

<b>Project Owner:</b>	Delton Kellogg Schools
<b>Project Name:</b>	District Technology Renovations
<b>Issue Date:</b>	August 26, 2022

## **ADDENDUM NO. 1**

*This Addendum No. 1 of the **Technology Request for Bid** for the above referenced project hereby amends, supplements and/or augments all prior issued document(s) as described herein, and becomes an inseparable part of the Contract Documents, superseding all previous, contrary and/or conflicting information.*

**AD1 - 1**           Section 281300 is hereby revised, reissued and attached hereto.

**AD1 - 2**           Appendix B is hereby revised, reissued and attached hereto.

**AD1 - 3**           Appendix E is hereby revised, reissued and attached hereto.

END OF ADDENDUM NO. 1

<i>Bid ID: 2744</i>	Communications by Design, Inc.
<i>Addendum No. 1 Issued: September 12, 2022</i>	<i>Proprietary Information – All Rights Reserved</i>

SECTION 28 13 00  
BUILDING ACCESS SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section pertains to additions and renovations to the existing Paxton access control system for the new Delton Kellogg Elementary School addition/renovation.
- B. Contractor shall advise, coordinate, and work cooperatively with Owner representatives and/or owner's designee related to any installation or special security provisions.
- C. The Contractor shall design, engineer, configure, supply, connect, test, document, train Owner representatives and warrant a fully operational and compliant system, complete and with full functionality as specified herein.
- D. Contractor shall coordinate their installation with other contractors, Designer and the Owner as is appropriate.
- E. Contractor shall fully coordinate and cooperate with door hardware vendor supplying the balance of items identified in section 08 71 00 as identified herein. All final connections, component integration, configuration, testing and programming functions to provide for a fully operational and functional system as specified shall remain the responsibility of Contractor selected for work in this section/division.

1.02 WARRANTY

- A. Complete installation shall be free from defect and/or failure for a period of three (3) years. Any replacement, upgrade, or fix, including labor for any non-conforming or non-operational part of the system shall be fixed and/or replaced at no cost to the Owner.
- B. Manufacturer's warranty shall be provided for all components of the system.
  - 1. Any documents and/or submittals required by individual manufacturers for compliance with the standard and/or applicable extended warranty programs shall be provided and submitted for approval by the Contractor.
  - 2. Contractor shall submit all documents, apply for warranty or extended warranty certification, and provide a Certificate of Warranty or Extended Warranty as may be applicable from the manufacturer prior to project closeout.

- C. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner.
- D. Contractor shall provide the following response times for all malfunctioning equipment:
  - 1. Eight (8) hours or less for matters that render twenty percent (20%) or more of the system unable to maintain normal functionality.
  - 2. Two (2) business days for matters not meeting the above criteria.
  - 3. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.
- E. System Warranty shall commence on date of substantial completion as certified by Designer and provided for herein. Delivery to work site of materials, physical removal from packaging, issuance of Contractor documents including, but not limited to invoices and/or packing slips, or any event or documentation, not specifically provided for herein, shall have no effect on Warranty or System Acceptance by Owner and/or Designer.

#### 1.03 STORAGE OF MATERIALS

- A. All materials shall be secured when not in use by the Contractor.
- B. It shall be the Contractor's responsibility to secure all equipment including material to be installed as part of the contract. No changes shall be made to the contract due to loss or theft of equipment and/or materials not officially accepted by the Owner.
- C. Formal receipt of the materials shall not be completed by the Owner until completion of project closeout. The Contractor shall be responsible for all equipment until time of closeout as provided for herein.

#### 1.04 SUBMITTALS

- A. Submittals shall consist of, but not be limited to, technical cut sheets and detailed information pamphlets on all components of the system to be installed. All cut sheets and submittals shall be distinctly marked to highlight the actual part number of the item being submitted for approval with Bid Proposals.
- B. Shop drawings and diagrams shall be submitted by Bidder for approval by Designer with Bid Proposals.
  - 1. Shop drawings and diagrams shall show all data relating to structural, electrical, wiring, cross connect, interconnect, equipment

arrangement/layout, and any other information deemed significant by the Designer.

2. No work constituting final installation shall be commenced until after approval of shop drawings by Designer.
- C. Contractor shall provide proof of manufacturer support by photocopy of certification and letter of support from major component manufacturers for this specific project with Bid Proposals.
- D. Equipment or material installed for this project that does not have an approved submittal associated with it, will be removed, and replaced with acceptable equipment or material as defined by the Designer. All replacement costs including, but not limited to material and labor, shall be the sole responsibility of the Contractor.
  1. The Owner and/or Designer may notify Contractor of any offending situations under this provision allowing Contractor up to forty-eight (48) hours to correct the situation prior to taking other corrective action.
  2. The Owner reserves the right to replace unapproved materials and deduct the costs of doing so as defined herein from any amounts that may be due, or become due Contractor.
- E. The Contractor shall submit within ten (10) calendar days after the Notice to Proceed, a schedule that reflects the sequence of activities of the contractor's approach to the execution of and completion of the work. The schedule shall be broken into work areas to provide for a clear identification of the planned progress of the work. Included in the schedule will be a list of tasks with list of deliverables and the percentage of work completed. This schedule shall coincide with progress payments applications dates and projected amounts. All durations shown will be in working days. The timeframe described in the Contractor's Schedule shall represent the Contractor's plan for organizing, directing, managing, controlling, staffing, and executing the work required by the Contract Documents. Owner will rely on such schedules to coordinate and otherwise plan related work of Owner personnel, other separate contractors, or the Owner's routine daily work.

#### 1.05 REFERENCE SPECIFICATIONS

- A. All work, products, and materials shall conform with the following standards as applicable for the intended use:
  1. IEEE
  2. EIA/TIA Commercial and Administration Standards
  3. NEC



4. FCC – All Applicable Rules and Regulations
5. UL
6. MIOSHA Safety Standards

#### 1.06 CONTRACTOR

- A. The Contractor shall accept complete responsibility for the installation, certification, and support of the system. Contractor shall be an authorized vendor of all major components.
- B. All work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to install system and perform related tests as recommended by the manufacturer and in accordance with the manufacturer's best practices and methods.
- C. Contractor shall comply with Owner's policies related to background checks for any personnel who work on the project.
- D. Project Managers, Engineers and Technicians employed on this project shall be properly and fully trained and qualified by the manufacturer on the installation and testing of the equipment and systems to be installed.
- E. The Contractor shall have a proven track record in security system configuration and installation. This must be shown by the inclusion of references of at least three (3) projects involving the installation of similar systems completed by the Contractor in the prior two (2) years on unaltered forms with the sealed Bid Proposal as provided herein. Bid Proposal Form(s) may be duplicated as required in order to provide adequate space to list required number of reference installations for each division Bidder is responding to.

#### PART 2 - PRODUCTS

##### 2.01 MANUFACTURERS

- A. Acceptable Manufacturers (In alphabetical order):
  1. 2N
  2. PAXTON

##### 2.02 Supply most current version of all products provided.

- A. Manufacturer shall have five (5) years of experience and history manufacturing similar products to those specified.
- B. Proposed components shall have been field tested and proven in actual use.

