

UPDATE FACILITY, WELCOME CENTER

Project Issue Date: 09/09/2019

MSU Project Number: 241114-041

Other Project Number:



Planning | Design | Construction

901 S. National Avenue Springfield, Missouri 65897
Phone: (417) 836-5101 Fax: (417) 836-6884 design.missouristate.edu

General Project Notes

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2012 EDITION.
- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2011 EDITION OF THE NATIONAL ELECTRIC CODE.
- THE DRAWINGS PROVIDED ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. FIELD VERIFY ALL EXISTING DIMENSIONS.
- PROVIDE SUBMITTALS AND SHOP DRAWINGS FOR ALL MATERIALS AND PRODUCTS TO BE USED ON THE PROJECT AS SOON AS POSSIBLE AFTER THE AWARD OF THE CONTRACT. THE SUBMITTALS SHALL BE REVIEWED FOR EQUAL QUALITY AND PERFORMANCE AS COMPARED TO THE SPECIFIED PRODUCTS. THE OWNER SHALL MAKE ALL FINAL DETERMINATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE THE FULL COORDINATION OF HIS WORK INCLUDING ALL SUBCONTRACTORS AND WITH ANY OTHER CONTRACTORS ON THE PROJECT. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. CHANGE ORDERS FOR UNANTICIPATED EXISTING CONDITIONS THAT COULD HAVE BEEN EXAMINED PRIOR TO BID WILL NOT BE APPROVED.
- THE CONTRACTOR SHALL SCHEDULE AND EXECUTE ALL WORK WITH REGARD TO THE OWNER'S USE OF THE BUILDING.
- SPECIFIED EQUIPMENT SHALL SET THE STANDARD FOR PERFORMANCE AND QUALITY. NO EQUIPMENT OR MATERIAL SUBSTITUTIONS SHALL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE AND FUNCTIONAL SYSTEM REGARDLESS OF WHETHER OR NOT ALL ELEMENTS ARE SPECIFICALLY CALLED OUT.
- ALL LABOR, MATERIALS AND EQUIPMENT FOR THE PROJECT TO BE PROVIDED BY THE CONTRACTOR.
- THE CONSTRUCTION SITE SHALL AT ALL TIMES BE KEPT FREE FROM DEBRIS, WASTE AND RUBBISH. THE PREMISES SHALL BE MAINTAINED IN A MANNER TO PROVIDE A SAFE ENVIRONMENT FOR WORKERS AND THE PUBLIC. CONDUCT CLEANING AND DISPOSAL OPERATIONS TO COMPLY WITH ALL LOCAL ORDINANCES AND ANTI POLLUTION LAWS.
- CONTRACTOR SHALL MAINTAIN ALL LIFE SAFETY SYSTEMS AND MEANS OF EGRESS DURING CONSTRUCTION.
- THE CONTRACTOR WILL DOCUMENT EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.
- UPON COMPLETION OF THE PROJECT, A "PUNCHLIST" WILL BE COMPILED BY THE OWNER, WHICH WILL CONSIST OF ITEMS IN NEED OF CORRECTION AND UNSATISFACTORY AND/OR INCOMPLETE WORK. FINAL PAYMENT WILL BE CONTINGENT UPON THE CORRECTION AND SUBSEQUENT APPROVAL OF THESE ITEMS.
- ALL SURFACES SHALL BE PROPERLY PREPARED BEFORE THE APPLICATION OF FINISH MATERIALS. CONTRACTOR SHALL INSPECT AND ACCEPT SUBSTRATE PRIOR TO INSTALLATION OF FINISH MATERIALS. TO BEGIN THE APPLICATION OF FINISH MATERIAL MEANS THE CONTRACTOR ACCEPTS THE SURFACE AND SUBSEQUENT RESPONSIBILITY FOR THE APPEARANCE OF THE FINAL FINISH.

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- A0.0 - COVER SHEET
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Drawn By: MBM

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Seal:

PRICING SET

Sheet Title:

TITLE SHEET

Sheet #:

A0.0

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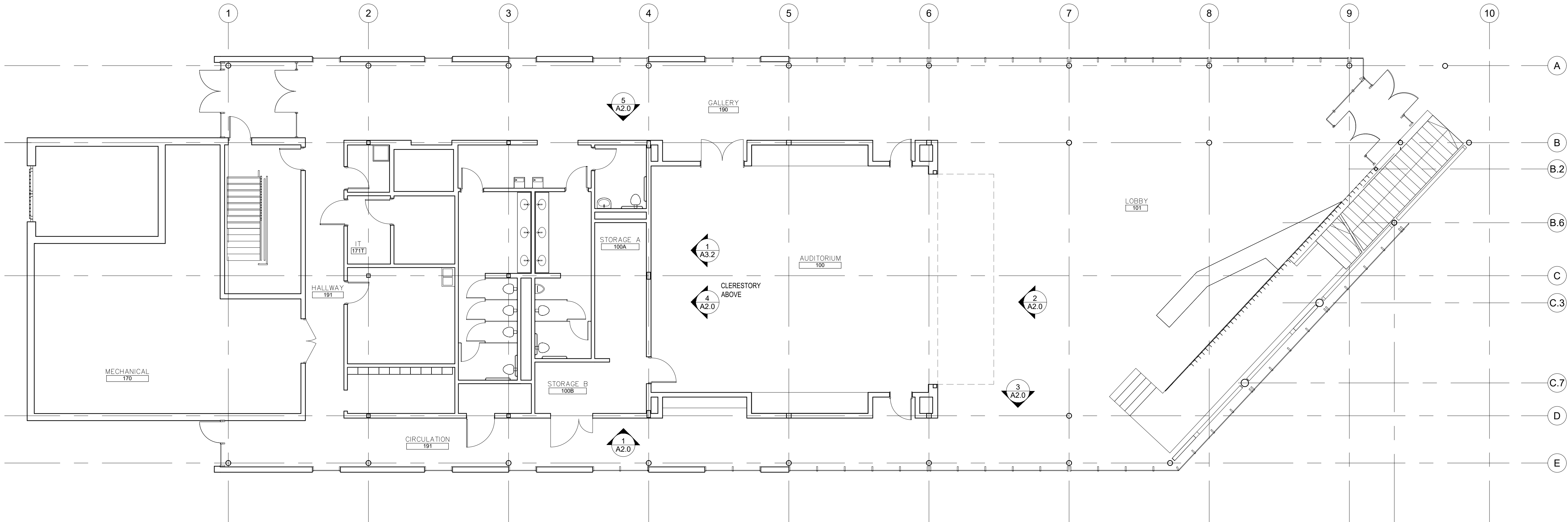
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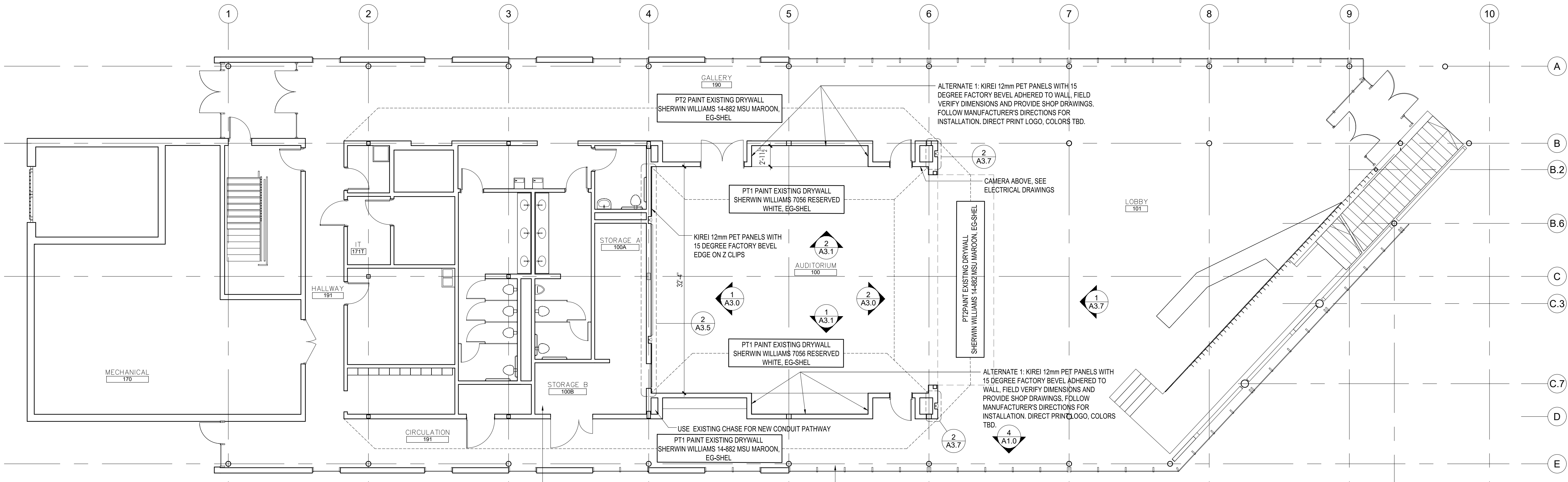
FLOOR PLANS

Sheet #:

A1.0



1 EXISTING FLOOR PLAN
SCALE: 1/8" = 1'-0"



2 FLOOR PLAN
SCALE: 1/8" = 1'-0"

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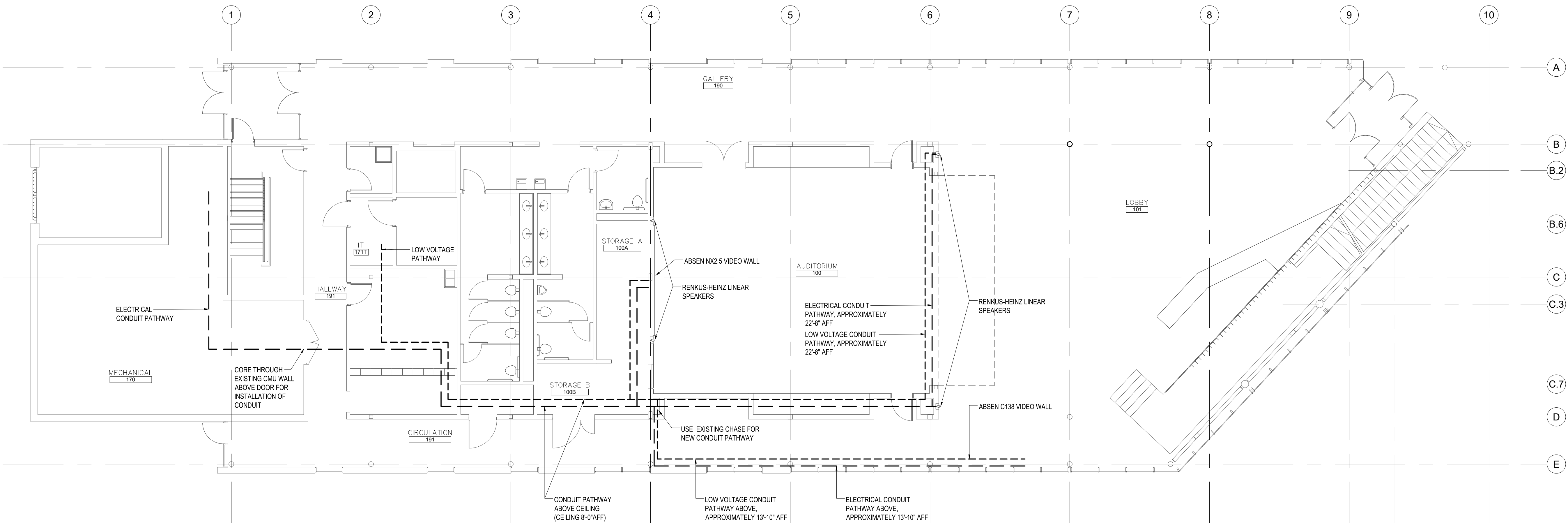
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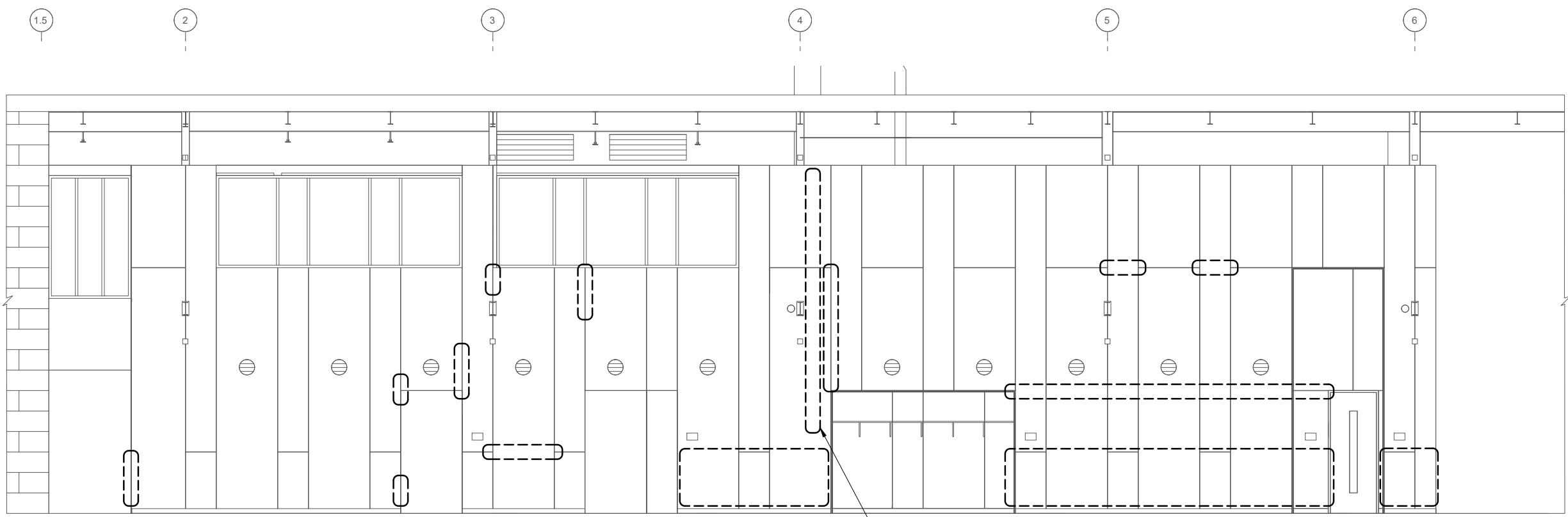
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**CONDUIT
PATHWAYS**

