

May 16, 2025

Re: Terminal Building Remodel & Expansion  
Aberdeen Regional Airport  
Aberdeen, South Dakota  
A.I.P. #3-46-0001-055-2025  
A-9799

Bid Opening: **May 20, 2025**  
**2:00 pm (local time)**

**ADDENDUM NUMBER 1**

The following modifications are made to the plans and specifications for the Terminal Building Remodel & Expansion, Aberdeen Regional Airport.

**CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS**

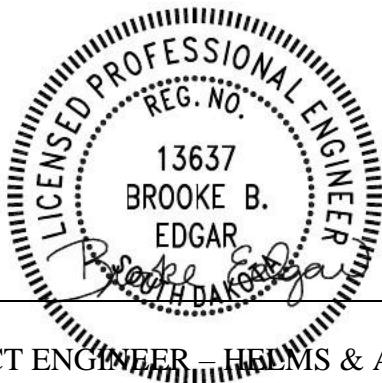
1. **Proposal form** - Remove pages 855-857 in the contract documents and specifications, replace with the attached pages 855-858 for the proposal.

See the following pages for architectural/mechanical/electrical addendum items that shall be replaced in the plans and specification documents.

The minutes from the Pre-Bid meeting are attached to this addendum.

**ALL OTHER ITEMS OF THE PLANS AND SPECIFICATIONS REMAIN**  
**UNCHANGED**

BY: \_\_\_\_\_



PROJECT ENGINEER – HELMS & ASSOCIATES

**Acknowledge receipt of the Addendum by inserting its number on the Bid Form. Failure to do so may subject bidder to disqualification. This Addendum forms a part of the Contract Documents. It modifies them as above.**



**TERMINAL BUILDING REMODEL AND EXPANSION  
ABERDEEN REGIONAL AIRPORT  
AIP #3-46-0001-055-2025  
A-9799**

**Bid Schedule A - Terminal Building Remodel and Expansion**

Item No.	Item Description	Quantity	Unit	Unit Price	Total Price
1	Mobilization (Max of 10% of Total Project Cost)	1	L.S.	\$	\$
2	Terminal Building Remodel and Expansion, Complete	1	L.S.	\$	\$

Subtotal Bid Schedule A items 1 – 2 inclusive \$ \_\_\_\_\_

Written: \_\_\_\_\_ Dollars

All Items Furnished and Installed

**Bid Schedule B - Terminal Building Civil Site Work**

Item No.	Item Description	Quantity	Unit	Unit Price	Total Price
1	Construction Safety Phasing Plan	1	L.S.	\$	\$
2	Demolition Plan	1	L.S.	\$	\$
3	Furnish and Install 36" High Powder Coated Railing	52	LF	\$	\$
4	SDDOT Base Course	150	CY	\$	\$
5	6" Reinforced Concrete Apron, Includes Thickened Edges	3010	SF	\$	\$
6	Silicone Joint Sealant	700	LF	\$	\$
7	Asphalt Transition	35	Ton	\$	\$
8	Asphalt Saw Cutting	75	LF	\$	\$
9	Electrical Manhole Rim Elevation Adjustment	1	LS	\$	\$
10	Waterline Installation Phase I, All Pipe and Fittings, Furnished and Complete	1	LS	\$	\$



11	Waterline Installation Phase II, All Pipe and Fittings, Furnished and Complete	1	LS	\$	\$
12	New Landscaping to Match Existing	1	LS	\$	\$
13	Remove and Dispose of Existing 10' Fencing	330	LF	\$	\$
14	10' High Chain Link Security Fence	230	LF	\$	\$
15	Connect to Existing 10' Chain Link Security Fencing/Building	4	EA	\$	\$
16	Remove and Dispose of Asphalt Surfacing	770	SF	\$	\$
17	Seeding and Fertilizing	100	SY	\$	\$
18	Contractor Furnished Topsoil	21	CY	\$	\$
19	Sediment Control at Inlet	5	EA	\$	\$
20	Silt Fence	490	LF	\$	\$

Subtotal Bid Schedule B items 1 – 20 inclusive \$ \_\_\_\_\_

Written: \_\_\_\_\_ Dollars

All Items Furnished and Installed

**Alternate Bid Schedule B1 -**

Item No.	Item Description	Quantity	Unit	Unit Price	Total Price
1	Provide labor and materials for snowmelt system shown on sheet M4, Detail #3 on Sheet M7, and Detail #4 on Sheet M9	1	L.S.	\$	\$

Subtotal Alternate Bid Schedule B1 \$ \_\_\_\_\_

Written: \_\_\_\_\_ Dollars

All Items Furnished and Installed



Total Bid Schedule A and Bid Schedule B \$ \_\_\_\_\_

Written: \_\_\_\_\_ Dollars

All Items Furnished and Installed

Total Bid Schedule A, Bid Schedule B, and Alternate Bid Schedule B1  
\$ \_\_\_\_\_

Written: \_\_\_\_\_ Dollars

All Items Furnished and Installed

**\*\* BIDDERS MUST BID ON ALL BID SCHEDULES\*\***

\*\* One contract will be awarded for to the lowest responsible bidder based on the combined total, alternate bid will be awarded based on funding availability. Bid quantities may be adjusted by the Sponsor to stay within project funds. Where a conflict between unit prices and total price exists unit prices will control.



The undersigned bidder understands and agrees that the bidder is to furnish all necessary labor, tools, materials and equipment required to fully complete the work covered by this contract.

The undersigned bidder hereby agrees to enter into the prescribed contract and to furnish and execute the required Surety Bond within fifteen (15) days from the date of acceptance of this proposal and further agrees to fully complete the entire work within the schedule of working days after due notification by the Engineer that the contract and bond have been accepted and approved by the City of Aberdeen, South Dakota.

As evidence of good faith, we herewith submit a certified check or cashier's check on a State or National Bank domiciled within the State of South Dakota in the amount of \$\_\_\_\_\_, being five percent (5%) of the total amount bid, or a Bid Bond in the amount of ten percent (10%) of the total amount bid issued by a surety authorized to do business in the State of South Dakota, which shall become the property of the City of Aberdeen, South Dakota should this proposal be accepted and the contract awarded to us and we fail to enter into the contract and furnish the specified bond in the form attached and prescribed; but otherwise, the check and bid bond shall be returned to the undersigned, upon the signing and acceptance of the executed contract and executed bond by the City of Aberdeen, South Dakota.

The undersigned acknowledges that they have read and understand the Asbestos-Containing Materials Statement contained in the project manual.

Respectfully submitted:

\_\_\_\_\_  
(Name of Firm)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(Business Phone Number)

\_\_\_\_\_  
(Signature of Responsible Official)

\_\_\_\_\_  
(Title)

We acknowledge receipt of Addendum No.\_\_\_\_\_.



**Pre-Bid Conference Minutes**

**Terminal Building Remodel & Expansion  
Aberdeen Regional Airport  
Aberdeen, South Dakota  
AIP #3-46-0001-055-2025, Helms # A-9799  
May 20, 2025  
2:00 pm (Central)**

**I. Bidding**

A. Delivery of Bids

Sealed: Office of the City Finance Officer of Aberdeen  
123 S. Lincoln St.  
Aberdeen, SD 57401

B. Mailing of Bids

Sealed: Office of the City Finance Officer of Aberdeen  
123 S. Lincoln St.  
Aberdeen, SD 57401

C. Opening of Bids

May 20th @ 2:00 P.M. (Central Time)  
Bids will be publicly opened and read aloud

D. Bid Documents

1. Proposal (Pages 845-857)

- a. Acknowledgement of Addendum(s)
- b. Site examination of existing conditions
- c. Insert all Unit Prices and Total Prices as required (Unit Prices will control)
- d. Buy American Certificate
- e. Sign and Date the Proposal



f. Bid Schedules

1. Bidders must bid on Bid Schedule A and Bid Schedule B
  - a. Bid Schedule A – Terminal Building Remodel and Expansion
  - b. Bid Schedule B – Terminal Building Civil Site Work

**g. Mobilization – SHALL BE LIMITED TO 10% OF TOTAL PROJECT COST**

2. Attachment to Proposal (Pages 859-861) – 2.5% DBE Goal, Sign and Date
  - a. DBE Manufacturers 100% Credit
  - b. DBE Suppliers 60% Credit
  - c. DBE Wholesalers only receive credit for mark-up
  - d. If the Contractor is not going to meet DBE Goal, he/she must show a “Good Faith Effort” (Documentation must be provided within 2 business days from the date that the apparent low bidder is contacted. This documentation must be approved prior to issuing of a Contract).
    - i. Please review SC-14. Special Provision for Disadvantaged Business Enterprise (Pages 26-33)
    - ii. **Good Faith Effort (GFE) Requirements** are listed on Pages 28-29 and must be met if you will not meet the DBE Goal. If you haven’t started working on this, please start now.
3. Bid Security
  - a. 10% Bid Bond – Payable to the City of Aberdeen
  - b. 5% Cashier’s Check – Payable to City of Aberdeen

**\*\*MAKE SURE ALL OF THE ABOVE MENTIONED FORMS ARE COMPLETELY FILLED OUT, SIGNED, AND DATED, PRIOR TO SUBMITTAL OF YOUR BID\*\***

## **II. General Provisions**

- A. Bonding, Insurance, Utility Contacts, Etc.

## **III. Specific Project Requirements**

- A. Non-Discrimination in Contractor’s work force

1. Goals



- a. Minority – 1.0%
  - b. Female – 6.9%
- B. Buy American Waiver
  - 1. Helms and Associates will assist with submission of the Waiver for the total facility to the FAA, if needed.
- C. Posters
  - 1. Posted notices: Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible.
    - a. EEO Posters – Available from SD-DOT (On Site)
    - b. Davis Bacon Wage Poster (WH 1321) - DOL “Notice to All Employees” Poster; and Applicable Davis-Bacon Wage Rate Determination.
- D. Payrolls
  - 1. Need to be submitted weekly by the Prime Contractor and all Subcontractors performing work on-site.
- E. Reports to be Filed
  - 1. Annual EEO-1 Report - Standard Form 100 must have been filed within past 12 months. Special Conditions page 24.
  - 2. Construction Contractor Identification Data - Award Notification shall be given within 10 working days of Contract Award, see Special Conditions Page 25.

#### **IV. Permits**

- A. State/Local Permits must be obtained by the Contractor as required (i.e. Haul Road Permit).

#### **V. Technical Specifications**

- A. Items for all Base Items are found in Part VI of the Construction Specifications and Contract Documents or in the Plans.
- B. All questions shall be directed to Helms & Associates, HKG Architects, or WPE:

Helms & Associates:  
Brooke Edgar, P.E.  
(605) 225-1212  
[brookee@helmsengineering.com](mailto:brookee@helmsengineering.com)



HKG Architects  
Dean Marske  
(605) 225-6820  
[Dean@hkgarchitects.com](mailto:Dean@hkgarchitects.com)

West Plains Engineering  
Jonathan Kennedy, P.E.  
(605) 306-8048  
[Jonathan.Kennedy@WestPlainsEngineering.com](mailto:Jonathan.Kennedy@WestPlainsEngineering.com)

C. Helms & Associates will issue all Addendums.

## **VI. Miscellaneous**

A. Review of Bids and approval by the FAA will be prior to Award of the Contract.  
(Anticipate up to 60 days after the Bid Opening)

B. A Pre-Construction Conference will be held prior to construction starting.

C. Construction Observation

1. Helms & Associates/HKG Architects/WPE
2. SD-DOT / FAA – Intermittent and Final

D. Payments

1. Monthly
2. RETAINAGE – 10% (General Provisions, Section 90)
3. Stockpiled Materials
  - a. Cost documentation / Invoice
  - b. Certificate of Compliance or test results to show it meets the specification requirements
  - c. Proof of Insurance
  - d. **Estimated Pay Estimate Cut-off Dates:**
    - a. **Airport Board meetings are the first Thursday after the first Tuesday**
    - b. **The pay estimate shall be completed the week prior**
    - c. **Cut-Off Dates will be the 3<sup>rd</sup> or 4<sup>th</sup> Saturday of the month dependent on the Airport Board meeting date.**

E. Project Completion – Special Conditions (SC-6)



1. Construction Limitations – see Special Conditions Page 22.

**Bid Schedule A and B (Option 1 – 2025 Construction):**

The construction of the terminal renovation project shall be completed by November 26, 2025.