- C. Prior and/or old versions of products, unless specifically approved and documented by Designer and/or Owner shall not be acceptable.
  - D. In cases where a newer version of hardware or software is available at the time of installation, Contractor shall request clarification from Designer on which version is to be used.
- 2.03 Furnish only new, first-class quality materials and equipment.
- 2.04 System shall be comprised of interoperable components including, but not limited to, controller, credential sensors and management software integrated into a common working system.
- 2.05 System administrator shall be capable of complete system back-up and full system restoration from a previously saved configuration.
- 2.06 System shall be of a distributed processing design with a fully distributed database including, but not limited to time, date, valid codes, access levels and related data so that each Controller makes access control decisions for that location. If communications with central station equipment is lost, all transactions shall be buffered until the restoration of a connection to the central station.
- 2.07 In the event of a power failure, complete system shall automatically re-initialize and “become active” to the last configuration in use with no human intervention.
- 2.08 Contractor shall be responsible for final and working system. Use of existing components and materials provided by others during new construction shall be integral to system configuration and cost-effective installation. Bidders are encouraged to use all compatible and working components in system solution. See schedule(s) and reference files for additional detail.
- 2.09 CENTRAL MANAGEMENT SOFTWARE
- A. Central management software shall meet or exceed the following:
    - 1. Contractor shall supply all necessary licensing, labor and accessories to integrate new door access components with existing Paxton Net2 door access system. Licensing shall be valid for the term of the warranty specified.
    - 2. Contractor shall supply and install all necessary licensing and labor to upgrade existing Paxton Net2 software to the latest version for a fully functional system.
    - 3. Contractor shall fully configure Paxton Net2 software to Owner requirements for a fully functional system.

- a. Configuration shall include but not be limited to definition of access groups, schedules and door groups per Owners' requirements.

## 2.10 CONTROLLERS

- A. Contractor shall supply appropriate Paxton Net2 Plus door controllers with 24v power supply to each door identified.
- B. Contractor shall supply metallic enclosure for door controllers to protect and secure devices. Contractor shall supply fire resistant backboard if necessary. All controller devices shall be installed in building IDF locations.

## 2.11 CREDENTIAL READERS

- A. New Paxton Credential Readers shall be provided in locations identified and as specified herein.
  - 1. Read Owner or Contractor supplied credentials.
  - 2. DC powered from associated Controller
  - 3. Compatible with industry standard 125 kHz proximity contactless technologies.
  - 4. Response time for passage requests of 800ms.
  - 5. Sealed weatherproof shell enclosure rated for outdoor operation.
  - 6. Surface mounted on exterior surface of structure.
    - a. Contractor shall supply either mullion or full-sized wall mount style depending on mounting conditions.
  - 7. LED or other type of visual indicator indicating request status.
  - 8. Audible status indicator upon user prompt.
  - 9. Range of four inches (4").
  - 10. IP65 Rating

## 2.12 DOOR INTERFACE HARDWARE

- A. Where new Credential Readers are to be provided, the door interface hardware provided by others shall meet or exceed the following:
  - 1. 12v PoE low voltage strikes will be provided by others as part of Section 08700 work and shall be integrated into the Credential Readers installation by Contractor where indicated on drawings and as specified herein.

- a. Contractor shall supply necessary manufacturer supported cable to connect strike to Contractor supplied Credential Readers.
  - b. Contractor shall be responsible for installation and integration of cabling in pathways in door frames provided by Others.
  - c. Contractor shall be responsible for connecting and integrating any voltage regulation hardware (Smart Pac) if identified in door schedule.
2. 24v electric latch retraction door exit devices will be provided by Others as part of the Section 08700 work and shall be integrated with credential reader installation by Contractor where identified on drawings and as specified herein.
- a. Contractor shall supply necessary manufacturer supported cable to connect latch retraction device to Contractor Credential Readers.
  - b. Contractor shall be responsible for installation and integration of cabling in pathways in door frames provided by Others.
  - c. Contractor shall be responsible for the mounting and configuration of necessary 24V power supplies to power door hardware indicated on door schedule. Contractor will work collaboratively with electrical contractor to safely connect provided power supplies.
3. Door sets of 1 will operate as follows:
- a. Contractor to integrate card reader with provided electric strike or latch retraction hardware. Door will be unlocked in the event of a successful card read.
  - b. Contractor to supply all necessary cabling and installation for a fully functional system.
4. Door sets of 2 will operate as follows:
- a. Contractor to integrate card reader with either electric strikes or electric latch retraction devices where applicable. In the event of a successful card read, both doors should unlock.
5. Door sets of 4 will operate as follows:
- a. Door 1, closest to card reader, will be integrated with provided card reader and will unlock in the event of a successful card read.
  - b. Doors 2-4 will be operable to unlock on a schedule. Contractor shall supply necessary door controller and all necessary cabling and accessories for a fully functional system for each set of doors.

6. All door strike and latch retraction cables shall be of a sufficient length to be neatly routed by Contractor, to a location suitable to reach Credential Reader and/or power supply for door(s).
7. Provided Credential Readers and Door Controllers shall be integrated with door handicap operators where applicable. Contractor shall supply all labor and accessories to integrate Credential reader with handicap operators for a safe and fully functional system. Contractor shall work collaboratively with handicap operator installers to verify the following functionality:
  - a. External operator buttons shall only be functional in the event of a successful card read or remote door unlatch. Door operator motor should only be operable in the event of a successful card read.
  - b. Internal operator buttons shall be functional at all times, appropriate electrified hardware should unlock automatically to allow safe egress.
  - c. Contractor to supply all hardware necessary including accessories and installation to enable this capability.

#### 2.13 ELECTRIC STRIKE (PRESCHOOL ENTRANCE ONLY)

- A. Electric strike devices shall be provided and installed in locations as identified in provided drawings and as specified herein. Electric strike devices shall meet or exceed the following:
  1. End-of-line resistors terminated at the controller to protect against surges generated by activation of electric door strikes.
  2. Door Interface Hardware shall be Low Current Draw devices from Trine 4000 Series, Trine EN Series, or ASSA ABLOY equivalent.
  3. Appropriate Door Interface Hardware model and type shall match and be compatible with existing door hardware types and conditions.
- B. In locations where Door Interface Hardware is to be installed on a removable mullion, contractor shall provide adequate slack cable and a secure and durable, "quick disconnect point" on power cable for easy and damage free removal and replacement of mullion.

#### 2.14 DOOR POSITION SWITCH (DPS)

- A. All exterior doors in new Delton Kellogg School Elementary Addition shall be equipped with magnetic DPS and shall be integrated into the door controller installation by Contractor.
  - a. DPI sensors shall be Bosch ISN-CMINI-10 or equal.

- B. DPS devices shall be mounted internally to the frame and door wherever possible and shall not be surface mounted except for in rare cases without alternative “hidden” mounting options being available and must be approved by the Designer and Owner on a case-by-case basis.
- C. Contractor shall supply all cabling and accessories to integrate door position switches with Paxton door access system.

#### 2.15 HIDDEN DOOR RELEASE SWITCHES

- A. Door release switches are to be provided in locations identified on provided drawings as specified herein.
  - 1. Door release switches shall meet or exceed the following requirements:
    - a. ALLEGION 660-PB or ASSA ABLOY equivalent.
- B. Hidden door release switches shall be programmed to provide door release capabilities for doors identified on provided drawings. Contractors shall supply all necessary cabling, labor and accessories to integrate hidden door release switches with Contractor provided door controllers.

#### 2.16 COMPONENT INTERCONNECTION

- A. All wiring not installed in conduit shall be plenum type cable and shall be so identified with continuous marking.
- B. Wiring color shall remain the same throughout the system. Colors used for coding shall be as directed by the system manufacturer, Owner, and Designer.
- C. Wire shall be copper.