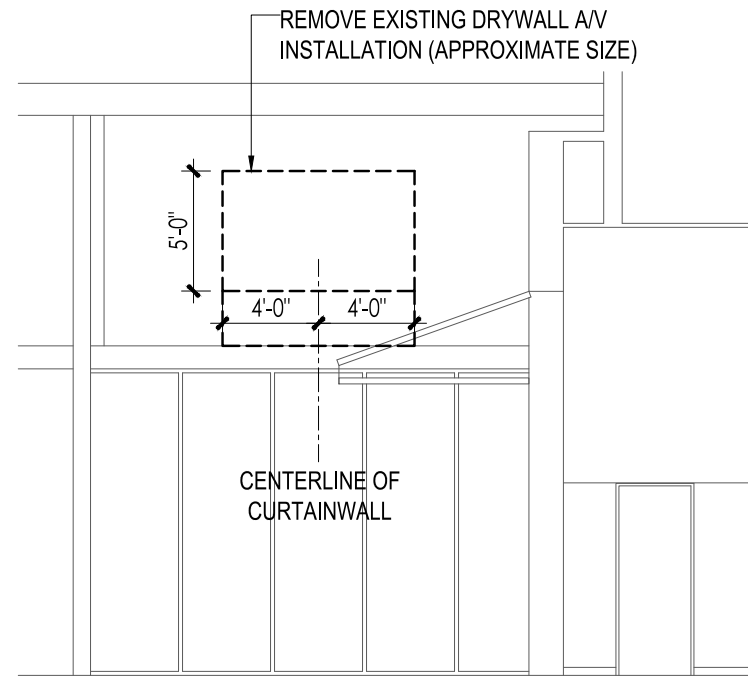
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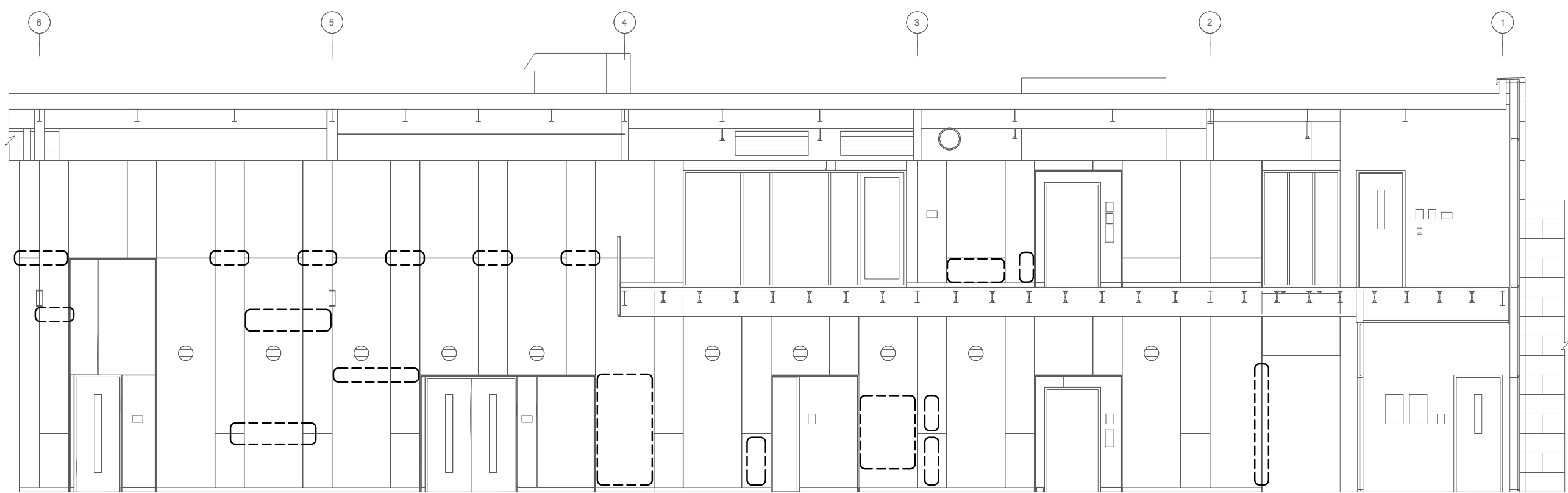
1 FLOOR PLAN
A1.1 SCALE: 1/8" = 1'-0"



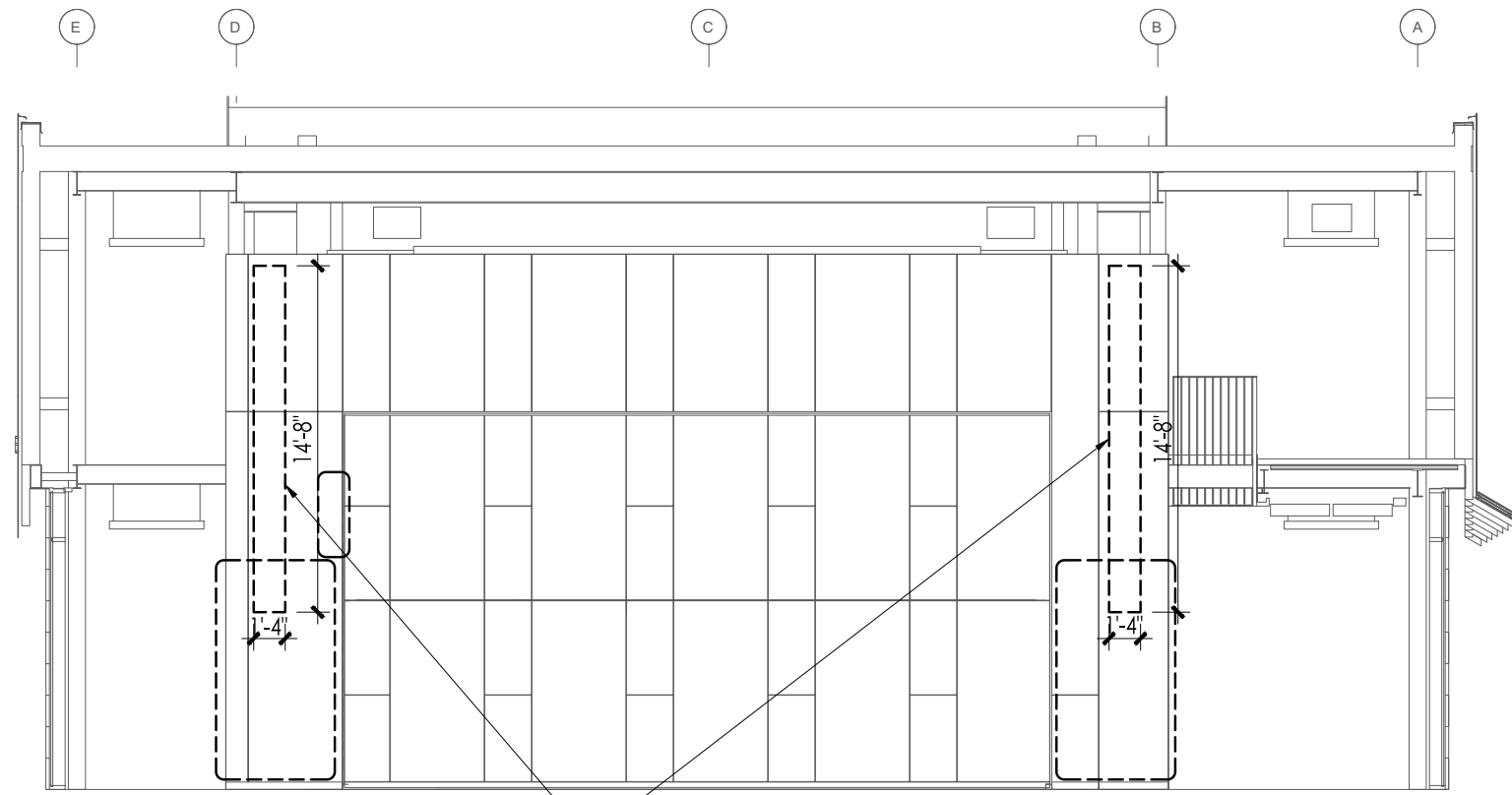
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A2.0 **ELEVATION - EXISTING DRYWALL REPAIR**
SCALE: 1/8" = 1'-0"



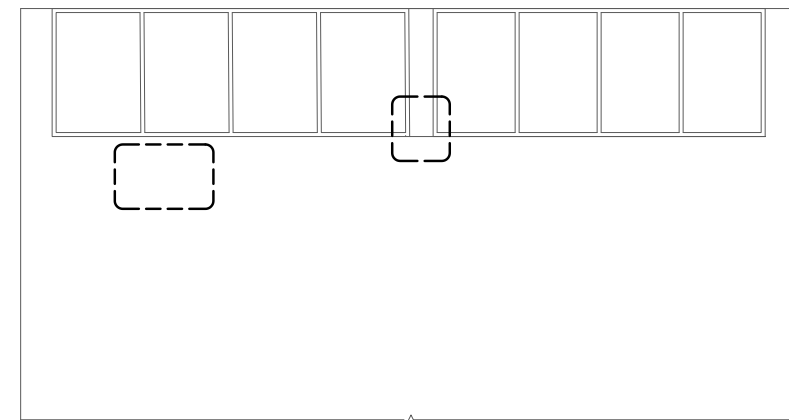
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A2.0 **ELEVATION-DRYWALL REMOVAL FOR A/V**
SCALE: 1/8" = 1'-0"



5
A2.0 **ELEVATION - DRYWALL REPAIR**
SCALE: 1/8" = 1'-0"



2
A2.0 **ELEVATION-DRYWALL REMOVAL FOR A/V**
SCALE: 1/8" = 1'-0"



4
A2.0 **ELEVATION - DRYWALL REPAIR @ CLERESTORY**
SCALE: 1/8" = 1'-0"

AREAS OF DRYWALL
REMOVAL AND REPAIR

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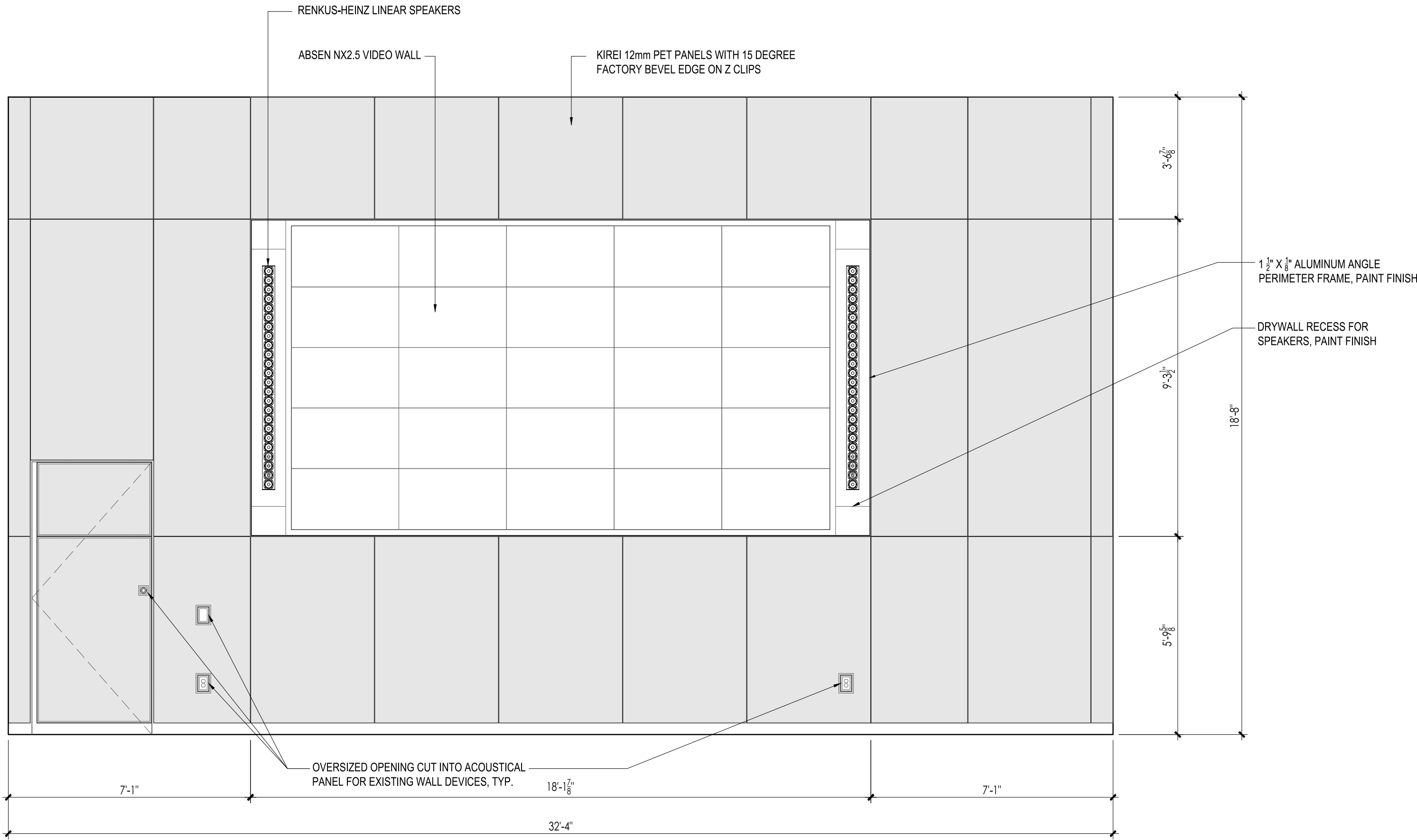
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**DRYWALL
REMOVAL AND
REPAIR**

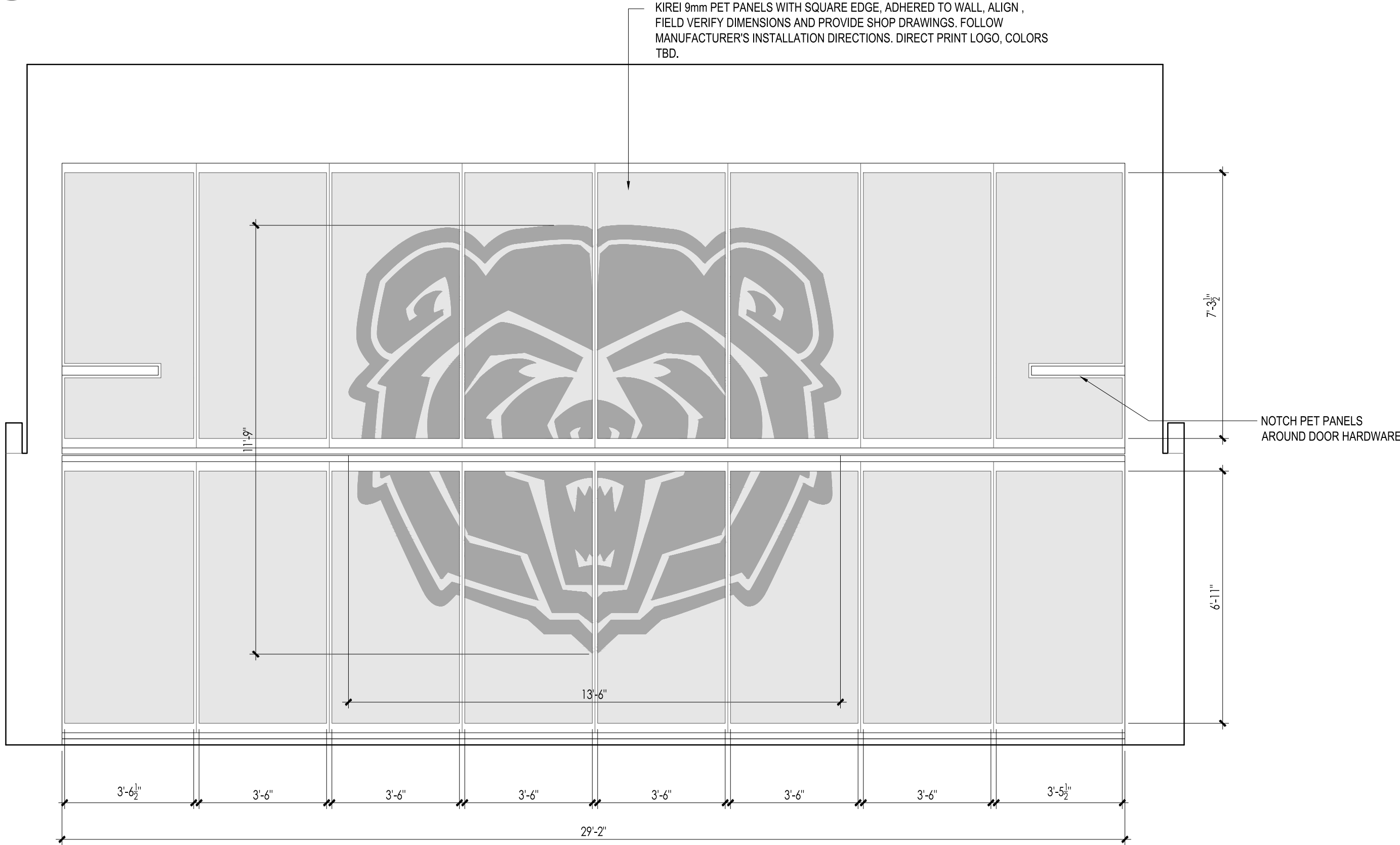
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A2.0



