel or brass rods at doors up to 90 inches in height. For doors over 90 inches in height increase top rods by 6 inches for each additional 6 inches of door height. Provide dust-proof strikes at each bottom flush bolt.

2.06 COORDINATORS

- A. Manufacturers:
 - 1. Scheduled Manufacturer: Ives.
 - 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Requirements:
 - 1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
 - 2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device strikes, or other stop mounted hardware. Factory-prepared coordinators for vertical rod devices as specified.

2.07 CYLINDRICAL LOCKS – GRADE 1

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product: Schlage ND series.
 - 2. Acceptable Manufacturers and Products: NO SUBSTITUTION.
- B. Requirements:
 - 1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
 - 2. Cylinders: Refer to "KEYING" article, herein.
 - 3. Provide locks with standard 2-3/4 inches backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.

4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets.
8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Lever Design: Schlage RHODES (RHO).

2.08 EXIT DEVICES

- A. Manufacturers and Products:
 1. Scheduled Manufacturer and Product: Von Duprin 99 series.
 2. Acceptable Manufacturers and Products: NO SUBSTITUTION.
- B. Requirements:
 1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
 2. Cylinders: Refer to "KEYING" article, herein.
 3. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
 4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
 5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
 6. Provide flush end caps for exit devices.
 7. Provide exit devices with manufacturer's approved strikes.
 8. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
 9. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
 10. Provide cylinder dogging as specified at non fire-rated openings.
 11. Removable Mullions: 2 inches x 3 inches steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
 12. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
 13. Provide electrified options as scheduled.
 14. Rim Exit Devices: provide devices with non-tapered smart latchbolt with 90° latchbolt to strike engagement under stress and Static Load Resistance of 2000 pounds.
 15. Concealed Vertical Cable Exit Devices: provide cable-actuated concealed vertical latch system in two-point for non-rated or fire rated wood doors up to a 90-minute rating and less bottom latch (LBL) configuration for non-rated or fire rated wood doors up to 20-minute rating. Vertical rods not permitted.
 - a. Cable: Stainless steel with abrasive resistant coating. Conduit and core wire ends snap into latch and center slides without use of tools.
 - b. Wood Door Prep: Maximum 1-inch x 1.1875-inch x 3.875 inches top latch pocket and 1-inch x 1.1875-inch x 5 inches bottom latch pocket which does not require the use of a metal wrap or edge for non-rated or fire rated wood doors up to a 45-minute rating.
 - c. Latchbolts and Blocking Cams: Manufactured from sintered metal low carbon copper- infiltrated steel, with molybdenum disulfide low friction coating.

- d. Top Latchbolt: Minimum 0.38 inch and greater than 90-degree engagement with strike to prevent door and frame separation under high static load.
 - e. Bottom Latchbolt: Minimum of 0.44-inch 0.43 inch engagement with strike.
 - f. Product Cycle Life: 1,000,000 cycles.
 - g. Latch Operation: Top and bottom latch operate independently of each other. Top latch fully engages top strike even when bottom latch is compromised. Separate trigger mechanisms not permitted.
 - h. Latch release does not require separate trigger mechanism.
 - i. Cable and latching system characteristics:
 - 1) Installed independently of exit device installation, and capable of functioning on door prior to device and trim installation.
 - 2) Connected to exit device at single point in steel and aluminum doors, and two points for top and bottom latches in wood doors.
 - 3) Bottom latch height adjusted, from single point for steel and aluminum doors and two points for wood doors, after system is installed and connected to exit device, while door is hanging
 - 4) Bottom latch position altered up and down minimum of 2 inches in steel and aluminum doors without additional adjustment. Bottom latch deadlocks in every adjustment position in wood doors.
 - 5) Top and bottom latches in steel and aluminum doors and top latch in wood doors may be removed while door is hanging.
16. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
17. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.09 ACCESS CONTROL READER

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product: Schlage HID40NKS.
 - 2. Acceptable Manufacturers and Products: NO SUBSTITUTION.

2.10 ELECTRIC STRIKES

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product: Von Duprin 6000 Series.
 - 2. Acceptable Manufacturers and Products: NO SUBSTITUTION.
- B. Requirements:
 - 1. Provide electric strikes designed for use with type of locks shown at each opening.
 - 2. Provide electric strikes UL Listed as burglary resistant.
 - 3. Where required, provide electric strikes UL Listed for fire doors and frames.
 - 4. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

2.11 POWER SUPPLIES

- A. Manufacturers and Products:
 - 1. Scheduled Manufacturer and Product: Schlage/Von Duprin PS900 series.
 - 2. Acceptable Manufacturers and Products: NO SUBSTITUTION.
 - 3. Provide power supplies approved by manufacturer of supplied electrified hardware.
 - 4. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply,

location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.

5. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
6. Provide power supplies with the following features:
 - a. 12/24 VDC Output, field selectable.
 - b. Class 2 Rated power limited output.
 - c. Universal 120-240 VAC input.
 - d. Low voltage DC regulated and filtered.
 - e. Polarized connector for distribution boards.
 - f. Fused primary input.
 - g. AC input and DC output monitoring circuit w/LED indicators.
 - h. Cover mounted AC Input indication.
 - i. Tested and certified to meet UL 294.
 - j. NEMA 1 enclosure.
 - k. Hinged cover w/lock down screws.
 - l. High voltage protective cover.

2.12 CYLINDERS

- A. Manufacturers:
 1. Scheduled Manufacturer: SCHLAGE.
- B. Requirements:
 1. Provide permanent / interchangeable cylinders/cores to match Owner's existing key system, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.
 2. Provide the following keyway: PER OWNER REQUEST.
- C. Construction Keying:
 1. Temporary Construction Cylinder Keying.
 - a. Provide construction cores that permit voiding construction keys without cylinder removal, furnished in accordance with the following requirements.

2.13 KEYING

- A. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.
- B. Comply with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.
- C. Requirements:
 1. Quantity: Furnish in the following quantities.
 - a. Change (Day) Keys: 3 per cylinder/core.
 - b. Permanent Control Keys: 3.
 - c. Master Keys: 6.

2.14 DOOR CLOSERS

- A. Manufacturers and Products:
 1. Scheduled Manufacturer and Product: LCN 4040XP series.
 2. Acceptable Manufacturers and Products: NO SUBSTITUTION.
- B. Requirements:
 1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.

2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2-inch 1.5 inch diameter with 5/8-inch (0.63 inch) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL 10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees Fahrenheit to -30 degrees Fahrenheit.
5. Spring Power: Continuously adjustable over full range of closer sizes and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.15 ELECTRO-HYDRAULIC AUTOMATIC OPERATORS

- A. Manufacturers and Products:
 1. Scheduled Manufacturer and Product: LCN 4600 series.
 2. Acceptable Manufacturers and Products: NO SUBSTITUTION.
- B. Requirements:
 1. Provide low energy automatic operator units with hydraulic closer complying with ANSI/BHMA A156.19.
 2. Hydraulic Fluid: Fireproof, passing requirements of UL 10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees Fahrenheit to -30 degrees Fahrenheit.
 3. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door
 4. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
 5. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check valve, sweep valve, latch valve to control door.
 6. Provide drop plates, brackets, or adapters for arms as required for details.
 7. Provide hard-wired actuator switches for operation as specified.
 8. Provide weather-resistant actuators at exterior applications.
 9. Provide key switches with LED's, recommended and approved by manufacturer of automatic operator as required for function described in operation description of hardware group below. Cylinders: Refer to "KEYING" article, herein.
 10. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence

operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.

11. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.16 DOOR TRIM

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives.
 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Requirements:
 1. Provide push plates 4 inches wide by 16 inches high by 0.050 inch thick and beveled 4 edges. Where width of door stile prevents use of 4 inches wide plate, adjust width to fit.
 2. Provide push bars of solid bar stock, diameter and length as scheduled. Provide push bars of enough length to span from center to center of each stile. Where required, mount back to back with pull.
 3. Provide offset pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
 4. Provide flush pulls as scheduled. Where required, provide back-to-back mounted model.
 5. Provide pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
 6. Provide pull plates 4 inches wide by 16 inches high by 0.050 inch thick, beveled 4 edges, and prepped for pull. Where width of door stile prevents use of 4 inches wide plate, adjust width to fit.
 7. Provide wire pulls of solid bar stock, diameter and length as scheduled.
 8. Provide decorative pulls as scheduled. Where required, mount back to back with pull.

2.17 PROTECTION PLATES

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives.
 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Requirements:
 1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
 2. Sizes of plates:
 - a. Kick Plates: 10 inches high by 2 inches less width of door on single doors, 1 inch less width of door on pairs
 - b. Mop Plates: 4 inches high by 2 inches less width of door on single doors, 1 inch less width of door on pairs
 - c. Armor Plates: 36 inches high by 2 inches less width of door on single doors, 1 inch less width of door on pairs

2.18 DOORSTOPS AND HOLDERS

- A. Manufacturers:
 1. Scheduled Manufacturer: Ives.
 2. Acceptable Manufacturers: Burns, Rockwood.

2.19 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

- A. Manufacturers:
 - 1. Scheduled Manufacturer: National Guard.
 - 2. Acceptable Manufacturers: Reese, Zero.
- B. Requirements:
 - 1. Provide thresholds, weather-stripping (including door sweeps, seals, and astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
 - 2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 - 3. Size of thresholds:
 - a. Saddle Thresholds: 1/2 inch high by jamb width by door width
 - b. Bumper Seal Thresholds: 1/2 inch high by 5 inches wide by door width
 - 4. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

2.20 DOOR POSITION SWITCHES

- A. Manufacturers:
 - 1. Scheduled Manufacturer: Schlage.
 - 2. Acceptable Manufacturers: NO SUBSTITUTION.
- B. Requirements:
 - 1. Provide recessed or surface mounted type door position switches as specified.
 - 2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches between switch and magnetic locking device.

2.21 LATCH PROTECTORS

- A. Manufacturers:
 - 1. Scheduled Manufacturer: Ives.
 - 2. Acceptable Manufacturers: Burns, Rockwood.
- B. Provide stainless steel latch protectors of type required to function with specified lock.

2.22 FINISHES

- A. Finish: BHMA 626/652 (US26D); except:
 - 1. Hinges at Exterior Doors: BHMA 630 (US32D)
 - 2. Continuous Hinges: BHMA 630 (US32D)
 - 3. Continuous Hinges: BHMA 628 (US28)
 - 4. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
 - 5. Protection Plates: BHMA 630 (US32D)
 - 6. Overhead Stops and Holders: BHMA 630 (US32D)
 - 7. Door Closers: Powder Coat to Match
 - 8. Wall Stops: BHMA 630 (US32D)
 - 9. Latch Protectors: BHMA 630 (US32D)
 - 10. Weatherstripping: Clear Anodized Aluminum
 - 11. Thresholds: Mill Finish Aluminum

EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.
- C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Where on-site modification of doors and frames is required:
 - 1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
 - 2. Field modify and prepare existing door and frame for new hardware being installed.
 - 3. When modifications are exposed to view, use concealed fasteners, when possible.
 - 4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:
 - a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
 - b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
 - c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.03 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- B. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

- H. Intermediate Offset Pivots: Where offset pivots are indicated, provide intermediate offset pivots in quantities indicated in door hardware schedule but not fewer than one intermediate offset pivot per door and one additional intermediate offset pivot for every 30 inches of door height greater than 90 inches.
- I. Lock Cylinders: Install construction cores to secure building and areas during construction period.
 - 1. Replace construction cores with permanent cores as indicated in keying section.
 - 2. Furnish permanent cores to Owner for installation.
- J. Wiring: Coordinate with Division 26, ELECTRICAL sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Testing and labeling wires with Architect's opening number.
- K. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- L. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- M. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- N. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- O. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- P. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- Q. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.04 FIELD QUALITY CONTROL

- A. Engage qualified manufacturer trained representative to perform inspections and to prepare inspection reports.
 - 1. Representative will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.05 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 - 2. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, Installer's Architectural Hardware Consultant must examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.06 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.07 DOOR HARDWARE SCHEDULE

- A. Hardware items are referenced in the following hardware. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- B. Hardware Sets:

END OF SECTION

SECTION 13 48 18 - POST FRAME BUILDING SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Pre-Engineered factory and field fabricated Timber Column Structure
- B. Prefinished metal roofing and siding panels
- C. Prefinished metal trim items
- D. Prefinished soffits
- E. Prefinished gutters and downspouts

1.02 REFERENCE STANDARDS

- A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- B. UL 790 - Standard for Standard Test Methods for Fire Tests of Roof Coverings; Current Edition, Including All Revisions.
- C. UL 2218 - Standard for Impact Resistance of Prepared Roof Covering Materials; Current Edition, Including All Revisions.
- D. Building Design Standards
 - 1. 2021 International Building Code

1.03 SYSTEM DESCRIPTION

- A. Post-Frame Construction
 - 1. Clear span
 - 2. Primary Framing
 - 3. Columns
 - 4. Trusses
 - 5. Lateral bracing
 - 6. Secondary framing
 - 7. Perimeter baseboards / preservative-treated
 - 8. Wall girts (nailers)
 - 9. Purlins
 - 10. Overhang rafters and fascia
 - 11. Ancillary blocking or furring as required
 - 12. Roof Covering
 - 13. Prefinished ribbed metal panels
 - 14. Other roof coverings as required
 - 15. Wall Covering
 - 16. Prefinished ribbed metal panels
 - 17. Other wall coverings as required

1.04 DESIGN REQUIREMENTS

- A. Building shall be designed in accordance with standards identified in Section 1.04
 - 1. Design Loads: 30 PSF Live Load / 115 MPH Wind Load
 - 2. Seismic Category A

1.05 SUBMITTALS

- A. Complete and detailed shop and erection drawings showing size and location of each part and component, certifying that the building design meets specified roof and wind loading requirements

1.06 QUALITY ASSURANCE

- A. Truss Assembly Quality
 - 1. Trusses shall be stamped to indicate quality assurance auditing by an independent agency
- B. Prefinished Ribbed Metal Panels
 - 1. Manufacturer shall provide evidence of compliance with UL 2218 and UL 790 (Hail impact and external fire resistance, respectively) for roofing panels
 - 2. Prefinished Ribbed Metal Panels to be applied as roofing shall be delivered with a certificate to indicate compliance with UL 2218 Class 4 and UL 790 Class A
- C. Other Manufacturer Certifications and Approvals as Required

1.07 QUALIFICATIONS

- A. Contractor shall have a minimum of forty years documented experience in the manufacture and erection of this type of structure.
- B. Contractor shall present evidence of written procedures to describe how components are to be assembled during erection of the structure.
- C. Contractor shall be responsible for proper storage of all materials, including subcontractors' materials

1.08 REGULATORY REQUIREMENTS

- A. Contractor shall be responsible for compliance with all applicable building codes and ordinances covering the work.
- B. Contractor shall cooperate with regulatory agencies or authorities to provide data as requested.

1.09 FIELD MEASUREMENTS

- A. Field measurements shall be taken to verify that components match shop drawings.

1.10 DELIVERY, STORAGE AND HANDLING

- A. The contractor shall deliver and store prefabricated components (trusses, columns, steel panels and other materials) to ensure that they will not be damaged or deformed.
- B. The contractor shall be responsible to stack materials on platforms, pallets or other structures covered with tarpaulins or other suitable weather-tight ventilated covering. The contractor shall additionally handle and store structural parts in a manner that will avoid deforming members or subjecting parts to excessive stresses.
- C. The contractor shall store roofing and siding panels to allow water to drain freely.
- D. The contractor shall not store panels in contact with other materials that could cause corrosion, discoloration, or staining.

1.11 WARRANTY

- A. The building manufacturer shall supply a warranty to the Owner which shall provide the manufacturer will meet the following requirements...

PERIOD OF COVERAGE	MATERIAL	CLAIM CONDITIONS
50 YEARS	PRESERVATIVE TREATED LUMBER	FAILURE DUE TO DECAY OR INSECT ATTACK
50 YEARS	BUILDING FRAMEWORK INCLUDING ROOFING AND/OR SIDING PANELS	DIRECT DAMAGE BY SNOW LOADS
35 YEARS	ROOFING AND SIDING PANELS	PAINT SEPARATION FROM PANELS
35 YEARS	ROOFING AND SIDING PANELS	CHALK RATING LESS THAN RATING OF 8 (ASTM D4212) UNDER NORMAL WEATHERING
35 YEARS	ROOFING AND SIDING PANELS	COLOR CHANGE GREATER THAN 5 UNITS (ASTM D2244) UNDER NORMAL WEATHERING
10 YEARS	ROOFING AND SIDING PANELS	RED RUST CORROSION GREATER THAN 1/2 INCH FROM A SHEARED EDGE, VISIBLE IN CASUAL OBSERVATION UNDER NORMAL WEATHERING
5 YEARS	BUILDING FRAMEWORK INCLUDING ROOFING AND/OR SIDING PANELS	DIRECT DAMAGE BY WIND LOADS UNLESS DAMAGE IS CAUSED BY FLYING OR FALLING OBJECTS
5 YEARS	ROOF LEAKS	LEAKS DUE TO MATERIAL OR WORKMANSHIP DEFECTS
1 YEAR	ANY BUILDING PART	PROVEN DEFECT IN MATERIAL OR WORKMANSHIP

PART 2 PRODUCTS

2.01 MANUFACTURERS - BUILDING SYSTEM

- A. Morton Buildings, Inc., Morton, Illinois
- B. Bel-Wood Buildings, Inc.
- C. Other manufacturers offering similar systems
 - 1. As approved by project architect

2.02 MATERIALS - FRAMING

- A. Concrete Foundation
 - 1. See Division 03 for concrete specifications
- B. Column Socket
 - 1. Design and fabricate column sockets to meet design requirements.
 - 2. Column sockets shall be fabricated from ASTM A1018 HSLAS hot-rolled steel with specified minimum thickness and material properties to meet design requirements.