#### 2.17 NETWORK VIDEO DOOR STATIONS

- A. Network Video Door Stations shall be provided at entrances of the facility as identified on provided drawings and as provided for herein. See locations as identified on drawings as IC (Administration Entrance and Preschool Entrance).
- B. Acceptable Manufacturer(s)
  - 1. 2N
    - a. IP Base
  - 2. Activity/motion detection
  - 3. 30fps Maximum Frame Rate at full resolution

4. 10/100/1000 Ethernet (RJ-45) connector
5. Power over Ethernet IEEE 802.3af/802.3at Type 1 Class 3b
6. SIP Compatible
7. IP65- and NEMA 4X-rated
8. Operating temperature range from -25 °C to 55 °C (-13 °F to 131 °F)
9. Contractor shall be responsible to integrate new door stations with the Owner's telephone system for common office operations. No dedicated door station console will be used.
10. Contractor shall integrate provided network video door station with provided door access equipment where applicable.
  - a. Contractor shall be responsible for the supply and installation of any cabling and accessories necessary to connect door station(s) to indicated door hardware.
11. Contractor shall work collaboratively with Owner to configure door station for integration with Owner provided VOIP system to remotely unlock doors.
12. Contractor shall provide and help to configure software at Owner provided computers to allow remote video viewing and unlock.
13. Contractor shall supply and install 2N Indoor Compact base station with appropriate accessories for desktop mounting.

#### 2.18 LOCK DOWN BUTTON(S)

- A. Lock down buttons are to be provided in locations as identified on provided drawings and as specified herein. Provided buttons shall be located in new EL office area.
- B. New buttons shall be wall mounted and prominently located in an area promoting easy access by staff that may reasonably be required to initiate a lock down.
- C. New lockdown buttons shall be SS2242LD-EN STI Yellow Indoor/Outdoor Flush or approved equal.
- D. Contractor shall supply all labor, cabling, accessories to integrated lockdown devices into existing Paxton door access system.
- E. Lockdown buttons shall be programmed to override all lock schedules to put the building in a locked state.

- F. Contractor shall enable the ability to reverse lockdown to normal locking schedule with appropriate credentials.

## 2.19 ELEVATOR INTEGRATION

- A. Contractor shall supply card readers, door controller, licensing and labor to integrate with building elevator system.
- B. Card reader/door controller devices shall be programmed to only allow the use of the elevator call buttons in the event of a successful card read.

## 2.20 ALLOWANCES

- A. Contractor shall include allowances for equipment and/or other contract service reimbursements as required below in base bid lump sum amount(s). Equipment and/or contract services shall be provided and sourced at Owner's discretion and convenience with full cooperation by Contractor and paid for from successful bidder's contract in the amount(s) provided for herein. Any allowance amount proving to be excessive for the intended equipment and/or contract services shall be credited to the Owner against contract payment requests.
  - 1. Allowance shall be made in the amount of \$2,500.00 for contract services related to supply, installation and connection of related Owner provided hardware.

## PART 3 - EXECUTION

### 3.01 PREPARATION

- A. Contractor shall conduct detailed walk-through examination with Designer and Owner verifying equipment and material locations as well as mounting and placement requirements prior to commencement of other installation activities.
- B. Contractor shall insure all submittals and shop drawings have been provided to, and approval has been obtained from Designer prior to commencement of any final installation activities.

### 3.02 INSTALLATION

- A. Contractor shall be familiar with the environment where work will be done as specified herein and make every reasonable effort to minimize interference with Owner's or other contractor's activities.
- B. Work Areas shall be cleaned at the end of each day. All debris shall be cleared, removed, and disposed of in an approved container for the site. All equipment and tools shall be removed from common areas and stored in



approved, secure storage locations. Any work that may impede the general use of the space and/or other contractor's work and cannot be removed shall be flagged and cordoned off by the Contractor prior to their departure.

- C. All equipment and materials shall be installed in a neat and workmanlike manner. Best practices installation principles shall be used throughout the project.
- D. The Contractor shall furnish, set in place, and install all equipment necessary for a fully compliant and operational system as specified herein. The installation process includes, but is not limited to the following:
  - 1. Inventory receipt of all components and equipment.
  - 2. Storage of all equipment and components until such time those items are installed according to the specifications.
  - 3. Transport equipment to the Owner's installation location(s).
  - 4. Assemble, install, configure, and test all equipment and components, maintaining accurate inventory records and status documents and discarding packaging.
  - 5. Collect all information necessary to accurately program all system devices to the Owner's intended use and need.
  - 6. Label all system devices as may be appropriate and required by Owner and Designer.
  - 7. Complete end user and system administrator training programs as specified herein.
  - 8. Work shall be performed to meet local codes and industry standards including proper grounding and bonding of installed equipment.
  - 9. New Door Locations
    - a. Connect door controller to Owner's PoE+ data network using Contractor supplied patch cords at both ends of tested and certified cable drop supplied by others and verify connection to Central Management Software.
    - b. Test to ensure that all components are functioning and configured properly.
      - 1. Doors shall be configured to remain locked until a valid credential is presented.

2. Electric strikes shall be unlocked when energized.
  3. Door position switches shall report door status to central management software.
  - c. Where possible, all cabling shall be installed inside walls, doors, door frames, and mullions. Provide appropriate metallic channels for cables in locations where it is not possible to install otherwise. There shall be no exposed cabling.
  - d. All devices shall be securely attached to building structure using manufacturer's installation recommendations and industry best practices.
10. New Construction Locations:
- a. Coordinate with Owner's Construction Manager, construction trades and hardware suppliers to ensure functionality of doors provided for herein and as described in respective construction specification documents.
  - b. Provide licensing and central management system configuration(s) for all devices provided for herein and as described in respective construction specification documents.
- E. Worksites include the following:
1. Delton Kellogg Elementary  
327 N. Grove Street  
Delton, Michigan 49046
- F. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure of finishes in the building by the Contractor. If in the course of work, Contractor damages, marks, or misplaces any surfaces or access plates/panels the Contractor shall repair and/or replace the surface, plate, or panel to the original condition.
1. Final determination as to the damage condition and/or repair/replacement fitness of any surface, plate or panel shall be the sole responsibility of the Designer.
  2. The building and work area shall be returned to its original condition prior to final sign off of the project.
- G. Following installation and system "turn-up", but prior to final acceptance of the system, Contractor shall conduct follow-up interviews with Owner identified administrators and staff to review system functionality, suitability and confirm feature and program fitness for Owner applications.

1. Follow-up interviews shall be fully documented by Contractor and submitted to Owner for approval.

### 3.03 TESTING

- A. To ensure a smooth “turn-up” of the new system Contractor shall submit to a thorough testing process as defined herein prior to cut-over.
- B. Prior to requesting testing by Designer, the Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements, meets the owner’s specific application requirements and is ready for functionality and integrity testing.
- C. Testing Procedures
  1. Prior to system “turn-up”, Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system and are ready to have system integrity and functionality tested.
  2. Within reasonable time after receipt of request, Designer will provide a test schedule and coordinate testing date(s) with Owner and Contractor.
  3. Should Designer determine the Work is not acceptably configured or not of adequate integrity:
    - a. Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
    - b. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-testing.
    - c. Designer will schedule re-test of the Work.
    - d. Excessive re-testing of Work may result in fees being assessed Contractor.
  4. Should Designer and Owner concur the Work is configured properly and system integrity is as required:
    - a. Designer will review Contractors detailed “turn-up” plan, and upon finding it acceptable issue a memorandum of Testing Completion to Owner and Contractor after which system “turn-up” can proceed.

### 3.04 DOCUMENTATION

- A. Contractor shall, throughout the completion of the project, provide Owner a file storage system that shall include all necessary equipment, including if

reasonably required, file drawers, folders, dividers, etcetera, to contain all as-built drawings, owner's manuals of all equipment installed, warranty and maintenance information and other information the Contractor, Designer and/or Owner deem necessary. Documentation shall also be provided in a digital format in file formats and on media as specified by Owner and/or Designer.