The work shall be completed in accordance with Paragraph 50-15 of the General Provisions by December 24, 2025.

Liquidated Damages set forth in section SC-1 of the Special Conditions may be assessed if this timeframe is not met.

**Bid Schedule A and B (Option 2 – 2026 Construction):**

The construction of the terminal renovation project shall not begin until **April 15, 2026 and shall be completed by August 30, 2026.**

The work shall be completed in accordance with Paragraph 50-15 of the General Provisions by September 30, 2026.

Liquidated Damages set forth in section SC-1 of the Special Conditions may be assessed if this timeframe is not met.

**VII. Construction Methods / Discussion**

- A. Utility work must be timed as to limit the interruptions to the Terminal Building as the building is used 7 days per week for commercial flights.
- B. Construction Meetings will be held throughout the project. All Contractors involved with work at the time of the meeting must attend. Frequency and time shall be coordinated at the Pre-Construction Conference.
- C. Bid quantities may be adjusted to stay within project funds.
- D. Contractor will be responsible for Aggregate Testing (Gradations). The Engineer will perform all density testing.
- E. FAA General Provisions / Technical Specification Changes **(make sure your read the specs as they have been updated):**

1. Mobilization shall be limited to 10 percent of the total project cost (Section 105)

**Current Airline Schedule for consideration in utility replacement:**

**Departure: 6:30-7:00 am**  
**Arrival/Departure: 12:00-3:00 pm**  
**Arrival: 10:00-10:30 pm**



ADDENDUM NO. 1  
TO GENERAL, MECHANICAL AND ELECTRICAL  
ABERDEEN REGIONAL AIRPORT  
TERMINAL BUILDING REMODEL & EXPANSION  
ABERDEEN, SOUTH DAKOTA

Addendum Dated: May 16, 2025

Original Plans and Specifications Dated: April 29, 2025

NOTE: The Plans, details and accompanying specifications shall be amended as follows, but where any article is amended the original article shall remain in effect and shall become a part of the original plans and specifications.

A. GENERAL NOTES

1. Baggage Addition Room Schedule is as follows:

- a) Wall Paint to be Enamel.
- b) Bar Joists/ Ceiling will be Painted with Dry-Fall Paint.
- c) Wall Base to be Vinyl Base
- d) Floor is to be Concrete with Hardner

2. There is no Polished Concrete in the Project.

3. Contractor to include in base bid an Allowance of \$30,000 for the following Conveyor pieces below:

- a) 11'-0" Flat Belt Motorized Driven Conveyor
- b) 45° Curved Roller Conveyor
- c) 5'-8" Inclined Motorized Driven Belt Conveyor

B. PLAN CHANGES AND CLARIFICATIONS:

1. Sheet A2:

- a) Remove Existing Railing and Concrete at Existing Conveyor in the new TSA Security Area Room 2. Add Demolition note 10; "REMOVE EXISTING RAIL AND CONCRETE CURB. PATCH FLOOR AS NECESSARY."
- b) Delete Demolition Note 5. Existing Granite is to Remain.

2. Sheet A4:

- a) Delete Page A4 and Replace with Attached Page A4. Changes are as Noted:
  - I) W1 Wall Type was Deleted.
  - II) W4 Wall Type was Deleted.
  - II) Replace W4 Walls with W5 Wall Type Walls.
  - III) Vestibule Containing Doors 1D & EX has been reduced.
  - IV) Door 1D has been Moved and Flipped.
  - V) Door 2A has been Moved Further North.
  - VI) Door 2B has been Moved Further South.
  - VII) TSA Security Area Room 2, Equipment is now shown. All



Equipment is by Others and is not Installed by the Contractor.

VIII) Hold Room 3 has been Reduced.

IX) Install 1/2" Hat Channels and 5/8" Sheetrock, Painted to Match over Existing Window. Leave Existing Window as is. Install Sheetrock Flush with Existing Wall.

X) Include Add Alternate #2; Modify Existing Airport Conveyor.

3. Sheet A6:

a) Delete Page A6 and Replace with Attached Page A6. Changes are as Noted:

I) Delete 10'-0" x 8'-0" Overhead Doors and Replace with 12'-0" x 8'-0" Overhead Doors.

II) Delete W4 Wall Type and Replace with W5 Wall Type

4. Sheet A7:

a) Delete Page A7 and Replace with Attached Page A7. Changes are as Noted:

I) Delete 10'-0" x 8'-0" Overhead Doors and Replace with 12'-0" x 8'-0" Overhead Doors.

II) Delete W4 Wall Type and Replace with W5 Wall Type

5. Sheet A10:

a) Door Schedule: Door 2B, Delete Sill Height 1'-6" and Replace with Sill Height 2'-4".

C. SPECIFICATION CHANGES AND CLARIFICATIONS:

1. Section 09 91 00 – Painting

a) 1.1 INTERIOR FINISH COATS

A. Interior Semigloss Acrylic Enamel: Factory-formulated semigloss acrylic-latex enamel for interior application.

1. Benjamin Moore; Moorcraft Super Spec Latex Semi-Gloss Enamel No. 276: Applied at a dry film thickness of not less than 1.2 mils.

2. Pittsburgh Paints; 6-500 Series SpeedHide Interior Semi-Gloss Latex: Applied at a dry film thickness of not less than 1.0 mil.

3. Sherwin-Williams; ProMar 200 Interior Latex Semi-Gloss Enamel B31W200 Series: Applied at a dry film thickness of not less than 1.3 mils.

1.2 INTERIOR PAINT SCHEDULE

A. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:

1. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.

a. Primer: Interior gypsum board primer.

b. Finish Coats: Interior semigloss acrylic enamel.



- B. Ferrous Metal: Provide the following finish systems over ferrous metal:
  - 1. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior ferrous-metal primer.
    - b. Finish Coats: Interior semigloss acrylic enamel.
- C. Exposed Structural Steel (Gym): Provide the following finish systems to structural steel joists and deck.
  - 1. Flat Dry-Fall spray applied (double coverage) Include painting of joists, deck and paintable mechanical items.

D. APPROVED EQUALS:

1. Modified Conveyor:

- a) Global Industrial
- b) Thomas Conveyor & Equipment
- c) Gilmore-Kramer Company



Roller Conveyor, Baggage Addition 1 shall be:

- 2 x B897201 – Ashland 36”W Gravity Roller Conveyor, 10’L, 1.9” Roller Diameter, 4 ½” Roller Centers
- 1 x B897219 – Ashland 36”W Gravity Roller Conveyor, 5’L, 1.9” Roller Diameter, 3” Roller Centers
- 8 x B730135 – H-Stand Support 34511 for Ashland 36” BF Roller Conveyor – 19 ½” to 31” H
- 1 x B897235 – Ashland 90° Curve Roller Conveyor – 36” F – 1.9” Roller Dia. – 3” Axles – 30” Inside Radius
- 1 x 293189 – Global Industrial™ 24” Angle End Stop & Hardware for Roller Conveyors, 12 Gauge Steel
- 1 x B2184914 Ashland Guard Pair 30224 – Galvanized Steel 90 Degree Curve 16” BF 36” Inside Radius