3. Column sockets shall be factory painted to enhance corrosion resistance.
- C. Wood Column
 1. Factory fabricated from minimum 3-ply No. 1 (or better) southern yellow pine lumber
 2. Attach column to column socket with appropriate number and size of mechanically driven fasteners and bolts
 3. Provide factory or field installed blocking on outside face of column between nailers
- D. Wood Trusses
 1. Lumber
 2. Top Chord: southern yellow pine of size and grade to meet design requirements
 3. Bottom Chord: southern yellow pine of size and grade to meet design requirements
 4. Webs: southern yellow pine of size and grade to meet design requirements
 5. Trusses shall be constructed of surfaced lumber (S4S) and compliant with SPIB visual and structural grade requirements
 6. Plates: Connector plates shall meet design requirements and shall be compliant with applicable ICC-ES Report specifications
 7. Design and fabricate trusses and connections to withstand snow, wind, dead, and all other loads indicated.
- E. Baseboards
 1. 2"x8" nominal No. 1 southern yellow pine with 1.2" x 7/16" notch to accommodate OSB protective liner as may be required.
 2. Pressure treated with wood preservative to a retention in compliance with applicable AWP or ICC-ESR standards and specifications, and kiln dried after treatment to 19% maximum moisture content.
 3. Preservative shall penetrate sapwood in compliance with AWP or ICC-ESR standards and specifications.
- F. Wall girts (nailers)
 1. As required on building plans.
- G. Purlins and Truss Ties
 1. 2"x4" nominal No. 2 or machine stress rated spruce-pine-fir as required on building plans
- H. Lateral Bracing
 1. 2"x6" No. 2 spruce-pine-fir factory or field cut boards to brace end wall columns with nearest available intermediate truss.
 - a. J Framing around openings
 2. 2"x4" No. 2 spruce-pine-fir around personnel doors and windows, according to building plans.
 3. 2"x6" No. 2 spruce-pine-fir around overhead door openings, according to building plans.
 - a. K. Headers
 - 1) 1. Provide headers as required on building plans
 - b. L. Incidental Framing
 4. 2"x4" and/or 2"x6" No. 2 spruce-pine-fir

2.03 MATERIALS - PREFINISHED METALS

- A. Roofing / Siding / Wainscot Ribbed Building Panels
 1. Panel substrate shall be 0.019" minimum thickness commercial steel sheet with G90 (zinc) metallic coating per ASTM A653 or AZ55 (aluminum / zinc alloy) metallic coating per ASTM A792.
 2. The weather side of the panel shall receive a nominal two tenths (0.2) mil polyurethane primer and a nominal nine tenths (0.9) mil topcoat of 70% polyvinylidene difluoride (PVDF) resin to achieve a total nominal dry film thickness of one (1) mil.

3. The non-weather side paint system shall consist of a two coat finish with a total nominal dry film thickness of one-half (0.5) mil.
4. Color selection of roofing / siding / wainscot panels shall be from the manufacturer's standard color chart.
- B. Metal Trim Items
 1. Die-formed steel from the same quality material as the siding panels. Steel substrate thickness may vary from that of ribbed building panels.
- C. Gutters and Downspouts
 1. Gutters
 - a. K-Style rollformed gutters in 5" or 6" open widths formed from 0.030" aluminum prefinished with color- matched nominal one (1) mil 70% PVDF coating system (including primer) on exposed visually critical surfaces.
 - b. Interior of gutter to be coated with nominal one-half (0.5) mil paint wash coat
 2. Downspouts
 - a. Rollformed steel from the same quality as siding panels. Steel substrate thickness may vary from that of ribbed building panels.
 - b. Downspouts to match standard colors
 - c. Downspouts to be sized to match gutter size

2.04 MATERIALS - OTHER

- A. Corner bracing
 1. Provide 1-1/4" wide high tensile steel strapping to be installed in all unobstructed corners in a "X" configuration.
- B. Roofing / Siding / Wainscot fasteners
 1. Center-drive stainless steel screws with EPDM-gasketed washers for ribbed steel panels
 2. Fasteners shall be painted to match selected colors
- C. Closure strips
 1. Strips shall be made from closed cell foam
- D. Sealant
 1. 100% neutral curing silicone sealants shall be applied where required.
 2. Paintable sealant shall be applied where required.

2.05 BUILDING SUMMARY

- A. Size: 24' x 30'
- B. Height: 9' - 2 1/2" Eave Height
- C. 9' x 8" Overhead Door on Gable End
- D. 3' x 7' Swing Door on Gable End
 1. Provide Manufacturer Standard Door Hardware - Cylinder Core to be able to switched out by GIPS staff.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify site conditions under provisions of Division 01

3.02 ERECTION - FRAMING - GENERAL

- A. Erect framing in accordance with manufacturer's established construction procedures

- B. Make all components and building plumb, square, straight, and true to lines in accordance with National Frame Building Association's Accepted Practices and tolerances identified in Section 3.05
- C. Provide adequate temporary bracing to assure structure remains plumb and square until permanent bracing is installed
- D. Altering of structural members is not permitted

3.03 ERECTION - FRAMING

- A. Column Socket
 - 1. Align and locate sockets by type and install according to building plans.
 - 2. Column sockets shall be anchored to concrete with adhesive anchors or with cast-in-place anchors of dimensions shown in building plans.
 - 3. Adhesive anchoring shall be performed according to procedures specified in adhesive manufacturer's
 - a. certified report.
 - 4. Cast-in-place anchoring shall be performed according to XXXX International Building Code and ACI 318-XX standards.
- B. Wood Column
 - 1. Set wood column to interlock with column socket connection bracket.
 - 2. Install manufacturer's recommended quantity and size of mechanically driven fasteners and bolts
- C. Baseboards
 - 1. Install 2"x8" treated planks at grade using builder's recommended fasteners and brackets to attach to columns according to building plans
- D. Wall girts (nailers)
 - 1. Install nailers as required on building plans according to manufacturer's established construction procedures.
- E. Trusses
 - 1. Set trusses in plane with the center member of the wood column using lifting methods as approved by the manufacturer.
 - 2. When properly positioned, install two 1/2" diameter machine bolts and manufacturer-recommended 4" structural screws through two of the wood column laminates and the truss heel.
 - 3. Brace trusses as recommended by the manufacturer.
- F. Purlins
 - 1. Install 2"x4" purlins by attaching them to trusses according to manufacturer's established construction procedures.
- G. Lateral Bracing
 - 1. Install 2"x6" angled bracing at locations recommended by the manufacturer according to the manufacturer's established construction procedures.
- H. Incidental Framing
 - 1. Install 2"x4" or 2"x6" blocking as required according to building manufacturer's recommendations.

3.04 ERECTION - PREFINISHED METALS - GENERAL

- A. Roofing Panels
 - 1. Install panels perpendicular to purlins, aligned straight with end fascia.
 - 2. Fasten panels to purlins with screw fasteners.

- B. Siding and Wainscot Panels
 - 1. Install panels perpendicular to nailers, aligned level and plumb (see Section 3.05).
 - 2. Fasten panels to nailers with screw fasteners.
- C. Trim Items
 - 1. Install trim items at the base, at wainscot / siding panel transition, corners, top of steel siding, fascia, gables and ridge using appropriate fasteners
- D. Ridge Treatments
 - 1. Install over ridge trim using screw fasteners
- E. Soffit
 - 1. Install soffit to interlock with trim items at top of steel siding and at fascia.
 - 2. Use solid soffit at each end overhang per building plans
 - 3. Use combination of solid and vented soffit to provide balanced ventilation at side overhangs per building plans.
- F. Gutter and Downspouts
 - 1. Install gutters with supporting hangers spaced 24" on-center
 - 2. Silicone sealant and silicone rubber gaskets shall be used at laps to maintain leak prevention and to relieve stress due to thermal movements.
 - 3. Install drop outlets and downspouts to allow drainage from gutter at locations specified on building plans.
 - 4. Secure downspout to vertical wall panels or trims with conductor bands and screws.
- G. Filler Strips
 - 1. Provide filler strips at the top and bottom of roofing panels.

3.05 TOLERANCES

- A. Framing Members
 - 1. 1/4" from level
 - 2. 1/8" from plumb
- B. Siding and Roofing Panels
 - 1. 1/8" from true position

END OF SECTION

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GATES ELEMENTARY SCHOOL

GRAND ISLAND PUBLIC SCHOOLS

513 S. CURTIS STREET, GRAND ISLAND, NEBRASKA



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COORDINATING PROFESSIONAL SEAL



REVISIONS

NO.	DESCRIPTION	DATE

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DATE
07-09-2026
PROJECT
26124

TITLE SHEET

GATES ELEMENTARY SCHOOL
GRAND ISLAND PUBLIC SCHOOLS
513 S. CURTIS STREET, GRAND ISLAND, NEBRASKA

SHEET
T0.01



DATE ISSUED July 17, 2026

ADDENDUM # 001

ENGINEER Engineering Technologies, Inc.
825 M Street, Suite 200
Lincoln, NE 68508

ETI PROJECT # 2026-055

PROJECT Gates Elementary School

The Architect issues this Addendum to all known bidders before receipt of proposals. Bidder shall acknowledge the receipt of this addendum on their proposal sheet and all information contained herein shall become a part of the contract documents.

ADDENDUM:**GENERAL ITEMS – ELECTRICAL**

1. When the existing wireless access points (WAP's) are removed they shall be reinstalled in the same room they were taken out of and placed as centrally in the room not off to the side.
2. Room 186
 - A. This room will be the temporary office until the new administration space is available. Before demolition of the existing administration are the Aiphone system shall be active in this room to unlock doors.
3. Door Access System
 - A. Where existing door access exists the existing wiring shall be extended to the new door access system.

SPECIFICATIONS – ELECTRICAL

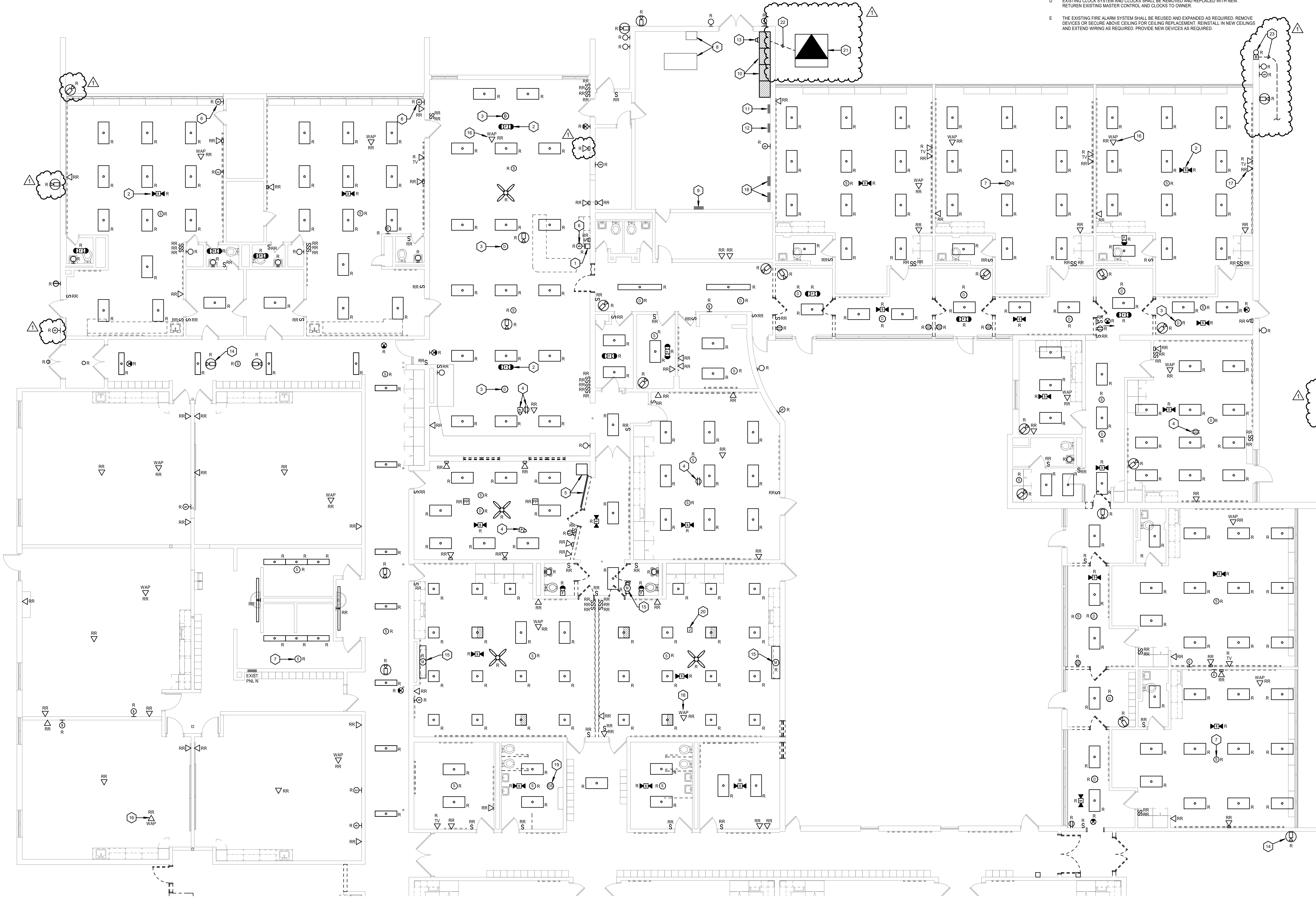
1. Section 26 24 13 - Switchboards
 - A. Delete paragraph 26 24 13(D)(4) – the metering section is no longer required in the switchboard. A CT cabinet and meter socket shall be provided and mounted to the side of the building.
2. Section 27 10 05 -Structured Cabling
 - A. Paragraph 2.5 – Add, "All fiber cable shall be OM5 type.
3. Section 27 51 24 – Intercom System
 - A. Provide a two-post type data rack and mount the system in this rack in IT 224.
4. Section 28 20 20 – Video Surveillance
 - A. Delete the NVR and Software, Paragraph 2.3 Video Recording and Viewing Equipment.

DRAWINGS – ELECTRICAL

1. Sheet ED1.01 – Electrical Demolition Area A
 - A. See attached sheet for changes to the electrical service transformer.
 - B. See attached sheet for miscellaneous items to be removed.
2. Sheet ED1.02 – Electrical Demolition Area B
 - A. See attached sheet for miscellaneous items to be removed.
3. Sheet E0.00 – Electrical Site Plan
 - A. Added exterior lights to the Shed.
 - B. Moved Shed panel and data rack.

4. Sheet E1.01 – Lighting Plan Area A
 - A. Added note to remove some lighting in the courtyard.
5. Sheet E1.02 – Lighting Plan Area B
 - A. Added a Type 19 light fixture.
6. Sheet E2.01 – Electrical Plan Area A
 - A. See attached sheet for the addition CT Cabinet, Metering, vehicle bollards, and new transformer location.
 - B. In Rooms 171, 198, and 226, change the duplex receptacle in the ceiling for the projector to a double duplex USB outlet.
 - C. Modified Note 7.
 - D. In IT 224 added a circuit for the door access panel.
 - E. In IT 224 provide a two-post data rack for the Bogen Intercom System.
 - F. Provide a temporary feeder to new Panel F so the new data room can be switched over as soon as possible.
7. Sheet E2.02 – Electrical Plan Area B
 - A. In Commons 144 moved A/V cabinet.
 - B. Added HDO on exterior double doors by 2nd Grade 183.
 - C. Added receptacle in IT 126.
 - D. Added smoke detector by existing fire alarm panel.
 - E. Added j-box with Note 5 in Commons 144.
 - F. Replace data to projector on Stage 118 and replace outlet on wall, see Note 5.
8. Sheet E3.01 – Technologies Plan Area A
 - A. Added a General Note.
 - B. Modified Note 13.
 - C. Added Note 19.
 - D. Added new data cable to Temperature Control Panel in Boiler Room 213.
9. Sheet E4.02 – Electrical Schedules
 - A. Changed the finish on all exterior light fixtures to
10. Sheet E5.01 – Electrical Details
 - A. Delete Kitchen Hood Fire Suppression One-Line Diagram.
 - B. Modified and added power to the Access Control Door Rough-in Detail.
11. Sheet E6.01 – Electrical Riser Diagram
 - A. See attached sheet for changes to the electrical service and Switchboard MD.
 - B. Modified the Data Riser Diagram.

END OF ADDENDUM



N
1 **AREA A - ELECTRICAL DEMOLITION PLAN**
1/8" = 1'-0"

GENERAL NOTES

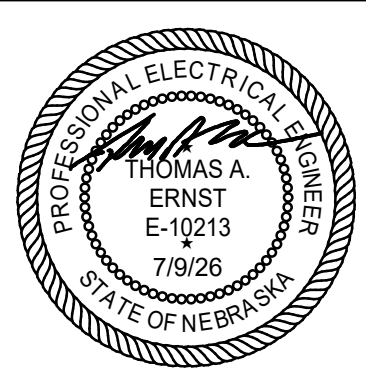
- EXISTING APHONE SYSTEM SHALL BE RETURNED TO OWNER.
- EXISTING INTERCOM SYSTEM SHALL BE REMOVED AND REPLACED WITH NEW. PROVIDE NEW SPEAKERS AND WIRING. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR SPEAKERS.
- ALL CAMERAS SHALL BE REPLACED AND NEW CABLEING INSTALLED. RETURN ALL CAMERAS TO OWNER.
- EXISTING CLOCK SYSTEM AND CLOCKS SHALL BE REMOVED AND REPLACED WITH NEW. RETURN EXISTING MASTER CONTROL AND CLOCKS TO OWNER.
- THE EXISTING FIRE ALARM SYSTEM SHALL BE REUSED AND EXPANDED AS REQUIRED. REMOVE DEVICES OR SECURE ABOVE CEILING FOR CEILING REPLACEMENT. REINSTALL IN NEW CEILING AND EXTEND WIRING AS REQUIRED. PROVIDE NEW DEVICES AS REQUIRED.