KIREI PET ACOUSTICAL PANELS CONTACT
SAMANTHA ODDO, SALES OPERATION
SUPERVISOR, 619.236.9924 X317

1
A3.0 **ELEVATION - SOUTH WALL ACOUSTICAL PANELS**
SCALE: 3/8" = 1'-0"



2
A3.0 **NORTH ELEVATION: ALTERNATE 1 - HANGER DOOR ACOUSTICAL PANELS**
SCALE: 3/8" = 1'-0"

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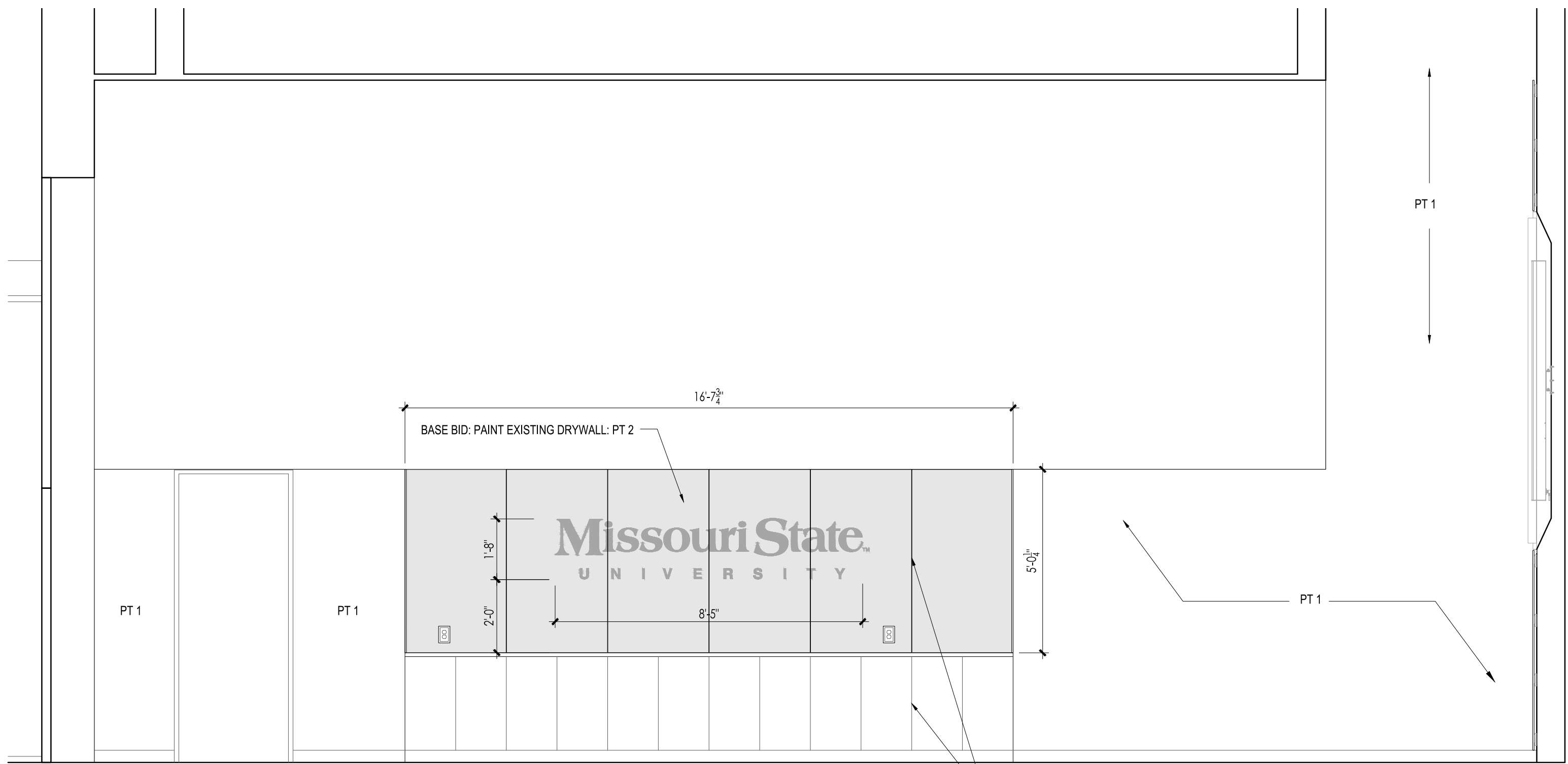
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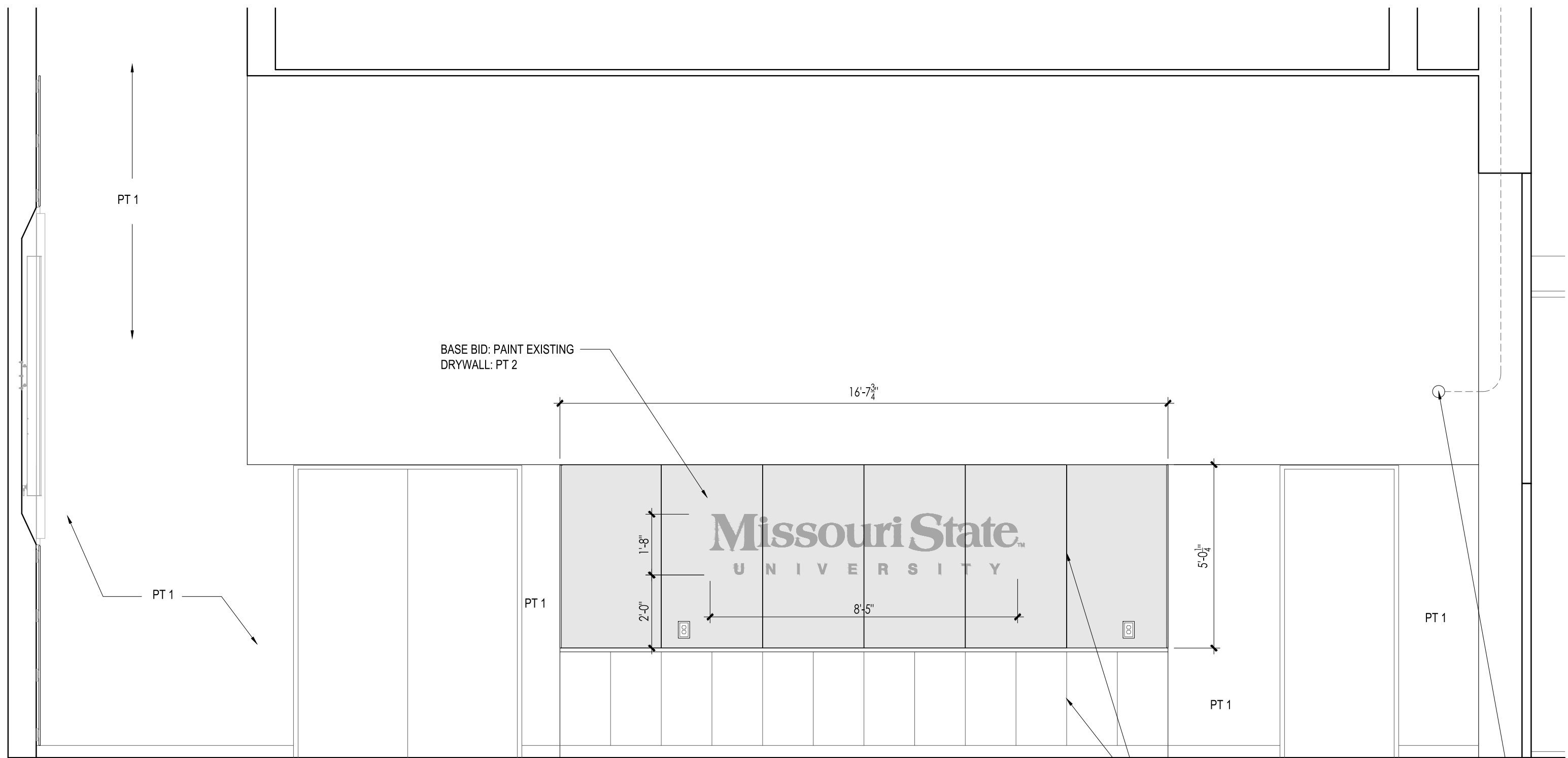
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**INTERIOR
ELEVATIONS**

Sheet #:
A3.0



1 EAST ELEVATION: ALTERNATE 1 - ACOUSTICAL PANELS
A3.1 SCALE: 3/8" = 1'-0"



2 WEST ELEVATION: ALTERNATE 1 - ACOUSTICAL PANELS
A3.1 SCALE: 3/8" = 1'-0"

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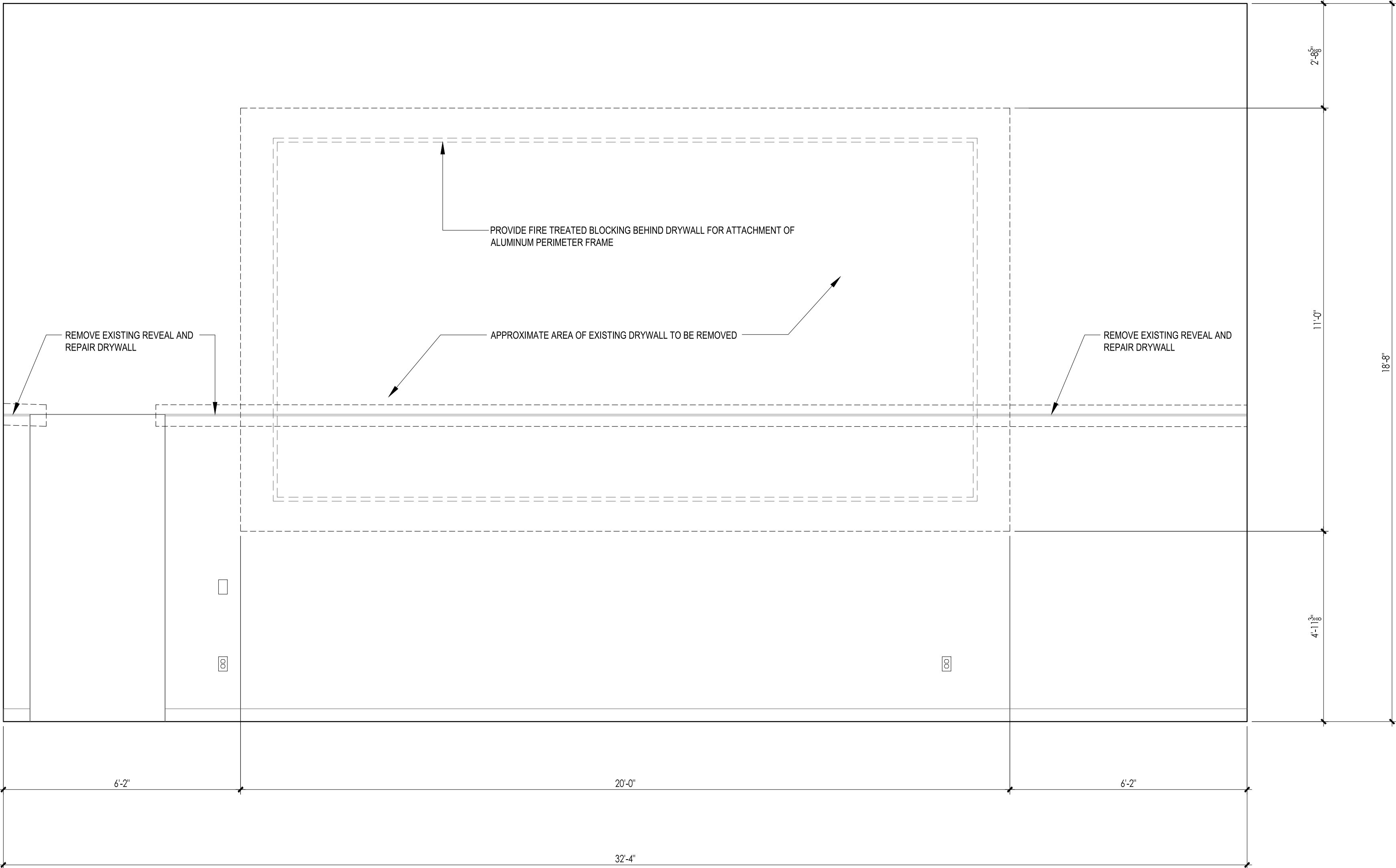
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Sheet Title:

**INTERIOR
ELEVATIONS**

Sheet #:

A3.1



1
A3.2 **AUDITORIUM SOUTH ELEVATION - REMOVAL**
SCALE: 1/2" = 1'-0"

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**INTERIOR
ELEVATIONS**

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A3.2

Project Title:

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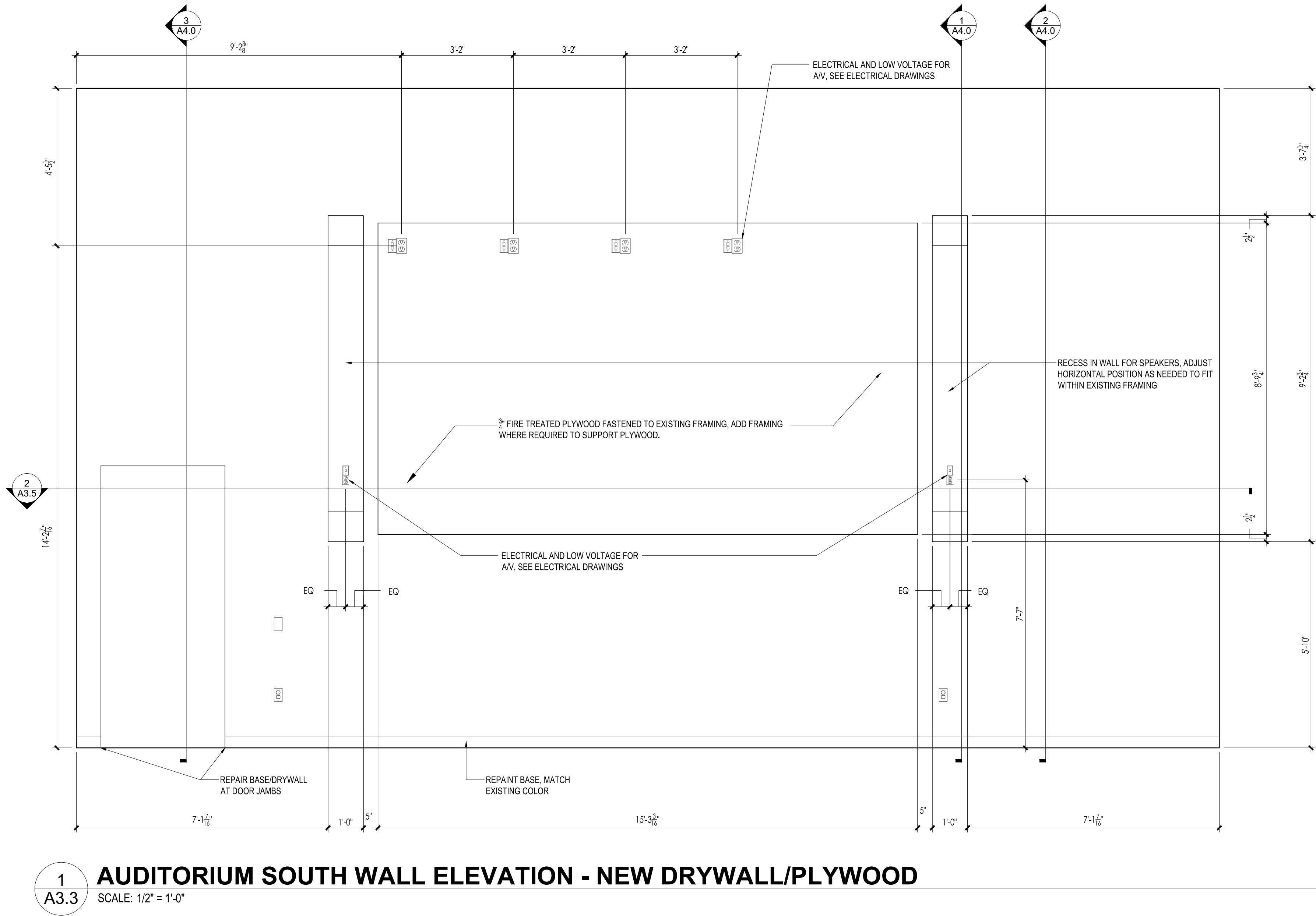
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INTERIOR
ELEVATIONS