As supplied by Global Industrial

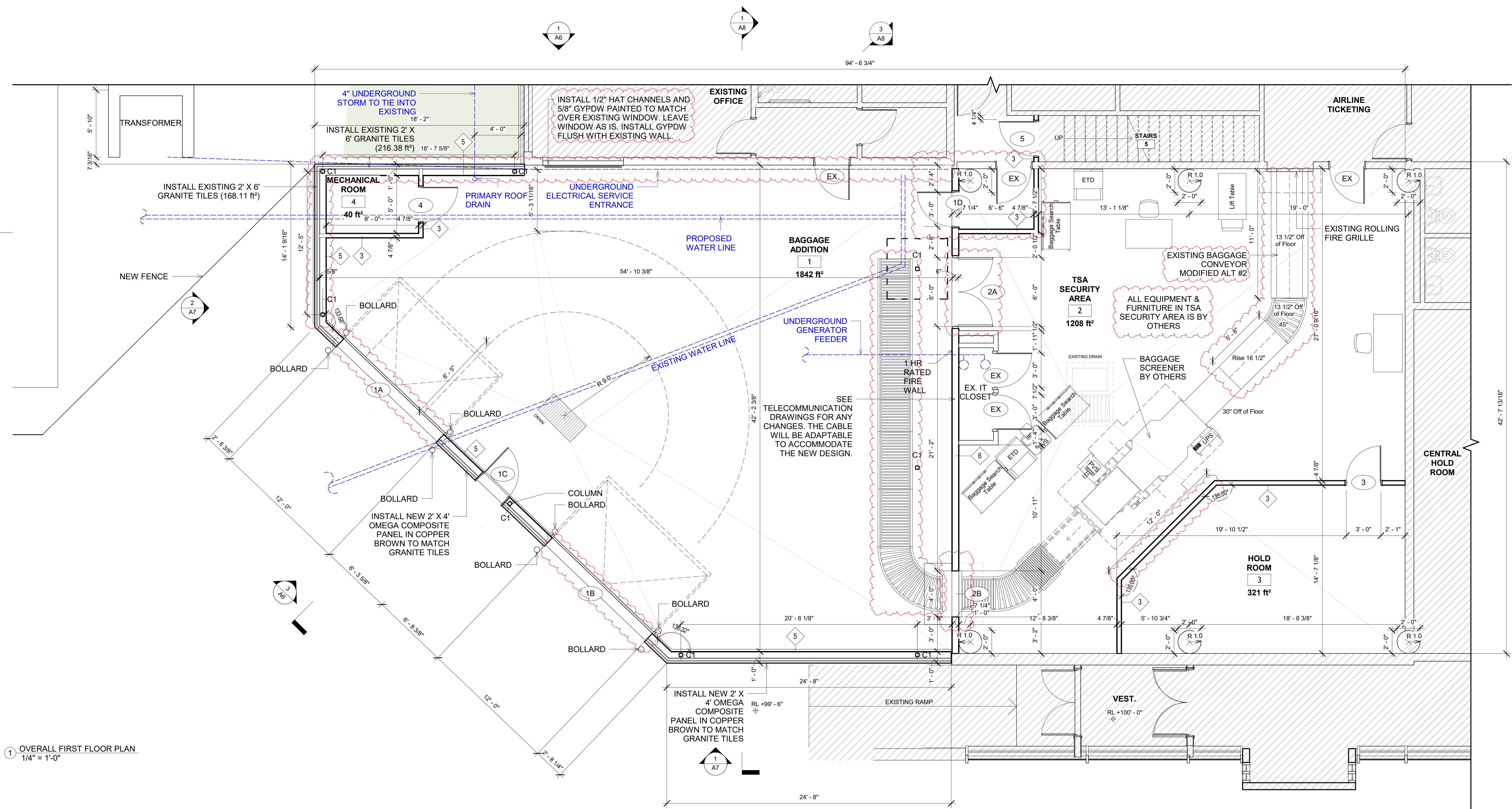
2505 Mill Center Parkway, Suite 100

Buford, GA 30518

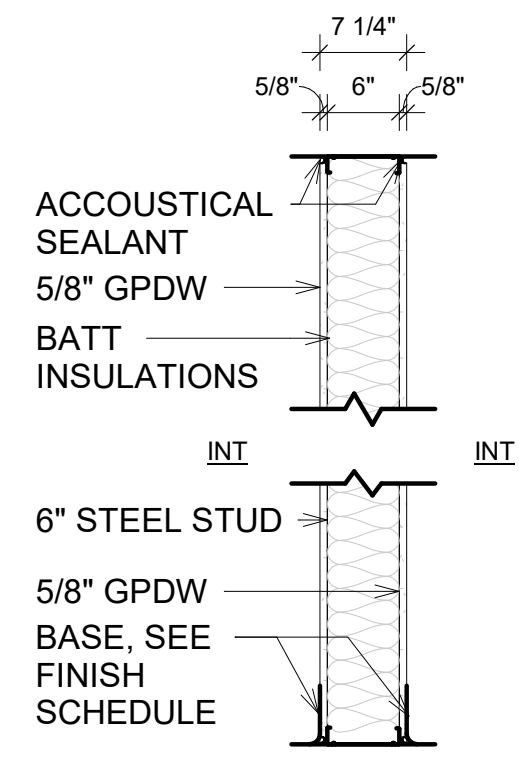
Phone: 800-645-1232

Product Reference: #780060

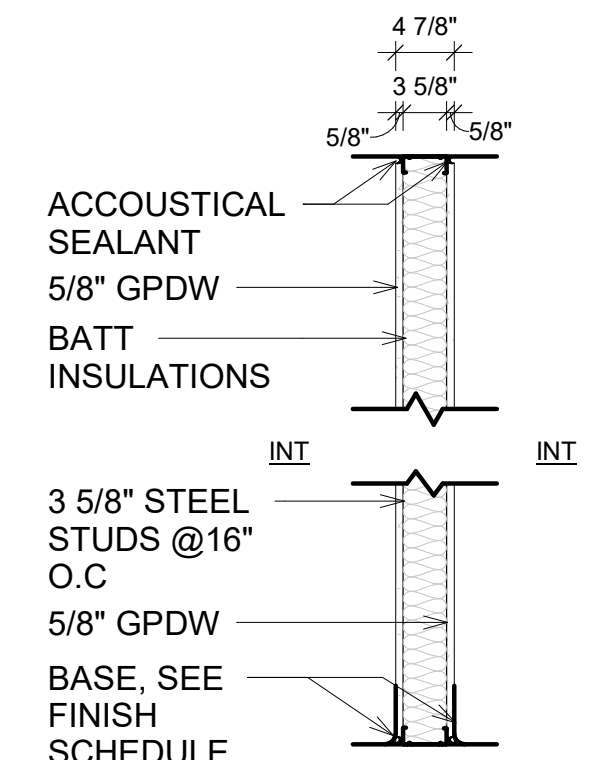




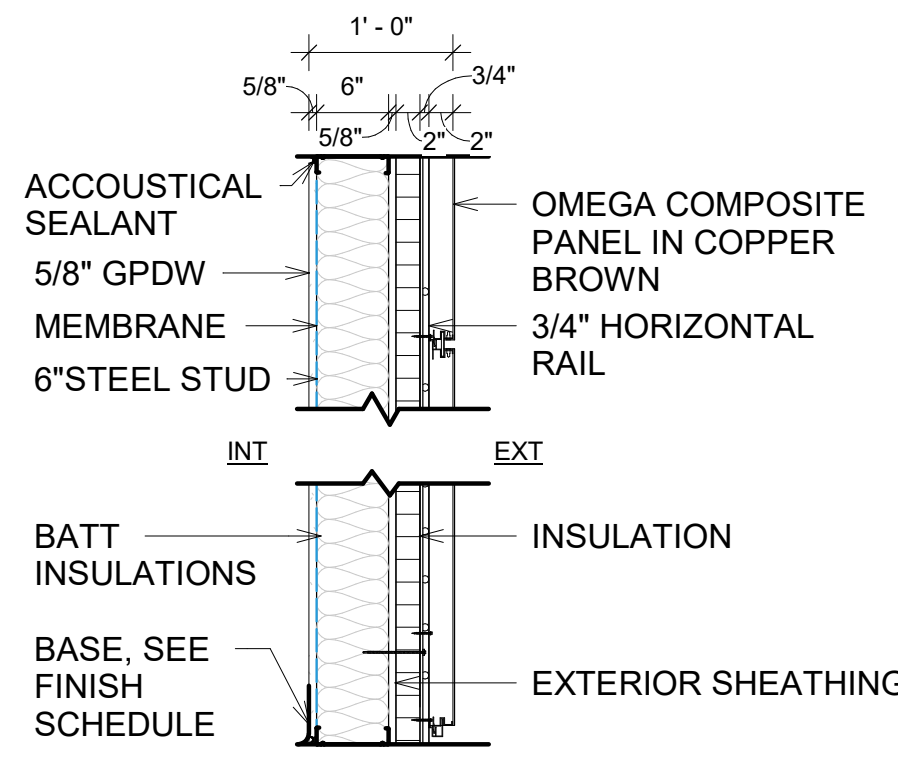
1 OVERALL FIRST FLOOR PLAN  
1/4" = 1'-0"



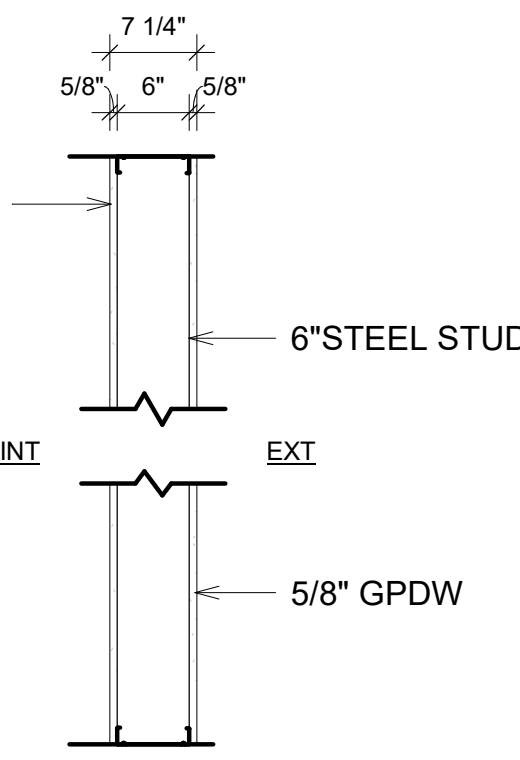
W2 WALL TYPE : 2



W3 WALL TYPE : 3



W5 WALL TYPE : 5



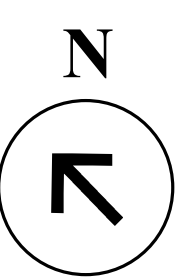
W6 WALL TYPE : 6

NOTE : ALL WATER SERVICE DISRUPTION TO THE ABERDEEN TERMINAL SHALL BE COORDINATED WITH AIRPORT MANAGEMENT AND THE ENGINEER 48 HOURS PRIOR TO ANY WORK. ALL WORK SHALL BE SCHEDULED AS TO NOT DISRUPT SERVICE 2 HOURS BEFORE AND ONE HOUR AFTER COMMERCIAL FLIGHT ARRIVAL AND DEPARTURE OR AS REQUIRED BY ABERDEEN AIRPORT PERSONNEL

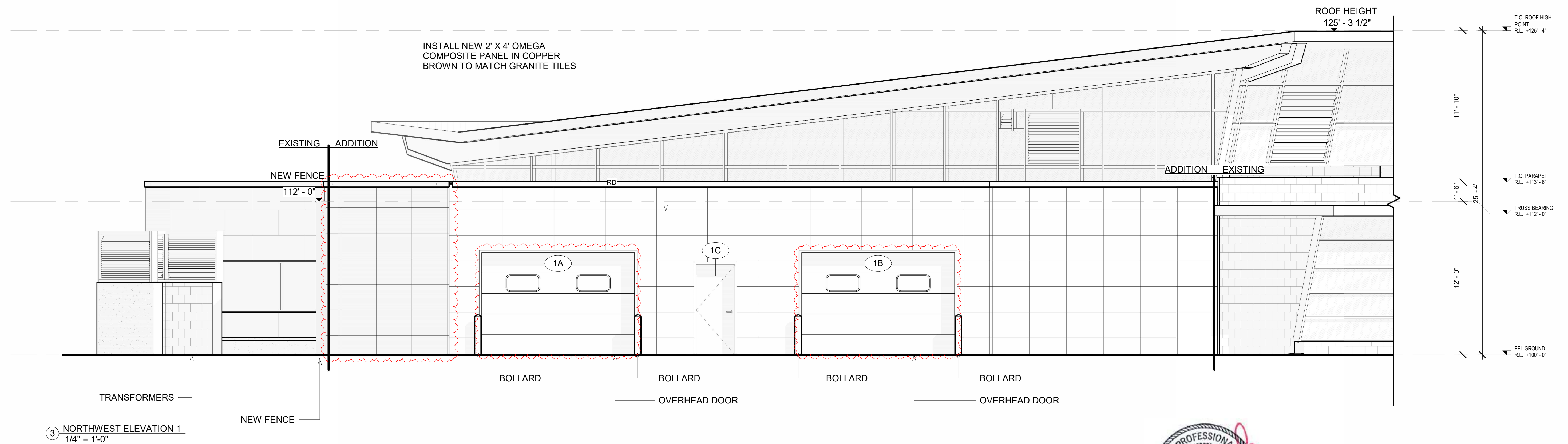
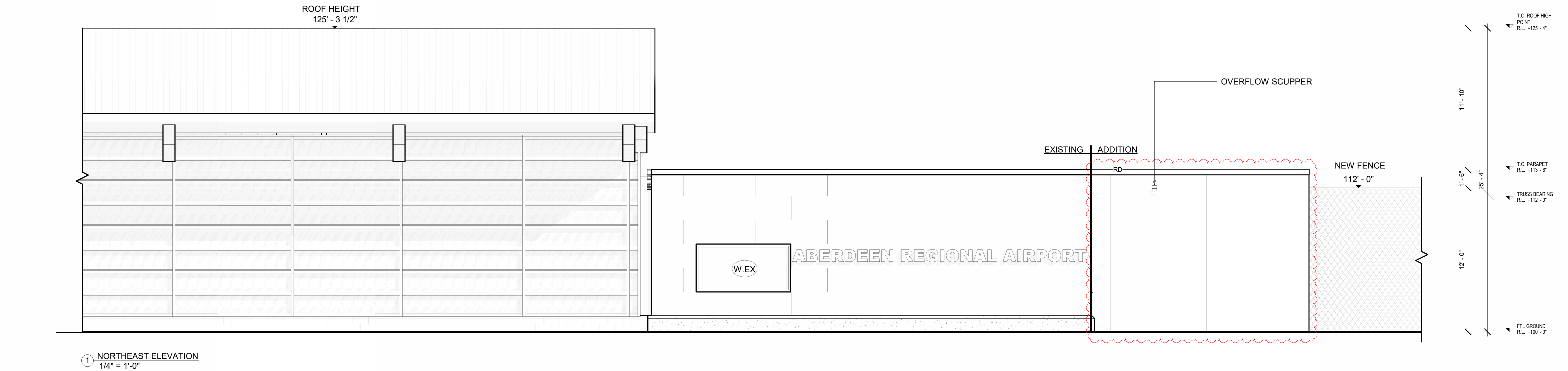
LEGEND :  
NOT IN SCOPE



REVISION DATE 5/16/25	Plans for Aberdeen Regional Airport Terminal Building Aberdeen, South Dakota	GROUND FLOOR PLAN	DRAWN BY: EXHIBIT CHECKED BY: DM DATE 4/29/25	PROJECT NO. 2024-0024
	HKG Architects, Inc.	Aberdeen, S.D.		