SHEET NOTES

- REMOVE CALL SWITCH. PROVIDE STAINLESS STEEL COVER PLATE.
- EXISTING FIRE ALARM DEVICE TO BE REMOVED AND REINSTALLED IN NEW CEILING. SEE SHEET E2.01 (TYPICAL).
- EXISTING SMOKE DETECTOR TO BE REMOVED AND REINSTALLED IN NEW CEILING. SEE SHEET E2.01 (TYPICAL).
- EXISTING PROJECTOR AND OUTLET TO BE REMOVED AND REINSTALLED IN NEW CEILING. SEE SHEET E2.01 AND 3.01 (TYPICAL).
- EXISTING MAIN DATA RACK AND EQUIPMENT. THE BUILDING SHALL BE RE-CABLED WITH CAT 6A CABLEING, CONNECTORS, PATCH PANELS AND PATCHES. REMOVE ALL EXISTING CABLEING AND REPLACE WITH NEW. THIS WORK SHALL BE COMPLETED IN PHASES WITH COORDINATION OF OWNER. NEW CABLEING SHALL BE TERMINATED IN NEW IT 224.
- REMOVE WALL MOUNTED SPEAKER.
- THE EXISTING INTERCOM SYSTEM SHALL BE REMOVED AND REPLACED. REMOVE SPEAKERS, CALL SWITCHES, AND CABLEING. NEW SPEAKERS AND CABLEING SHALL BE PROVIDED THROUGHOUT FACILITY. THIS WORK SHALL BE COMPLETED IN PHASES WITH COORDINATION OF OWNER. NEW DEVICES (TYPICAL).
- EXISTING ATS AND EMERGENCY GENERATOR TO REMAIN.
- EXISTING PANEL SP-4 TO REMAIN.
- EXISTING SWITCHBOARD MS TO BE REMOVED AND REPLACED WITH NEW SWITCHBOARD MD. EXISTING HOUSEKEEPING PAD TO REMAIN. SEE ELECTRICAL RISER DIAGRAM ON SHEET E8.01.
- EXISTING MOTOR CONTROL CENTER TO BE REMOVED AND REPLACED WITH NEW PANEL C AND MOTOR STARTERS. SEE ELECTRICAL RISER DIAGRAM ON SHEET E8.01.
- EXISTING PANEL EM TO BE REMOVED AND REPLACED WITH NEW PANEL EM1. SEE ELECTRICAL RISER DIAGRAM ON SHEET E8.01.
- EXISTING METER SOCKET AND METERING FACILITIES TO BE REMOVED.
- ALL CAMERAS ARE TO BE REMOVED AND RETURNED TO OWNER (TYPICAL). A NEW SYSTEM SHALL BE PROVIDED. SEE SHEET E3.01 AND SPECIFICATIONS.
- REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING UNIT VENTILATOR BACK TO SOURCE OF POWER.
- REMOVE EXISTING WIRELESS ACCESS POINT AND REINSTALL IN NEW CEILING. PROVIDE NEW CABLEING. SEE SHEET E3.01 FOR NEW LOCATION (TYPICAL).
- REMOVE EXISTING CABLEING TO DATA OUTLET BACK TO SOURCE. EXISTING BOX AND CONDUIT TO REMAIN AND BE REUSED AS MUCH AS POSSIBLE. SEE SHEET E3.01 FOR NEW CABLEING REQUIREMENTS (TYPICAL).
- EXISTING PANEL M AND LOAD CENTER D TO BE REPLACED WITH NEW PANELS. REMOVE FEEDERS, BRANCH CIRCUITS TO REMAIN AND TO BE CONNECTED.
- REMOVE AND REINSTALL CEILING MOUNTED OCCUPANCY SENSOR FOR URINAL. SOLENOID VALVE. RECONNECT AS REQUIRED.
- IN ALL CLASSROOMS THERE IS A FLUSH MOUNTED FIRE ALARM JUNCTION BOX IN THE CEILING. THIS BOX AND CABLEING SHALL BE MOVED TO ABOVE THE NEW CEILING AND SUPPORTED FROM STRUCTURE AS REQUIRED. PROVIDE A NEW BLANK COVER PLATE. THIS DEVICE IS NOT SHOWN ON THESE DRAWINGS IN EVERY LOCATION BUT EXISTS IN ALL CLASSROOMS. PROVIDE THIS WORK IN THE FIELD.
- GUID TO REPLACE/RELOCATE EXISTING TRANSFORMER.
- REMOVE EXISTING SECONDARY ELECTRICAL CONDUCTORS.
- REMOVE THE BELL AND ASSOCIATED CONDUIT BACK TO SOURCE.

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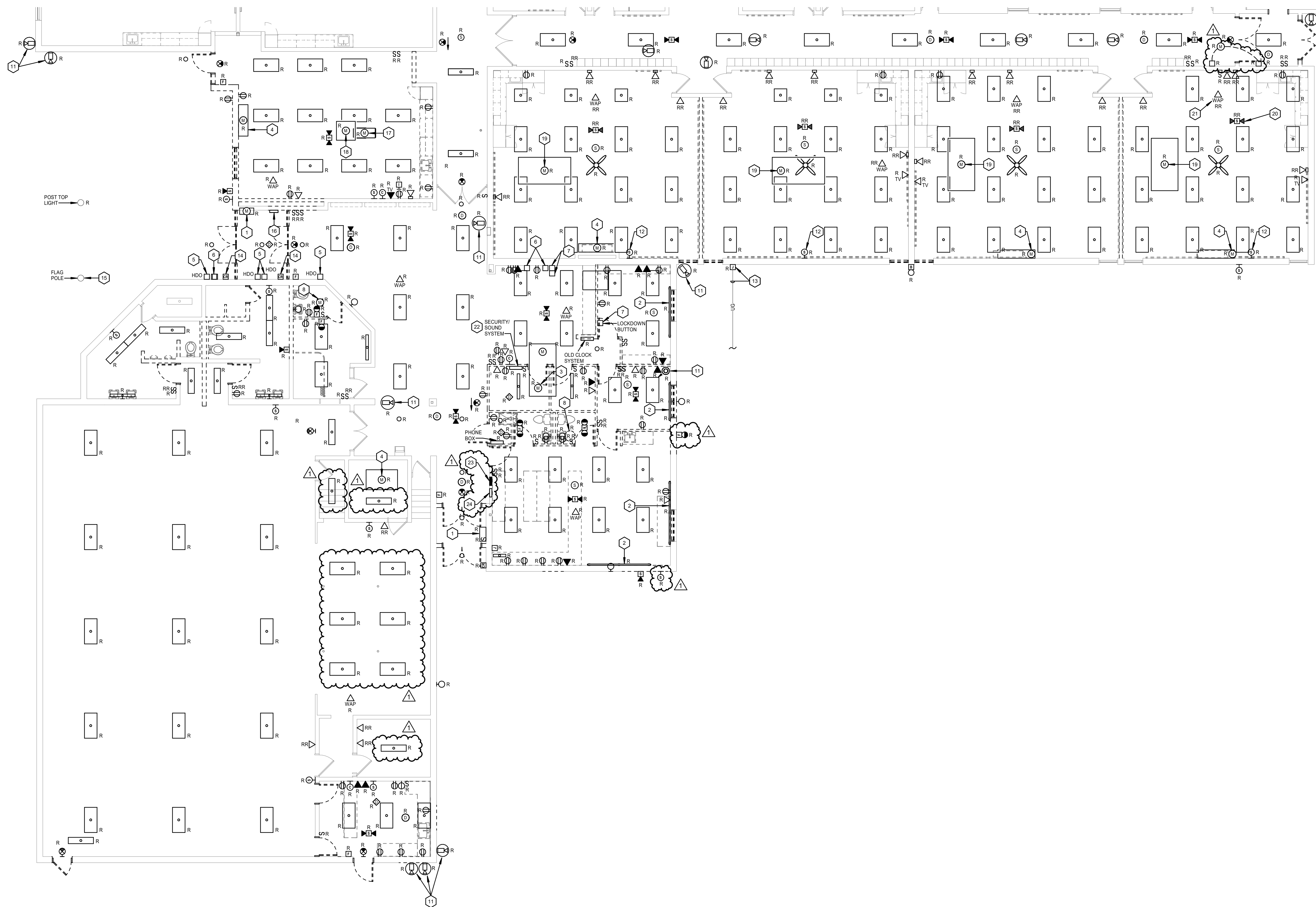
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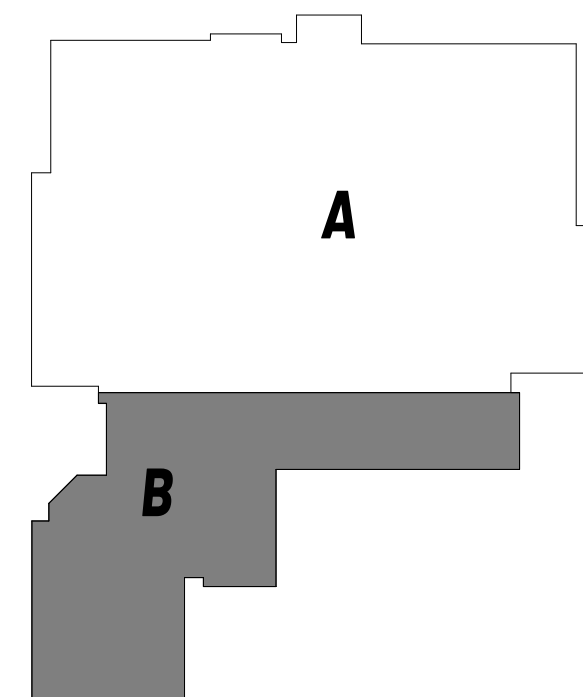
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 SHEET NOTES

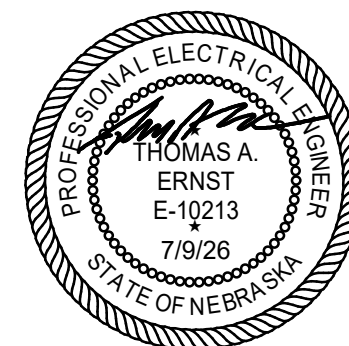
- 1 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING CABINET UNIT HEATER BACK TO SOURCE OF POWER.
- 2 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING FRUITURE BACK TO SOURCE OF POWER.
- 3 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING AIR BACK TO SOURCE OF POWER.
- 4 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING INT VENTILATOR BACK TO SOURCE OF POWER.
- 5 EXISTING HANDICAPPED DOOR OPERATOR TO BE REMOVED AND RELOCATED. SEE SHEET E2.2 FOR NEW LOCATION.
- 6 EXISTING ALPHONE TO BE REMOVED AND REPLACED WITH NEW SEE SHEET E2.2 FOR NEW LOCATION. RETURN PHONE TO OWNER.
- 7 EXISTING TORNADO AND LOUNGE DOWN BUTTONS TO BE REMOVED AND RELOCATED. SEE SHEET E2.2 FOR NEW LOCATION.
- 8 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING EXHAUST FAN BACK TO SOURCE OF POWER.
- 9 EXISTING SECURITY CAMERA TO BE REMOVED AND RETURNED TO OWNER.
- 10 REMOVE WALL MOUNTED SPEAKER. PAINT WALL TO MATCH EXISTING.
- 11 FIBER OPTICS LINE FEEDING THE SCHOOL, SHALL BE RELOCATED. COORDINATE WITH LINE FEEDER. SEE SHEETS E2.01 AND E2.2.2.
- 12 EXISTING CARD READER TO BE REMOVED AND RELOCATED. SEE SHEET E2.2 FOR NEW LOCATION.
- 13 FLAG POLE TO BE RELOCATED BY GENERAL CONTRACTOR.
- 14 EXISTING FIRE ALARM PANEL TO BE RELOCATED. SEE SHEET E2.2.
- 15 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING BLOWER COIL, BACK TO SOURCE OF POWER.
- 16 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING FUEL PUMP BACK TO SOURCE OF POWER.
- 17 REMOVE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND BRANCH CIRCUIT FOR EXISTING ROOF TOP UNIT BACK TO SOURCE OF POWER.
- 18 FIRE ALARM DEVICE TO BE REMOVED AND REINSTALLED ON NEW CEILING. (TYPICAL WHERE FLOORPLAN HAS NOT CHANGED).
- 19 WIRELESS ACCESS TO BE REMOVED AND REINSTALLED WITH NEW CABLE CATEGORIES. (TYPICAL WHERE FLOORPLAN HAS NOT CHANGED).
- 20 SOUND SYSTEM HEADEND SYSTEM TO BE REMOVED AFTER NEW SYSTEM IS INSTALLED AND RETURNED TO OWNER. OWNER SHALL PROVIDE REMOVAL OR REDUCTION TO SPEAKERS THAT ARE BEING REMOVED. THE SYSTEM SHALL BE MOVED AND TEMPORARY WIRING INSTALLED UNTIL CALL FOR FLOOR PLAN AND NEW CONSTRUCTION.
- 21 EXISTING FIRE ALARM PANEL TO REMAIN. PROTECT PANEL AND WIRING DURING CONSTRUCTION.
- 22 EXISTING DOOR ACCESS PANELS TO REMAIN FUNCTIONAL UNTIL NEW SYSTEM IS INSTALLED. PROTECT SYSTEM DURING CONSTRUCTION.



N **1** **AREA B - ELECTRICAL DEMOLITION PLAN**
1/8" = 1'-0"

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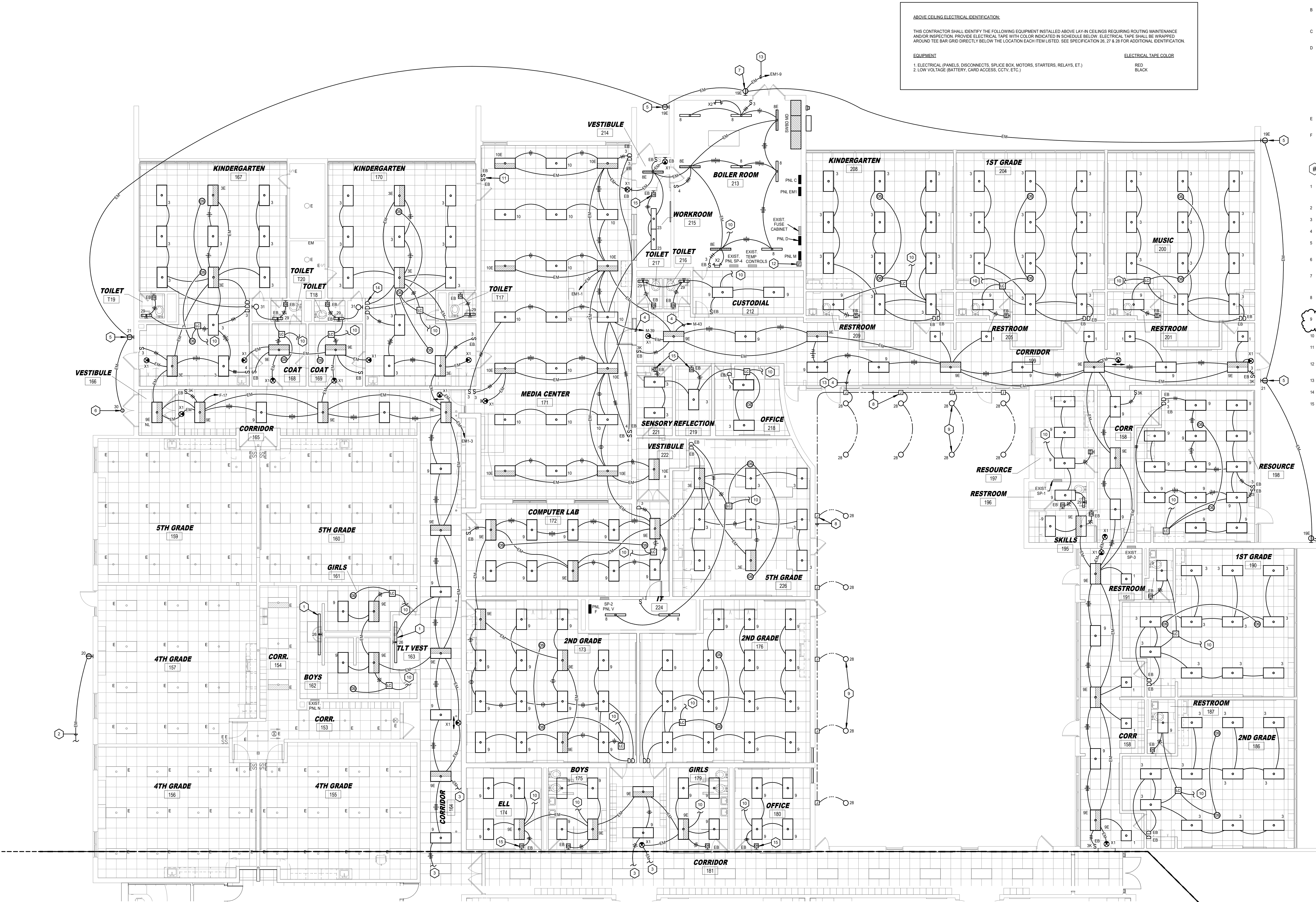


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AREA A - LIGHTING PLAN
1/8" = 1'-0"

ABOVE CEILING ELECTRICAL IDENTIFICATION

THIS CONTRACTOR SHALL IDENTIFY THE FOLLOWING EQUIPMENT INSTALLED ABOVE LAY-IN CEILINGS REQUIRING ROUTING MAINTENANCE AND/OR INSPECTION. PROVIDE ELECTRICAL TAPE WITH COLOR INDICATED IN SCHEDULE BELOW. ELECTRICAL TAPE SHALL BE WRAPPED AROUND THE BAR GRID DIRECTLY BELOW THE LOCATION EACH ITEM LISTED. SEE SPECIFICATION 26, 27 & 28 FOR ADDITIONAL IDENTIFICATION.

EQUIPMENT

1. ELECTRICAL (PANELS, DISCONNECTS, SPLICE BOX, MOTORS, STARTERS, RELAYS, E.T.)
2. LOW VOLTAGE (BATTERY, CARD ACCESS, CCTV, ETC.)