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A3.3



Project Title:

**UPDATE FACILITY,
WELCOME CENTER**

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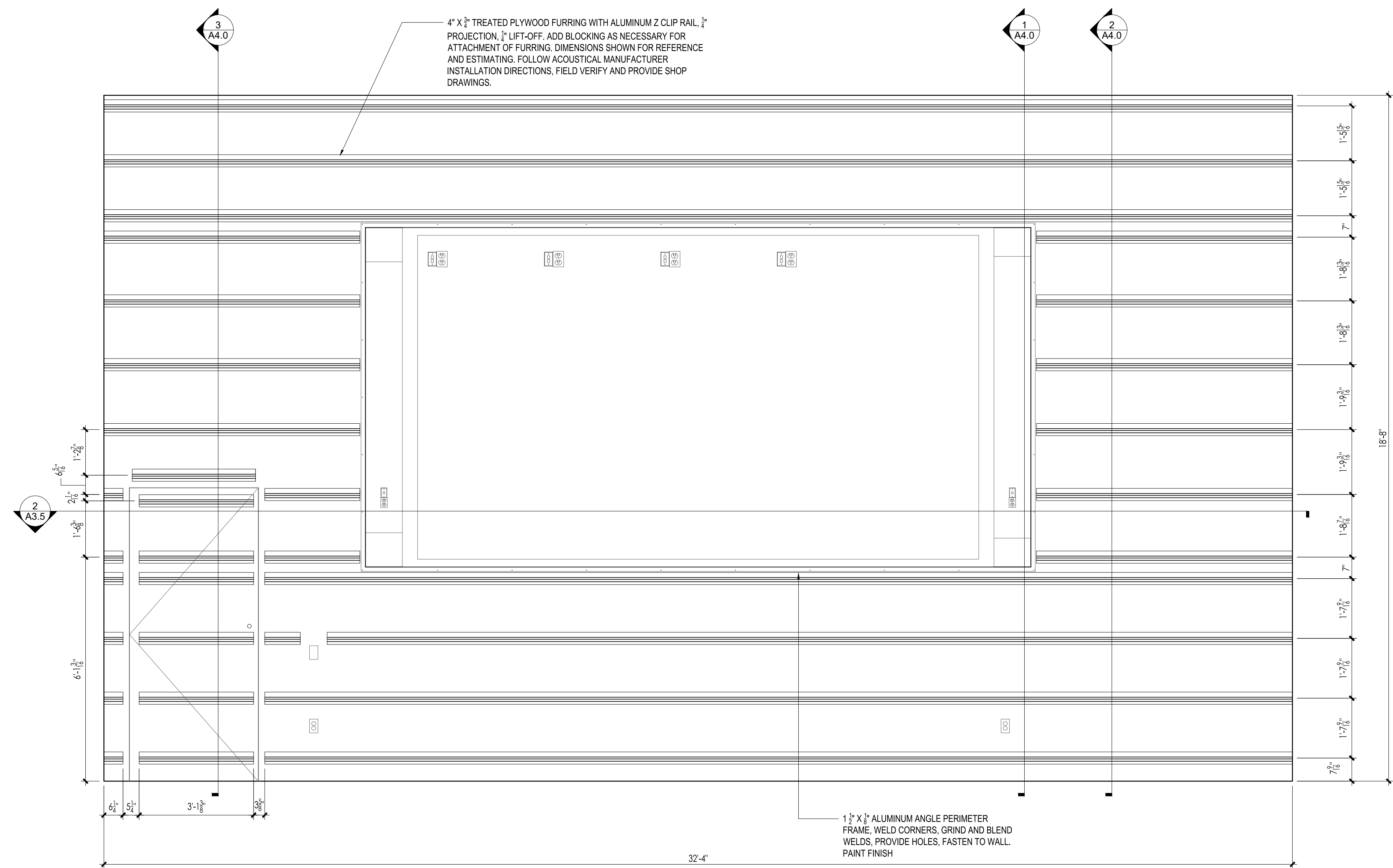
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Sheet Title:

**INTERIOR
ELEVATIONS**

Sheet #:

A3.4



1
A3.4 **AUDITORIUM SOUTH WALL ELEVATION - PLYWOOD FURRING**
SCALE: 1/2" = 1'-0"

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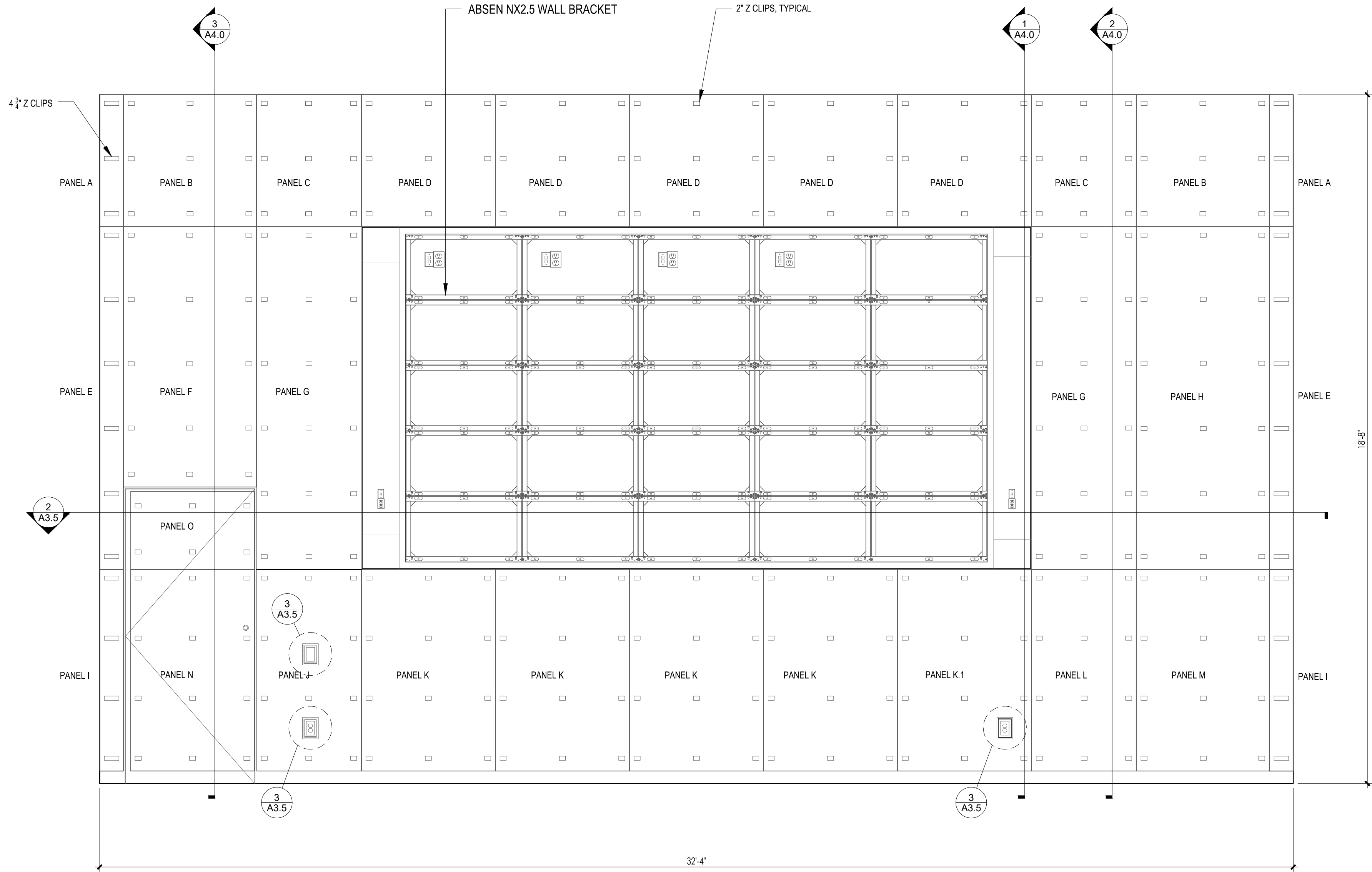
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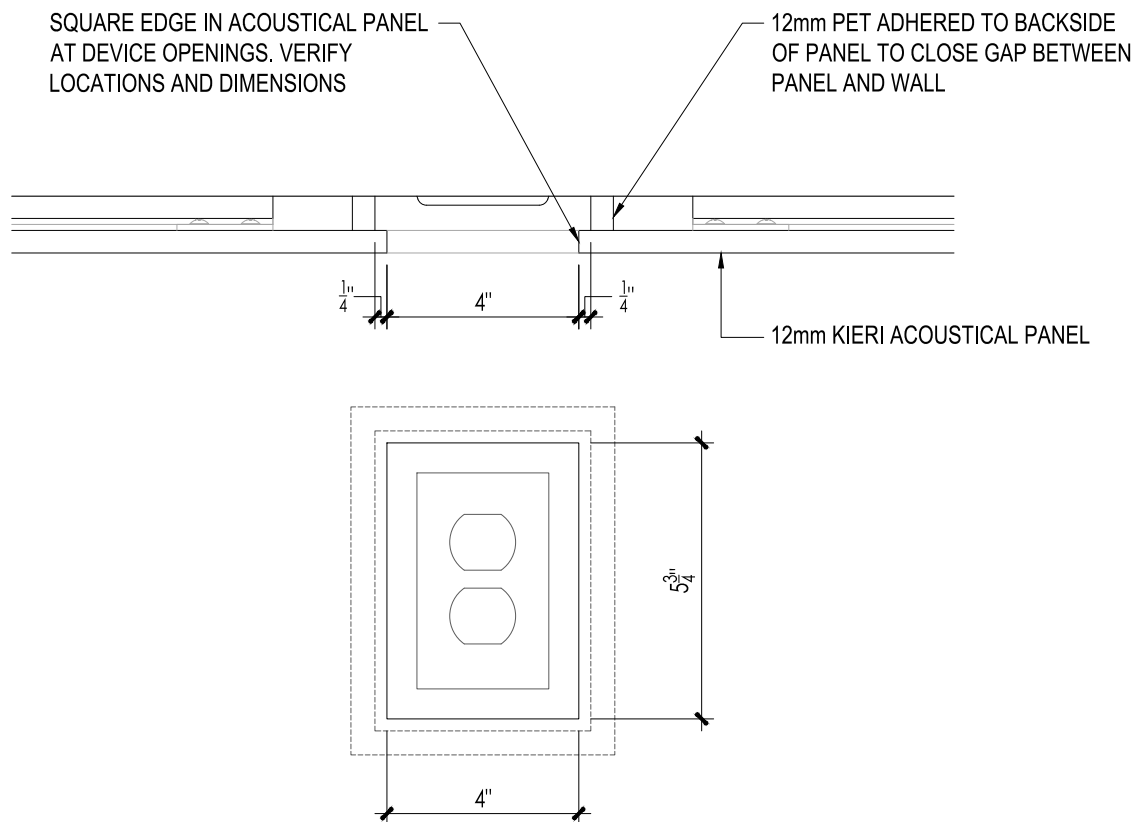
INTERIOR
ELEVATIONS AND
DETAILS

Sheet #:

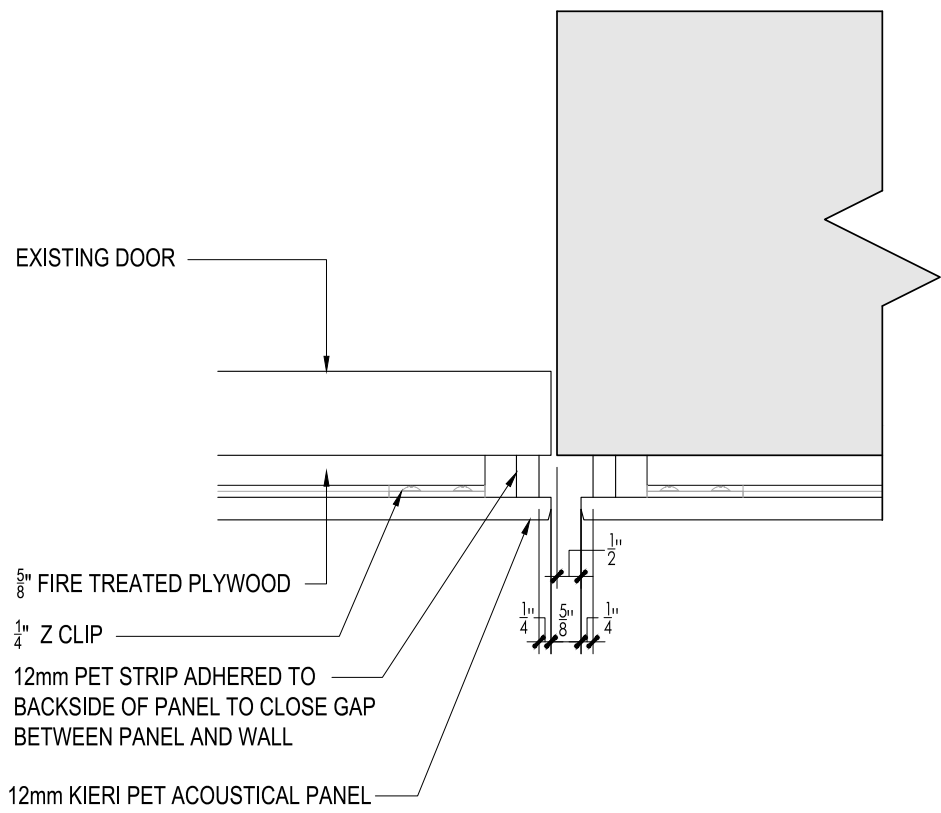
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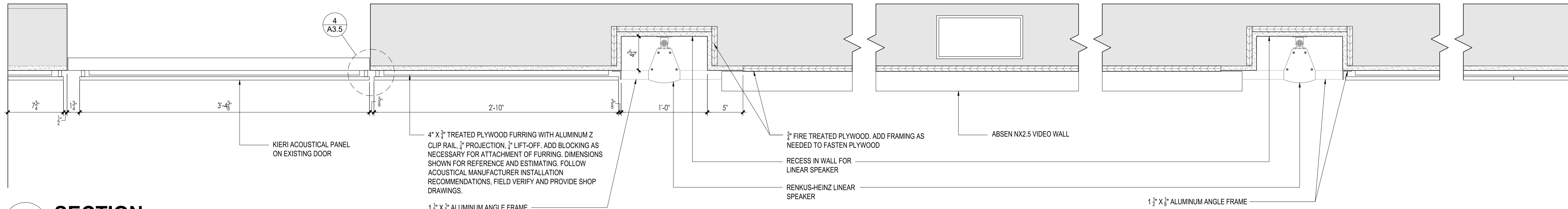
1 AUDITORIUM SOUTH ELEVATION - ACOUSTICAL PANELS
SCALE: 1/2" = 1'-0"