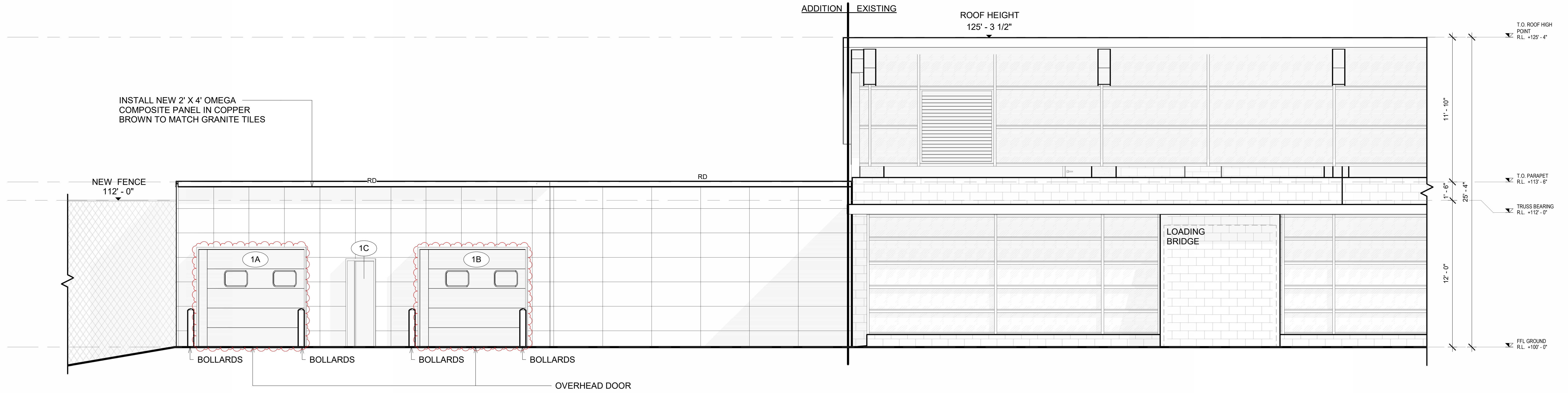




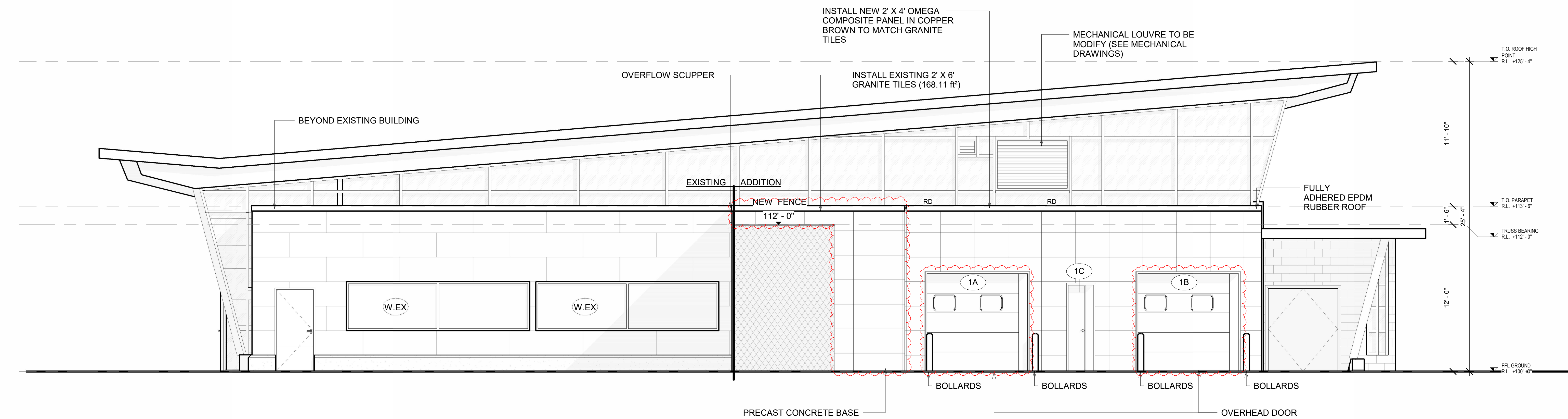
**hkg**  
architects

REVISION DATE 5/16/25	Plans for Aberdeen Regional Airport Terminal Building Aberdeen, South Dakota	ELEVATIONS	DRAWN BY: STM/MS CHECKED BY: DM	OF: 11 PROJECT NO: 2024-0024
CERT. NO.	HKG Architects, Inc.	Aberdeen, S.D.	DATE 4/29/25	





① SOUTHEAST ELEVATION  
1/4" = 1'-0"



② NORTHWEST ELEVATION 2  
1/4" = 1'-0"



**hkg**  
architects

REVISION DATE 5/16/25	Plans for Aberdeen Regional Airport Terminal Building Aberdeen, South Dakota	ELEVATIONS	DRAWN BY: STM/MS CHECKED BY: DM	OF: 11 PROJECT NO: 2024-0024
CERT. NO.	HKG Architects, Inc.	Aberdeen, S.D.		



**Date:** May 16, 2025**Project:** Aberdeen Regional Airport Baggage Addition**To:** Dean Marske, AIA  
HKG Architects**Project #:** BS25017**From:** Jon Kennedy, PE  
Stu Oster, PE**Project Location:** Aberdeen, SD**Addendum Number:** No. 1

**To:** All prime contract bidders and all others to whom Drawings and Specifications have been issued by the Engineer. Acknowledge receipt of the Addendum by inserting its number and date on the Bid Form. Failure to do so may subject bidder to disqualification. This Addendum forms a part of the Contract Documents. It modifies them as follows:

**Product Approvals**

The manufacturers and products, which are listed in the following texts, are approved for bidding. Final acceptance is contingent upon receipt and approval of final shop drawings. Manufacturer shall conform to all warranties, performances, size, etc., as the item specified. The burden of proof of the merit of the proposed substitution is upon the proposer. Those items not specifically listed by addendum shall not be approved for bidding.

Section	Description	Manufacturer
23 21 14	Expansion Tanks	Grundfos
23 21 14	Air Separators	Spirotherm
23 21 14	Automatic Flow Control Valves	HCI
23 34 23	HVAC Power Ventilators	Rupp
		Aerovent
23 37 00	Louvers	Air Balance
		Greenheck
23 37 00	Roof Hoods	ACME
		Greenheck
23 52 16	Condensing Boilers	Alta
23 81 01	Terminal Heat Transfer Units	Modine
		Sterling
		Beacon Morris
		IEC
23 82 00	Convection Heating and Cooling Units	QMark
23 83 00	Radiant Heating and Cooling Units	Mr. Pex
-----	Hydronic Pumps	Grundfos



**Specifications**

## Section 23 09 93 – Sequence of Operations for HVAC Controls

1. Paragraph 3.3 for new snowmelt heating system to be provided under cope of Alternate Bid B1 only.

## Section 23 21 14 – Hydronic Specialties

2. The following equipment shall be provided under scope of Alternate Bid B1 only:
  - a. Expansion Tanks
  - b. Air Separators

## Section 23 25 00 – HVAC Water Treatment

1. The following equipment shall be provided under scope of Alternate Bid B1 only:
  - a. Chemical Pot Feeder
  - b. Cleaners, inhibitors, and glycol for new snowmelt heating system.

## Section 23 52 16 – Condensing Boilers

1. Entire section to be included under scope of Alternate Bid B1 only.

## Section 23 83 00 – Radiant Heating and Cooling Units

1. Remove Paragraph 1.1. Only the new snowmelt heating system will be provided under scope of Alternate Bid B1 only.

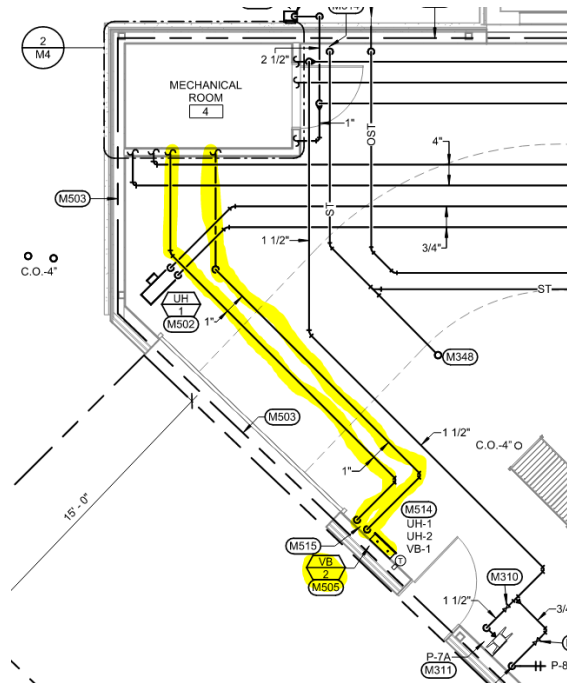




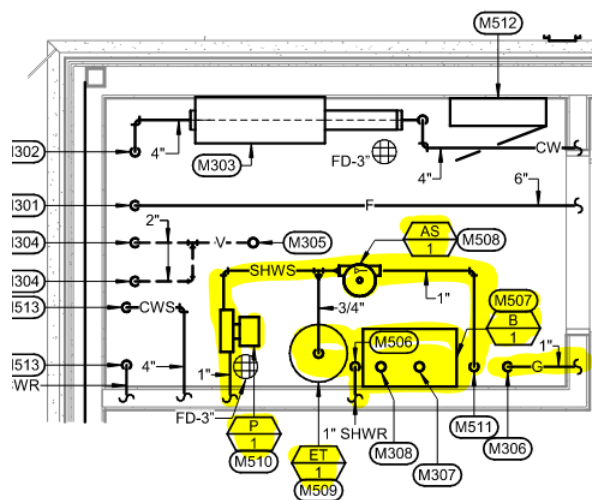
## Drawings

### Sheet M4 – Plumbing and HVAC Piping Plan – First Floor

1. Highlighted piping and valve manifold box indicated for new snowmelt system to be provided under scope of Alternate Bid B1 only:



2. Highlighted piping and equipment indicated for new snowmelt system to be provided under scope of Alternate Bid B1 only:





3. VB-1 and VB-2 do not match on floor plans versus the schedule on sheet M12. The schedule on sheet M12 will remain the same for numbering. On sheet M4, switch the VB numbers so that current VB-2 becomes VB-1 and current VB-1 becomes VB-2.