ELECTRICAL TAPE COLOR

- RED
- BLACK

GENERAL NOTES

- PROVIDE TAMPER RESISTANT RECEPTACLES PER NEC 406.12(C).
- ELECTRICIAN SHALL ROUTE IN ALL HVAC TEMPERATURE CONTROL, SENSOR BOXES. PROVIDE SINGLE GANG BOX WITH 0.75" CONDUIT AND PULL STRING TO ABOVE ACCESSIBLE CEILING. MOUNT BOX AT 5'0" AFF. WIRING BY OTHERS. SEE MECHANICAL PLANS FOR ALL LOCATIONS.
- ALL RECEPTACLES AND SWITCH PLATES SHALL BE LABELED WITH PANEL AND CIRCUIT FEEDING DEVICES.
- THE EXISTING SCHOOL INTERCOM SYSTEM SHALL BE UPGRADED. EXISTING SPEAKERS AND WIRING SHALL BE REMOVED AND REPLACED WITH NEW SPEAKERS AND WIRING. EXISTING CALL BACK STATIONS IN EXISTING CLASSROOMS SHALL BE REMOVED AND BLANK COVERPLATES INSTALLED. THE UPGRADED SYSTEM WILL NOT USE CALL-BACK STATIONS. THE HEADEND SHALL BE NEW AND AMPLIFIER AND OTHER PARTS SHALL BE SUPPLIED AND INSTALLED AS REQUIRED. THE NEW SYSTEM SHALL BE ZONED AS SUCH:
 1. EXTERIOR SPEAKER ZONE
 2. DYNAMASUM T12 ZONE
 3. GENERAL PAGING ZONEGENERAL PAGING ZONE INCLUDES ALL CLASSROOMS, CONFERENCE ROOMS, OTHER ROOMS WHERE SPEAKERS ARE SHOWN AND CORRIDORS.
- CIRCUITING OF INTERCOM SPEAKERS ARE NOT SHOWN, BUT SHALL BE PROVIDED. WIRING SHALL BE PLENUM RATED AND SUPPORTED BY J-HOOKS AND NOT LAID ON CEILING TILES.
- REINSTALLED WAPS SHALL BE CENTRALLY LOCATED IN EACH ROOM, NOT NECESSARILY WHERE SHOWN ON THIS DRAWING.

SHEET NOTES

- REMOVE EXISTING WALL MOUNTED LIGHT FIXTURE AND PROVIDE IN ITS PLACE NEW LIGHT FIXTURE #20. LIGHT FIXTURE TO BE MOUNTED ON EXISTING OUTLET BOX AND EXISTING CONDUIT TO BE REUSED FOR NEW LIGHTING CIRCUIT AS REQUIRED.
- CONNECT TO EXTERIOR EMERGENCY LIGHTING. SEE SHEET E1.02 FOR CONTINUATION.
- SEE SHEET E1.02 FOR CONTINUATION.
- CONNECT TO NEW PANEL M IN BOILER ROOM.
- REMOVE EXISTING EXTERIOR WALL BRACKET FIXTURE AND REPLACE WITH NEW LIGHT FIXTURE SHOWN.
- REMOVE EXISTING RECESSED DOWNLIGHT AND REPLACE WITH NEW LIGHT FIXTURE SHOWN.
- REMOVE COBRA HEAD LIGHT FIXTURE AND SURFACE MOUNTED OUTLET BOX. PROVIDE NEW OUTLET BOX IN EXISTING CONDUIT RUN. PROVIDE NEW LIGHT FIXTURE SHOWN. CONNECT TO EXISTING LIGHTING CIRCUIT AS REQUIRED.
- PROVIDE JUNCTION BOX MOUNTED HIGH ON WALL AND RUN EXPOSED CONDUIT ON WALL BETWEEN JUNCTION BOXES. RUN EXPOSED CONDUIT UP WALL AND ACROSS BOTTOM OF DECK TO NEW LIGHT FIXTURES.
- REMOVE EXISTING LIGHTS AND CONDUITS IN THIS AREA AND PROVIDE NEW LIGHT FIXTURES TO BE MOUNTED ON UNISTRUT ON BOTTOM OF ROOF DECK. (TYPICAL)
- CONNECT TO EXISTING UNMOUNTED LIGHTING CIRCUIT IN THIS AREA. FIELD VERIFY.
- PROVIDE NEW SWITCHES IN EXISTING JUNCTION BOX AND CONNECT TO EXISTING CIRCUITS. FIELD VERIFY EXACT REQUIREMENTS.
- PROVIDE 7/885-DAY, 4 CIRCUIT, ASTRONOMIC TIME CLOCK, INTERMATIC MODEL ET284SC OR EQUAL.
- CIRCUIT THROUGH NEW 4 CIRCUIT TIME CLOCK IN BOILER 213.
- PROVIDE 0-10V SLIDE DIMMER BY LUTRON OR EQUAL. (TYPICAL FOR ALL DIMMERS)
- PROVIDE WALL MOUNTED OCCUPANCY SENSOR SWITCH WITH 0-10V DIMMING.

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EQUIPMENT

1. ELECTRICAL (PANELS, DISCONNECTS, SPLICE BOX, MOTORS, STARTERS, RELAYS, ET.)
2. LOW VOLTAGE (BATTERY, CARD ACCESS, CCTV, ETC.)

ELECTRICAL TAPE COLOR
RED
BLACK

- 1 CONNECT TO 20 AMP, 1 POLE CIRCUIT BREAKER IN EXISTING PANEL A, MADE SPARE AFTER DEMOLITION
- 2 COLOR CONTROLLER DIMMER. SEE LIGHT FIXTURE SCHEDULE.
- 3 CONNECT TO EXISTING UNDIMMERED LIGHTING CIRCUIT IN THIS AREA. FIELD VERIFY.
- 4 SEE SHEET E1 01 FOR CONTINUATION.
- 5 PROVIDE ELECTRONIC DIMMABLE, ASTRONOMIK, 7 DAY, 4 CIRCUIT, 10/277VOLT, 4.895W, WITH METAL ENCLOSURE, INTERMATIC ET4182Q OR APPROVED EQUAL. MOUNT TIMELOCK NEXT TO PANEL B.
- 6 CONNECT THROUGH ONE OF THE CIRCUITS OF THE 4 CIRCUIT TIMELOCK.
- 7 REMOVE AND REPLACE EXISTING LIGHT FIXTURE WITH NEW LIGHT FIXTURE SHOWN. CONNECT NEW LIGHT FIXTURE TO EXISTING LIGHTING CIRCUIT AND NEW SWITCHES AS REQUIRED.
- 8 FLOOD LIGHT FOR FLAG POLE LIGHTING MOUNTED ON ROOF. SEE DETAIL ON SHEET E1 01.
- 9 CONNECT TO EXTERIOR EMERGENCY LIGHTING CIRCUIT. SEE SHEET E1 01 FOR CONTINUATION.
- 10 GENERAL CONNECTION TO CUT AND PATCH CEILING FOR INSTALLATION OF LIGHT FIXTURE #22 (TYPICAL).
- 11 REMOVE EXISTING OVAL LIGHT FIXTURES AND REPLACE WITH NEW LIGHT FIXTURE SHOWN. MOUNT NEW LIGHT FIXTURE TO EXISTING UNIMMERED CIRCUIT AND TO EXISTING LIGHTING CIRCUIT AND NEW SWITCHES AS REQUIRED.
- 12 REMOVE EXISTING FLANGED 1 x 4 TROFFER AND PROVIDE IN ITS PLACE NEW LIGHT FIXTURE #22. CONNECT NEW LIGHT FIXTURE TO EXISTING LIGHTING CIRCUIT AS REQUIRED.
- 13 REMOVE EXISTING LIGHT FIXTURE AND PROVIDE IN ITS PLACE LIGHT FIXTURE SHOWN.
- 14 PROVIDE 0-10V SLIDE DIMMER BY LUTRON OR EQUAL. (TYPICAL FOR ALL DIMMERS)
- 15 PROVIDE WALL MOUNTED OCCUPANCY SENSOR SWITCH WITH 0-10V DIMMING.
- 16 MOUNT DRIVER FOR UNDERCABINET LIGHT ABOVE ACCESSIBLE CEILING. ROUTE LOW VOLTAGE CABLELING THROUGH UPPER CABINET CONNECT BEHIND FRONT CABINET FACE AND DOWN TO FIXTURE.
- 17 REMOVE NEW SWITCH AND CONNECT TO EXISTING DISPLAY CABINET LIGHTING AS REQUIRED. REWAMP EXISTING DISPLAY CABINET LIGHTING. FIELD VERIFY.
- 18 REPLACE EXISTING SWITCHES WITH NEW SWITCHES AND COVERPLATE.
- 19 REMOVE REFRIG. CONNECT 2 FLOURESCENT STRIP LIGHTS IN MECHANICAL ROOM ABOVE WITH TWO NEW TUBE FLUIGTS. CONNECT NEW FIXTURES TO EXISTING CIRCUITS AND CONTROLS.

A PROVIDE TAMPER RESISTANT RECEPTACLES PER NEC ARTICLE 40E.

B ELECTRICIAN SHALL RUGH-IN ALL TEMPERATURE CONTROL, SENSOR BODIES. PROVIDE SINGLE GANG BOX WITH 0.75" CONDUIT AND PLUG TIGHT TO ABOVE ACCESSIBLE CEILING MOUNT 6" OR 9" APART. WIRING BY OTHERS. SEE MECHANICAL PLANS FOR LOCATIONS.

C ALL RECEPTACLES AND SWITCH PLATES SHALL BE LABELED WITH NAME AND CIRCUIT FEEDING EQUIPMENT.

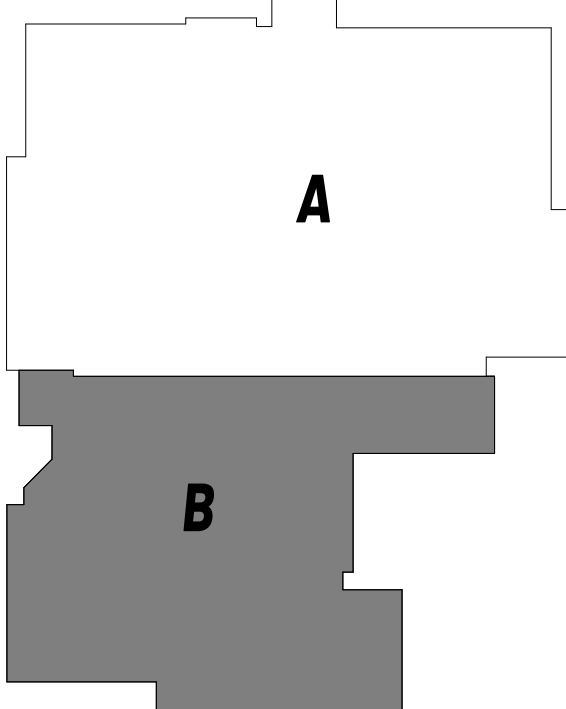
D THE EXISTING SCHOOL INTERCOM SYSTEM SHALL BE UPGRADED. EXISTING SPEAKERS AND WIRING SHALL BE REMOVED AND REPLACED WITH NEW SPEAKERS AND WIRING. EXISTING INTERCOM SYSTEMS ARE NOT TO BE UPGRADED. ALL CLASSROOMS SHALL BE REMODEL AND BLANK COVERS/PLATES INSTALLED. THE UPGRADED SYSTEM SHALL NOT USE CALL BACK LOCATIONS. THE HEADSET SHALL BE REMOVED AND OTHERS AND OTHERS SHALL BE SUPPLIED AND INSTALLED AS REQUIRED. THE NEW SYSTEM SHALL BE ZONED AS SUCH:

- 1. EXTERIOR SPEAKER ZONE**
- 2. DYNAMILAB 112 ZONE**
- 3. GENERAL PAGING ZONE**

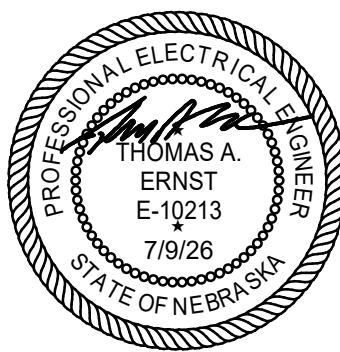
E GENERAL PAGING ZONE INCLUDES ALL CLASSROOMS, CONFERENCE ROOMS, OTHER ROOMS WHERE INTERCOM ARE SHOWN AND CORRIDORS.

F CIRCUITING OF INTERCOM SPEAKERS SHALL NOT BE SHOWN. BUT SHALL BE PROVIDED. WIRING SHALL BE PLENUM RATED AND SUPPORTED BY HOOKS AND NOT LAD ON CEILING TRAYS.

G RENEWABLES WAP SHALL BE CENTRALLY LOCATED IN EACH ROOM. NOT NECESSARILY WHERE



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A PROVIDE TAPE/ RIBBON ON ALL RECEPTS (TAPES SHALL BE 48X120).

B ELECTRONIC SHALL ROUGH-IN ALL W/ TEMPERATURE CONTROL, SENSOR BOXES. PROVIDE SIGNALING AND/OR VIBRATION WITH SILENT STRIKING TO AVOID ACCELERATING COUNT BOX AT AFF BY TAPPING BY OTHERS. SEE MECHANICAL PLANS FOR ALL LOCATIONS.

C ALL RECEPTALS AND SWITCH PLATES SHALL BE LABELED WITH PANEL, CIRCUIT FEEDING DEVICES.

D THE EXISTING SCHOOL INTERCOM SYSTEM SHALL BE UPGRADED; EXISTING SPEAKERS AND WIRING SHALL BE REMOVED AND REPLACED WITH NEW UPGRADES AND WIRING. LOCATE CALL-BACK STATIONS IN EXISTING CLASSROOMS SHALL BE REMOVED AND BLANK COVERED. NEWLY UPGRADED INTERCOM SYSTEM SHALL BE INSTALLED IN ALL CLASSROOMS. THERE WILL BE NEW AMPLIFIERS AND OTHER PARTS SHALL BE SUPPLIED AND INSTALLED AS REQUIRED. THE NEW SYSTEM SHALL BE ZONED AS SUCH:

- 1. EXTENSION SPEAKER ZONE
- 2. DYNAMOMIM 112 ZONE
- 3. GENERAL PAGING ZONE

GENERAL PAGING ZONE INCLUDES ALL CLASSROOMS, CONFERENCE ROOMS, OTHER ROOMS WHERE SPEAKERS ARE SHOWN AND CORRIDORS.

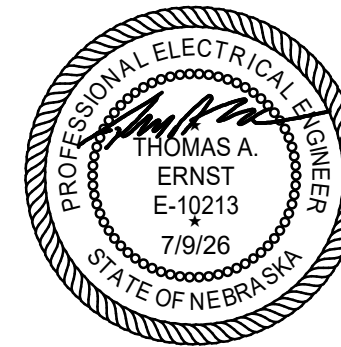
E CIRCUITING OF INTERCOM SPEAKERS ARE NOT SHOWN, BUT SHALL BE PROVIDED. WIRING SHALL BE Labeled AND SUPPORTED BY J-HOOKS AND NOT LAID ON GELING TRILLES.

F REMOVING ALL EXISTING SPEAKERS SHALL BE CENTRALLY LOCATED IN EACH ROOM, NOT NECESSARILY WHERE SHOWN ON THIS DRAWING.