B. Contractor shall be responsible for providing thorough, timely documentation on all hardware, software. Documentation shall include, but not be limited to:

1. Equipment description.
2. Equipment make.
3. Model number.
4. Software release.
5. Date installed.
6. Manufacturer's warranty.
7. Maintenance contract terms.
8. Verification of maintenance contract engagement.
9. Telephone numbers for service and support.
10. Detailed technical support and service procedure instructions.
11. All product (hardware and software) manuals and manufacturer supplied documentation, including, but not limited to owner manuals, system administrator manuals and configuration guides. Where number of duplicate copies for particular manual or documentation item could be reasonably considered excessive, Contractor shall request direction from Owner and Designer.
12. Photocopy of original invoice listing make and model for all components and equipment from individual manufacturer(s), distribution source(s), or authorized agent(s) to establish manufacturer warranty start date for potential use after end of contract warranty provisions.
13. CAD as built drawings for each building.
14. System Configuration Report.

15. Complete inventory of installed hardware and system software. Hardware inventory shall include, but not be limited to, model numbers, serial number, physical installation location and software/firmware options.

### 3.05 TRAINING

- A. Training shall be conducted at the Owner's discretion and at times and places convenient to Owner personnel. Prior to any training being conducted, Contractor shall provide Owner and Designer with detailed training syllabus and schedule for proposed training event. Compliant syllabus and schedule shall be provided at least ninety-six 96 hours in advance. Owner reserves the right to postpone training if syllabus and/or schedule submitted are deemed inadequate. Training shall not be conducted until such time a syllabus and schedule submitted by Contractor are found to be acceptable to Owner.
- B. Contractor shall provide training for the Owner designated system operators(s). Owner shall designate up to six (6) system operators to be trained. Training shall be a minimum of one (1), four (4) hour session(s) in length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:
  1. Basic credential and user adds, changes, and management.
  2. Creation of, review of, communication of and response to system alerts.
  3. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to, configuration changes and device status.
- C. Contractor shall provide training for the Owner designated system administrator(s). Owner shall designate up to four (4) administrators to be trained. Training shall be a minimum of one (1), four (4) hour session(s) in length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:
  1. Basic trouble shooting of the installed system and components including diagnostic and problem resolution actions.
  2. System back-up and restore functions and procedures for all system parameters and configurations.
  3. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to, configuration changes and device status.

### 3.06 SCHEDULE, MEETINGS AND PLANS

- A. Schedule

1. Final Vendor Presentations: Week of September 19, 2022
  2. Contractor Chosen: Week of October 17, 2022
  3. Work Commences: February 1, 2023
  4. Substantial Completion of Project: August 1, 2023
  5. Project Close-out: September 15, 2023
- B. Planned sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.
- C. All work shall be coordinated with Owner's construction manager on site.
- D. Project progress meetings shall be held, but not limited to, weekly at a site and time identified as convenient for Owner and as required herein. Meetings will be attended as required herein.

END OF SECTION

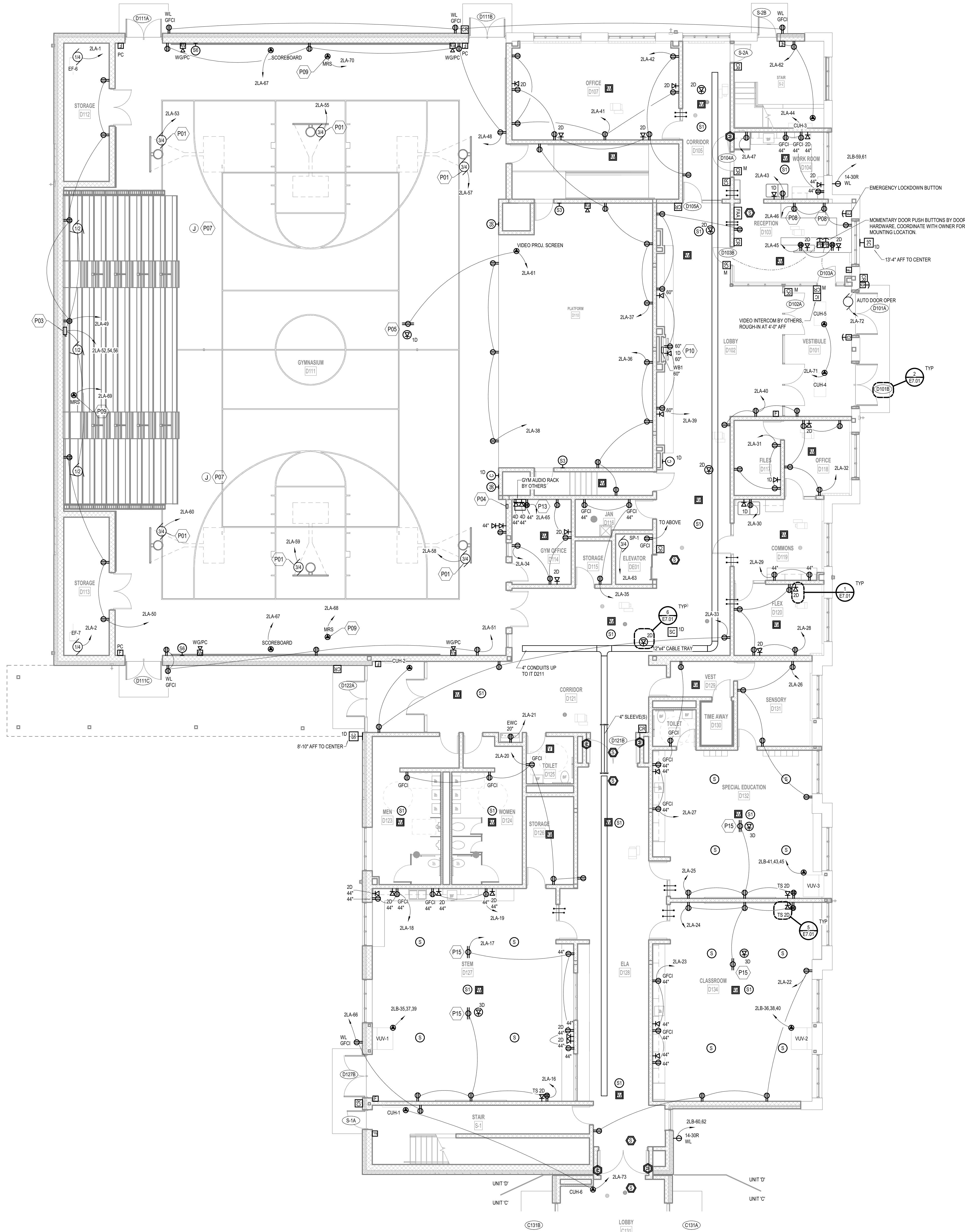
Delton Kellogg Schools							
Appendix B: Equipment List							
	Standard Projector (Existing Mounts)	8' Projector Screen	Document Camera	Voice Amplification	Speakers		
Elementary	6	6	6	6	24		

REVISED & REISSUED PER ADDENDUM #1

Appendix B - Equipment List						
Room Number	Standard Projector	8' Projector Screen	Document Camera	Voice Amplification	Speakers	Notes
D102 - Lobby	0	0	0	0	0	
D111 - Gymnasium	0	0	0	0	0	See Special Condition Locations C
D127 - STEM	0	0	0	0	0	See Special Condition Locations B
D132 - SPED	1	1	1	1	4	
D134	1	1	1	1	4	
D201 - ELA	0	0	0	0	0	See Special Condition Location A
D202 - Breakout	0	0	0	0	0	
D214	1	1	1	1	4	
D215	1	1	1	1	4	
D217	1	1	1	1	4	
D218	1	1	1	1	4	
	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>24</b>	