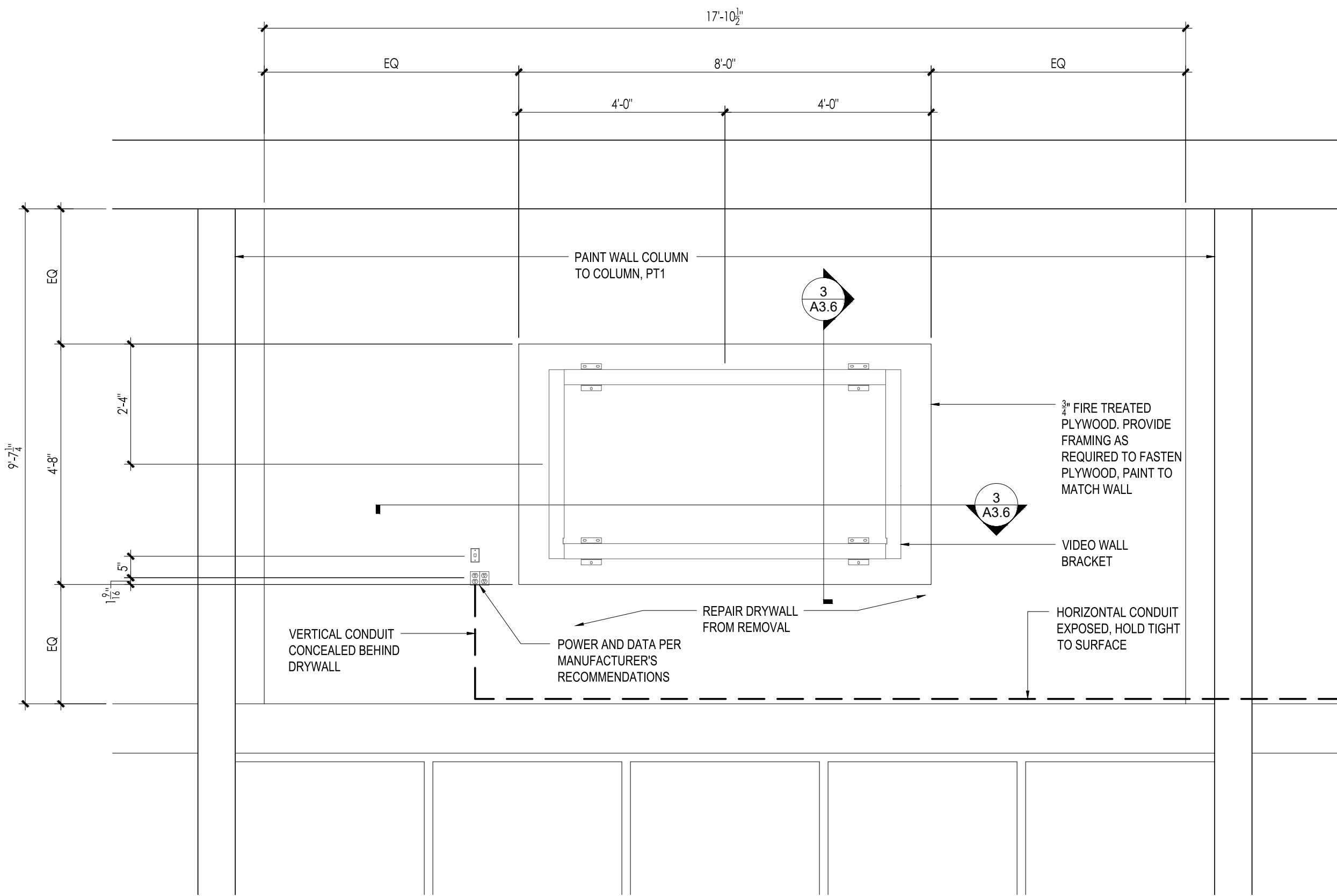
3 DETAIL AT WALL DEVICES
SCALE: 3" = 1'-0"



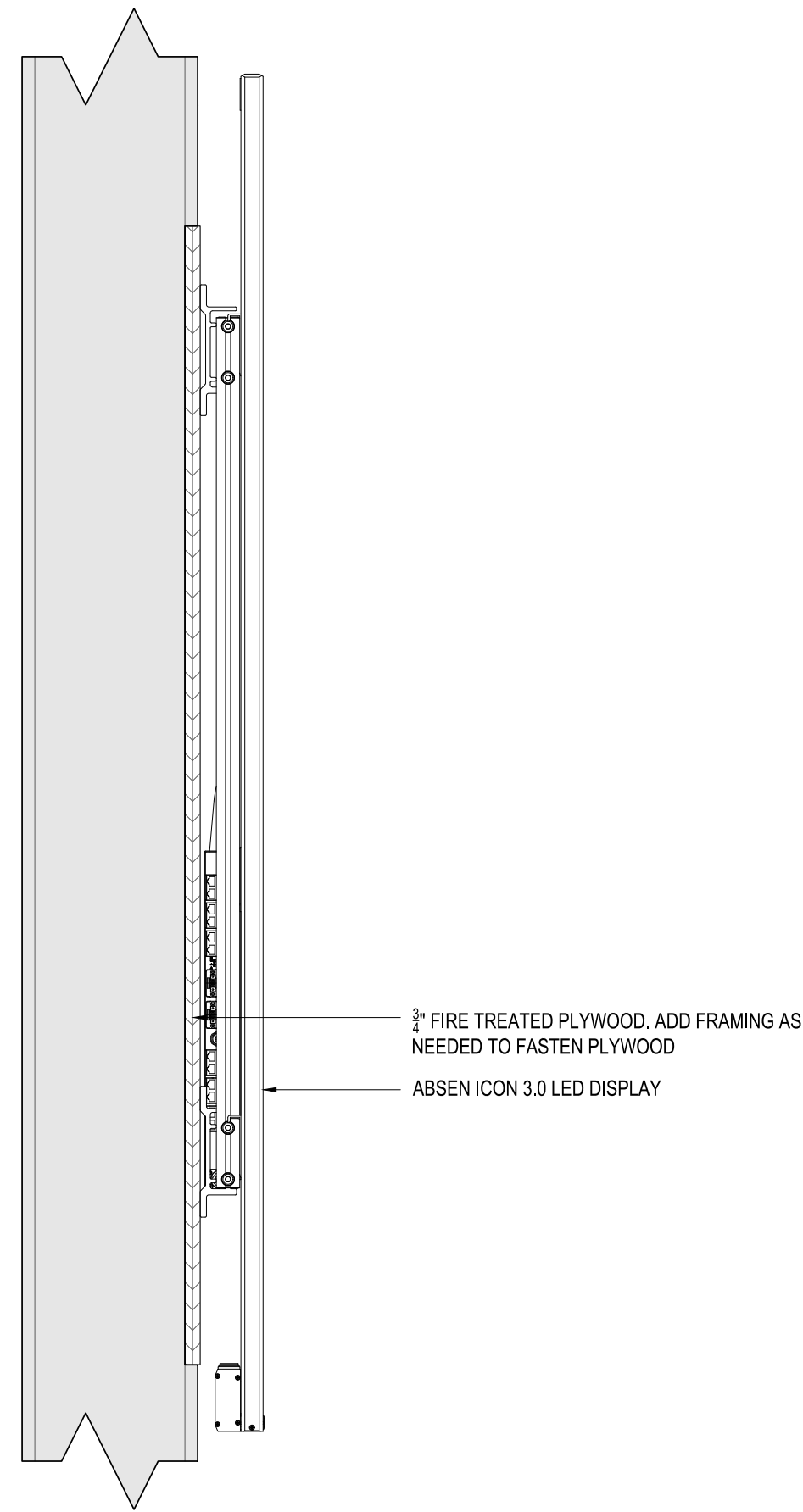
4 DETAIL AT DOOR
SCALE: 3" = 1'-0"



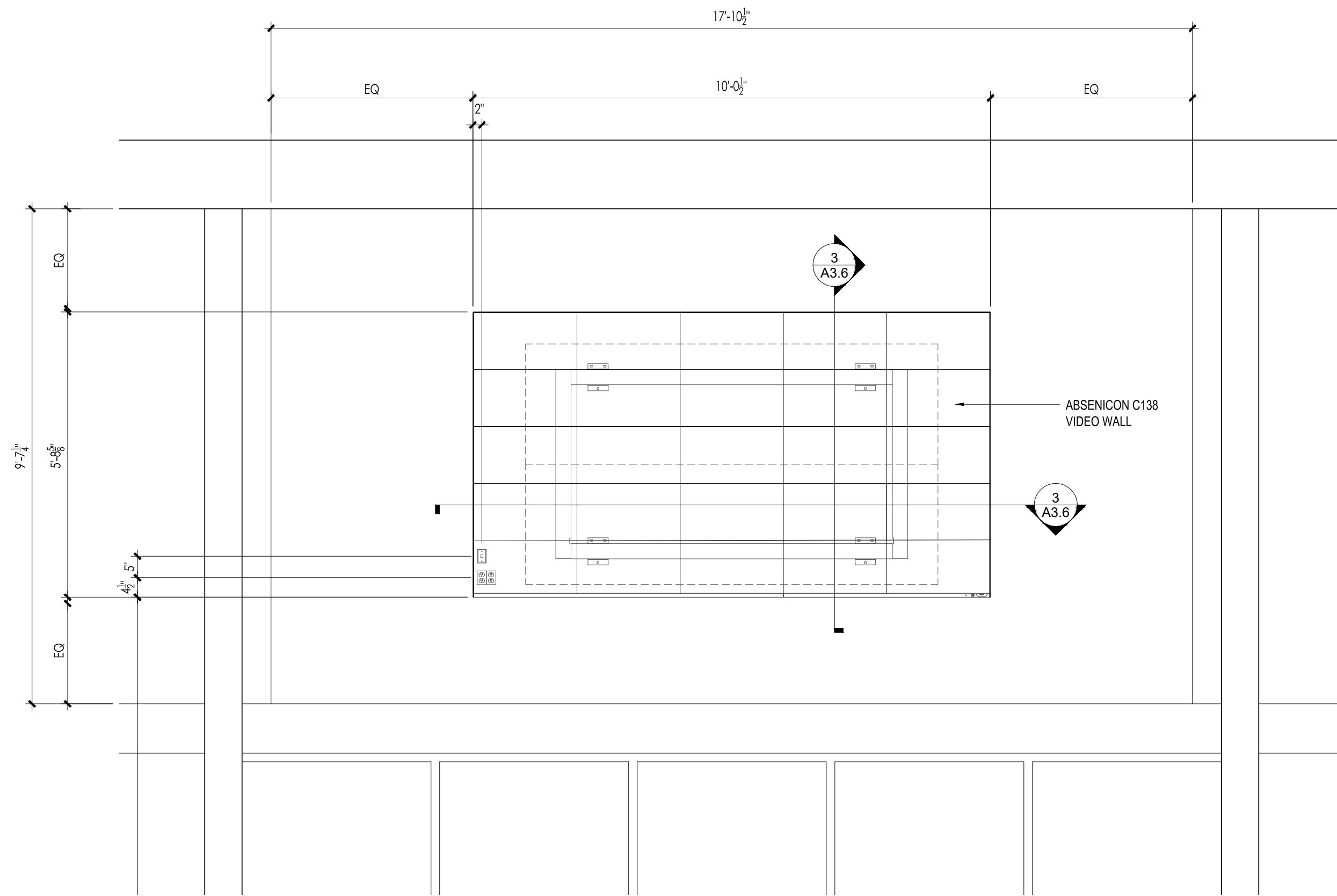
2 SECTION
SCALE: 1 1/2" = 1'-0"



1
A3.6
ELEVATION - LOBBY VIDEO WALL
SCALE: 1/2" = 1'-0"



3
A3.6
SECTION
SCALE: 1 1/2" = 1'-0"



2
A3.6
ELEVATION - LOBBY VIDEO WALL
SCALE: 1/2" = 1'-0"

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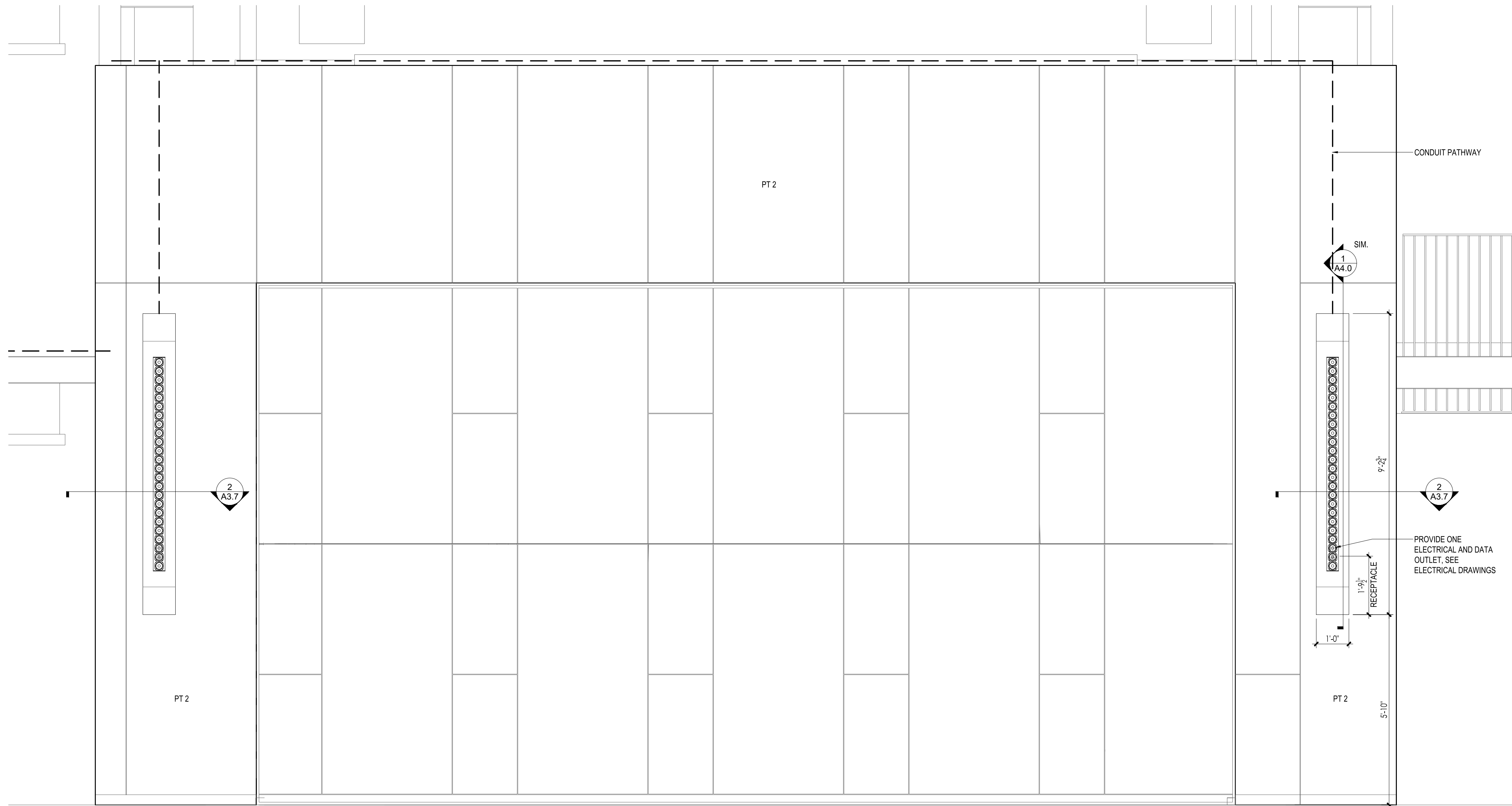
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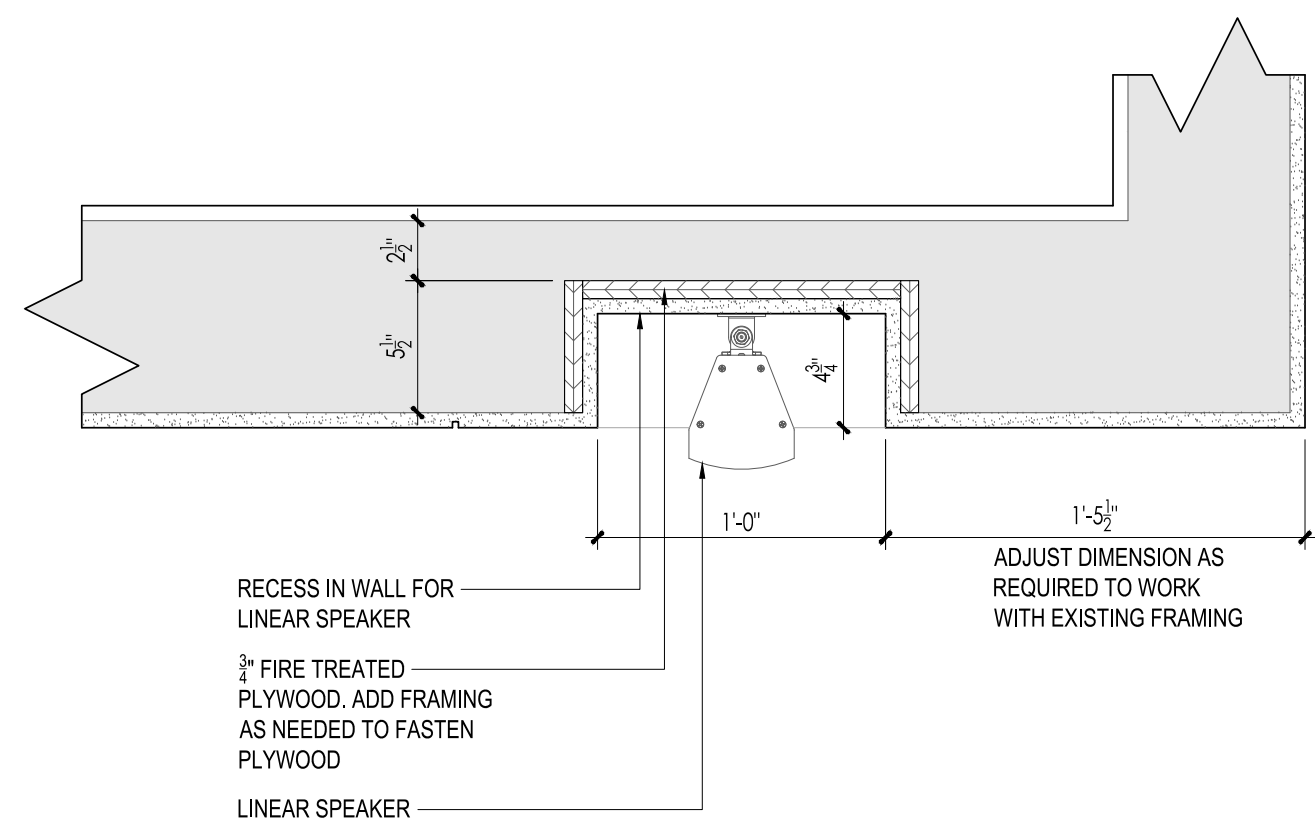
**INTERIOR
ELEVATIONS**