- 1 RELOCATE TRANSFORMER BY GUD. PROVIDE VEHICLE PROTECTION BOLLARDS PER GUD REQUIREMENTS.
- 2 DISCONNECT EXISTING FEEDERS AND BRANCH CIRCUIT FROM THE TRANSFORMER. EXISTING FEEDER TO CONNECT TO NEW SWITCHGEAR. DISCONNECT EXISTING NEW SWITCHGEARD MAINS AS REQUIRED. BRANCH CIRCUIT EXISTING NEW SWITCHGEARD MAINS TO BE REMOVED AND AIR COMPRESSOR TO BE EXTENDED TO NEW PANEL C AND CONNECTED TO NEW CIRCUIT BREAKERS AS REQUIRED.
- 3 EXISTING MOTOR CIRCUIT CENTER TO BE REMOVED AND REPLACED WITH NEW PANEL C.
- 4 PROVIDE FOUR (4) COMBINATION STARTERS/MOTORS ON HALL NEUTRAL TO PANEL C. EXTEND EXISTING BRANCH CIRCUITS FROM PANEL C, FEED AND STARTER TO EXISTING FROM MOTOR CONTROL CENTER, AND CONNECT THROUGH NEW MOTOR STARTER AND STOP TO EXISTING MOTOR. PROVIDE STARTERS NEEDED FOR REMOVE EXISTING PANEL. EM AND PROVIDE IN ITS PLACE NEW PANEL EM. EXTEND EXISTING BRANCH CIRCUITS TO NEW CIRCUIT BREAKERS AND CONNECT AS REQUIRED.
- 5 UNITE FEEDER TO REMOVE EXISTING FEEDER. THIS CONTRACTOR TO PROVIDE NEW 2.5" CONDUIT FROM PROPERTY LINE INTO BUILDING TO NEW #24. PROVIDE PULLSTICK IN CONDUIT. UNITE TO INSTALL NEW #24.
- 6 MOUNT FLOOR CONTROLLER AND AIRPONE CONTROL IN RACK.
- 7 PROVIDE 12-STRAND MULTIFIBER FIBER AND TWO CAT 6 CABLES FOR TEMPORARY CONNECTION TO EXISTING DATA EQUIPMENT.
- 8 EXISTING MAIN DATA RACKS SHALL BE REMOVED. THE DATA CABLING THROUGHOUT THE SCHOOL SHALL BE REMOVED AND REPLACED WITH NEW CAT 6 CABLES. ALL FIBERS SHALL BE TERMINATED IN THE NEW #24. CABLEING IN THIS AREA SHALL TERMINATE IN THE NEW #24.
- 9 PROVIDE 12-STRAND FIBER CABLE AND TWO CAT 6A CABLES TO NEW IT TO IN DATA RACK. ALL FIBERS SHALL BE TERMINATED AT EACH END.
- 10 NEW BOGEM INTERCOM SYSTEM WITH RACK.
- 11 CONNECT TO PROJECTOR CONTROL SYSTEM.
- 12 EXISTING POWER FLOOR TO BE REMOVED AND REINSTALLED AFTER NEW FLOOR IS INSTALLED. REAP ALL ELECTRICAL CIRCUITS AND RECONNECT AS REQUIRED. ALL NEW DATA SHALL BE PROVIDED.
- 13 CONNECT TO LIGHTING CIRCUIT IN THIS ROOM.
- 14 CONNECT TO DOOR 204 R.F.
- 15 PROVIDE OUTLETS IN DECK. COORDINATE WITH ACTUAL DECK IN THE FIELD. REUSE CIRCUIT THAT FEED DOCK AND EXTEND AS REQUIRED.
- 16 EXTEND AND CONNECT TO NEW 200/40 CIRCUIT BREAKER IN SQUARE D LOAD CENTER. PROVIDE BREAKER.
- 17 PROVIDE FIRE ALARM CONNECTION TO NEW FIRE SPRINKLER FLOW SWITCH.
- 18 PROVIDE NEW SECONDARY ELECTRICAL. SEE ELECTRICAL RISKER ON SHEET.
- 19 PROVIDE CT CABINET AND INTERFERING PER GUD.
- 20 PROVIDE A TRANSFORMER IN 300 IN. 60 IN. IN CONDUIT TO PANEL F. CONNECT TO EXISTING SPARE 200A FUSES SWITCH ON EXISTING SWITCHGEARD FUSE #1. 200A RECONNECT TO NEW SWITCHGEARD MAINS. EXISTING NEW SWITCHGEARD MAINS TO BE REMOVED AND

A

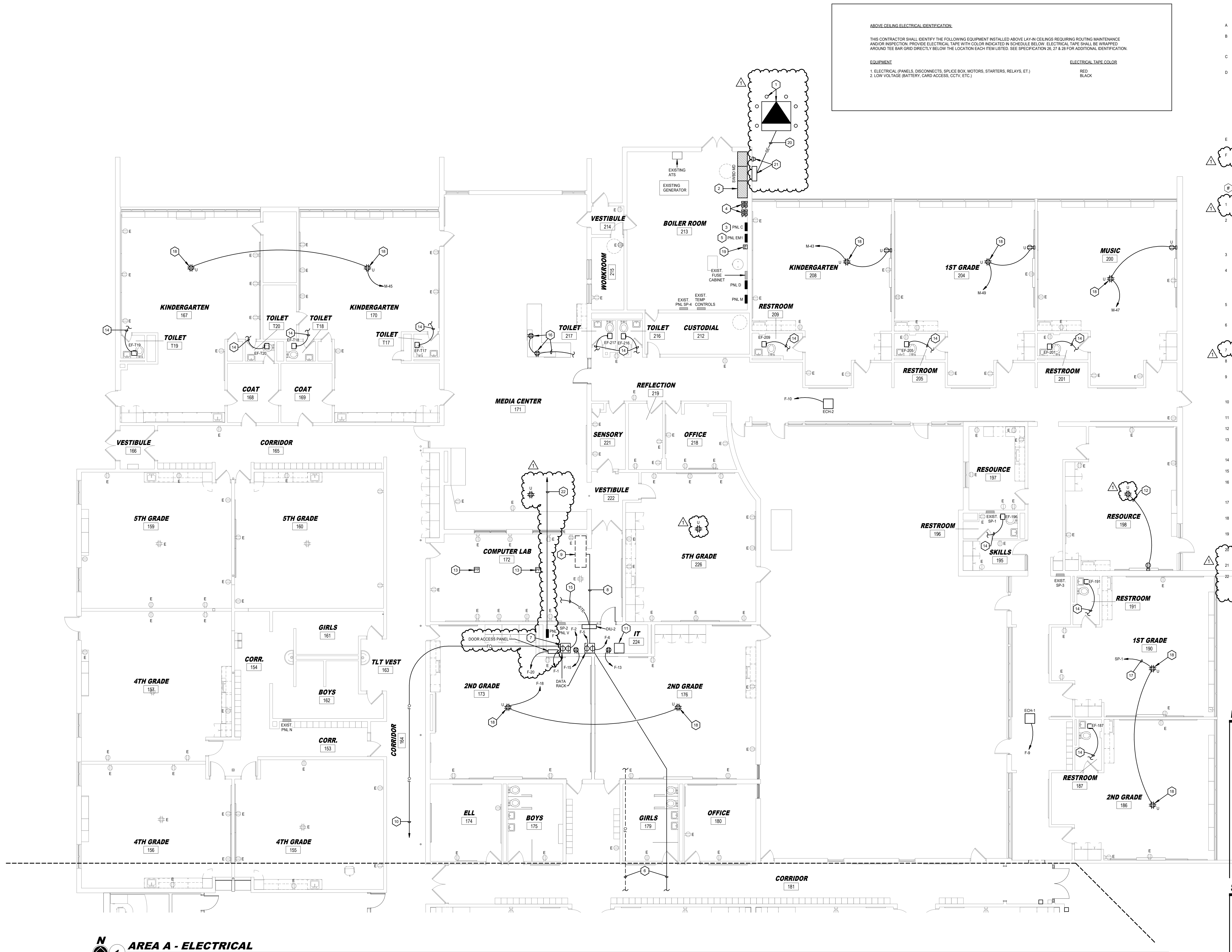
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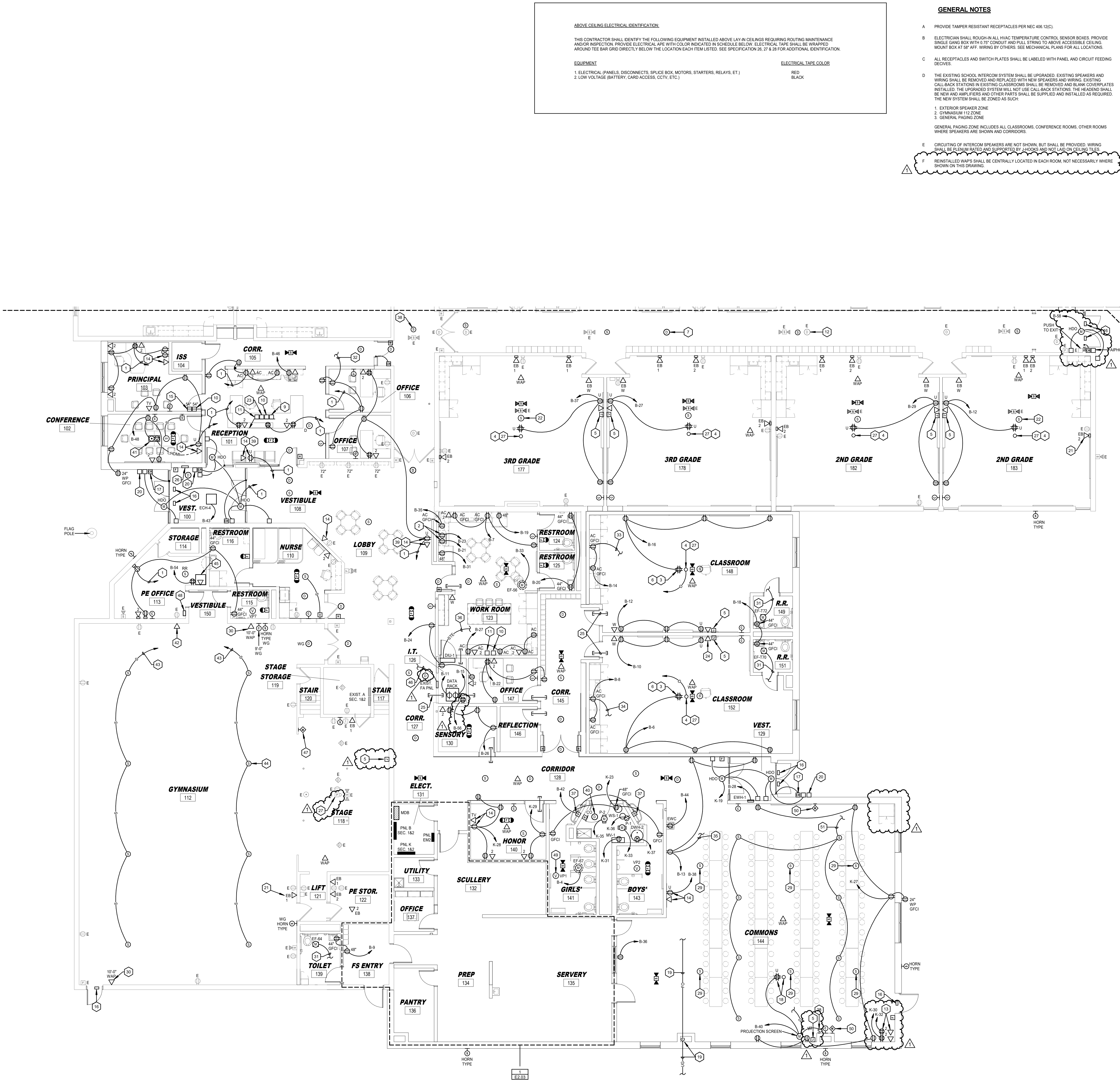
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N
1 **AREA A - ELECTRICAL**
1/8" = 1'-0"

PROJECT: GATES ELEMENTARY SCHOOL, GATES ELEMENTARY PUBLIC SCHOOLS, 513 S. CURTIS STREET, GRAND ISLAND, NEBRASKA
DATE: 07/17/2025
DRAWN BY: J. BRIDGES
CHECKED BY: J. BRIDGES
SCALE: 1/8" = 1'-0"



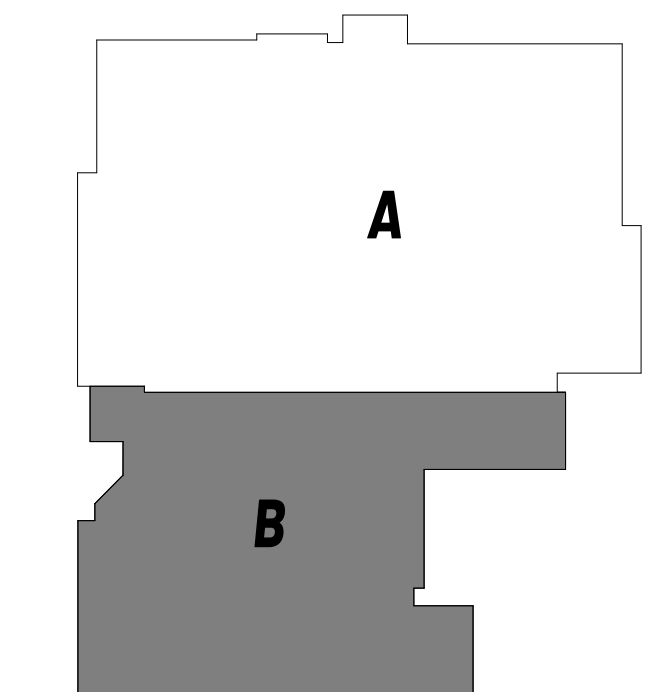
AREA B - ELECTRICAL PLAN
1/8" = 1'-0"

GENERAL NOTES

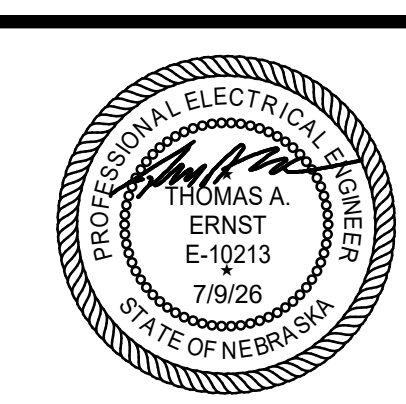
- PROVIDE TAMPER RESISTANT RECEPTACLES PER NEC 406.12(C).
- ELECTRICIAN SHALL ROUGH-IN ALL HVAC TEMPERATURE CONTROL, SENSOR BOXES. PROVIDE SINGLE GANG BOX WITH 1/2" CONDUIT AND PULL STRING TO ABOVE ACCESSIBLE CEILING. MOUNT BOX AT 36" AFF. WIRING BY OTHERS. SEE MECHANICAL PLANS FOR ALL LOCATIONS.
- ALL RECEPTACLES AND SWITCH PLATES SHALL BE LABELED WITH PANEL AND CIRCUIT FEEDING DEVICES.
- THE EXISTING SCHOOL INTERCOM SYSTEM SHALL BE UPGRADED. EXISTING SPEAKERS AND WIRING SHALL BE REMOVED AND REPLACED WITH NEW SPEAKERS AND WIRING. EXISTING CALL-BACK STATIONS IN EXISTING CLASSROOMS SHALL BE REMOVED AND BLANK COVERS/PLATES INSTALLED. THE UPGRADED SYSTEM WILL NOT USE CALL-BACK STATIONS. THE HEADSET SHALL BE NEW AND AMPLIFIERS AND OTHER PARTS SHALL BE SUPPLIED AND INSTALLED AS REQUIRED. THE NEW SYSTEM SHALL BE ZONED AS SUCH:
 - EXTENSION SPEAKER ZONE
 - COMMONS 112 ZONE
 - GENERAL PAGING ZONEGENERAL PAGING ZONE INCLUDES ALL CLASSROOMS, CONFERENCE ROOMS, OTHER ROOMS WHERE SPEAKERS ARE SHOWN AND CORRIDORS.
- CIRCUITING OF INTERCOM SPEAKERS ARE NOT SHOWN, BUT SHALL BE PROVIDED. WIRING SHALL BE FIBER OPTIC AND SUPPORTED BY J-HOOKS AND NOT LAID ON CEILING TILES.
- REINSTALLED WAPS SHALL BE CENTRALLY LOCATED IN EACH ROOM, NOT NECESSARILY WHERE SHOWN ON THIS DRAWING.

SHEET NOTES

- CONNECT TO 30 AMP 1-POL CIRCUIT BREAKER IN EXISTING PANEL. A WIDE SPACE AFTER DEMOLITION.
- RECEPTACLE FOR MICROWAVE. COORDINATE EXACT MOUNTING LOCATION WITH ARCHITECT.
- SEE TEACHING WALL AV DETAIL ON SHEET ES-01. PROVIDE TWO DUPLEX RECEPTACLES WITH USB CHARGERS FOR EACH PROJECTOR LOCATION. (TOTAL FOUR (4) USB'S AT EACH PROJECTOR).
- PROVIDE CLASSROOM SPEAKER SYSTEM. AUDIO ENHANCEMENT CA-70 SENTINEL AMPLIFIER WITH INTEGRATED XD RECEIVER AND POWER SUPPLY. PROVIDE AUDIO ENHANCEMENT 51-30-30-30 CEILING SPEAKER KIT WITH TWO CS-12 SPEAKERS AND MOUNT BEHIND PROJECTOR. PLUG UNIT INTO A-EX CEILING OUTLET AND PROVIDE CABLE FROM PROJECTOR TO SPEAKERS. MOUNT IN CEILING TILE WITH MOUNTING KIT INCLUDES AND PROVIDE SAFETY CABLE FROM STRUCTURE TO UNIT. PROVIDE PROJECTOR MOUNT. CHIEF CMS-445, DRAWINGS FOR PROJECTOR MOUNTING LOCATIONS.
- CAT6A BLUE CAT6 CABLE FOR HDMI TO PROJECTOR. SEE TEACHING WALL AV DETAIL ON SHEET ES-01. PROVIDE LIBERTY AV DL-H50C-WPK-W HDMI CONVERTER WITH WALL PLATE.
- CEILING MOUNTED PROJECTOR OUTLET. (TYPICAL).
- SPEAKER FOR SCHOOL INTERCOM SYSTEM. CONNECT TO SYSTEM.
- NOT USED.
- PROVIDE PUSH BUTTON FOR DOOR RELEASE LOCK AND VIDEO FEED FROM IPHONE. COORDINATE EXACT MOUNTING LOCATION WITH ARCHITECT.
- PROVIDE PUSH BUTTON STATION FOR INTRUDER ALARM (LOCKDOWN). COORDINATE MOUNTING WITH ARCHITECT. STATION TO BE TIED INTO VOICE EVACUATION FIRE ALARM SYSTEM AND DOOR ACCESS.
- PROVIDE IPHONE IX-MV-HB FOR DESKTOP OR WALL MOUNT AS SHOWN.
- NEW LOCATION OF RELOCATED FIRE ALARM DEVICE. EXTEND WIRING AS REQUIRED.
- COMMONS AV CABINET. PROVIDE TWO (2) 4-PLEX RECEPTACLES AND FOUR (4) DATA OUTLETS FROM SCHOOL DATA NETWORK. PROVIDE 4" X 4" BOX WITH MOUSE HOLE COVER AND 1" CONDUIT TO ABOVE CEILING FOR SPEAKER CABLE. PROVIDE SEPARATE 4" X 4" BOX WITH MOUSE HOLE COVER AND 1" CONDUIT TO ABOVE CEILING FOR MICROPHONE CABLE. DO NOT RUN SPEAKER CABLE WITH MICROPHONE CABLE IN SAME CONDUIT. COORDINATE MOUNTING LOCATION OF OUTLETS IN CABINET WITH ARCHITECT.
- COORDINATE MOUNTING LOCATION OF TV OUTLETS WITH ARCHITECT. PROVIDE DIGITALINK DL-HD103R AT THIS LOCATION WITH A CAT 6A CABLE BACK TO NEAREST DATA RACK.
- PROVIDE PUSH BUTTON STATION FOR TORNADO WARNING. STATION SHALL TIE INTO FIRE ALARM EVACUATION SYSTEM AND ACCESS CONTROL. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
- MAKE CONNECTION TO DOOR POSITION SWITCH AND CONNECT TO DOOR ACCESS SYSTEM. PROVIDE POWER AS REQUIRED. SEE DETAIL ON SHEET ES-01.
- SEE CARD READER DETAIL ON SHEET ES-01.
- REMOVE CEILING MOUNTED 4-PLEX RECEPTACLE WITH TWO (2) USB OUTLETS FOR CEILING MOUNTED PROJECTOR. PROVIDE TWO (2) DATA OUTLETS IN CEILING PLATE AND TERMINATE IN AV CABINET. PROVIDE CHIEF CMS-445, PRAVW, AND CMS-9012 EXTENSION COLUMN.
- UNITE FIBER TO REMOVE EXISTING FIBER. THIS CONTRACTOR TO PROVIDE NEW 2" CONDUIT FROM PROPERTY LINE INTO BUILDING TO NEW IT 224. PROVIDE PULLSTRING IN CONDUIT. UNITE TO INSTALL NEW FIBER IN CONDUIT.
- PROVIDE NEW APHONE. SEE APHONE RISER DIAGRAM ON SHEET ES-01.