**Sheet M7 – Mechanical Controls Details**

1. Detail #4 for new snowmelt heating system to be provided under scope of Alternate Bid B1 only.

**Sheet M9 – Mechanical Controls Details**

1. Detail #4 for new snowmelt heating system to be provided under scope of Alternate Bid B1 only.

**Sheet M10 – Mechanical Details**

1. Detail #9 applies to scope of Alternate Bid B1 only.
2. Detail #12 applies to scope of Alternate Bid B1 only.

**Sheet M11 – Mechanical Details**

1. Detail #1 applies to scope of Alternate Bid B1 only for new snowmelt heating system.

**Sheet M12 – Mechanical Schedules**

1. Provide the following equipment indicated in schedules for new snowmelt heating system to be provided under scope of Alternate Bid B1 only:
  - a. Pump (P-1).
  - b. Air Separator (AS-1).
  - c. Boiler (B-1).
  - d. Expansion Tank (ET-1).
  - e. Snowmelt Heating Valve Manifold Box (VB-1).

**Sheet E1 – Electrical Demolition Plan**

1. See attached drawing for revisions.

**Sheet E2 – Power and Communications Floor Plan**

1. Connection to Pump P-1 (circuit P1-9) and connection to Boiler B-1 (P1-5,7) along with the boiler shutdown switch shall be provided under scope of Alternate Bid B1 only.
2. Refer to the attached floor plan for receptacle location revisions.

**Sheet E3 – Lighting Floor Plan**

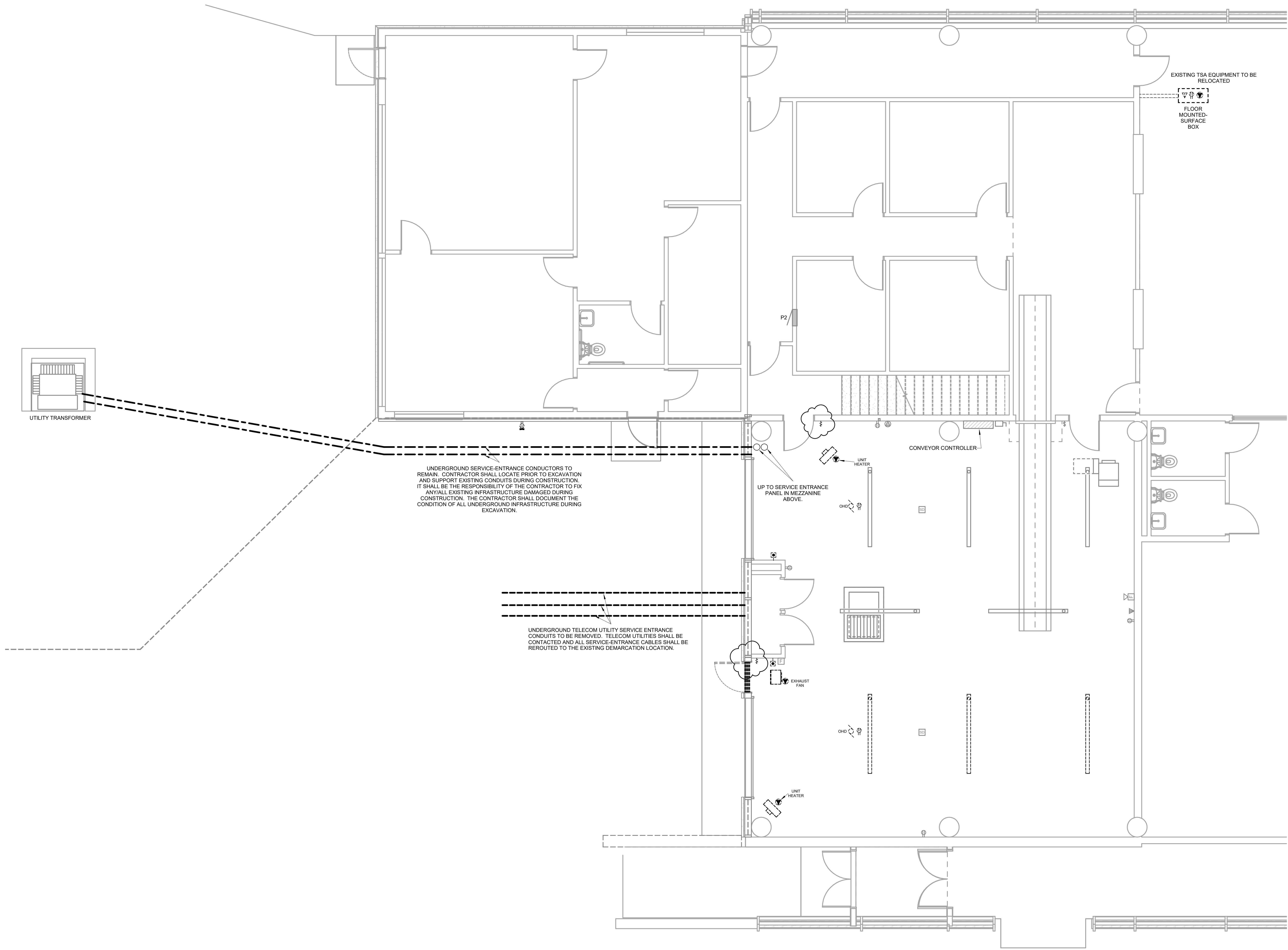
1. Lighting control sequence of operations added. Reference attached drawing.
2. Light switching in TSA Security Area 2 changed. See attached drawing for revisions.

**Sheet E4 – Electrical Schedules & Details**

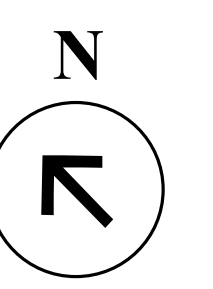
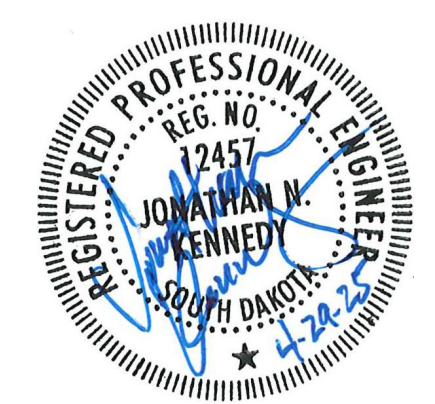
1. Lighting fixture schedule added. Reference attached drawing.

**END OF DOCUMENT – JK/SO**





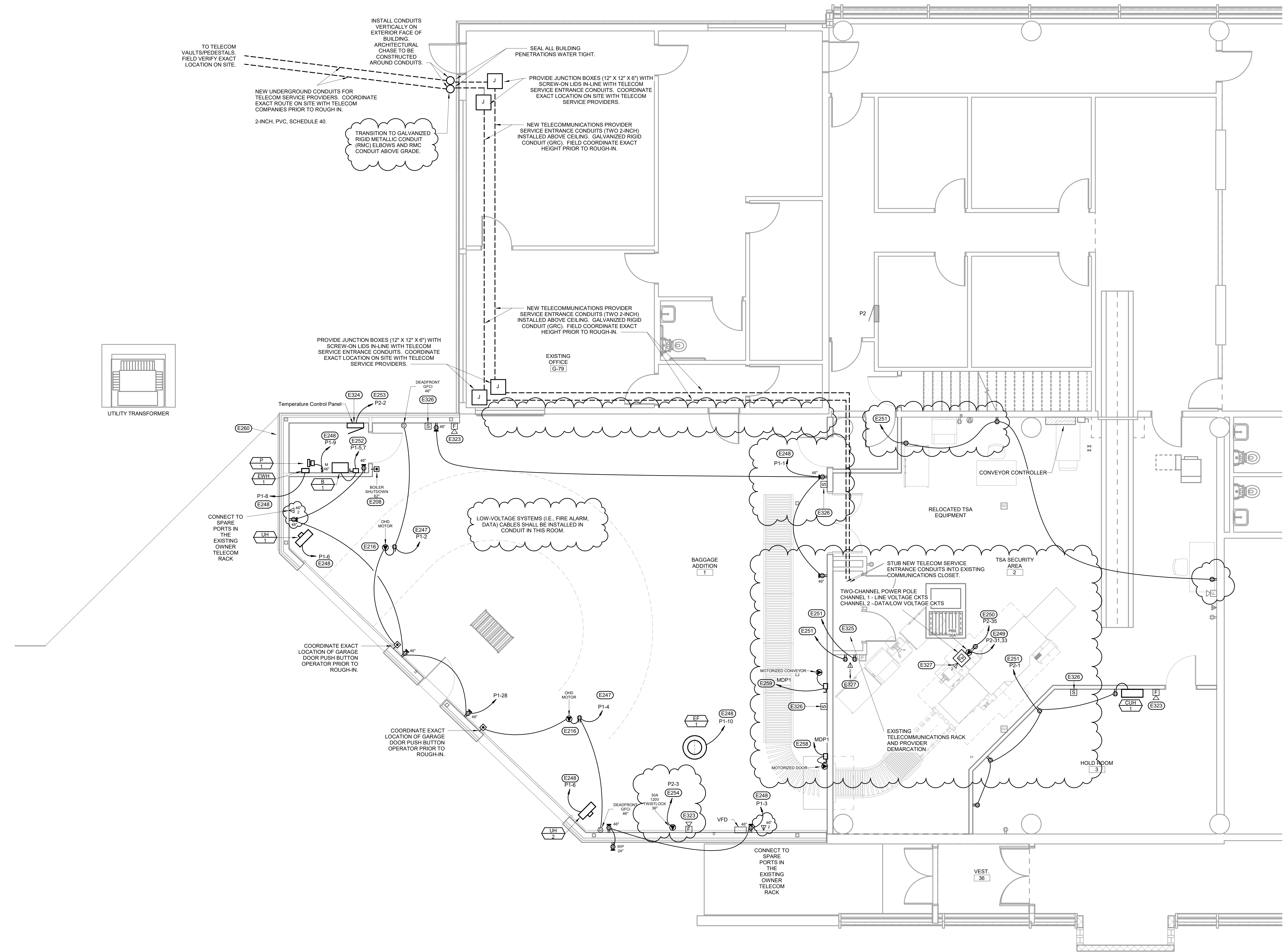
1 ELECTRICAL DEMOLITION FLOOR PLAN  
1/4" = 1'-0"



**hkg**  
architects

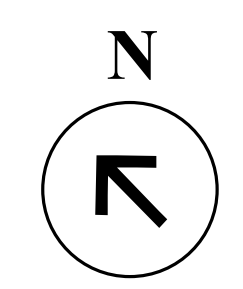
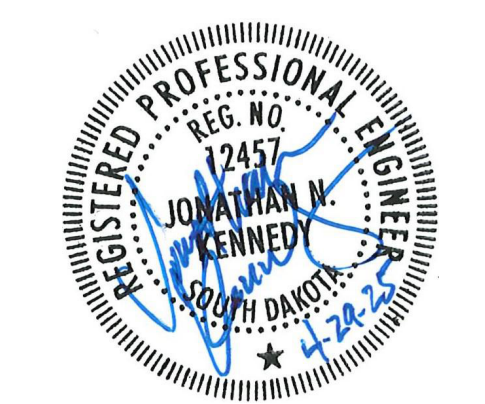
Plans for ABERDEEN REGIONAL AIRPORT Baggage Addition Aberdeen, South Dakota		DESIGNED BY CHECKED BY DATE 04/29/2025	WPEP 802507 <b>WPE WEST PLAINS ENGINEERING, INC.</b> 4609 SOUTH TECHLINK CIRCLE • SIOUX FALLS, SD 57106 PHONE: (605) 362-3753 • FAX: (605) 362-3759 WWW.WESTPLAINSENGINEERING.COM SIOUX CITY, SD • SIOUX FALLS, SD • CHURCH, MN • CEDAR RAPIDS, IA
HKG Architects, Inc., Aberdeen, S.D.		E1	8325017