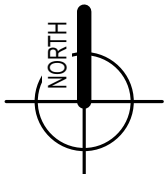


Appendix E - Building Access Diagram



- POWER & COMMUNICATION GENERAL NOTES
- REFER TO ELECTRICAL GENERAL NOTES ON SHEET E01.
  - REFER TO CODE COMPLIANCE PLAN FOR LOCATIONS AND RATINGS OF VERTICAL AND HORIZONTAL BUILDING ASSEMBLIES. PROVIDE APPROPRIATE FIRESTOPPING SYSTEMS PER SPECIFICATIONS TO MEET ALL APPLICABLE CODES.
  - PROVIDE 120VAC POWER FOR ALL SMOKE DAMPERS AND COMBINATION FIRE SMOKE DAMPERS.
    - REFER TO MECHANICAL HVAC DRAWINGS FOR LOCATIONS AND QUANTITIES OF DAMPERS.
    - CONNECT TO DEDICATED 20A BRANCH CIRCUIT (WITH BREAKER LOOK-ON ACCESSORY) IN LOCAL PANELBOARD FOR DAMPERS IN EACH AREA. DAMPERS MAY BE GROUPED ON EACH CIRCUIT.
    - TERMINATE W/ BOX-COVER FUSIBLE DISCONNECT SWITCH AT EACH DAMPER.
    - PROVIDE FIRE ALARM DUCT SMOKE DETECTOR WITHIN 5 FEET OF EACH DAMPER UNLESS COVERED BY ANOTHER DUCT DETECTOR WITHIN 5 FEET.
    - PROVIDE FIRE ALARM ADDRESSABLE RELAY(S) FOR INTERLOCKING DAMPER W/ CORRESPONDING HVAC UNIT(S) PER CODE REQUIREMENTS.
  - PROVIDE BOX-COVER FUSIBLE DISCONNECT SWITCH (ON BUILDING INTERIOR IN ACCESSIBLE LOCATION) FOR EACH SMALL (≤ 12 HP) MECHANICAL AND/OR PLUMBING EQUIPMENT MOTOR (LOC WHERE MORE THAN ONE UNIT IS CONNECTED TO A COMMON BRANCH CIRCUIT). TYPICAL EQUIPMENT TYPES INCLUDE BUT ARE NOT LIMITED TO: CABINET HEATERS, DAMPERS, EXHAUST FANS, FAN COIL UNITS, PUMPS, UNIT HEATERS, VAV BOXES, ETC.
  - DESIGNATED CABLE PATHWAYS (CONDUITS, CABLE TRAYS, PENETRATION SLEEVES, ETC.) SHALL BE RESERVED FOR DIV. 27 COMMUNICATIONS CABLEING AND DIV. 28 SAFETY/SECURITY CABLEING ONLY. OTHER CABLEING TYPES, SUCH AS DIV. 23 CONTROLS, DIV. 26 CONTROLS, AND ARCHITECTURAL EQUIPMENT CABLEING SHALL BE SUPPORTED AND SLEEVED BY OTHER INDEPENDENT PATHWAYS, HANGERS, AND SUPPORTS.
  - CONSOLIDATE ALL POWER SUPPLIES REQUIRED FOR ELECTRONIC DOOR HARDWARE (REF. SECTION 18 71 00 TO CENTRAL LOCATION(S) ADJACENT TO DESIGNATED ACCESS CONTROL EQUIPMENT LOCATION(S). CONNECT ALL POWER SUPPLIES TO DEDICATED LOCAL BRANCH CIRCUIT(S) AS DESIGNATED.

ELECTRICAL KEYNOTES	
P01	E.C. SHALL PROVIDE AND INSTALL 4" SQUARE JUNCTION BOX WITHIN 3'-0" OF WINCH LOCATION FOR TWIST-LOCK RECEPTACLE. TWIST LOCK RECEPTACLE AND COVER PROVIDED BY EQUIPMENT PROVIDER. (1) HOOK-UP REQUIRED PER DEVICE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.
P03	E.C. SHALL PROVIDE AND INSTALL NON-FUSIBLE SAFETY SWITCHES FOR BLEACHER MOTOR. JUNCTION BOX SHALL BE MOUNTED AT 5'-0" AFF. COORDINATE LOCATION WITH ARCHITECTURE SHEETS FOR FURTHER DETAILS.
P04	PROVIDE ROUGH-IN FOR GYM EQUIPMENT CONTROL TOUCH PANEL PROVIDED BY GYM EQUIPMENT PROVIDER. COORDINATE ROUGH-IN REQUIREMENTS WITH MANUFACTURER'S INSTRUCTIONS.
P05	COORDINATE LOCATION AND MOUNTING OF CEILING MOUNTED RECEPTACLE AND DATA ACTIVATION WITH OWNERS AV CONTRACTOR.
P07	INSTALL JUNCTION BOX IN EXPOSED STRUCTURE AND 1" CONDUIT PATHWAY BACK TO ELECTRICAL ROOM FOR FUTURE CIRCUIT FOR FUTURE BATTING CAGE NETS.
P08	DEVICES SHALL BE POP UP POWER GROMMET. MCKEYTT PCS/ADJCEE OR EQUAL. COLOR SHALL BE SILVER. POWER GROMMETS SHALL BE INSTALLED IN TOP OF MILLWORK DESK. COORDINATE WITH OTHER TRADES.
P09	INTEGRATE CONTROL OF MOTORIZED ROLLER SHADES WITH GYMNASIUM EQUIPMENT CONTROL SYSTEM AND PROVIDE CONTROL FROM SYSTEM TOUCH SCREEN.
P10	POWER AND DATA SHOWN TO BE INSTALLED IN WALL BOX. REFER TO 28 05 35 16.
P13	COORDINATE POWER AND DATA TO BE INSTALLED INSIDE RACK. RACK LOCATION DETERMINED BY OWNERS TECHNOLOGY CONSULTANT.
P15	COORDINATE EXACT LOCATION OF CEILING RECEPTACLE FOR PROJECTOR WITH OWNERS TECHNOLOGY CONSULTANT PRIOR TO INSTALLATION.



UNIT 'D' FIRST FLOOR POWER & COMMUNICATIONS PLAN  
1/8" = 1'-0"

KEYPLAN



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ELEMENTARY NEW ADDITION & REMODELING  
DELTON KELLOGG SCHOOLS  
DELTON, MICHIGAN