SEAL
CA-0176



REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDENDUM #1	07.17.2025

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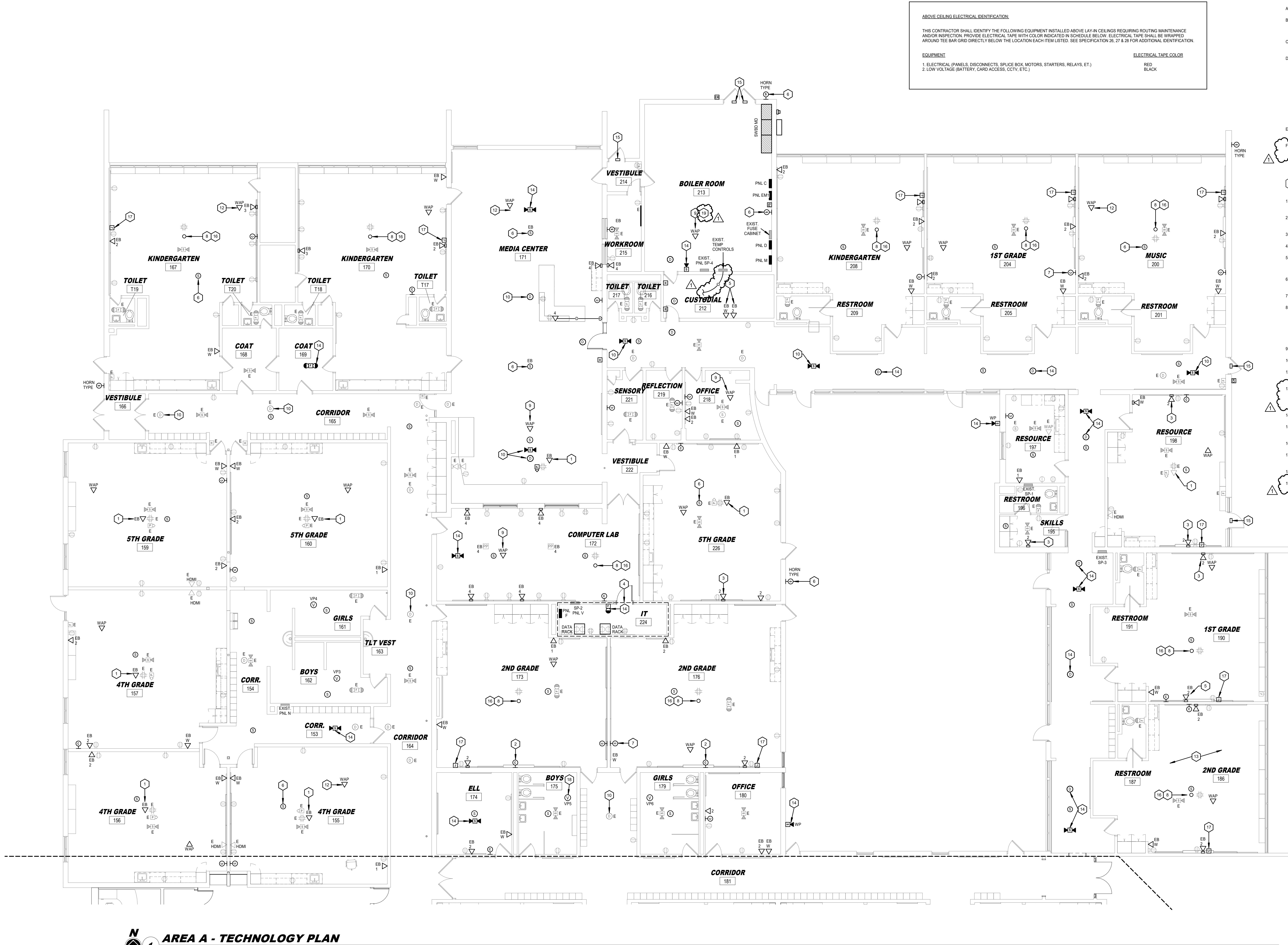
DATE: **07-09-2025**
PROJECT: **26124**

ELECTRICAL PLAN - AREA B

**GATES ELEMENTARY SCHOOL
GRAND ISLAND PUBLIC SCHOOLS
513 S. CURTIS STREET, GRAND ISLAND, NEBRASKA**

SHEET
E2.02

PROJECT: GATES ELEMENTARY SCHOOL, 513 S. CURTIS STREET, GRAND ISLAND, NEBRASKA
DATE: 07/17/2025
DRAWN BY: J. BRIDGES
CHECKED BY: J. BRIDGES
SCALE: 1/8" = 1'-0"



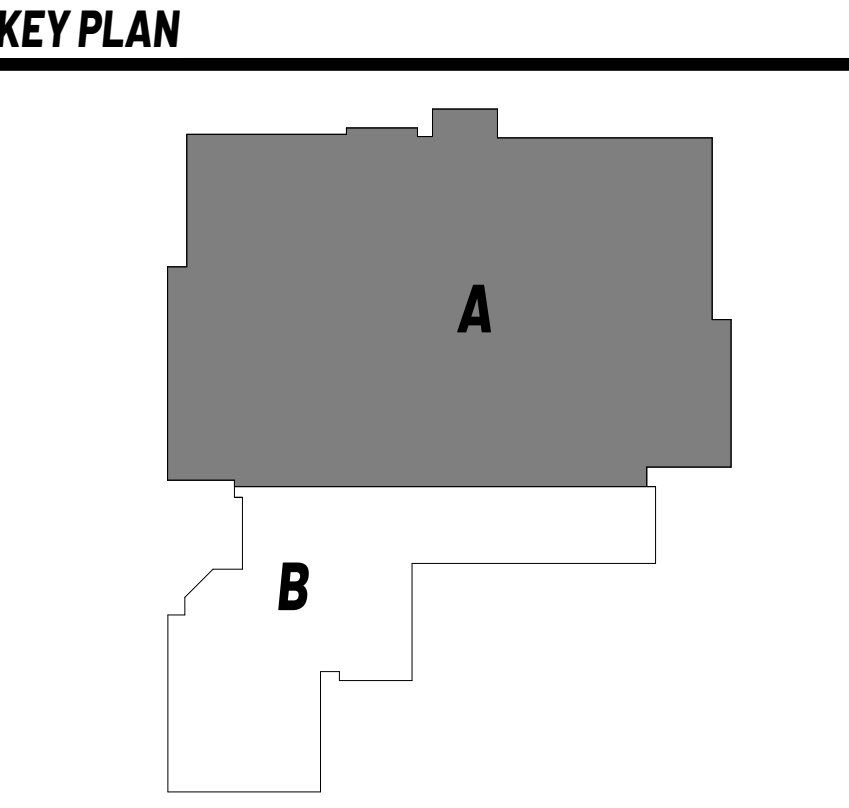
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1
AREA A - TECHNOLOGY PLAN
1/8" = 1'-0"

ABOVE CEILING ELECTRICAL IDENTIFICATION:

THIS CONTRACTOR SHALL IDENTIFY THE FOLLOWING EQUIPMENT INSTALLED ABOVE LAY-IN CEILINGS REQUIRING ROUTING MAINTENANCE AND/OR INSPECTION. PROVIDE ELECTRICAL TAPE WITH COLOR INDICATED IN SCHEDULE BELOW. ELECTRICAL TAPE SHALL BE WRAPPED AROUND TEE BAR GRID DIRECTLY BELOW THE LOCATION EACH ITEM LISTED. SEE SPECIFICATION 26, 27 & 28 FOR ADDITIONAL IDENTIFICATION.

EQUIPMENT	ELECTRICAL TAPE COLOR
1. ELECTRICAL PANELS, DISCONNECTS, SPUR BOX, MOTORS, STARTERS, RELAYS, ETC.	RED
2. LOW VOLTAGE (BATTERY, CARD ACCESS, CCTV, ETC.)	BLACK

- GENERAL NOTES**
- PROVIDE TAMPER RESISTANT RECEPTACLES PER NEC 408.13(C).
 - ELECTRICIAN SHALL ROUGH-IN ALL HVAC TEMPERATURE CONTROL, SENSOR BOXES. PROVIDE SINGLE GANG BOX WITH 1/2" CONDUIT AND PULL STRING TO ABOVE ACCESSIBLE CEILING MOUNT BOX AT 8" AFF. WIRING BY OTHERS. SEE MECHANICAL PLANS FOR ALL LOCATIONS.
 - ALL RECEPTACLES AND SWITCH PLATES SHALL BE LABELED WITH PANEL AND CIRCUIT FEEDING DEVICES.
 - THE EXISTING SCHOOL INTERCOM SYSTEM SHALL BE UPGRADED. EXISTING SPEAKERS AND WIRING SHALL BE REMOVED AND REPLACED WITH NEW SPEAKERS AND WIRING. EXISTING CALLBACK STATIONS IN EXISTING CLASSROOMS SHALL BE REMOVED AND BLANK COVERPLATES INSTALLED. THE UPGRADED SYSTEM WILL NOT USE CALLBACK STATIONS. THE HEADEND SHALL BE NEW AND AMPLIFIERS AND OTHER PARTS SHALL BE SUPPLIED AND INSTALLED AS REQUIRED. THE NEW SYSTEM SHALL BE ZONED AS SUCH:
 - EXTERIOR SPEAKER ZONE
 - GYMNASIUM 112 ZONE
 - GENERAL PAGING ZONEGENERAL PAGING ZONE INCLUDES ALL CLASSROOMS, CONFERENCE ROOMS, OTHER ROOMS WHERE SPEAKERS ARE SHOWN AND CORRIDORS.
 - CIRCUITING OF INTERCOM SPEAKERS ARE NOT SHOWN, BUT SHALL BE PROVIDED. WIRING SHALL BE PLANNED AND SUPPORTED BY J-HOOKS AND NOT LAD ON CEILING TILES.
 - REINSTALLED WAPS SHALL BE CENTRALLY LOCATED IN EACH ROOM, NOT NECESSARILY WHERE SHOWN ON THIS DRAWING.
- # SHEET NOTES**
- EXISTING CEILING MOUNTED PROJECTOR OUTLET. PROVIDE TWO NEW DATA TO THIS LOCATION AND ONE CAT 6A TO OUTLET ON TEACHING WALL.
 - PROVIDE CUSTOM COVERPLATE TO COVER CLOCK/SPEAKER BACK BOX BEING REMOVED. PAINT TO MATCH WALL.
 - PROVIDE NEW BOX WITH WIREMOLD AND DATA CABLE IN THIS LOCATION.
 - SEE SHEET E2.01 FOR ELECTRICAL WORK IN THIS AREA.
 - REMOVE EXISTING DATA CABLE IN EXISTING OUTLET. PROVIDE NEW CAT 6A CABLE, JACK, AND FACEPLATE. TYPICAL. ALL EXISTING DATA LOCATIONS THROUGHOUT SCHOOL. BOXES LABELED WITH "EB" INDICATES AN EXISTING BOX. NUMBER NEXT TO OUTLET INDICATES QUANTITY OF CABLES REQUIRED. (TYPICAL).
 - PROVIDE NEW INTERCOM, SPEAKERS, AND WIRING THROUGHOUT BUILDING (TYPICAL). SEE SPECIFICATIONS FOR NEW INTERCOM SYSTEM.
 - NEW WIRELESS CLOCK. (TYPICAL).
 - PROVIDE CLASSROOM SPEAKER SYSTEM. AUDIO ENHANCEMENT CA-70 SENTINEL AMPLIFIER WITH INTEGRATED XD RECEIVER AND POWER SUPPLY. PROVIDE AUDIO ENHANCEMENT ST-SP-4102 CEILING SPEAKER KIT WITH TWO CS-12 SPEAKERS. MOUNT BEHIND PROJECTOR. PLUG UNIT INTO A PLUG CEILING OUTLET AND PROVIDE CABLE FROM PROJECTOR TO SPEAKERS. MOUNT IN CEILING TILE WITH MOUNTING KIT INCLUDED AND PROVIDE SAFETY CABLE FROM STRUCTURE TO UNIT. PROVIDE PROJECTOR MOUNT, CHIEF-CMS-445, RPA100, AND CMS-5012 EXTENSION COLUMN. SEE ARCHITECTURAL DRAWINGS FOR PROJECTOR MOUNTING LOCATIONS.
 - NEW WAP LOCATION. PROVIDE TWO NEW CAT 6A CABLES TO THIS LOCATION. SEE SPECIFICATIONS.
 - NEW LOCATION OF RELOCATED FIRE ALARM DEVICE. EXTEND WIRING AS REQUIRED.
 - ALL EXISTING WAPS TO BE REINSTALLED ON NEW CEILING WITH TWO NEW CAT 6A CABLES PROVIDED. (TYPICAL).
 - THE EXISTING INTERCOM HEADEND SHALL BE TEMPORARILY LOCATED INTO 2ND GRADE 186. THE EXISTING LOCKDOWN AND SECURE STATION SHALL ALSO BE RELOCATED TEMPORARILY INTO THIS ROOM. THIS ROOM WILL FUNCTION AS THE OFFICE UNTIL THE NEW SPACE IS READY TO OCCUPY. COORDINATE ALL CABLEING THAT NEEDS TO BE RELOCATED AND RELOCATE AS REQUIRED.
 - PROVIDE NEW FIRE ALARM DEVICE AND WIRING.
 - MAKE CONNECTION TO DOOR POSITION SWITCH AND CONNECT TO DOOR ACCESS SYSTEM. PROVIDE POWER AS REQUIRED. SEE DOOR ACCESS DETAIL ON SHEET E5.01.
 - PROVIDE TWO CAT6A TO PROJECTOR AND ONE CAT6 DOWN TO TEACHING WALL.
 - CAT6A, BLUE CABLE FOR HDMI TO PROJECTOR. SEE TEACHING WALL AV DETAIL ON SHEET E5.01. PROVIDE LIBERTY AV DL-HDSOC-WPKT-W HDMI CONVERTER WITH WALL PLATE.
 - PROVIDE VAPE SENSOR. SEE VAPE SENSOR SCHEDULE ON SHEET E4.01. (TYPICAL).
 - COIL 30'-0" OF TWO CAT6A CABLES AT THIS LOCATION FOR OWNER USE.



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PANEL SCHEDULE

PANEL F	VOLTAGE		PHASE	3Ø		4 WIRE, SOLID NEUTRAL		10 KCMIL/8R		225 A	MAIN LUGS		SURFACE MOUNTED		
LOAD DESCRIPTION	VA	TYPE	POLES	BREAKER	NO	PHASE	NO	TYPE	BREAKER	VA	LOAD DESCRIPTION	VA	TYPE	POLES	TYPE
DATA RACK OUTLET	2,000	X	2	30	-	1	A	2	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	B	2	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	C	2	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	E	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	F	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	G	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	H	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	I	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	J	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	K	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	L	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	M	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	N	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	O	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	P	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	Q	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	R	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	S	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	T	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	U	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	V	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	W	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	X	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	Y	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	Z	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AA	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AB	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AC	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AD	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AE	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AF	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AG	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AH	6	-	30	2	X	2,000		DATA RACK OUTLET
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DATA RACK OUTLET	2,000	X	2	30	-	1	AK	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AL	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AM	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AN	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AO	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AP	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AQ	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AR	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AS	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AT	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AU	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AV	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AW	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AX	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AY	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	AZ	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	BA	6	-	30	2	X	2,000		DATA RACK OUTLET
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DATA RACK OUTLET	2,000	X	2	30	-	1	BG	6	-	30	2	X	2,000		DATA RACK OUTLET
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DATA RACK OUTLET	2,000	X	2	30	-	1	CC	6	-	30	2	X	2,000		DATA RACK OUTLET
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DATA RACK OUTLET	2,000	X	2	30	-	1	CE	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	CF	6	-	30	2	X	2,000		DATA RACK OUTLET
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DATA RACK OUTLET	2,000	X	2	30	-	1	CK	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	CL	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	CM	6	-	30	2	X	2,000		DATA RACK OUTLET
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DATA RACK OUTLET	2,000	X	2	30	-	1	CR	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	CS	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	CT	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	CU	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	CV	6	-	30	2	X	2,000		DATA RACK OUTLET
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DATA RACK OUTLET	2,000	X	2	30	-	1	DA	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	DB	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2	30	-	1	DC	6	-	30	2	X	2,000		DATA RACK OUTLET
DATA RACK OUTLET	2,000	X	2												

DISTRIBUTION PANEL SCHEDULE												
PANEL "100"		VOLTAGE		PHASE		22 KACHTS		600A MAIN LUGS				
EST. MAX. DEMAND 174 KVA		120 / 208V				4 WIRE, SOLID NEUTRAL		SERVES NEW ADDITION				
CAT. NO.	SERVICES	SIZE (KVA)	SIZE	POLE	TYPE	SIZE	CONDUIT	CONDUIT	REMARKS			
1	RTU#2A2	8.2	35	3	M	-	-	-	-	SEE NOTE 1		
2	RTU#2A3	8.2	35	3	M	-	-	-	-	SEE NOTE 1		
3	RTU#2A4	7.9	35	3	M	-	-	-	-	SEE NOTE 1		
4	RTU#2A5	27.0	35	3	M	-	-	-	-	SEE NOTE 1		
5	RTU#2A6	14.5	35	3	M	-	-	-	-	SEE NOTE 1		
6	RTU#2A7	10.4	50	3	M	-	-	-	-	SEE NOTE 1		
7	PANEL "B"	46.0	200	3	P	3/0	THWN	6	1.5"			
8	PANEL "N"	26.8	225	3	P	4	3/0	THWN	6	1.25"		
9	CONNECTION OVER (24)	25.0	50	3	P	3	3	THWN	8	1.5"	NOTE 2,3	
10	SPACE ONLY	-	200	3	-	-	-	-	-	-		
12	SPACE ONLY	-	200	3	-	-	-	-	-	-		
13	SPACE ONLY	-	200	3	-	-	-	-	-	-		

NOTES:

- SEE EQUIPMENT CONNECTION SCHEDULE FOR CONDUIT AND CONDUCTOR SIZE.
- SEE FOOD SERVICE EQUIPMENT SCHEDULE FOR CONDUIT AND CONDUCTOR SIZE.
- PROVIDE LOCK-OUT DEVICE FOR CIRCUIT BREAKER.