- ELECTRICAL SPECIFIC NOTES**
- E208 PROVIDE AN EMERGENCY SHUTDOWN PUSHBUTTON SWITCH WITH (RED) MUSHROOM HEAD AND INTERLOCK WITH THE BOILER(S). PROVIDE WITH A CLEAR FLIP-UP COVER. SWITCH SHALL BE LABELED 'EMERGENCY BOILER SHUT DOWN'.
- E216 AUTOMATIC OVERHEAD DOOR PUSHBUTTON STATIONS AND OPERATORS. EQUIPMENT PROVIDED AND INSTALLED BY GC. CONNECTED/POWERED BY GC. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS/SHOP DRAWINGS. PROVIDE NECESSARY CONTROL WIRING FOR SAFETY FEATURES. COORDINATE EXACT LOCATIONS WITH OWNER AND OTHER TRADES TO MAKE ALL SERVICES FIT IN THIS AREA. TYPICAL.
- E247 CONNECT TO THE BRANCH CIRCUIT IN PANEL P1 PREVIOUSLY SERVING OVERHEAD MOTOR OPERATED DOORS REMOVED DURING DEMOLITION. PROVIDE #12 CU BRANCH CIRCUIT CONDUCTORS IN RACEWAY. WHERE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) PROTECTION IS REQUIRED BY CODE, THE GFCI DEVICE SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION IN ACCORDANCE WITH CODE AND THE LOCAL AUTHORITY HAVING JURISDICTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE A COMPLETE AND FULLY FUNCTIONING SYSTEM INSTALLED IN ACCORDANCE WITH CODE.
- E248 CONNECT TO A NEW 20-AMP, 1-POLE CIRCUIT BREAKER IN EXISTING SQUARE D NOOD LIGHTING AND APPLIANCE PANEL P1. NEW BREAKER SHALL MATCH PROPERTIES OF THE EXISTING PANEL. INSTALL IN SPARE SPACE AVAILABLE. PROVIDE NEW UPDATED TYPED PANEL DIRECTORY.
- E249 CONNECT TO THE 30-AMP, 2-POLE CIRCUIT BREAKER IN PANEL P2 PREVIOUSLY SERVING THE RELOCATED EQUIPMENT. PROVIDE #10 BRANCH CIRCUIT CONDUCTORS IN RACEWAY.
- E250 CONNECT TO THE 20-AMP, 1-POLE CIRCUIT BREAKER IN PANEL P2 PREVIOUSLY SERVING THE RELOCATED EQUIPMENT. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY.
- E251 CONNECT TO A NEW 20-AMP, 1-POLE CIRCUIT BREAKER IN EXISTING SQUARE D NOOD LIGHTING AND APPLIANCE PANEL P2. NEW BREAKER SHALL MATCH PROPERTIES OF THE EXISTING PANEL. INSTALL IN SPARE SPACE AVAILABLE. PROVIDE UPDATED TYPED PANEL DIRECTORY. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY.
- E252 CONNECT TO A NEW 15-AMP, 2-POLE CIRCUIT BREAKER IN EXISTING SQUARE D NOOD LIGHTING AND APPLIANCE PANEL P1. NEW BREAKER SHALL MATCH PROPERTIES OF THE EXISTING PANEL. INSTALL IN SPARE SPACE AVAILABLE. PROVIDE UPDATED TYPED PANEL DIRECTORY. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY.
- E253 CONNECT TO A NEW 20-AMP, 1-POLE CIRCUIT BREAKER IN EXISTING SQUARE D NOOD LIGHTING AND APPLIANCE PANEL P2. NEW BREAKER SHALL MATCH PROPERTIES OF THE EXISTING PANEL. INSTALL IN SPARE SPACE AVAILABLE. PROVIDE UPDATED TYPED PANEL DIRECTORY. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY.
- E254 CONNECT TO A NEW 30-AMP, 1-POLE CIRCUIT BREAKER IN EXISTING SQUARE D NOOD LIGHTING AND APPLIANCE PANEL P2. NEW BREAKER SHALL MATCH PROPERTIES OF THE EXISTING PANEL. INSTALL IN SPARE SPACE AVAILABLE. PROVIDE UPDATED TYPED PANEL DIRECTORY. PROVIDE #10 BRANCH CIRCUIT CONDUCTORS IN RACEWAY. COORDINATE EXACT PLUG TYPE WITH OWNER-PROVIDED EQUIPMENT.
- E258 PROVIDE AN ELECTRICAL CONNECTION TO A NEW MOTORIZED CONVEYOR DOOR. CONNECT TO AN EXISTING 20-AMP, 3-POLE CIRCUIT BREAKER IN MDP-1. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY. PROVIDE A 30-AMP, 3-POLE HEAVY-DUTY NON-FUSED DISCONNECT IN A NEMA 1 ENCLOSURE AND INSTALL ADJACENT TO THE EQUIPMENT. COORDINATE THE EXACT REQUIREMENTS WITH THE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
- E259 PROVIDE AN ELECTRICAL CONNECTION TO A NEW MOTORIZED CONVEYOR SYSTEM. CONNECT TO A NEW 20-AMP, 3-POLE CIRCUIT BREAKER IN EXISTING SQUARE D LINE MDP-1. NEW CIRCUIT BREAKER SHALL MATCH THE EXISTING PANEL PROPERTIES. PROVIDE ALL REQUIRED MOUNTING HARDWARE. REMOVE A SPARE 3-POLE CIRCUIT BREAKER TO ALLOW SPACE TO INSTALL THE NEW CIRCUIT BREAKER. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY. PROVIDE A 30-AMP, 3-POLE HEAVY-DUTY NON-FUSED DISCONNECT IN A NEMA 1 ENCLOSURE AND INSTALL ADJACENT TO THE EQUIPMENT. COORDINATE THE EXACT REQUIREMENTS WITH THE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
- E260 PROVIDE CONDUIT SLEEVES IN THE NEW BELOW-GRADE FOUNDATION WALL TO ACCOMMODATE THE EXISTING SERVING ENTRANCE CONDUITS. COORDINATE EXACT LOCATION WITH FOUNDATION WALL CONTRACTOR.
- E323 CONNECT TO THE EXISTING EDWARDS EST-2 FIRE ALARM SYSTEM. FIRE ALARM CONTROL PANEL LOCATED IN LEVEL 2 ELECTRICAL ROOM.
- E324 PROVIDE A CATEGORY 6 CABLE FROM THE EXISTING DATA/IT HEAD RACK TO THE NEW TEMPERATURE CONTROLS PANEL. INSTALL THE NEW CABLE IN A 3/4-INCH CONDUIT IN THE NEW BAGGAGE ADDITION. INSTALL THE CONDUIT WITHIN THE ROOF STRUCTURE/JOIST SPACE. TERMINATE BOTH CABLE ENDS. TEST THE CABLE AND PROVIDE A COPY OF THE TEST REPORT WITH THE O&M MANUALS. CONNECT TO A NEW PATCH PANEL INSTALLED IN THE EXISTING TELECOM RACK.
- E325 PROVIDE A NEW 24-PORT MODULAR PATCH PANEL, PANDUIT OR EQUAL, WITH REMOVABLE KEYSTONE STYLE JACK INSERTS. CONNECT NEW DATA CABLES TO THE NEW PATCH PANEL. COORDINATE INSTALLATION WITHIN THE EXISTING RACK AND PORT LABELING WITH THE OWNER.
- E326 PROVIDE A CONE-STYLE PAGING SPEAKER INSTALLED IN A WALL-MOUNT TYPE ENCLOSURE. MOUNT AT 8-FOOT AFF. CONNECT TO THE EXISTING PAGING SYSTEM (THE HEAD-END CONTROLLER/AMPLIFIER IS INSTALLED IN THE SAME CLOSET AS THE DATA/IT RACK). PROVIDE NEW SPEAKER CONDUCTORS, INSTALLED IN A 1/2-INCH RACEWAY. PROVIDE A SHOP DRAWING SUBMITTAL OF NEW SPEAKERS, CONDUCTORS, AND A RISER SKETCH OF THE EXISTING SYSTEM INDICATING CONNECTION METHOD/LOCATION.
- E327 CONNECT TO THE EXISTING TSA DATA RACK LOCATED AT THE EAST END OF THE BUILDING, APPROXIMATELY 200-FEET AWAY. COORDINATE EXACT ROUTING ON SITE WITH OWNER AND TSA PRIOR TO ROUGH-IN. COORDINATE TSA RACK CONNECTIONS WITH TSA.

1 POWER AND COMMUNICATIONS PLAN - FIRST FLOOR  
1/4" = 1'-0"



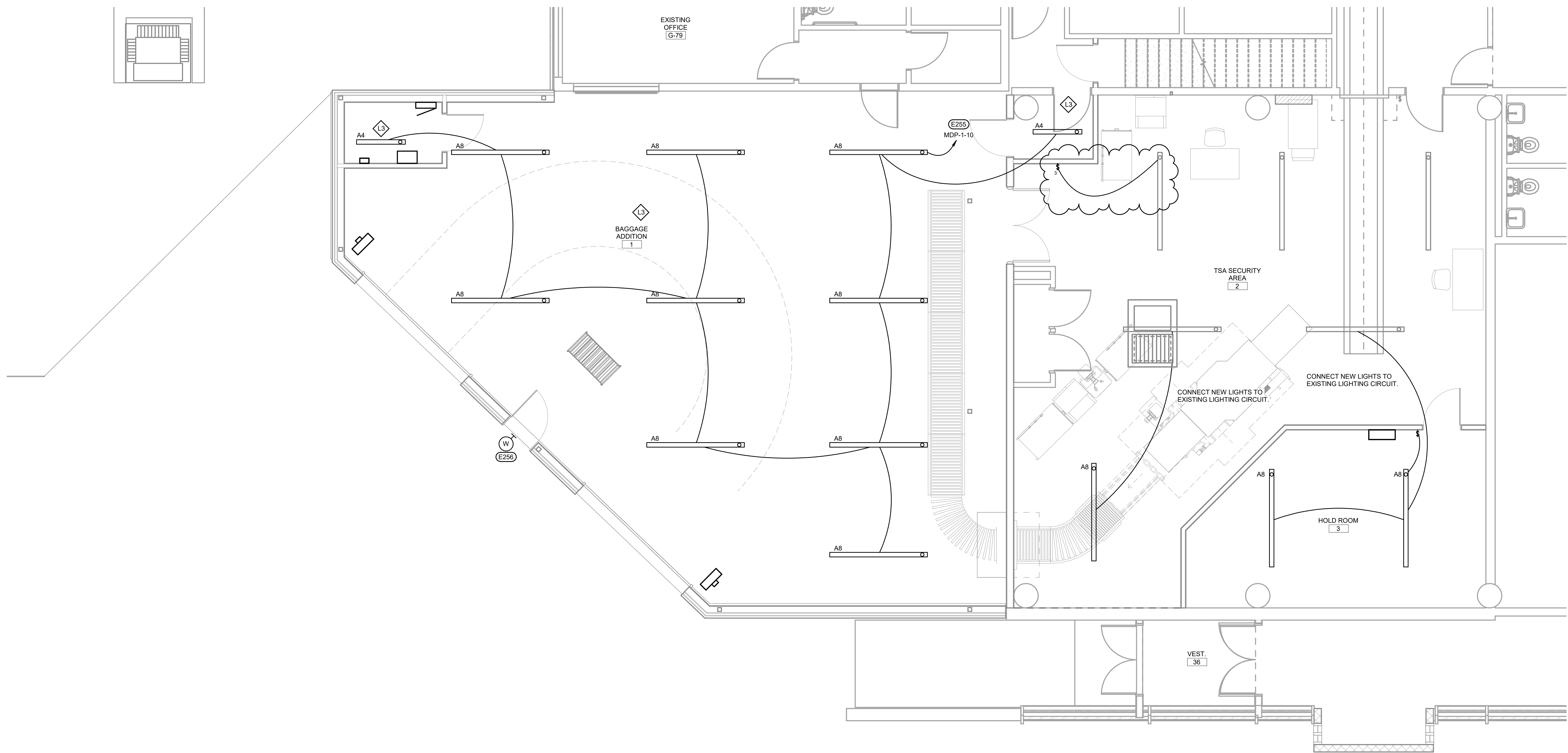
Plans for Aberdeen Regional Airport Baggage Addition Aberdeen, South Dakota	DESIGNED BY WPE	DATE 04/29/2025
	CHECKED BY WPE	DATE 04/29/2025
PROJECT NO. 8325017		WPE PROJECT NO. 8325017