ISSUANCES  
12.07.2021 BIDS & CONSTRUCTION

DRAWN JFB  
REVIEWED PRH

PROJECT NO. 5-4908

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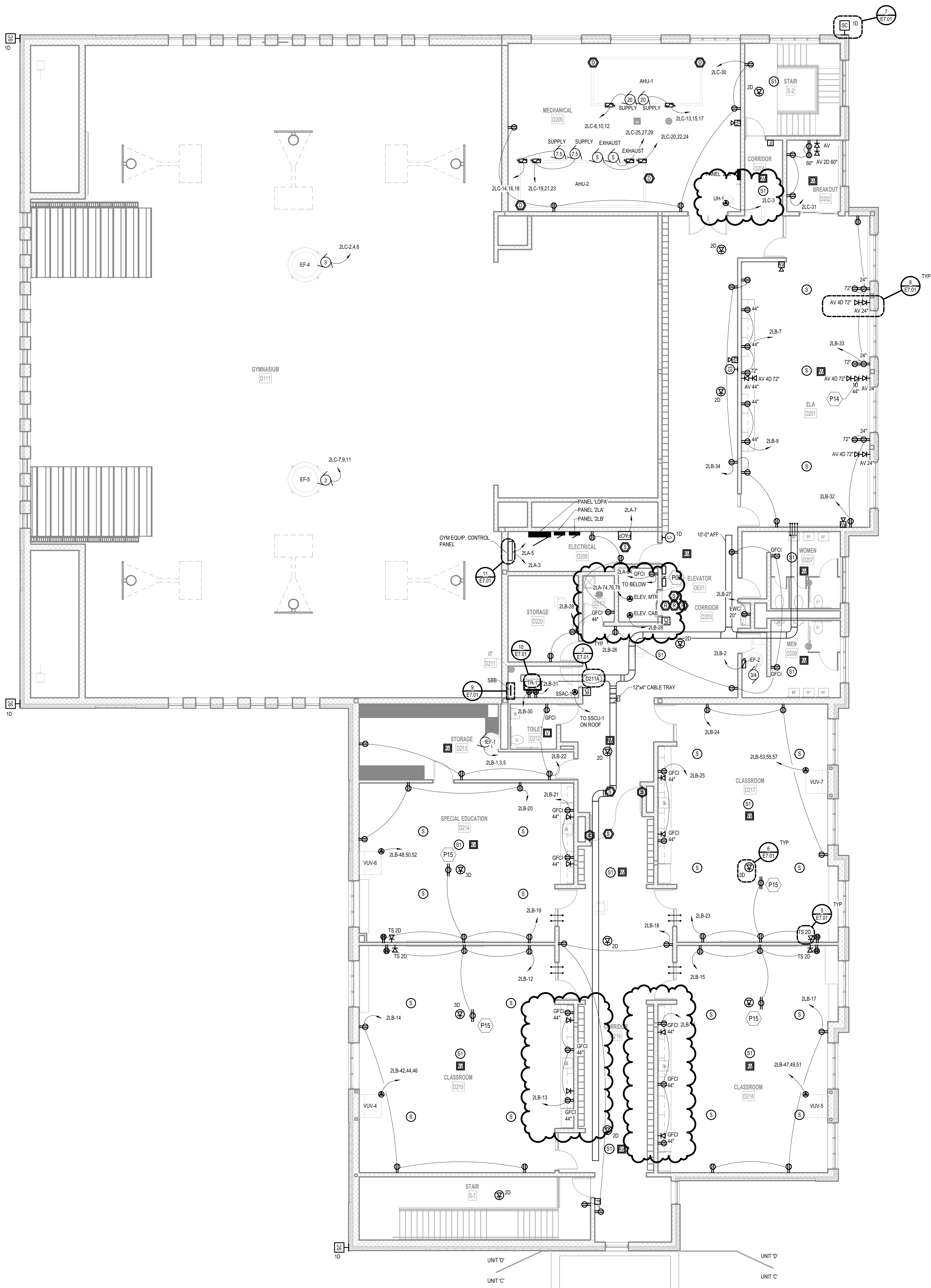
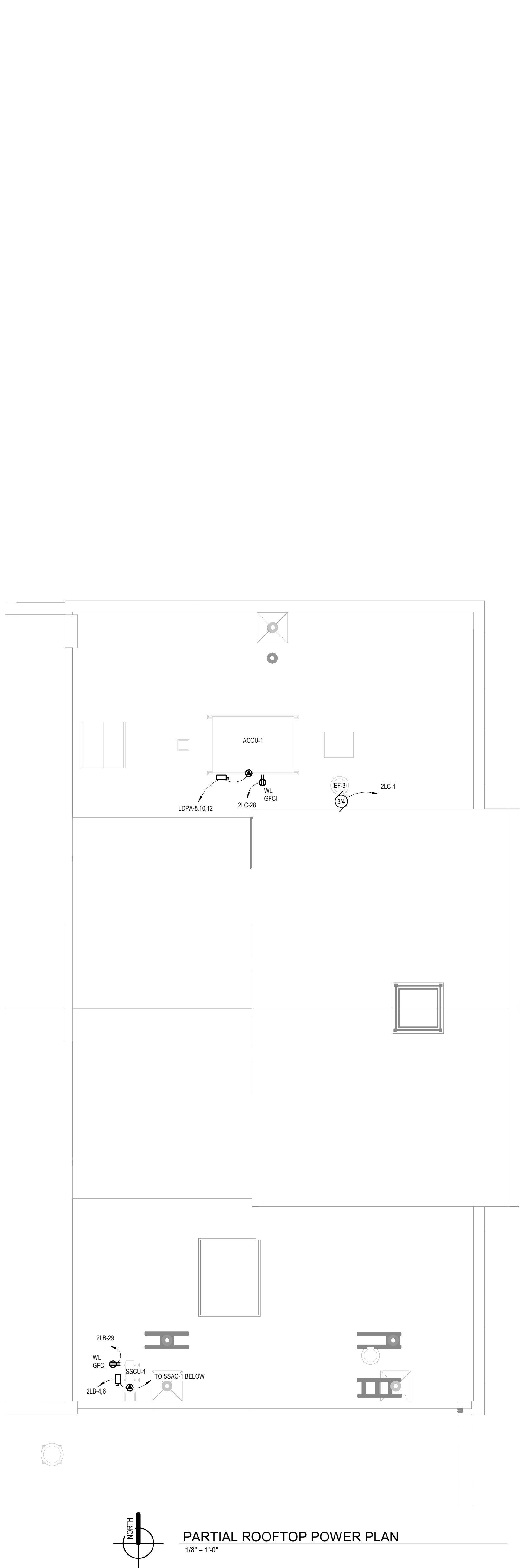
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UNIT 'D' FIRST FLOOR POWER & COMMUNICATIONS PLAN

E2.1D



Appendix E - Building Access Diagram



POWER & COMMUNICATION GENERAL NOTES

- REFER TO ELECTRICAL GENERAL NOTES ON SHEET E02.01.
- REFER TO CODE COMPLIANCE PLAN FOR LOCATIONS AND RATINGS OF VERTICAL AND HORIZONTAL BUILDING ASSEMBLIES. PROVIDE APPROPRIATE FIRESTOPPING SYSTEMS PER SPECIFICATIONS TO MEET ALL APPLICABLE CODES.
- PROVIDE 120VAC POWER FOR ALL SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS.
  - REFER TO MECHANICAL/HVAC DRAWINGS FOR LOCATIONS AND QUANTITIES OF DAMPERS.
  - CONNECT TO DEDICATED 20A BRANCH CIRCUIT (WITH BREAKER LOOK-ON ACCESSORY) IN LOCAL PANE BOARD FOR DAMPERS IN EACH AREA (DAMPERS MAY BE GROUPED ON EACH CIRCUIT).
  - TERMINATE W/ BOX-COVER FUSIBLE DISCONNECT SWITCH AT EACH DAMPER.
  - PROVIDE FIRE ALARM DUCT SMOKE DETECTOR WITHIN 5 FEET OF EACH DAMPER (UNLESS COVERED BY ANOTHER DUCT DETECTOR WITHIN 5 FEET).
  - PROVIDE FIRE ALARM ADDRESSABLE RELAYS FOR INTERLOCKING DAMPERS W/ CORRESPONDING HVAC UNIT(S) PER CODE REQUIREMENTS.
- PROVIDE BOX-COVER FUSIBLE DISCONNECT SWITCH (ON BUILDING INTERIOR IN ACCESSIBLE LOCATION) FOR EACH SMALL (< 12 HP) MECHANICAL AND/OR PLUMBING EQUIPMENT MOTOR (LOAD WHERE MORE THAN ONE UNIT IS CONNECTED TO A COMMON BRANCH CIRCUIT). TYPICAL EQUIPMENT TYPES INCLUDE BUT ARE NOT LIMITED TO CABINET HEATERS, DAMPERS, EXHAUST FANS, FAN COIL UNITS, PUMPS, UNIT HEATERS, VAV BOXES, ETC.
- DESIGNATED CABLING PATHWAYS (CONDUITS, CABLE TRAYS, PENETRATION SLEEVES, ETC.) SHALL BE RESERVED FOR DIV. 27 COMMUNICATIONS CABLING AND DIV. 28 SAFETY/SECURITY CABLING ONLY. OTHER CABLING TYPES, SUCH AS DIV. 23 CONTROLS, DIV. 26 CONTROLS, AND ARCHITECTURAL EQUIPMENT CABLING SHALL BE SUPPORTED AND SLEEVED BY OTHER INDEPENDENT PATHWAYS, HANGERS, AND SUPPORTS.
- CONSOLIDATE ALL POWER SUPPLIES REQUIRED FOR ELECTRONIC DOOR HARDWARE (REF. SECTION 08 71 00) TO CENTRAL LOCATIONS ADJACENT TO DESIGNATED ACCESS CONTROL EQUIPMENT LOCATIONS. CONNECT ALL POWER SUPPLIES TO DEDICATED LOCAL BRANCH CIRCUIT(S) AS DESIGNATED.