[illegible][illegible]

NO.	DESCRIPTION	DATE
1	ADDENDUM #1	07.17.2026

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SHEET
E4.01

EQUIPMENT CONNECTION SCHEDULE										
EQUIP.	DESCRIPTION	KW	HP	VOLTS	PHASE	WIRING	DISCONNECT SWITCH	MOTOR STARTER	CONNECTION	REMARKS
DIU-1,2	MINI-SPLIT A/C INDOOR UNIT	-	F	208	1Ø	2- #10 #10 GND 0.75" C	STE	-	DIRECT	INDOOR UNIT FED FROM OUTDOOR UNIT
DOU-1,2	MINI-SPLIT A/C OUTDOOR UNIT	2.7	-	208	1Ø	2- #10 #10 GND 0.75" C	30 AMP NEMA 3R FUSIBLE	-	DIRECT	-
DWH-2	DOMESTIC WATER HEATER	-	F	120	1Ø	2- #12 #12 GND 0.75" C	PLUG AND CORD	-	DIRECT	PROVIDE WALL MOUNTED OUTLET
EDH-1,2	ELECTRIC CEILING HEATER	4.0	-	208	1Ø	2- #10 #10 GND 0.75" C	INTEGRAL TO HEATER	INTEGRAL THERMOSTAT	DIRECT	PROVIDE QMARK EFF400L-EFFT2 CEILING HEATER WITH 2 POLE INTEGRAL THERMOSTAT AND EFFTBF 1-BAR KIT.
EDH-4	ELECTRIC CEILING HEATER	4.0	F	208	1Ø	2- #10 #10 GND 0.75" C	INTEGRAL TO HEATER	INTEGRAL THERMOSTAT	DIRECT	PROVIDE QMARK CDF-54S, CDFPENN, CDFI, CDFDS.
EF-56	EXHAUST FAN	-	F	120	1Ø	2- #12 #12 GND 0.75" C	INTEGRAL TO FAN	RELAY	DIRECT	PROVIDE A RELAY FOR CONNECTION TO BUILDING MANAGEMENT SYSTEM.
EF-67	EXHAUST FAN	-	F	120	1Ø	2- #12 #12 GND 0.75" C	INTEGRAL TO FAN	RELAY	DIRECT	PROVIDE A RELAY FOR CONNECTION TO BUILDING MANAGEMENT SYSTEM.
EF-OVEN	EXHAUST FAN	-	1/4	120	1Ø	2- #12 #12 GND 0.75" C	INTEGRAL TO FAN	RELAY	DIRECT	PROVIDE A RELAY FOR CONNECTION TO BUILDING MANAGEMENT SYSTEM. PROVIDE WALL SWITCH AND LABEL SWITCH.
EF-TT2 TT0, EF-64	EXHAUST FAN	-	F	120	1Ø	2- #12 #12 GND 0.75" C	INTEGRAL TO FAN	-	DIRECT	-
EF-WASH	EXHAUST FAN	-	F	120	1Ø	2- #12 #12 GND 0.75" C	INTEGRAL TO FAN	RELAY	DIRECT	PROVIDE A RELAY FOR CONNECTION TO BUILDING MANAGEMENT SYSTEM. PROVIDE WALL SWITCH AND LABEL SWITCH.
EMW-1	ELECTRIC WALL HEATER	3.0	F	208	1Ø	2- #10 #10 GND 0.75" C	INTEGRAL TO HEATER	INTEGRAL THERMOSTAT	DIRECT	PROVIDE QMARK AWH404MF, AWH51.
EMW-2	ELECTRIC WALL HEATER	4.0	F	208	1Ø	2- #10 #10 GND 0.75" C	INTEGRAL TO HEATER	INTEGRAL THERMOSTAT	DIRECT	PROVIDE QMARK AWH404MF, AWH5M.
MV-1	MIXING VALVE	0.2	-	120	1Ø	2- #12 #12 GND 0.75" C	PLUG	-	PLUG AND CORD	-
P-1	PUMP	-	F	120	1Ø	2- #12 #12 GND 0.75" C	STE	RELAY	DIRECT	PROVIDE A RELAY FOR CONNECTION TO BUILDING MANAGEMENT SYSTEM.
P-2	PUMP	-	F	120	1Ø	2- #12 #12 GND 0.75" C	STE	RELAY	DIRECT	PROVIDE A RELAY FOR CONNECTION TO BUILDING MANAGEMENT SYSTEM.
RTU-A08	ROOFTOP UNIT	8.2	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A09	ROOFTOP UNIT	8.2	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A10	ROOFTOP UNIT	6.7	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A11	ROOFTOP UNIT	6.7	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A13	ROOFTOP UNIT	6.7	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A14	ROOFTOP UNIT	8.2	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A15	ROOFTOP UNIT	3.5	-	208	1Ø	2- #10 XHHW-2 GND #10 XHHW-2 GND 0.75" C	30 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A17	ROOFTOP UNIT	8.2	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A18	ROOFTOP UNIT	8.2	-	208	3Ø	3- #8 XHHW-2 GND #10 XHHW-2 GND 0.75" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A20	ROOFTOP UNIT	10.4	-	208	3Ø	3- #8 #10 GND 1" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE DUCT SMOKE DETECTOR IN SUPPLY SIDE DUCT AND FIRE ALARM SHUTDOWN RELAY. PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A21	ROOFTOP UNIT	7.9	-	208	3Ø	3- #8 #10 GND 1" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A22	ROOFTOP UNIT	8.2	-	208	3Ø	3- #8 #10 GND 1" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A23	ROOFTOP UNIT	8.2	-	208	3Ø	3- #8 #10 GND 1" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A24	ROOFTOP UNIT	14.5	-	208	3Ø	3- #8 #10 GND 1" C	60 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE DUCT SMOKE DETECTOR IN SUPPLY SIDE DUCT AND FIRE ALARM SHUTDOWN RELAY. PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
RTU-A25	ROOFTOP UNIT	28.2	-	208	3Ø	3- #8 #10 GND 1.25" C	100 AMP NEMA 3R FUSIBLE	-	DIRECT	PROVIDE DUCT SMOKE DETECTOR IN SUPPLY SIDE DUCT AND FIRE ALARM SHUTDOWN RELAY. PROVIDE CO DETECTOR IN FIRST ROOM SUPPLIED BY THIS UNIT AND CONNECT TO FIRE ALARM SYSTEM.
WS-1	WATER SOFTENER	-	F	120	1Ø	2- #12 #12 GND 0.75" C	PLUG	-	PLUG AND CORD	-
NOTES: 1. ALL LOW VOLTAGE HVAC CONTROL WIRING SHALL BE BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED. 2. ALL EXHAUST FANS ARE FURNISHED WITH AN INTEGRAL DISCONNECTING MEANS, UNLESS NOTED OTHERWISE.										

ABOVE CEILING ELECTRICAL IDENTIFICATION

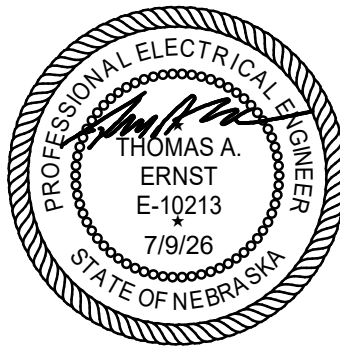
THIS CONTRACTOR SHALL IDENTIFY THE FOLLOWING EQUIPMENT INSTALLED ABOVE LAY-IN CEILINGS REQUIRING ROUTING MAINTENANCE AND/OR INSPECTION. PROVIDE ELECTRICAL TAPE WITH COLOR INDICATED IN SCHEDULE BELOW. ELECTRICAL TAPE SHALL BE WRAPPED AROUND TEE BAR GRID DIRECTLY BELOW THE LOCATION EACH ITEM LISTED. SEE SPECIFICATION 26.07 & 26 FOR ADDITIONAL IDENTIFICATION.

EQUIPMENT	ELECTRICAL TAPE COLOR
1. ELECTRICAL PANELS, DISCONNECTS, SPLICE BOX, MOTORS, STARTERS, RELAYS, ETC.)	RED
2. LOW VOLTAGE (BATTERY, CARD ACCESS, CCTV, ETC.)	BLACK

INTERIOR LIGHT FIXTURE SCHEDULE													
MARK	DESCRIPTION	LUMENS	COLOR TEMP	DIMMING PROTOCOL	VOLTAGE	WATTS	MOUNTING	MANUFACTURER	CATALOG NUMBER	ACCEPTABLE MANUFACTURERS	NOTES		
1	2 X 2 LED CENTER BASKET TROFFER, ADJUSTABLE CRI AND LUMEN OUTPUT WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT LOW)	3000	3500K	0-10 VOLT	120	33	RECESSED	COLUMBIA	LCAT-22-S-LSCS	-	-	-	-
1E	2 X 2 LED CENTER BASKET TROFFER, ADJUSTABLE CRI AND LUMEN OUTPUT WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT LOW) PROVIDE GENERATOR TRANSFER DEVICE	3000	3500K	0-10 VOLT	120	33	RECESSED	COLUMBIA	LCAT-22-S-LSCS WITH GTD	-	-	2	-
2	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-
2E	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-
3	2 X 4 LED CENTER BASKET TROFFER, ADJUSTABLE CRI AND LUMEN OUTPUT WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT MEDIUM)	5690	3500K	0-10 VOLT	120	47	RECESSED	COLUMBIA	LCAT-24-S-LSCS	-	-	-	-
3E	2 X 4 LED CENTER BASKET TROFFER, ADJUSTABLE CRI AND LUMEN OUTPUT WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT MEDIUM) PROVIDE GENERATOR TRANSFER DEVICE	5690	3500K	0-10 VOLT	120	47	RECESSED	COLUMBIA	LCAT-24-S-LSCS WITH GTD	-	-	2	-
4	2 X 4 LED FLAT PANEL, ADJUSTABLE CRI AND LUMEN OUTPUT, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT LOW)	3450	3500K	0-10 VOLT	120	45	RECESSED	COLUMBIA	CBT24-A-LSCS-EDD	-	-	-	-
4E	2 X 4 LED FLAT PANEL, ADJUSTABLE CRI AND LUMEN OUTPUT, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT LOW) PROVIDE GENERATOR TRANSFER DEVICE	3450	3500K	0-10 VOLT	120	45	RECESSED	COLUMBIA	CBT24-A-LSCS-EDD WITH GTD	-	-	LITHONIA, DAYBRITE	2
5	2 X 4 LED FLAT PANEL, ADJUSTABLE CRI AND LUMEN OUTPUT, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT MEDIUM)	4610	3500K	0-10 VOLT	120	45	RECESSED	COLUMBIA	CBT24-A-LSCS-EDD	-	-	-	-
5E	2 X 4 LED FLAT PANEL, ADJUSTABLE CRI AND LUMEN OUTPUT, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT MEDIUM) PROVIDE GENERATOR TRANSFER DEVICE	4610	3500K	0-10 VOLT	120	45	RECESSED	COLUMBIA	CBT24-A-LSCS-EDD WITH GTD	-	-	2	-
6	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-
6E	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-
7	2 X 2 LED RGBW TROFFER WITH FLAT ACRYLIC WHITE DIFFUSERS AND DMX COLOR CHANGE/DIMMING CONTROLLER, 3000 LUMEN MM.	3300	3500K	0-10 VOLT	120	30	RECESSED	LUMENWERX	NOVRP-22-PMQ-HLO-LED-QUADRO-10W-120-DMX-1TB15-W WITH WC1M CONTROLLER	-	-	-	-
8	LED STRIP LIGHT WITH WHITE ACRYLIC DIFFUSER, 80 CRI, 4 FT LENGTH, WITH CHAIN HANGING ASSEMBLY	4555	3500K	0-10 VOLT	120	41	CHAIN HUNG	COLUMBIA	MP54-35M,-CW-EDU WITH CSHC	-	-	-	-
8E	LED STRIP LIGHT WITH WHITE ACRYLIC DIFFUSER, 80 CRI, 4 FT LENGTH, WITH CHAIN HANGING ASSEMBLY AND GENERATOR TRANSFER DEVICE	4555	3500K	0-10 VOLT	120	41	CHAIN HUNG	COLUMBIA	MP54-35M,-CW-EDU WITH CSHC AND GTD	-	-	-	-
9	2 X 4 LED CENTER BASKET TROFFER WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT LOW)	4510	3500K	0-10 VOLT	120	47	RECESSED	COLUMBIA	LCAT24-S-LSCS	-	-	-	-
9E	2 X 4 LED CENTER BASKET TROFFER WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER PROVIDE GENERATOR TRANSFER DEVICE	4510	3500K	0-10 VOLT	120	47	RECESSED	COLUMBIA	LCAT24-S-LSCS WITH GTD	-	-	2	-
10	2 X 4 LED CENTER BASKET TROFFER WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT HIGH)	6450	3500K	0-10 VOLT	120	47	RECESSED	COLUMBIA	LCAT24-S-LSCS	-	-	-	-
10E	2 X 4 LED CENTER BASKET TROFFER WITH WHITE FROSTED LENS, 80 CRI, 0-10V DIMMING DRIVER, PROVIDE GENERATOR TRANSFER DEVICE	6450	3500K	0-10 VOLT	120	47	RECESSED	COLUMBIA	LCAT24-S-LSCS WITH GTD	-	-	2	-
11	2 X 2 LED FLAT PANEL, ADJUSTABLE CRI AND LUMEN OUTPUT, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT MEDIUM)	3500	3500K	0-10 VOLT	120	38	RECESSED	COLUMBIA	CBT22-A-LSCS-EDD	-	-	-	-
11E	2 X 2 LED FLAT PANEL, ADJUSTABLE CRI AND LUMEN OUTPUT, 80 CRI, 0-10V DIMMING DRIVER, (LUMEN SET AT MEDIUM) PROVIDE GENERATOR TRANSFER DEVICE	3500	3500K	0-10 VOLT	120	38	RECESSED	COLUMBIA	CBT22-A-LSCS-EDD WITH GTD	-	-	2	-
12	LED DOWNLIGHT, ULTRA-LOW PROFILE, 80 CRI, WET LOCATION RATED, 0-10 VOLT DIMMING, WHITE FINISH	1200	3000K	0-10 VOLT	120	16	SURFACE	HALO	SLD12-8-35-WH	-	-	JUNO	-
13	DIRECT/INDIRECT LINEAR PENDENT LED WITH BOTTOM GLOW WHITE LENS AND TOP GLOW WHITE LENS, 80 CRI, 0-10 VOLT DIMMING DRIVER, SINGLE CIRCUITS, 4 FT LENGTH, ARCSAFE CABLE	1600 LP 1600 DN	3500K	0-10 VOLT	120	24	PENDENT AT 14'-0" AFF	AXIS	TB40LED-400-40-0-25G-0-25G-4-WH-UNV-D-P1-CA	-	-	-	-
14	DIRECT/INDIRECT LINEAR PENDENT LED WITH BOTTOM GLOW WHITE LENS AND TOP GLOW WHITE LENS, 80 CRI, 0-10 VOLT DIMMING DRIVER, SINGLE CIRCUITS, 6 FT LENGTH, ARCSAFE CABLE	2400 LP 2400 DN	3500K	0-10 VOLT	120	41	PENDENT AT 14'-0" AFF	AXIS	TB40LED-400-40-0-25G-0-25G-4-WH-UNV-D-P1-CA	-	-	-	-
15	LINEAR LED RECESSED FIXTURE WITH BOTTOM GLOW WHITE LENS, 80 CRI, 0-10 VOLT DIMMING DRIVER, 4 FT LENGTH	1600	3500K	0-10 VOLT	120	15	RECESSED	AXIS	BBRLED-400-40-35-0-25G-4-W-UNV-DP	-	-	-	-
16	LINEAR LED RECESSED FIXTURE WITH BOTTOM GLOW WHITE LENS, 80 CRI, 0-10 VOLT DIMMING DRIVER, 8 FT LENGTH	3200	3500K	0-10 VOLT	120	30	RECESSED	AXIS	BBRLED-400-40-35-0-25G-8-W-UNV-DP	-	-	-	-
17	LINEAR LED RECESSED FIXTURE WITH BOTTOM GLOW WHITE LENS, 80 CRI, 0-10 VOLT DIMMING DRIVER, 12 FT LENGTH	4800	3500K	0-10 VOLT	120	44	RECESSED	AXIS	BBRLED-400-40-35-0-25G-12-W-UNV-DP	-	-	-	-
18	36" UNDERCABINET LIGHT WITH MOTION SENSING ON/OFF AND REMOTE	900	3500K	-	120	13	SURFACE UNDER CHABIN	NEWSTAR	CCUC-36-SA-80C-W-UN-60WPRDE	-	-	-	-
19	EXTERIOR LED WALL BRACKET, ALUMINUM HOUSING, WIDE LIGHTING DISTRIBUTION, 80CRI, SILVER FINISH	2500	4000K	0-10 VOLT	120	24	WALL MOUNTED AT 15'-0" AFF	LITHONIA	WPX1 LED-P2-40K-MVOLT (SILVER)	-	-	-	-
20	EXTERIOR LED WALL BRACKET, ALUMINUM HOUSING, WIDE LIGHTING DISTRIBUTION, 80CRI, SILVER FINISH	1550	4000K	0-10 VOLT	120	11	WALL MOUNTED AT 10'-0" AFF	LITHONIA	WPX1 LED-P1-40K-MVOLT (SILVER)	-	-	-	-
21	EXTERIOR LED WALL BRACKET, ALUMINUM HOUSING, WIDE LIGHTING DISTRIBUTION, 80CRI, SILVER FINISH	1550	4000K	0-10 VOLT	120	11	WALL MOUNTED AT 7'-0" AFF	LITHONIA	WPX1 LED-P1-40K-MVOLT (SILVER)	-	-	-	-
22	LED RECESSED ROUND WITH CLEAR ALZAK REFLECTOR, 6" APERTURE, 80 CRI, WIDE DISTRIBUTION	1500	3500K	0-10 VOLT	120	15	RECESSED	GOTHAM	EV06-3515-AR-WD-LD-MVOLT-GZ10	-	-	-	-
23	1 X 4 BACK LIT TROFFER, FROSTED ACRYLIC DIFFUSER, 80CRI,	3600	3500K	0-10 VOLT	120	27	SURFACE	COLUMBIA	NBT-14-40-LO08-G-SF-ED1-L1-DSMK14	-	-	-	-
24	LINEAR WALL MOUNT LED, 4 WATT PER FT OUTPUT, NEMA 3R RATED, WITH 12" EXTENDED ARM, METALLIC GREY FINISH	900	4000K	0-10 VOLT	120	14	WALL MOUNTED 8" ABOVE TOP OF SIGN	INSIGHT LIGHTING	PEX4-LO-40K-100-100-EXA12-48-UNV-DMAMG	-	-	-	-
25	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-
25E	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-
26	WALL MOUNTED DIRECT/INDIRECT LED FIXTURE WITH ASYMMETRIC DIRECT/INDIRECT OPTICS, 8 FT LENGTH	3700	3500K	0-10 VOLT	120	56	WALL MOUNTED	FINELITE	HP-4-WM-4D-8FT-S-S-43S-AS-ASY-R-ASY-4-D-AD-R-80LG-120-SC-PC-10K-MB-E-SW	-	-	-	-
27	HIGH BAY WITH FROSTED ACRYLIC LENS, WIDE LIGHTING DISTRIBUTION, 0-10 VOLT DIMMING, STANDARD WIRE GUARD	30,000	4000K	0-10 VOLT	120	178	MOUNTED ON EXISTING UNISTRUT	COLUMBIA	PEL2-40-ML-FA-W-L2ED-U-WG	-	-	-	-
27E	HIGH BAY WITH FROSTED ACRYLIC LENS, WIDE LIGHTING DISTRIBUTION, 0-10 VOLT DIMMING, STANDARD WIRE GUARD, GENERATOR TRANSFER SWITCH	30,000	4000K	0-10 VOLT	120	178	MOUNTED ON EXISTING UNISTRUT	COLUMBIA	PEL2-40-ML-FA-W-L2ED-U-WG-GTD	-	-	2	-
28	EXTERIOR SURFACE MOUNTED DRUM FIXTURE WITH GRAL WHITE POLYCARBONATE DIFFUSER, WET LOCATION RATED, BLACK FINISH, 13 INCH DIA.	1,340	4000K	0-10 VOLT	120	15	SURFACE MOUNTED	LUMINAIRE LED	APX13-MN110-150W-40K-MVOLT-FOP-BLK-SH-CAB	-	-	-	-
29	2" VANITY LIGHT	2,000	3500K	-	120	21	WALL ABOVE MIRROR	BROWNLEE	5178-24-8N-421-35K	-	-	LITHONIA, DAYBRITE	-
30	LED RECESSED ROUND WITH CLEAR ALZAK REFLECTOR, 6" APERTURE, 80 CRI, WIDE DISTRIBUTION	1500	4000K	0-10 VOLT	120	15	RECESSED	GOTHAM	EV06-4015-AR-WD-LD-MVOLT-GZ10	-	-	-	-
31	LED CLOSET LIGHT WITH PULL CHAIN	575	4000K	-	120	11	WALL	LITHONIA	FMCL-840-S1	-	-	-	-
32	FLAG POLE FLOOD LIGHT WITH THREADED KNUCKLE MOUNT SILVER FINISH	1600	4000K	-	120	21	SEE DETAIL SHEET E201	LIGMAN	UC0-40051-21WC08-05-120277	-	-	-	-
X1	ALUMINUM WALL BRACKET, 36" LONG, 12" HIGH, WITH 12" EXTENDED ARM, METALLIC GREY FINISH	LED	-	-	120	-	TOP, END, OR BACK	LITHONIA	LES-1-R	-	-	SURE-LITE, METHILBEN CHLORIDE	-
X2	STAND ALONE EMERGENCY LIGHT WITH DUAL HEADS	LED	-	-	120	-	WALL AT 7'-8" AFF	LITHONIA	ELM0L	-	-	SURE-LITE, METHILBEN CHLORIDE	-
GENERAL NOTES: A. MOUNTING HEIGHT IS TO BOTTOM OF LIGHT FIXTURE, UNLESS NOTED OTHERWISE. NOTES: 1. REMOVE EXISTING FLANGED 15A LIGHT FIXTURE AND MOUNT NEW LIGHT FIXTURE IN SAME CEILING OPENING AS REQUIRED. 2. PROVIDE GENERATOR TRANSFER DEVICE TO CONNECT LIGHT FIXTURE TO EMERGENCY CIRCUIT. MANUFACTURE BY BODINE OR APPROVED EQUAL.													