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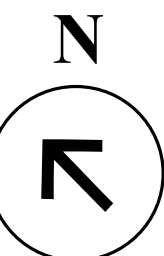


- ELECTRICAL SPECIFIC NOTES**
- E255 CONNECT TO A NEW 20-AMP, 1-POLE CIRCUIT BREAKER IN EXISTING SQUARE D LINE POWER PANEL MDP-1. NEW BREAKER SHALL MATCH PROPERTIES OF THE EXISTING PANEL. REMOVE AN EXISTING SPARE 20-AMP, 3-POLE CIRCUIT BREAKER TO MAKE SPACE FOR NEW BREAKER. HAND THE EXISTING BREAKER OVER TO THE OWNER. PROVIDE BLANK FILLER PLATES FOR UNUSED SPACES. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY. PROVIDE UPDATED TYPED PANEL DIRECTORY.
- E256 CONNECT TO THE EXISTING CIRCUIT SERVING OTHER BUILDING-MOUNTED EXTERIOR LIGHTING. PROVIDE #12 BRANCH CIRCUIT CONDUCTORS IN RACEWAY.

- LIGHTING CONTROL SEQUENCE OF OPERATIONS**
- L3 SEQUENCE 3 - LIGHTING WITHIN A DEFINED ROOM OR SPACE SHALL BE CONTROLLABLE BY MEANS OF LOCAL OCCUPANCY SENSORS. WHEN OCCUPANCY IS DETECTED, LIGHTS SHALL OPERATE AT 100% OUTPUT. WHEN NO OCCUPANCY IS DETECTED (DEFAULT 20 MINUTES), THE LIGHTS IN THE SPACE SHALL BE TURNED OFF. OCCUPANCY SENSORS SHALL BE PROVIDED FOR 100% COMPLETE MINOR MOTION COVERAGE IN THE ROOM OR SPACE. OCCUPANCY SENSORS SHALL BE CEILING MOUNTED, AND WALL-MOUNTED WHERE NO CEILING IS PRESENT. THE CONTRACTOR SHALL CONFIRM THE PRESENCE OF A CEILING WITH THE DOCUMENTS. OCCUPANCY SENSOR SHALL TURN LIGHTS ON AND TURN LIGHTS OFF (I.E. AUTO-ON, AUTO-OFF).



1 LIGHTING FLOOR PLAN  
1/4" = 1'-0"



Plans for ABERDEEN REGIONAL AIRPORT Baggage Addition Aberdeen, South Dakota		DATE 04/29/2025	BY E3
HKG Architects, Inc. Aberdeen, S.D.		PROJECT LIGHTING FLOOR PLAN	REVISION 8525017


































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

























































## ELECTRICAL SYMBOLS

ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR. MOUNTING HEIGHTS INDICATED ON ARCH. WALL ELEVATIONS OR AS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.

LIGHTING
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


SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING SURFACE FIXTURE Capital letters indicate fixture type. Small letter indicates switching. Three or four letters indicate type of ceiling surface fixture.		RECESSED FIXTURE
	WALL FIXTURE		EMERGENCY RECESSED FIXTURE
	EMERGENCY WALL FIXTURE		FLOOD LIGHT
	RECESSED FIXTURE		TRACK LIGHT
	EMERGENCY RECESSED FIXTURE		PHOTO ELECTRIC CELL
	EXTERIOR POLE LIGHT		LIGHTING CONTROL (DIMMER)
	BOLLARD LIGHT		TWO CLOCK (60 M.H.)
	SURFACE MOUNT FIXTURE		EMERGENCY LIGHTING UNIT/BATTERY PACK
	EMERGENCY SURFACE MOUNT FIXTURE		CEILING EXIT LIGHT (FACES) SHADED.
			CEILING EXIT LIGHT (FACES) SHADED.
			WALL EXIT LIGHT (FACES) SHADED.
			EXIT DOOR (FACES) SHADED.
			VARIABLE SPEED SWITCH
			PUSH SWITCH
			OCCUPANCY SENSOR
			SINGLE POLE SWITCH (40 M.H.)
			DOUBLE POLE SWITCH (40 M.H.)
			FOUR-WAY SWITCH (40 M.H.)
			THREE-WAY SWITCH (40 M.H.)
			SWITCH WITH PILOT (40 M.H.)
			KEY OPERATED SWITCH (40 M.H.)
			MONETARY SWITCH SWITCH (60 M.H.)
			DIMMER SWITCH (40 M.H.)
			TIMER SWITCH (60 M.H.)

POWER
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	PUSH BUTTON STATION (10" H" M")		BLANK OUTLET		REMOTE HVAC SENSOR
	DOUBLE PUSH BUTTON STATION		JUNCTION BOX		RADIANT HEAT PANEL
	EMERGENCY SHUTDOWN PUSHBUTTON		FLUX BOX		BASEBOARD OR CONVE. ELECT. HEAT
	ISOLATED GROUND RECEPTACLE (10" H" M")		MOTOR		ELECTRIC UNIT HEATER
	DUPLEX CONVENIENCE RECEPTACLE (10" H" M")		DISCONNECT SWITCH		ELECTRIC CABINET UNIT HEATER
	SINGLE RECEPTACLE (10" H" M")		GENERATOR ANNUNCIATOR PANEL		MOTORIZED DAMPER
	DOUBLE DUPLEX CONVENIENCE RECEPTACLE (10" H" M")		AUTOMATIC TRANSFER SWITCH		BUS DUCT
	DOUBLE DUPLEX CONVENIENCE RECEPTACLE (10" H" M")		VARIABLE FREQUENCY DRIVE		SPUR MOUNT RACEWAY
	SPLIT WIRED DUPLEX RECEPTACLE (10" H" M")		COMBINATION VARIABLE FREQUENCY DRIVE		CEILING PADDLE FAN
	SAFETY CONVENIENCE RECEPTACLE		MAGNETIC STARTER		TYPE OF EQUIPMENT (SEE SCHEDULES)
	POWER RECEPTACLE		COMBINATION STARTER/DISCONNECT		EQUIPMENT NUMBER (SEE SCHEDULES)
	EMERGENCY DUPLEX RECEPTACLE		MOTOR THERMAL SWITCH		ROOFTOP EQUIPMENT/CIRCLING
	750V LOCK RECEPTACLE		TRANSFORMER		EXISTING EQUIPMENT/CIRCLING
	GF DUPLEX CONVENIENCE RECEPTACLE		ELECTRIC METER		GROUND IN FLOOR OR UNDERGROUND
	GF DUPLEX CONVENIENCE RECEPTACLE		SWITCHGEAR DISTRIBUTION PANEL SECTION		
	SPECIAL PURPOSE OUTLET ON CONNECTION		PANELBOARD OR LOAD CENTER		
	CORDPULL		SWITCHGEAR OR LOAD CENTER EXISTING TO REMAIN		
	CORD REEL		TRANSIENT VOLTAGE SURGE SUPPRESSOR		
	DUPLEX RECEPTACLE		CIRCUIT BREAKER		PANEL 1-2-3
	FLUSH FLOOR DUPLEX RECEPTACLE		FUSE		
	FLUSH FLOOR DUPLEX RECEPTACLE		HUMIDISTAT		
	FLUSH FLOOR MULTI-SERVICE OUTLET (WITH DEVICES INDICATED)		THERMOSTAT		
	MULTI-SERVICE PANEL (WITH DEVICES INDICATED)				

CONDUIT IN WALL OR UNDERGROUND

CONDUIT IN FLOOR OR CEILING SPACE. CROSS MARKS INDICATE TWO WIRE OR THREE OR MORE MARKS INDICATE TWO WIRE. ARROWS INDICATE HOME RUNS TO PANEL. NUMBERS INDICATE PANEL AND CIRCUIT IN PANEL.

 SWITCHGEAR  
 TRAVELER  
 HOT  
 NEUTRAL WIRE  
 INDICATES SEPARATE GROUND WIRE TO BE INSTALLED IN RACEWAY


























TELECOM
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	SPECIAL EQUIPMENT CABINET-AS NOTED		INTERCOM		CEILING MOUNT DATA OUTLET
	TERMINATION BOARD - AS NOTED		TELEPHONE/VOICE OUTLET (15" M.H.)		COMBINATION VOICE/DATA OUTLET (15" M.H.)
	CABLE TRAY		WALL PHONE (46" M.H.)		TELEVISION OUTLET (18" M.H.)
			DATA OUTLET (18" M.H.)		CEILING MOUNT TELEVISION OUTLET

FIRE ALARM
------------

<b>F</b>	FIRE ALARM MANUAL STATION (60" M.H.)	<b>PS</b>	PRESSURE SWITCH	<b>VL</b>	CEILING MOUNT FIRE ALARM VOICE/STROBE
<b>H</b>	HEAT DETECTOR (RATE OF RISE)	<b>TS</b>	TAMPER SWITCH	<b>HL</b>	FIRE ALARM HORN
<b>D</b>	HEAT DETECTOR (FIXED TEMP. ONLY)	<b>CT</b>	FIRE ALARM CUT-OFF RELAY	<b>HM</b>	MINI FIRE ALARM HORNSTROBE
<b>U</b>	UNITARY TYPE SMOKE DETECTOR	<b>RA</b>	REMOTE ANNUNCIATOR	<b>S</b>	PROJECTION HORN
<b>S</b>	SMOKE DETECTOR	<b>DO</b>	DOOR HOLDER	<b>ST</b>	FIRE ALARM STROBE (80" M.H.)
<b>DU</b>	DUCT SMOKE DETECTOR	<b>MM</b>	MONITOR MODULE	<b>STH</b>	CEILING MOUNT FIRE ALARM STROBE
<b>BT</b>	BEAM DETECTOR TRANSMITTER	<b>CM</b>	CONTROL MODULE	<b>C</b>	FIRE ALARM BELL (80" M.H.)
<b>BR</b>	BEAM DETECTOR RECEIVER	<b>CH</b>	FIRE ALARM CHIME/STROBE	<b>CD</b>	COMBINATION FIRE-SMOKE DAMPER
<b>RT</b>	REMOTE TEST STATION	<b>HA</b>	FIRE ALARM HORNSTROBE (80" M.H.)	<b>FAAP</b>	FIRE ALARM ANNUNCIATOR PANEL
<b>CS</b>	COMB HEAT/SMOKE DETECTOR	<b>CL</b>	CEILING MOUNT FIRE ALARM HORN/STROBE	<b>FL</b>	FIRE ALARM CONTROL PANEL
<b>FS</b>	FLOW SWITCH	<b>VF</b>	FIRE ALARM VOICE/STROBE (80" M.H.)	<b>FAFP</b>	FIRE FIGHTER PHONE JACK