ELECTRICAL KEYNOTES	
P06	INSTALL ELEVATOR DISCONNECTS IN RECESSED ENCLOSURE. MINIMUM INTERIOR DIMENSIONS 30"W X 24"H X 8"D. PROVIDE FLUSH MOUNT (FLANGED) FRONT FRAME, REMOVABLE DOOR WITH CONCEALED HINGE, QUARTER-TURN LATCH, FLUSH OR LOW-PROFILE CYLINDER KEY LOCK, INVENTHOFFMAN CONCEPT SERIES CAT. NO. "C0M024B" WITH OPTIONS, OR APPROVED EQUIVALENT. COORDINATE FACTORY OR FIELD FINISHING TO MATCH WALL. MOUNT BOTTOM OF ENCLOSURE AT 30" AFF.
P14	PROVIDE 4 11/16" X EXTRA DEEP BOX WITH DOUBLE-GANG RING FOR TOUCHSCREEN BY OWNER'S TECHNOLOGY CONSULTANT. CONNECT TO 1 1/4" CONDUITS FOR AV CABLING PER DETAIL.
P15	COORDINATE EXACT LOCATION OF CEILING RECEPTACLE FOR PROJECTOR WITH OWNER'S TECHNOLOGY CONSULTANT PRIOR TO INSTALLATION.

ELEMENTARY NEW ADDITION & REMODELING  
DELTON KELLOGG SCHOOLS  
DELTON, MICHIGAN

ISSUANCES  
12.07.2021 BIDS & CONSTRUCTION  
01.21.2022 ADDENDUM 002  
03.16.2022 BULLETIN 002

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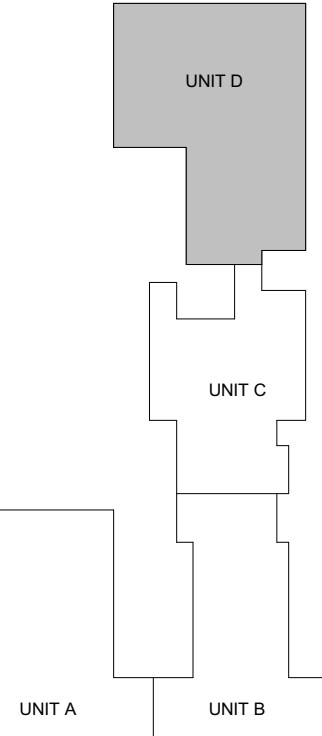
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UNIT 'D' SECOND FLOOR  
POWER & COMMUNICATIONS  
PLAN

E2.2D



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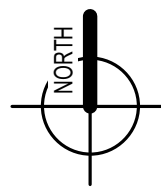
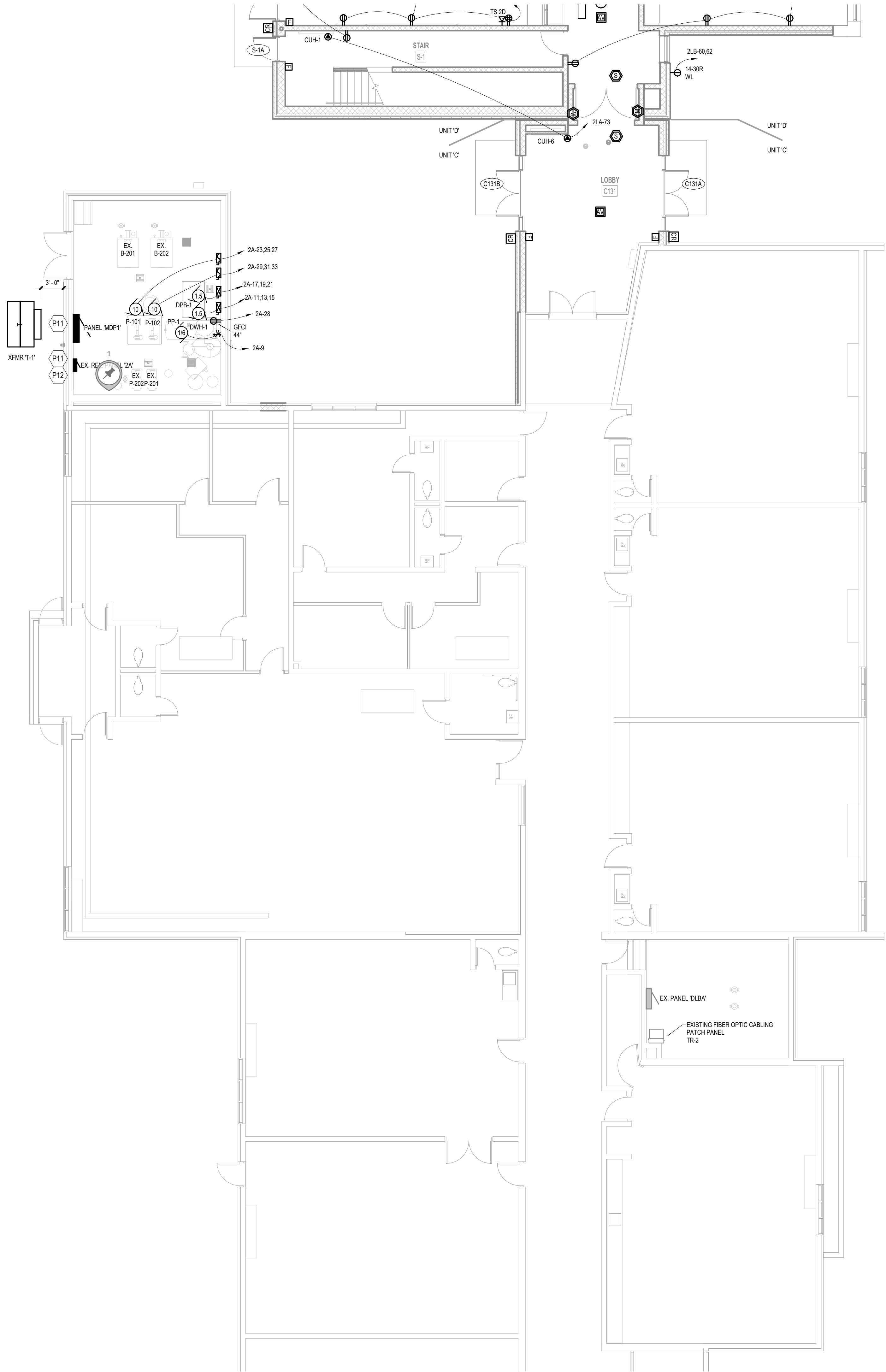