SEAL

CA-0176

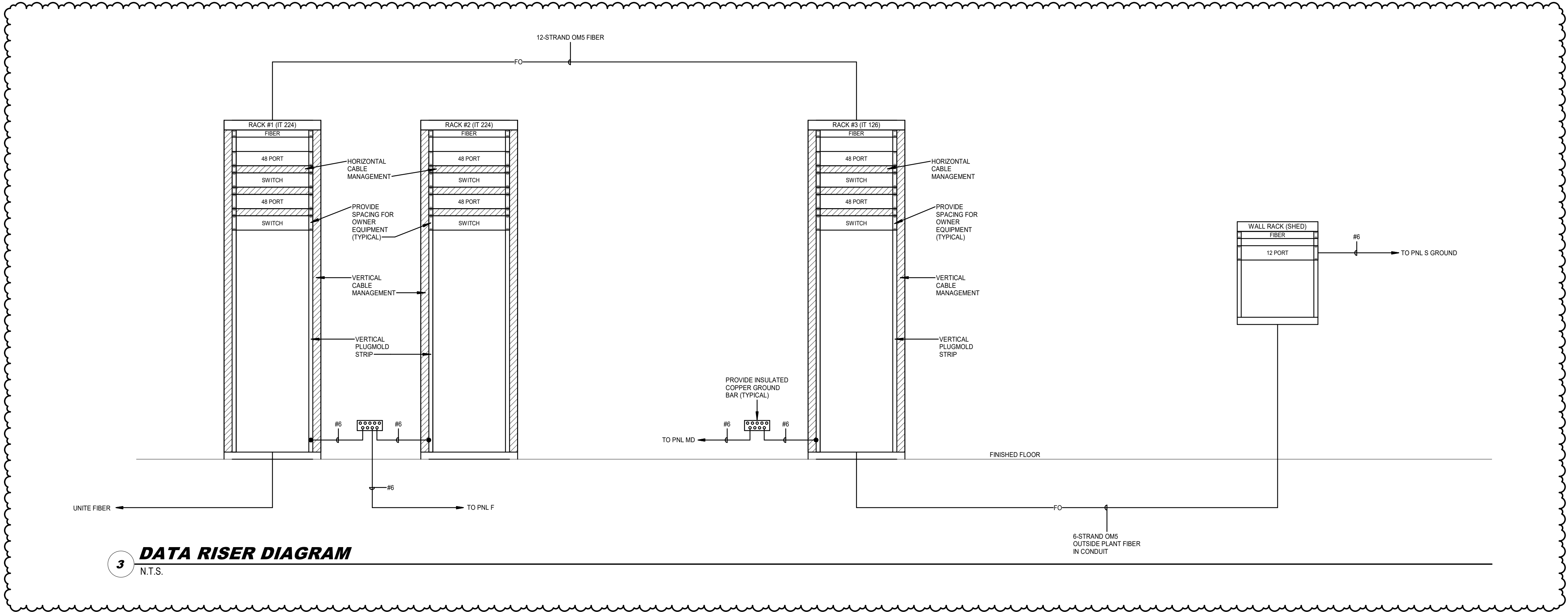




- 8 — N.T.S.

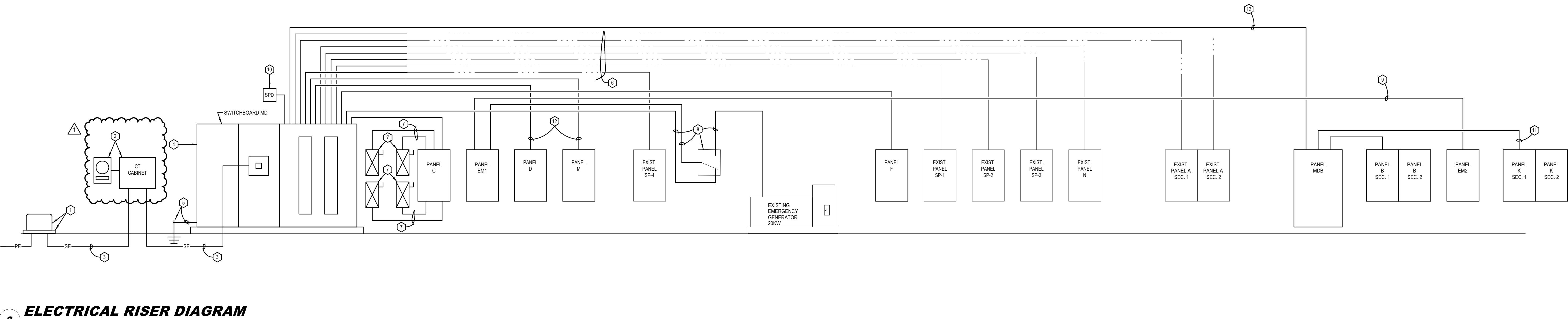


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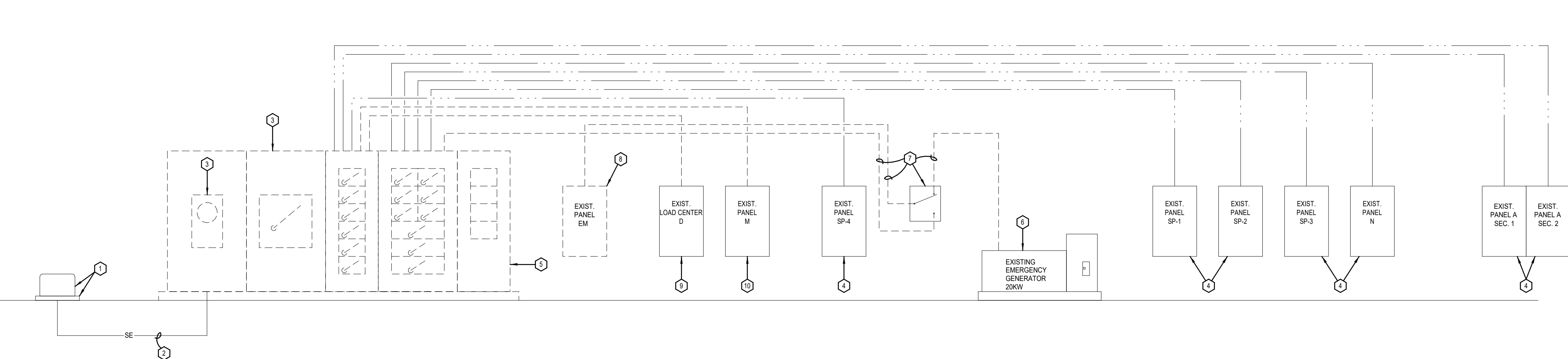


3 DATA RISER DIAGRAM
N.T.S.

- ELECTRICAL RISER DIAGRAM NOTES**
1. NEW LOCATION FOR GRAND ISLAND UTILITY DEPARTMENT (GIUD) TRANSFORMER. PROVIDE NEW CONCRETE TRANSFORMER PAD AND CONCRETE FILLED VEHICLE PROTECTION BOLLARDS AS REQUIRED BY GIUD.
 2. PROVIDE CT CABINET AND METERING. COORDINATE WITH GIUD.
 3. PROVIDE 4 SETS OF 4 - 800 KCMIL TYPE THWN CU IN EXISTING 4 - 3.5" CONDUITS. EXTEND EXISTING CONDUITS AS REQUIRED.
 4. NEW SWITCHBOARD MD TO BE INSTALLED ON THE EXISTING HOUSEKEEPING PAD FOR OLD SWITCHBOARD MD.
 5. SEE SERVICE GROUND DETAIL ON SHEET ES-01.
 6. EXTEND EXISTING FEEDERS TO NEW SWITCHBOARD MD AND CONNECT TO NEW BRANCH CIRCUIT BREAKER AS REQUIRED. PROVIDE JUNCTION BOX OR WIREWAY FOR EXTENSION OF FEEDER AS REQUIRED.
 7. PROVIDE NEW FUSED COMBINATION MOTOR STARTERS TO CONTROL BRANCH CIRCUITS WHICH WERE FED FROM REMOVED MOTOR CONTROL CENTER. COMBINATION MOTOR STARTERS SHALL BE NEMA SIZE 1 AND MOUNTED IN THE SAME LOCATION AS THE OLD MOTOR CONTROL CENTER. EXTEND EXISTING BRANCH CIRCUITS THROUGH MOTOR STARTERS AND CONNECT TO NEW CIRCUIT BREAKERS IN PANEL C AS REQUIRED.
 8. PROVIDE NEW CIRCUIT BETWEEN EXISTING EMERGENCY GENERATOR, EXISTING AUTOMATIC TRANSFER SWITCH, AND SWITCHBOARD FEEDER TO BE 4 - #6 AWG TYPE THWN CU AND #6 AWG CU GROUND IN 1.25" CONDUIT.
 9. FEEDER TO PANEL EM2 SHALL BE 4 - #4 AWG TYPE THWN CU AND #6 AWG CU GROUND IN 1.25" CONDUIT.
 10. PROVIDE SURGE PROTECTIVE DEVICE (SPD), SQUARE D® SPSR2EM424.
 11. SEE PANEL MDR SCHEDULE FOR FEEDER SIZES. (TYPICAL).
 12. SEE SWITCHBOARD MD SCHEDULE FOR FEEDER SIZES. (TYPICAL).



2 ELECTRICAL RISER DIAGRAM
12" = 1'-0"

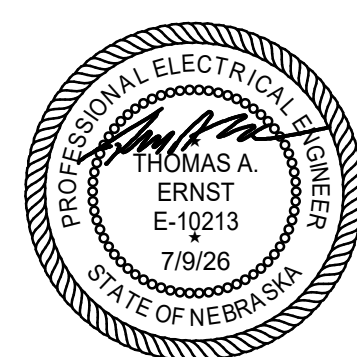


1 DEMOLITION ELECTRICAL RISER DIAGRAM
N.T.S.

- DEMOLITION ELECTRICAL RISER DIAGRAM NOTES**
1. EXISTING TRANSFORMER TO BE REMOVED. LOCATE IN GIUD. REMOVE AND REPLACE EXISTING SECONDARY ELECTRICAL CONDUITS. SEE ELECTRICAL RISER DIAGRAM ON THIS SHEET.
 2. REMOVE EXISTING SWITCHBOARD, METER SOCKET, AND METERING FACILITIES. PROVIDE IN ITS PLACE NEW SWITCHBOARD MD. SEE ELECTRICAL RISER DIAGRAM ON THIS SHEET.
 3. EXISTING PANELS TO REMAIN. EXISTING FEEDERS TO PANEL SHALL BE DISCONNECTED FROM SWITCHBOARD AND BE EXTENDED TO NEW SWITCHBOARD AS REQUIRED.
 4. REMOVE EXISTING MOTOR CONTROL CENTER AND PROVIDE IN ITS PLACE NEW PANEL C AND MOTOR STARTERS. SEE ELECTRICAL RISER DIAGRAM ON THIS SHEET.
 5. EXISTING EMERGENCY GENERATOR TO REMAIN.
 6. EXISTING AUTOMATIC TRANSFER SWITCH TO REMAIN. EXISTING FEEDERS TO BE REMOVED AND REPLACED. SEE ELECTRICAL RISER DIAGRAM ON THIS SHEET.
 7. EXISTING PANEL EM1 TO BE REMOVED AND REPLACED WITH NEW PANEL EM1. EXISTING BRANCH CIRCUITS TO BE EXTENDED TO NEW SWITCHBOARD AS REQUIRED.
 8. EXISTING LOAD CENTER D TO BE REPLACED WITH NEW PANEL D. PROVIDE NEW FEEDER. EXISTING BRANCH CIRCUITS TO BE EXTENDED TO NEW PANEL AND CONNECTED TO NEW CIRCUIT BREAKERS.
 9. EXISTING PANEL N TO BE REPLACED WITH NEW PANEL M. PROVIDE NEW FEEDER. EXISTING BRANCH CIRCUITS TO BE EXTENDED TO NEW PANEL AND CONNECTED TO NEW CIRCUIT BREAKERS.

SEAL

CA-0176



REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM #1	07.17.2026

IF THIS DRAWING IS NOT 30"x42" IT IS NOT TO SCALE

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GATES ELEMENTARY SCHOOL
GRAND ISLAND PUBLIC SCHOOLS
513 S. CURTIS STREET, GRAND ISLAND, NEBRASKA

SHEET
E6.01

ELECTRICAL RISER DIAGRAMS

DATE:
07-09-2026
PROJECT
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