## SOUND AND SECURITY

	FLOOR SPEAKER		SURVEILLANCE VIDEO CAMERA - PAN/TILT		ALARM DOOR
	SURFACE SPEAKER		SURVEILLANCE VIDEO MONITOR		DOOR RELEASE MECHANISM
	PAGING HORN		SURVEILLANCE VIDEO RECORDER		ALARM MOTION DETECTOR
	CEILING MOUNTED (60" M.I.L.)		SURVEILLANCE VIDEO CONTROL		ALARM REMOTE PAD
	MICROPHONE OUTLET (1/8" M.I.L.)		ALARM CONTROL PANEL		ALARM KEYPAD
	AUXILIARY OUTLET		BURGLAR ALARM ANNUNCIATOR		CARD ACCESS
	AMPLIFIER		ANTENNA (AS NOTED)		SECURITY INTERCOM (54" M.I.L.)
	SURVEILLANCE VIDEO CAMERA		ALARM PANIC SWITCH		REQUEST EXIT PUSH BUTTON
	CEILING MOUNTED SURVEILLANCE VIDEO CAMERA				

## ELECTRICAL ABBREVIATIONS

A STANDARD LIST. NOT ALL WORDS APPEAR IN THESE DRAWINGS.  
SEE SPECIFICATION SECTION "EQUIPMENT WIRING" FOR ADDITIONAL INFORMATION AND REQUIREMENTS

AC AMP	AMPERE	LA	LIGHTNING ARRESTOR
AC	AC CONDITIONING	LT	LIGHT
AC	ARCHITECT & ENGINEER	LTG	LIGHTING
AC	ABOVE COUNTER	LTG	LIGHTS
AC	ALTERNATING CURRENT	MC	MCHANICAL CONTRACTOR
ADA	AMERICAN WITH DISABILITIES ACT	MCC	MAIN ELECTRICAL PANEL
AF	ABOVE FINISH FLOOR	MCM	MOTOR CONTROL CENTER
AFG	ABOVE FINISH GRADE	MCCM	THOUSAND CIRCULAR MILS
AFI or APCI	ARC FAULT CIRCUIT INTERRUPTER	MDF	MAIN DISTRIBUTION PANEL
AFJ	AUTHORITY Having JURISDICTION	MECH	MECHANICAL
AHU	AIR HANDLING UNIT	MEB	METAL SWITCH
AI	ANYWHERE INTERRUPTING CURRENT	MH	METAL HALE
AL	ALUMINUM	ML	MAIN LUG ONLY
ANN	ANNUNCIATOR	MS	MAIN SWITCHBOARD
AS	AUTOMATIC SENSORS	MSB	MAIN SWITCHBOARD
AWG	AMERICAN WIRE GAUGE	MST	MOTOR TERMINAL SWITCH
BC	BELOW COUNTER	MR	MERCURY VAPOR
BC	BELOW CURTAIN	MW	MICROWAVE
BL	BASKETBALL HOOP OPER	NA or N/A	NOT APPLICABLE
BL	BLEACHER/ELECTRIC OPERATOR	NC	NORMALLY CLOSED
BRD or BD	BOARD	NCL	NATIONAL ELECTRICAL CODE
BRD or BD	BOARD UNIT HEATER	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
C or CO	CORROSE	NEU NEUT or N	NEUTRAL
CBS or CB	CIRCUIT BREAKER	NEU-USED	NOT USED
CA	CATEGORY	NL	NIGHT LIGHT
CC	CIRCUIT	NO	NORMALLY OPEN
CM	CARBON MONOXIDE SENSOR	OFF, OF, or OFC	OVERHEAD
CM	CARBON MONOXIDE	OH	OVERHEAD DOOR
COMB	COMBINATION	P	POLE
CONF	CONFERENCE	PA	PHONE ADDRESS
CP	CEILING PROJECTOR	PB	PUSH BUTTON
CPC	CABLE TERMINATION CABINET	PH	PHASE
CP or CU	COPPER	PI	PUMPING
CP	CONDENSING UNIT	PNL	PANEL
CR	CABINET UNIT HEATER	PR or P	PAIR
DC	DIRECT CURRENT	PRV	POWER ROOF VENTILATOR
DC	DISTRIBUTION CABINET	PS	PULL SWITCH
DISP	DISCONNECT	PRO	PROTECTION
DISP	DISPOSAL	PTZ	PAN TILT ZOOM
DO	DOOR-LEVELER	PVC	POLYVINYL CHLORIDE
DN or DWN	DOWN	PWR	POWER
DO	DOOR	REF	REFLECTED CEILING PLAN
DW	DRAWING	REC or RECEPT	RECEPTACLE
DWG	DRAWING	REF or REFRO	REFRIGERATOR
EC	ELECTRICAL CABINET	RAD	RADIANT HEAT
EF	ELECTRICAL CABINET	R	RANGE HOOD
EH	EXHAUST FAN	RLY	RELAY
EL	ELECTRICAL HEAT	RMT	ROOM MEAN SQUARE
ELC	ELECTRIC OR ELECTRICAL	SCC	SHORT CIRCUIT CURRENT
ELC	ELECTRIC HAND DRYER	SDR	SMOKE DETECTOR
EM or EMERG	EMERGENCY	SFC	SAFETY RECEPTACLE
EM	ELECTRICAL METALLIC TUBING	SFT	SAFETY
EN	ELECTRICAL NON-METALLIC TUBING	SHLD	SHIELD OR SHIELDED
EW	ELECTRIC WATER COOLER	SKN	SKIN
DW	ELECTRIC WATER COOLER	SMR	SURFACE MOUNT HANGING
EX	EXISTING	SN	SOLID NEUTRAL
EXP	EXPLOSION PROOF	SP	SPACER
F or FUS	FUSE OR FUSIBLE	SPCS	SPECIFICATIONS
FA	FIRE ALARM	SPR	SPRINKLER
FAC	FIRE ALARM ANNUNCIATOR PANEL	SPR	SPRINT FIRE RECEPTACLE
FACP	FIRE ALARM CONTROL PANEL	SW	SWITCH
FR	FURNISHED BY OTHERS	TC	TEMPERATURE
FL or FLU or FLUR	FLOURESCENT	TC	TELEPHONE CABINET
FLA	FULL LOAD AMPERES	TCG	TEMPERATURE CONTROL CONTRACTOR
FLV	FULL VOLTAGE NON-REVERSING	TEL	TELEPHONE
FVR	FULL VOLTAGE, REVERSING	TEL	TELEPHONE
GC	GENERAL CONTRACTOR	TS	TRANSFORMER
GC	GENERATOR	TS	TRANSFORMER
GFI or GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TV	TELEVISION
GND	GALVANIZED IRON CONDUIT	TVB	TELEPHONE TERMINATION BOARD
GND or G/RND	GROUND	TVS	TELEVISION
H & AC	HEATING & AIR CONDITIONING	TVS	TRANSLANT VOLTAGE SURGE SUPPRESSION
H & AC	HEATING & AIR HEATING	U	UNDERGROUND
HA	HANDICAP ACCESS DOOR	UH	UNIT HEATER
HA	HAND DRYER	U	UNIT VENTILATOR
HPS	HIGH INTENSITY DISCHARGE	V	VOLT
HP	HIGH PRESSURE	VFD	VARIABLE FREQUENCY DRIVE
HPS	HIGH PRESSURE SODIUM	W	WATT
HTR	HEATING	W	WATT
HTR	HEATER	WT	WEATHERPROOF
HVAC	HEATING, VENTILATION & AIR CONDITIONING	WR or +D	WATER
HVAC	HERTZ (CYCLES/SEC)	WS	WINDOW SHADE
I	INTER interrupting CURRENT	XMR	TRANSFORMER
IGR	ISOLATED GROUND RECEPTACLE	Y	YIELD CONNECTION
ICR	INTERMEDIATE METAL CONDUIT	Ø	PHASE
INC	INCANDESCENT	Δ	DELTA
ISO	ISOLATED OR ISOLATION		
J or J or J-BOX	JUNCTION BOX		
KCMIL	THOUSAND CIRCULAR MILS		
KILOVOLT	KILOVOLT		
KVA	KILOVOLT - AMPERE		
KVAR	KILOVOLT - AMPERE REACTIVE		
KV	KILOVOLT		
KWH	KILOWATT - HOUR		

## STARTER DISCONNECT SCHEDULE

UNIT TYPE	UNIT NUMBER	KW	MOTOR		VOLTAGE	PHASES	STARTER TYPE	STARTER NEMA SIZE	STARTER ENCLOSURE TYPE	STARTER KEY FEATURES	CONTROL	DISCONNECT SWITCH	DISCONNECT FUSE SIZE	COMMENTS
C			0 hp	4 A	208 V	1	INTEGRAL				BY DIV 22/23	30A, 2P, NFD		
BH	1		0.1 hp	0 A	120 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	LOCKABLE DISCONNECT
EF	1		0.25 hp		120 V	1	MMS	0	NEMA 1	-	BY DIV 22/23	INTEGRAL TO STARTER	-	COMBINATION STARTER/DISCONNECT
EWB	1	1.5	0 hp	14 A	120 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	
P	1		0.4 hp		120 V	1	MMS	0	NEMA 1	-	BY DIV 22/23	INTEGRAL TO STARTER	-	
UH	1		0.125 hp		120 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	
UH	2		0.125 hp		120 V	1	INTEGRAL	-	-	-	BY DIV 22/23	INTEGRAL TO UNIT	-	

## LIGHTING FIXTURE SCHEDULE

FIXTURE MARK	FIXTURE TYPE	FIXTURE DIFFUSER	VOLTAGE	LUMEN OUTPUT / WATTAGE	COLOR TEMP	MOUNTING TYPE	MOUNTING HEIGHT	MANUFACTURER	MODEL	COMMENTS
A4	4' STRIP	ACRYLIC	MVOLT	5,000L / 33W	4000K	SURFACE	CEILING	HE WILLIAMS OR EQUAL	75R-L50	80CRI
A8	8' STRIP	ACRYLIC	MVOLT	10,000L / 66W	4000K	SURFACE	CEILING	HE WILLIAMS OR EQUAL	75R-L100	80CRI
W	EXTERIOR WALL SCONCE	SDGL	MVOLT	6,000L / 49W	4000K	WALL	9' AFG	HE WILLIAMS OR EQUAL	VWVPV	TYPE 4 FT (FORWARD THROW), FINISH SELECTED BY ARCHITECT