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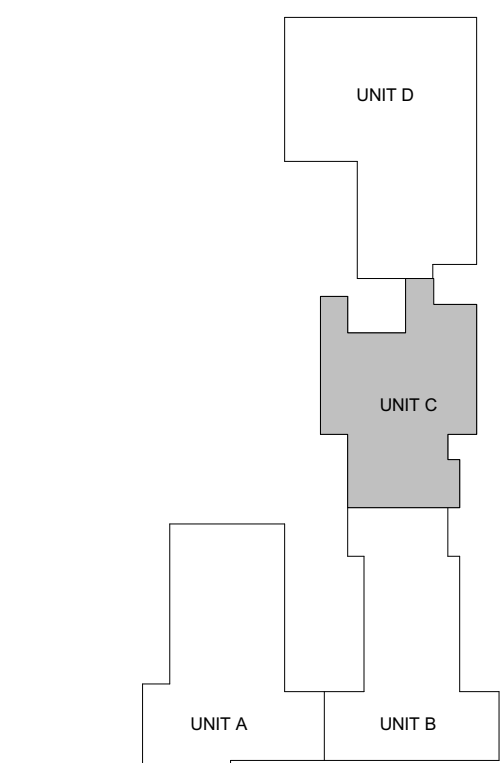
POWER & COMMUNICATION GENERAL NOTES

- REFER TO ELECTRICAL GENERAL NOTES [\(SEE 10-01\)](#).
- REFER TO CODE COMPLIANCE PLAN FOR LOCATIONS AND RATINGS OF VERTICAL AND HORIZONTAL BUILDING ASSEMBLIES. PROVIDE APPROPRIATE FIRESTOPPING SYSTEMS PER SPECIFICATIONS TO MEET ALL APPLICABLE CODES.
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ELECTRICAL KEYNOTES	
P11	COORDINATE EXACT LOCATION OF PANELBOARDS IN FIELD TO COORDINATE WITH EXISTING STORM DRAIN PIPING.
P12	RELOCATE EXISTING PANEL TO ALLOW SPACE FOR NEW PANEL. MDP1: REWORK AND EXTEND ALL EXISTING BRANCH CIRCUITS AS REQUIRED TO NEW PANEL LOCATION.



UNIT 'C' FIRST FLOOR POWER & COMMUNICATIONS PLAN  
1/8" = 1'-0"



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UNIT 'C' FIRST FLOOR POWER & COMMUNICATIONS PLAN

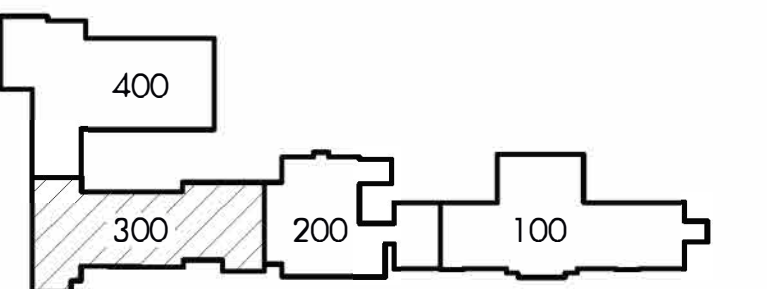
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**Delton Kellogg Elementary**  
Delton Kellogg Community Schools  
Delton, Michigan

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## KEY PLAN



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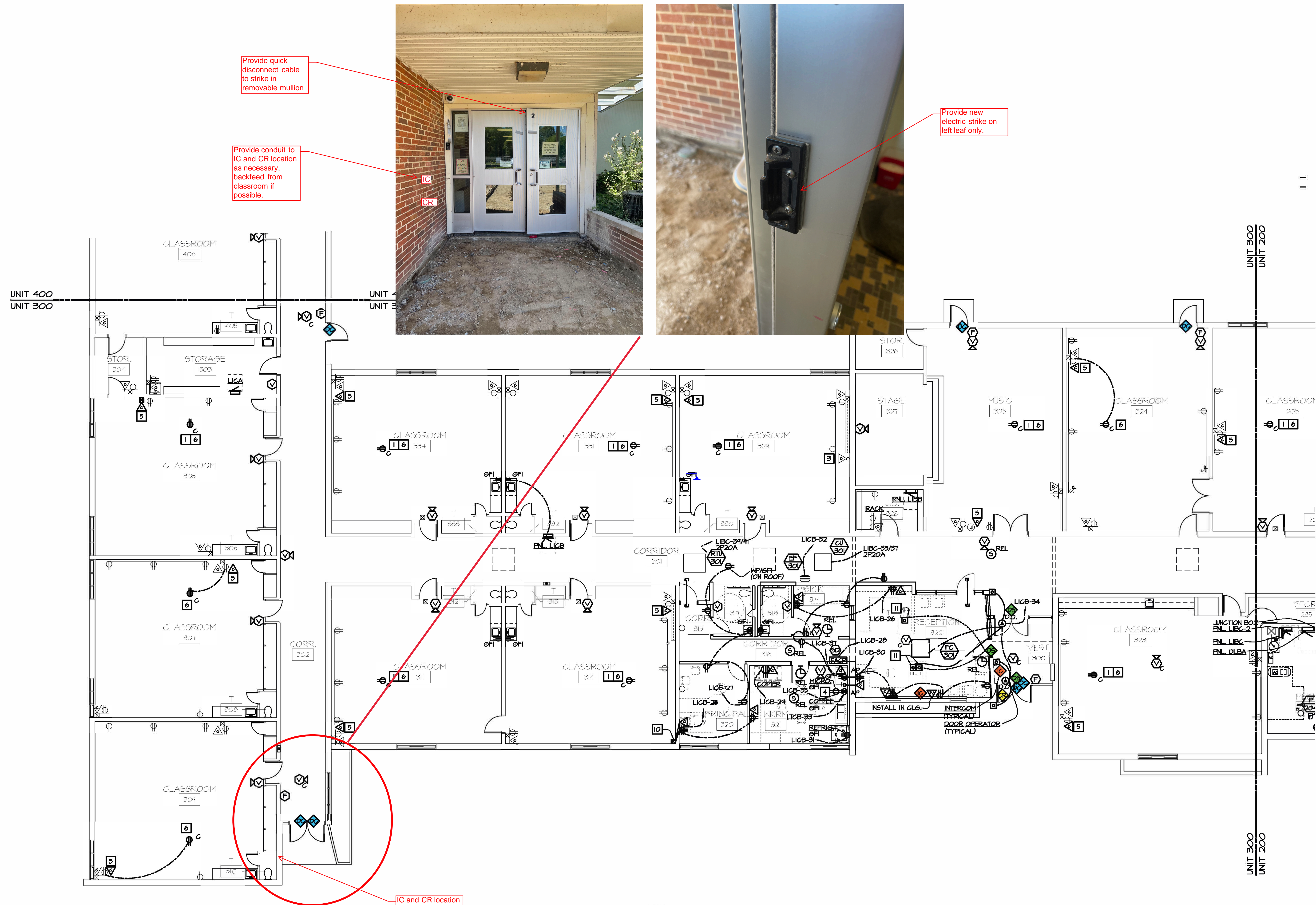
  
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SHEET TITLE  
FIRST FLOOR POWER PLAN - UNIT 300

SHEET NO.

### E-E2.3

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1 FIRST FLOOR POWER PLAN - UNIT 300  
SCALE: 1/8" = 1'-0"