Sheet #:

A3.6



1
A3.7 **ELEVATION - LOBBY WALL**
SCALE: 1/2" = 1'-0"



2
A3.7 **SECTION**
SCALE: 1 1/2" = 1'-0"

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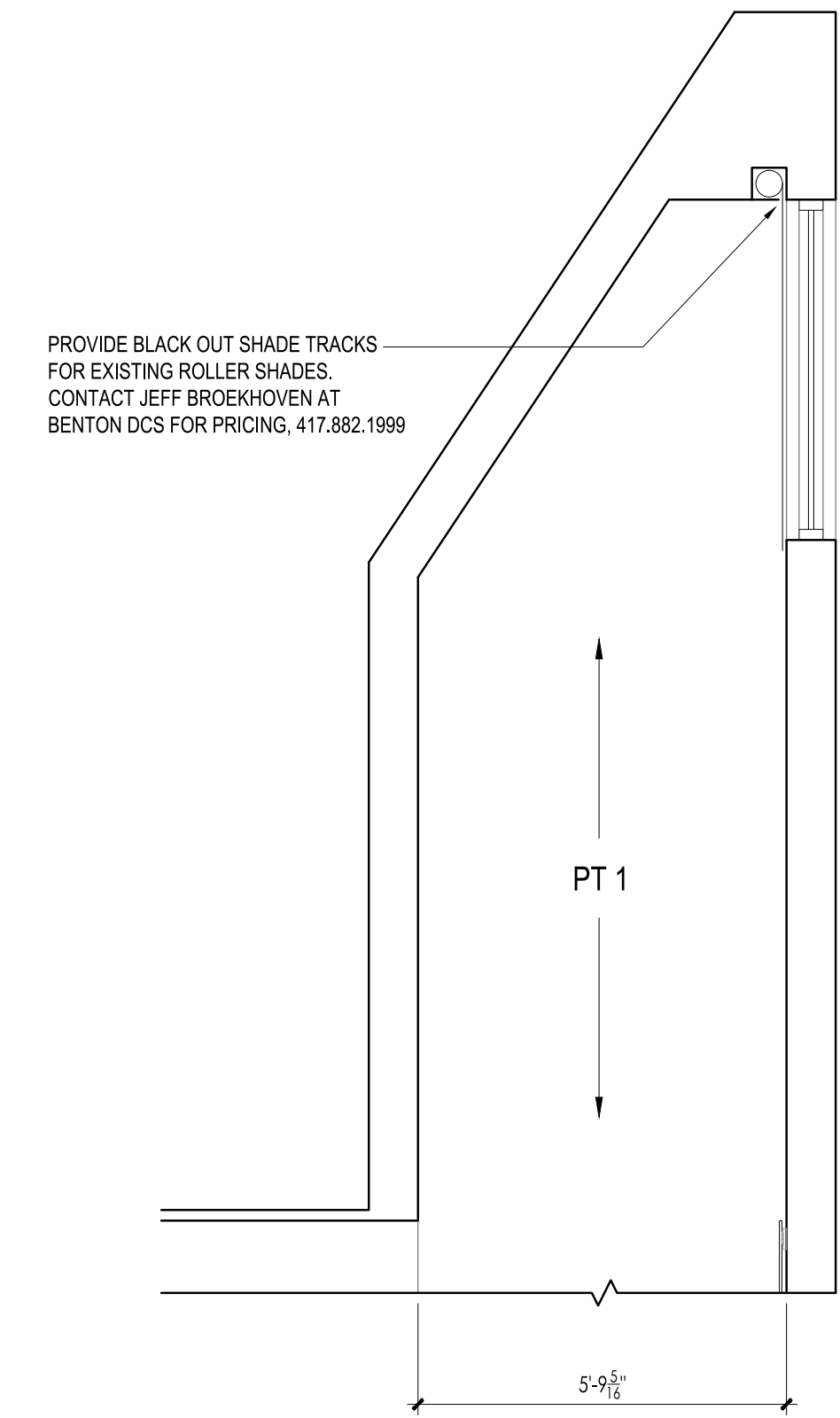
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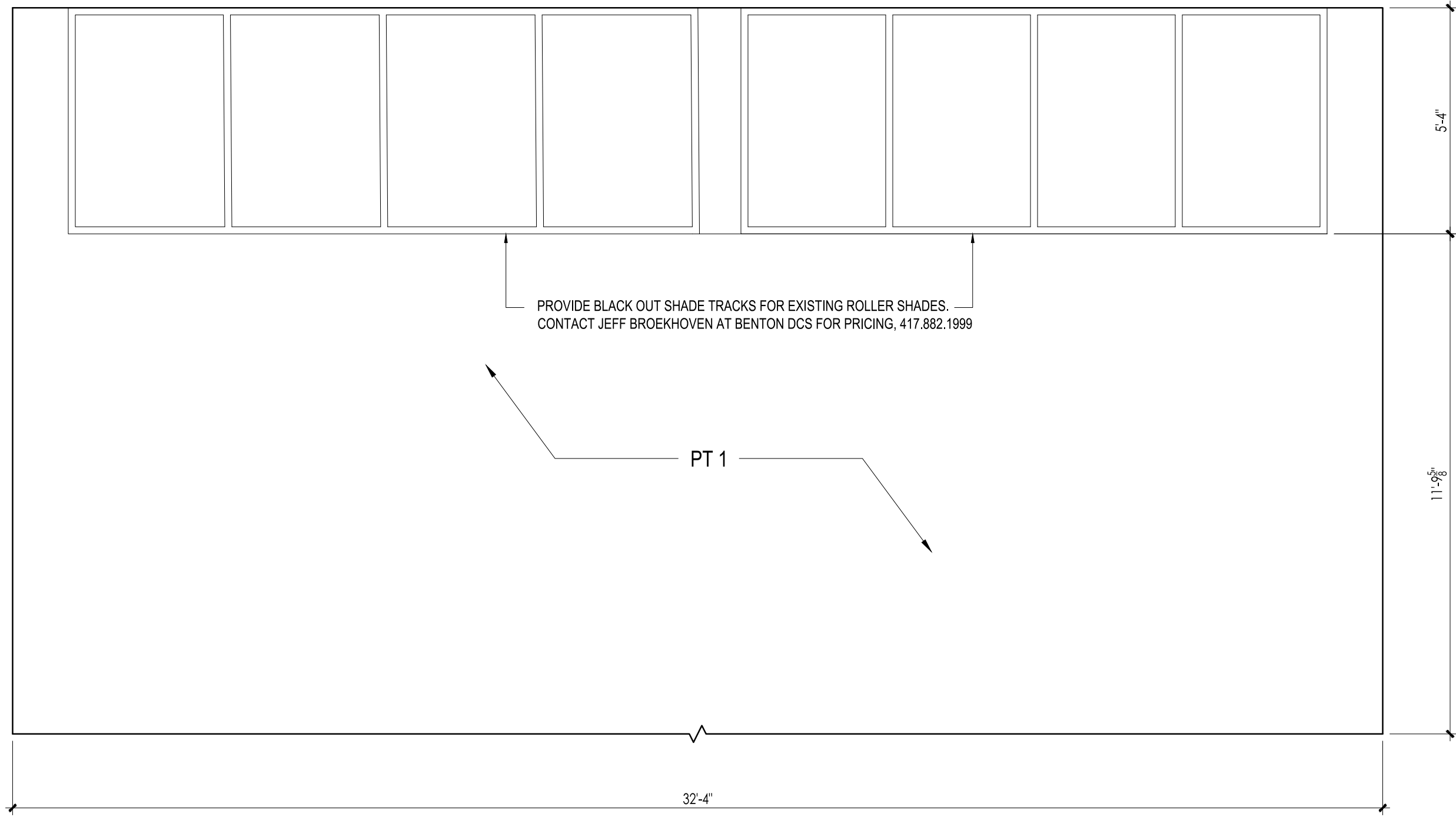
**INTERIOR
ELEVATIONS**

Sheet #:

A3.7



1
A3.8 CLERESTORY SECTION
SCALE: 3/8" = 1'-0"



1
A3.8 CLERESTORY SOUTH ELEVATION
SCALE: 3/8" = 1'-0"



1
A3.8 ALUMINUM ANGLE FRAME
SCALE: 3/4" = 1'-0"

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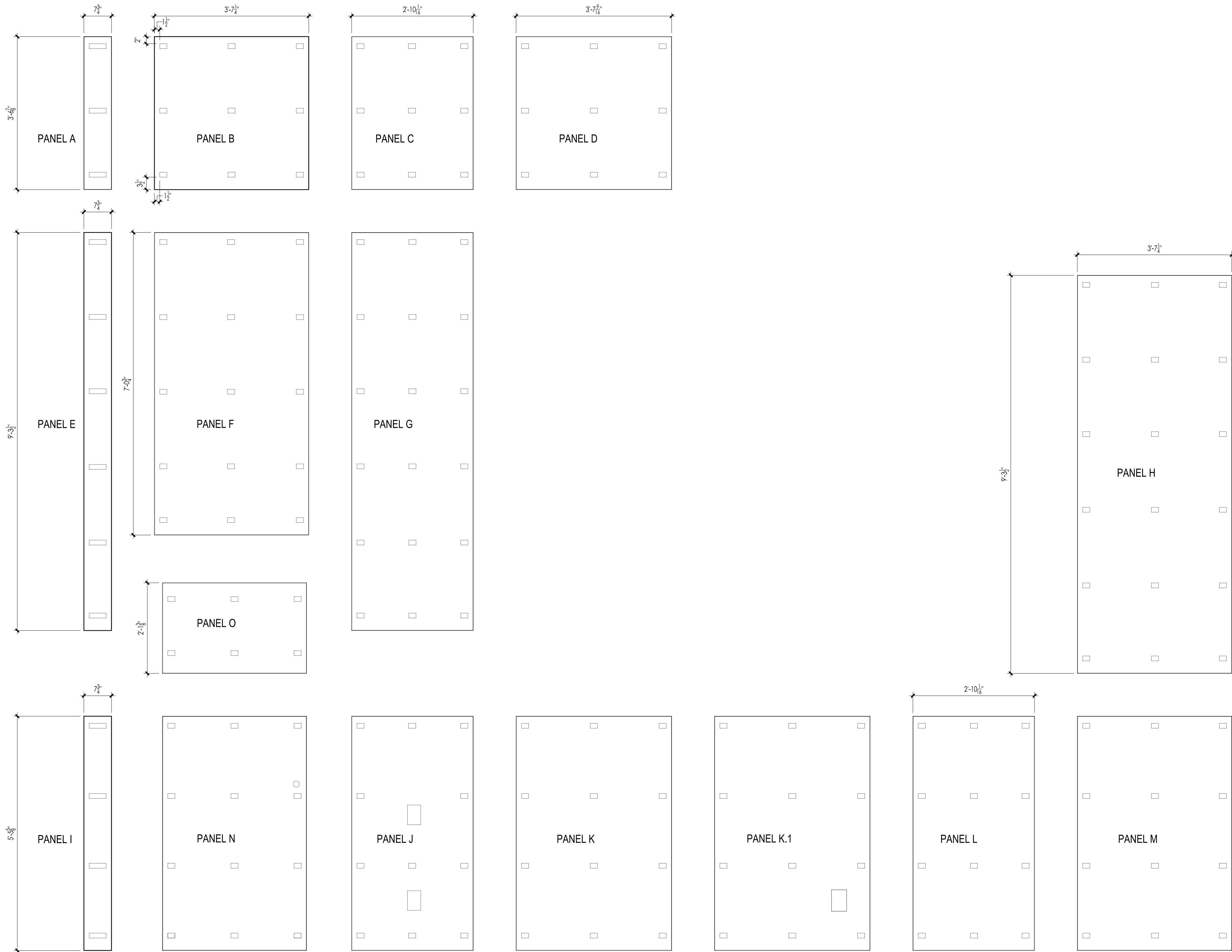
PRICING SET

Sheet Title:

DETAILS

Sheet #:

A3.8



1
A3.9

ACOUSTICAL PANELS

SCALE: 3/4" = 1'-0"

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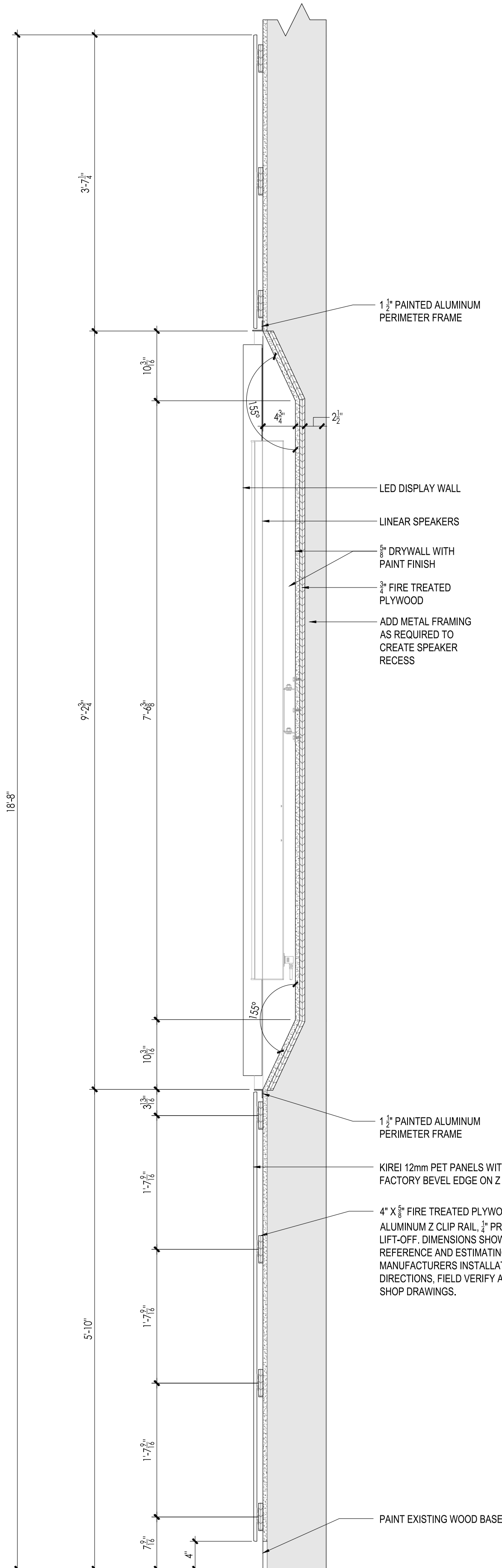
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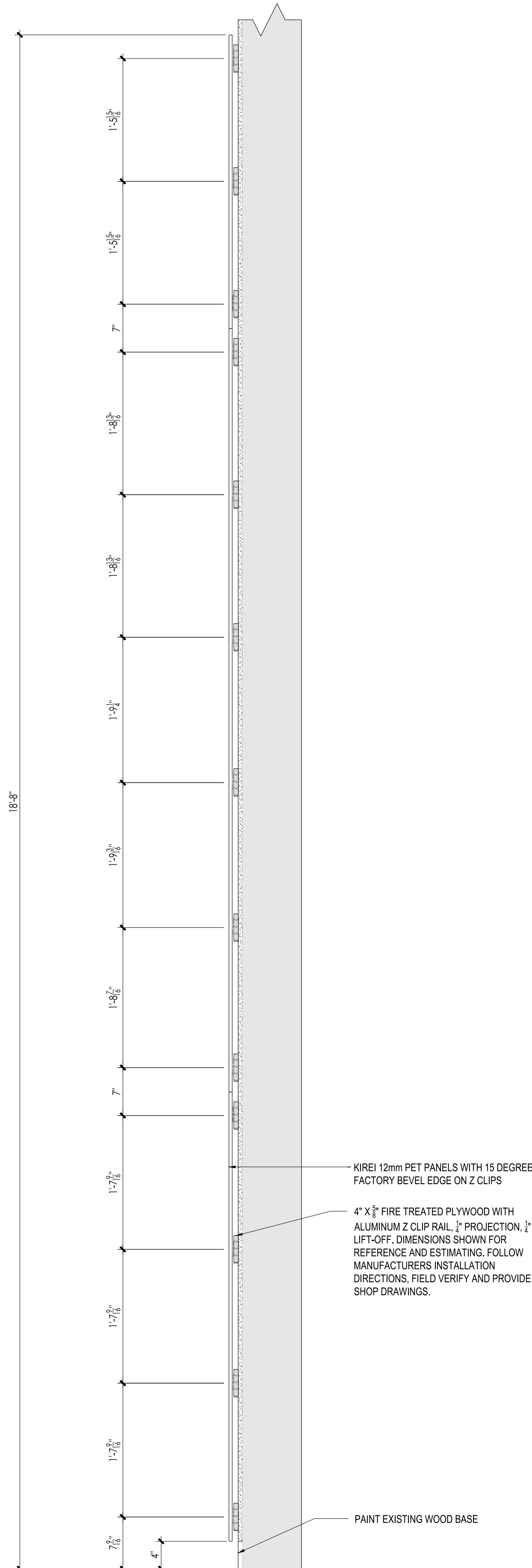
**ACOUSTICAL
PANEL
ELEVATIONS**

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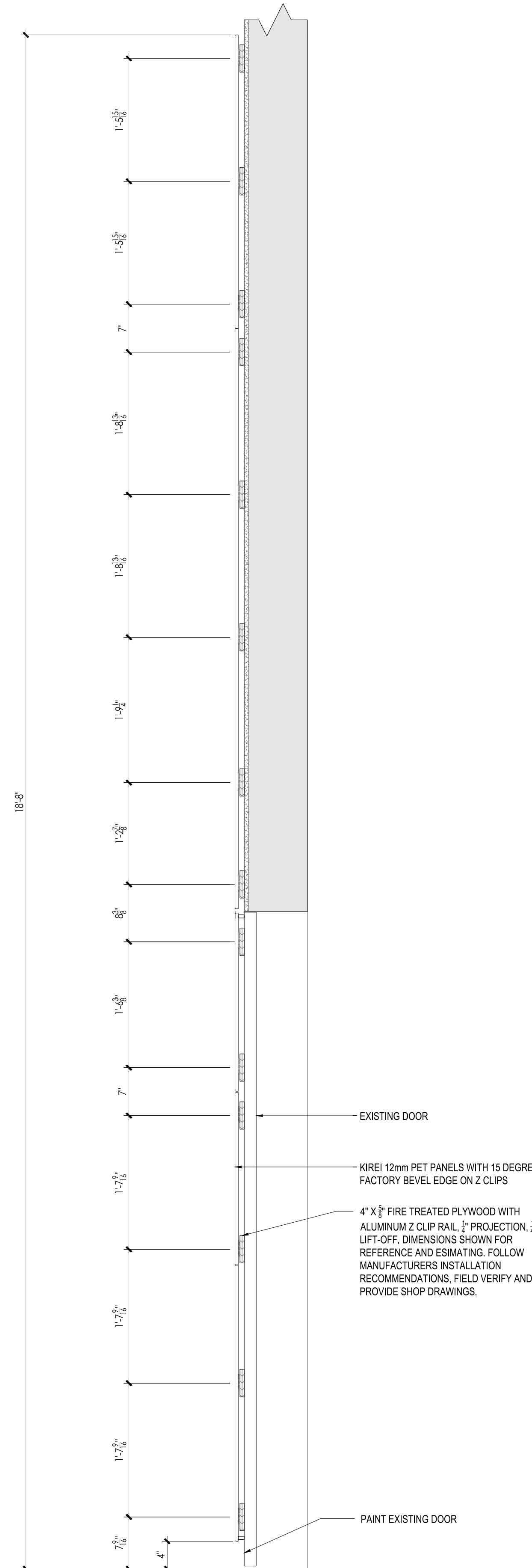
A3.9



1 WALL SECTION
A4.0 SCALE: 1" = 1'-0"



2 WALL SECTION
A4.0 SCALE: 1" = 1'-0"



3 WALL SECTION
A4.0 SCALE: 1" = 1'-0"

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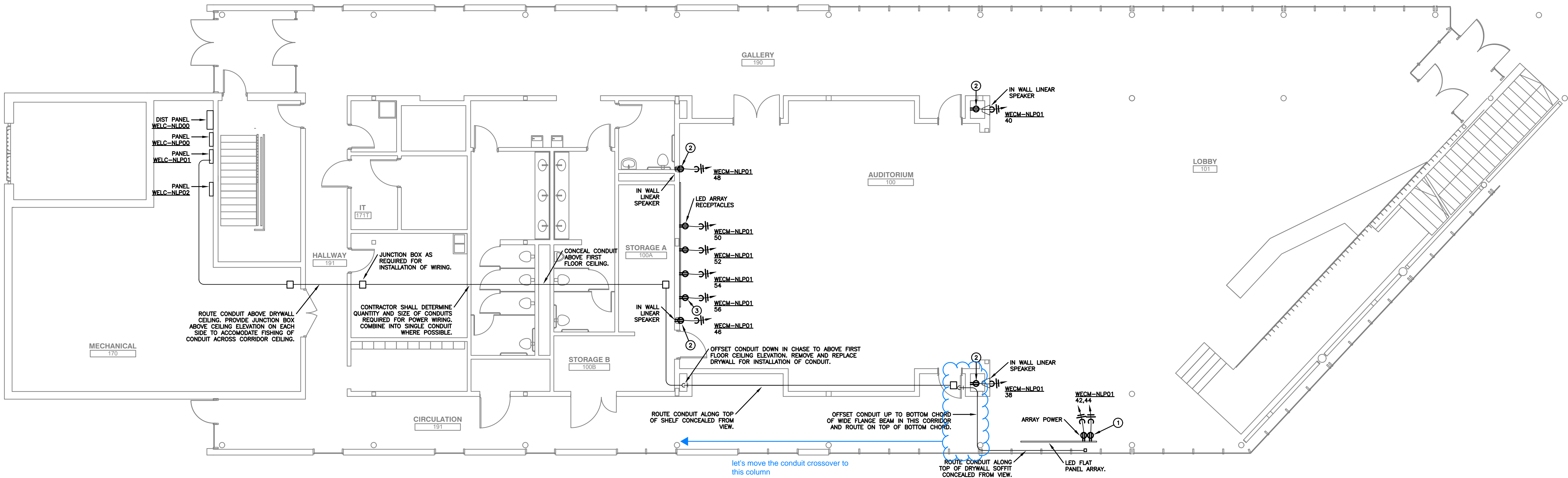
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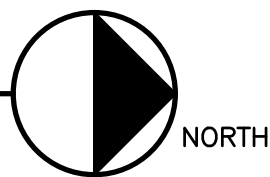
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Sheet Title:
WALL SECTIONS

Sheet #:
A4.0



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



NOTE TO BIDDERS:

1. THIS PLAN SET AND ASSOCIATED SPECIFICATIONS AND ADDENDA, CONSTITUTE THE BIDDING AND CONSTRUCTION PLAN SET. BIDDING FROM PLAN SETS THAT DO NOT INCLUDE ALL ELEMENTS OF THE CONSTRUCTION DOCUMENTS, IS DONE AT THE RISK OF THE BIDDER. IT IS ASSUMED THAT ALL BIDDERS, BY SUBMITTING A BID, ARE FAMILIAR WITH ALL ASPECTS OF THE PROJECT AND HAVE REVIEWED THE COMPLETE PLAN SET.
2. BY SUBMITTING A BID THE GENERAL CONTRACTOR IS INDICATING THAT THEY ARE FAMILIAR WITH ALL ELEMENTS OF THE PROJECT REQUIRED FOR COMPLETION OF THE PROJECT AND ARE WHOLLY FAMILIAR WITH THE SYSTEMS SPECIFIED IN THIS PLAN SET AND SPECIFICATIONS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE FUNCTIONAL PROJECT. NO EXTRAS WILL BE PAID FOR NEGLECTING TO PROVIDE ALL UTILITY CONNECTIONS AND ACCESSORIES FOR PROJECT TO BE COMPLETELY OPERATIONAL. (EXAMPLE: CONTRACTOR SHALL PROVIDE GAS PIPING AND VENT AND INTAKE PIPING TO A WATER HEATER IF A GAS WATER HEATER WAS SPECIFIED/BID.)
3. IN NO CASE SHALL THE CONTRACTOR PROVIDE OR EXCLUDE PROJECT COMPONENTS THAT WOULD RENDER THE PROJECT IN CONFLICT WITH CODE REQUIREMENTS, INCOMPLETE OR NON-FUNCTIONAL IN ANY WAY. IF THE CONTRACTOR REQUIRES ADDITIONAL INFORMATION OR CLARIFICATION FOR AREAS IN WHICH THEY BELIEVE INSUFFICIENT INFORMATION IS PROVIDED, REQUEST FOR THAT INFORMATION FROM THE DESIGN TEAM SHALL BE SUBMITTED PRIOR TO SUBMITTING BID.

KEYNOTES:

- ① SIDE BY SIDE DUPLEX RECEPTACLES EACH ON DEDICATED CIRCUITS. SEE ELEVATION ON SHEET E200 FOR APPROXIMATE LOCATION. COORDINATE LOCATION WITH A/V EQUIPMENT PROVIDER PRIOR TO ROUGH IN.
- ② POWER FOR VERTICAL SPEAKER RECESSED IN WALL. SEE ELEVATION ON SHEET E200 FOR APPROXIMATE LOCATION. COORDINATE LOCATION WITH A/V EQUIPMENT PROVIDER PRIOR TO ROUGH IN.
- ③ FOUR RECEPTACLES EACH ON DEDICATED CIRCUITS. SEE ELEVATION ON SHEET E200 FOR APPROXIMATE LOCATION. COORDINATE LOCATION WITH A/V EQUIPMENT PROVIDER PRIOR TO ROUGH IN.

GENERAL NOTES:

1. THE ROUTING OF CONDUIT IS CRITICAL FOR THIS PROJECT. ALL CONDUIT IS TO BE CONCEALED FROM VIEW IN OCCUPIED AREAS.
2. PAINT ALL CONDUIT TO MATCH ADJACENT BUILDING STRUCTURE.
3. PROVIDE NEW 20A, SINGLE POLE CIRCUIT BREAKERS FOR ALL NEW CIRCUITS.

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building solutions
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417-631-4895 / www.interpresbuild.com

Project Title:
**Update Facilities
Welcome Center
Springfield
Missouri**

MSU Project #: **241114-041**

Other Project #: **MWCU**

Issue Date: **10/4/24**

Drawn By: **BRP**

SHEET REVISIONS

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Seal:
**Preliminary
not for
construction**

Sheet Title:
**Electrical
Plans**

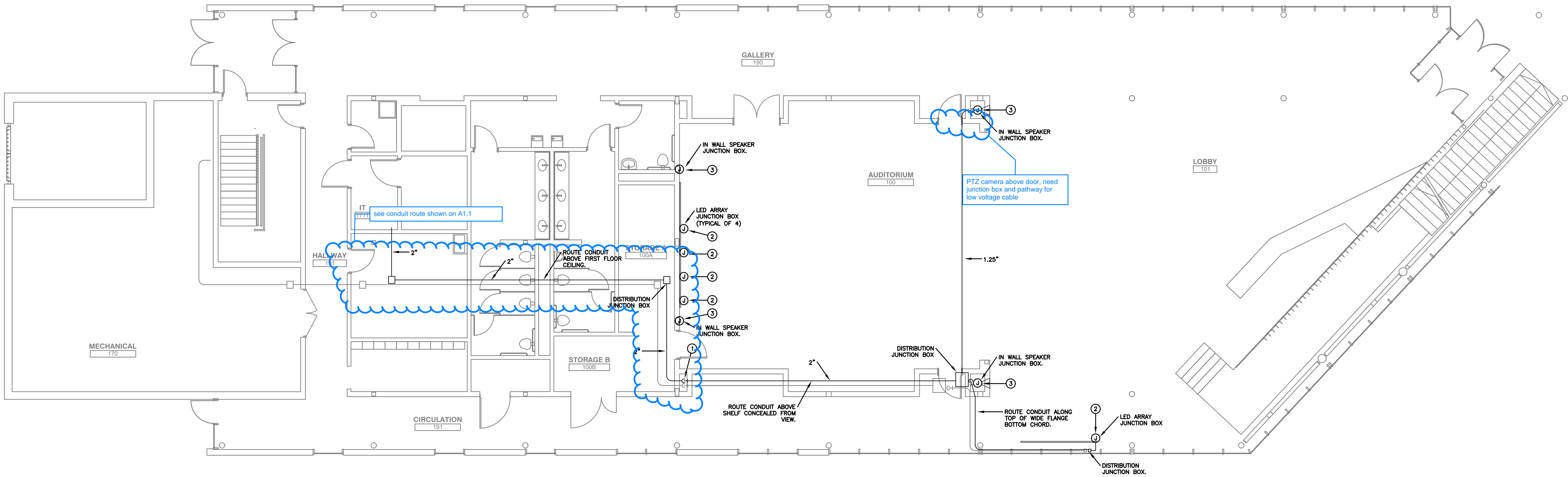
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E100

NOTE TO BIDDERS:

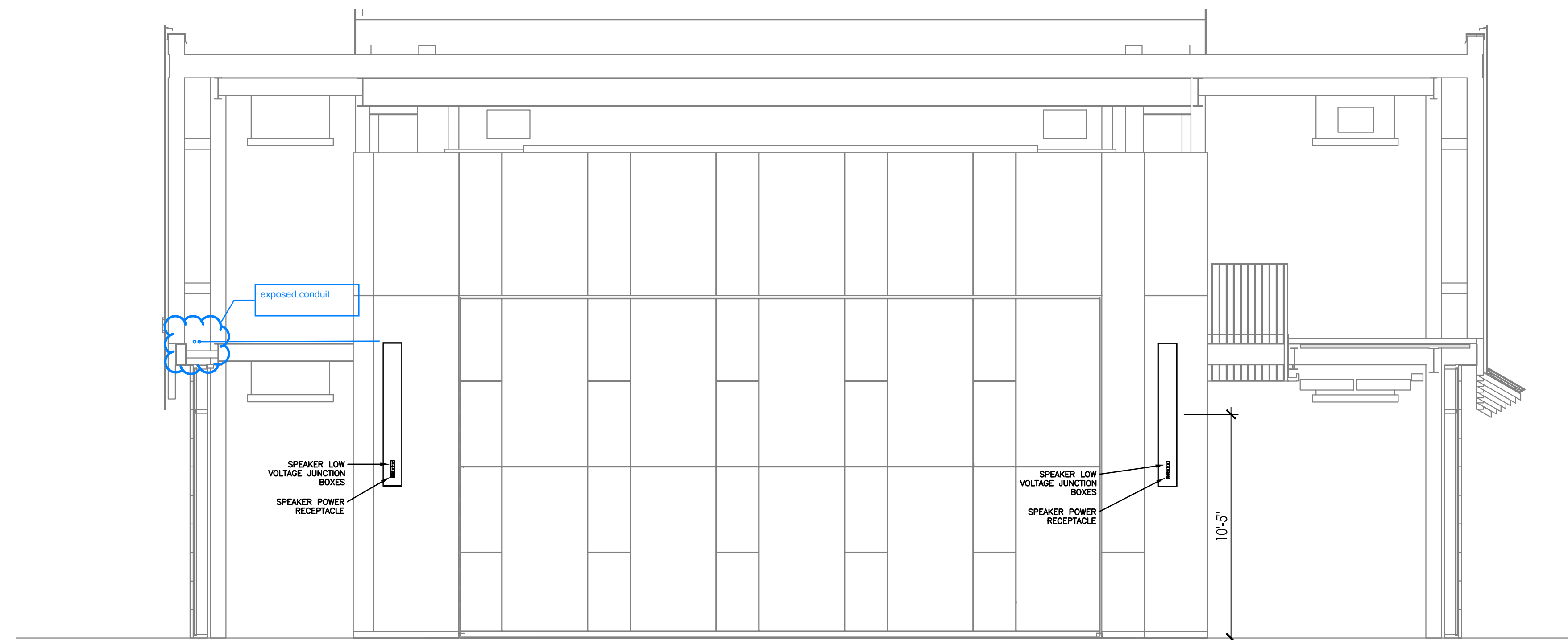
1. THIS PLAN SET AND ASSOCIATED SPECIFICATIONS AND ADDENDA, CONSTITUTE THE BIDDING AND CONSTRUCTION PLAN SET. BIDDING FROM PLAN SETS THAT DO NOT INCLUDE ALL ELEMENTS OF THE CONSTRUCTION DOCUMENTS, IS DONE AT THE RISK OF THE BIDDER. IT IS ASSUMED THAT ALL BIDDERS, BY SUBMITTING A BID, ARE FAMILIAR WITH ALL ASPECTS OF THE PROJECT AND HAVE REVIEWED THE COMPLETE PLAN SET.
2. BY SUBMITTING A BID THE GENERAL CONTRACTOR IS INDICATING THAT THEY ARE FAMILIAR WITH ALL ELEMENTS OF THE PROJECT REQUIRED FOR COMPLETION OF THE PROJECT AND ARE WHOLLY FAMILIAR WITH THE SYSTEMS SPECIFIED IN THIS PLAN SET AND SPECIFICATIONS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE FUNCTIONAL PROJECT. NO EXTRAS WILL BE PAID FOR NEGLECTING TO PROVIDE ALL UTILITY CONNECTIONS AND ACCESSORIES FOR PROJECT TO BE COMPLETELY OPERATIONAL. (EXAMPLE: CONTRACTOR SHALL PROVIDE GAS PIPING AND VENT AND INTAKE PIPING TO A WATER HEATER IF A GAS WATER HEATER WAS SPECIFIED/BID.)
3. IN NO CASE SHALL THE CONTRACTOR PROVIDE OR EXCLUDE PROJECT COMPONENTS THAT WOULD RENDER THE PROJECT IN CONFLICT WITH CODE REQUIREMENTS, INCOMPLETE OR NON-FUNCTIONAL IN ANY WAY. IF THE CONTRACTOR REQUIRES ADDITIONAL INFORMATION OR CLARIFICATION FOR AREAS IN WHICH THEY BELIEVE INSUFFICIENT INFORMATION IS PROVIDED, REQUEST FOR THAT INFORMATION FROM THE DESIGN TEAM SHALL BE SUBMITTED PRIOR TO SUBMITTING BID.

KEYNOTES:

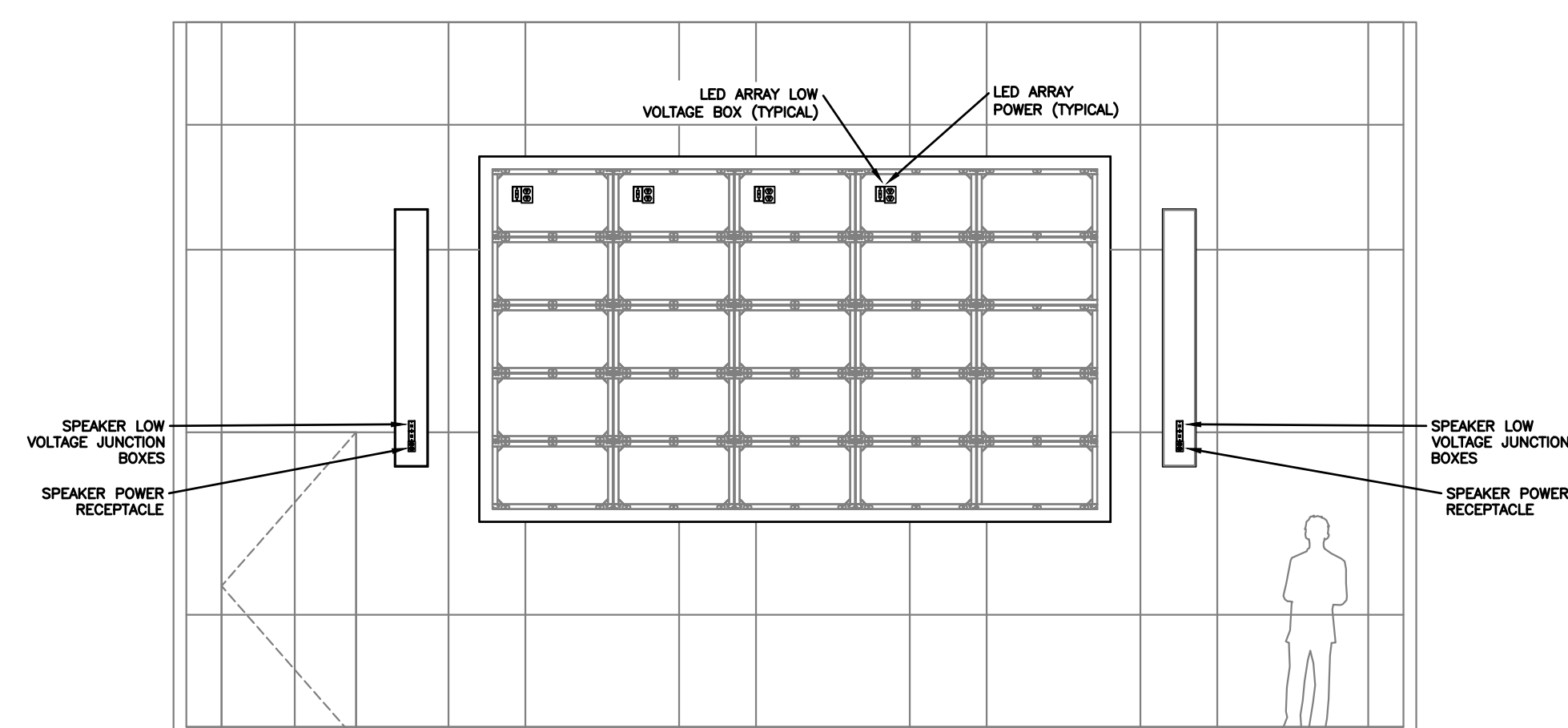
- ① CONDUIT DOWN IN CHASE TO ABOVE FIRST FLOOR CEILING.
- ② LED ARRAY JUNCTION BOX. PROVIDE SINGLE GANG JUNCTION BOX WITH 1.25" CONDUIT TO NEAREST DISTRIBUTION JUNCTION BOX. COORDINATE LOCATION WITH AV PROVIDER PRIOR TO ROUGH IN.
- ③ SPEAKER JUNCTION BOX. INSTALL IN WALL CAVITY. COORDINATE LOCATION WITH AV PROVIDER PRIOR TO ROUGH IN.



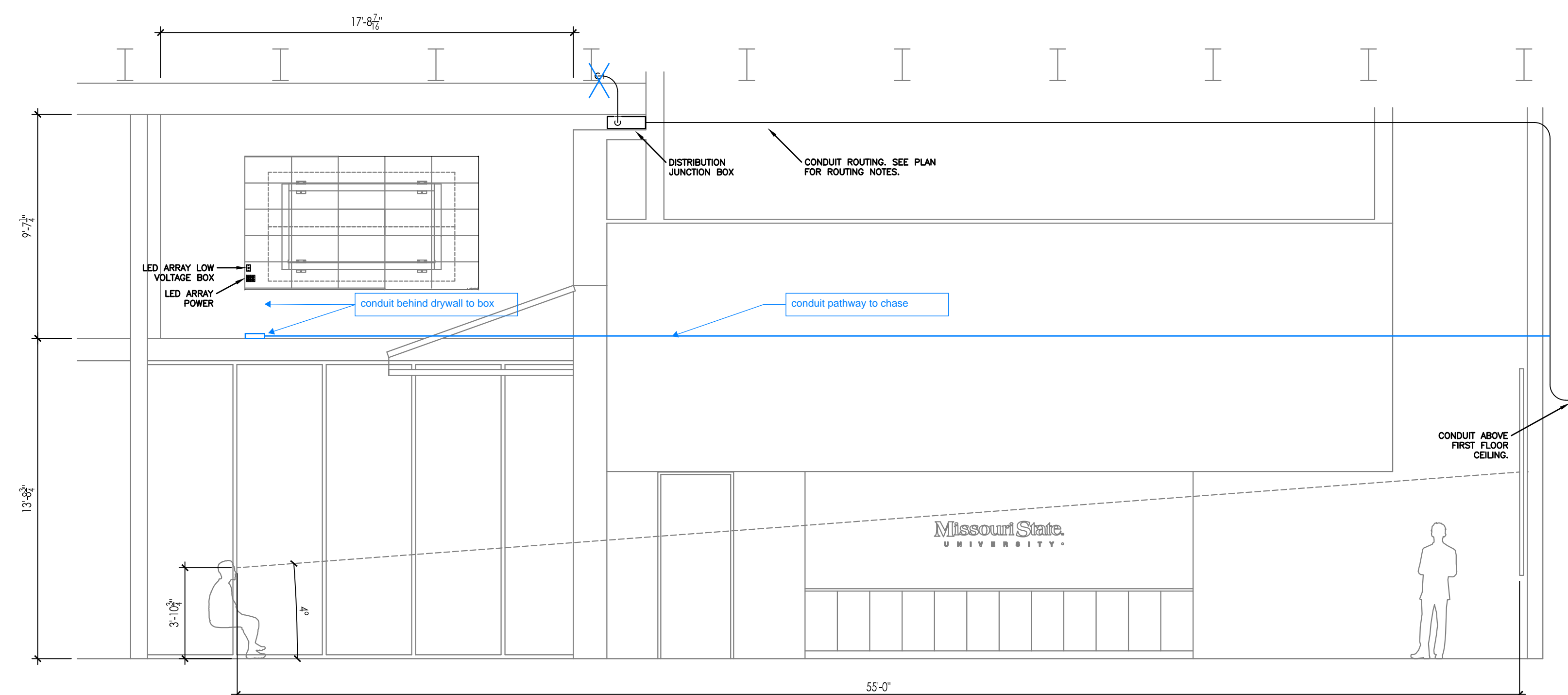
1 FIRST FLOOR SPECIAL SYSTEMS PLAN
SCALE: 1/8"=1'-0"  NORTH



2 LOBBY 101
SOUTH ELEVATION
SCALE: 1/4"=1'-0"



1 AUDITORIUM 100
SOUTH ELEVATION
SCALE: 1/4"=1'-0"



1 LOBBY 101
EAST ELEVATION
SCALE: 1/4"=1'-0"

Project Title:

Update Facilities Welcome Center Springfield Missouri

MSU Project #: 241114-041

Other Project #: **MWCU**

Issue Date: 10/4/24

Drawn By: **BRP**

SHEET REVISIONS

#	Date / Description
1	
2	
3	
4	

Seal:

**Preliminary
not for
construction**

Sheet Title:

Electrical Details

Sheet #:

E200

SECTION 26000 – ELECTRICAL SPECIFICATIONS

A – GENERAL

1. GENERAL:

- 1.1. THE CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY TO COMPLETELY INSTALL ELECTRICAL AND RELATED WORK INDICATED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.
- 1.2. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF A COMPLETE AND FUNCTIONAL SYSTEM IN ACCORDANCE WITH THE INTENT OF THE PLANS, WHETHER OR NOT EVERY ELEMENT THEREOF IS SPECIFICALLY CALLED OUT. PROVIDE ALL HARDWARE AND ACCESSORIES FOR A COMPLETE ELECTRICAL INSTALLATION.
- 1.3. CONTRACTORS SHALL INSPECT THE JOB SITE AND REVIEW THE PLANS, ANY DEVIATIONS, ERRORS OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BIDDING. REQUESTS FOR ADDITIONAL FUNDS FOR EXTRA WORK WILL NOT BE HONORED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER. FIELD VERIFY ALL EXISTING AND NEW CONDITIONS.
- 1.4. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL ADDITIONAL OR SPECIAL REQUIREMENTS MADE BY THE MANUFACTURER OF THE EQUIPMENT THAT THEY ARE PURCHASING AND INSTALLING AS PART OF THEIR SCOPE OF WORK. THIS INCLUDES ADDITIONAL COSTS FOR BOTH MATERIAL AND LABOR.
- 1.5. ELECTRICAL CONTRACTOR SHALL PROVIDE A ROUGH-IN CONDUIT FOR CABLE SERVICE AS INDICATED ON DRAWINGS, WHERE NOT INDICATED ON DRAWINGS CLARIFY WITH ENGINEER PRIOR TO BID.
- 1.6. ELECTRICAL CONTRACTOR TO COORDINATE WITH THE INTERIOR DESIGNER, GC AND ARCHITECT FOR PLACEMENT OF ALL WIRING DEVICE BOXES (SWITCH, RECEPTACLE, TELEPHONE/COMMUNICATION) PRIOR TO INSTALLATION OF ROUGH-IN. IT IS THE E/C'S RESPONSIBILITY TO CONFIRM WITH THE INTERIOR DESIGNER, GC, AND ARCHITECT FOR FINAL LAYOUT.
- 1.7. ALL ITEMS EXPOSED TO THE EXTERIOR ARE TO BE PAINTED TO MATCH ADJACENT MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INCLUDE THIS IN THEIR BID.
- 1.8. ALL WIRING/CABLEING INSTALLED IN A RETURN AIR PLENUM NOT INSTALLED IN CONDUIT SHALL BE COMPLIANT/N/A RATED PER NEC.
2. CODE:
- 2.1. ALL EQUIPMENT, WIRING AND THE ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE 2011 NATIONAL ELECTRICAL CODE (N.E.C.), A.S.I.A. REQUIREMENTS, LIFE SAFETY CODE AND ALL APPLICABLE LOCAL AND STATE ORDINANCES.

3. LOCATION OF EQUIPMENT:

- 3.1. THE CONTRACTOR SHALL NOTE THAT THE ELECTRICAL DRAWINGS ARE INTENDED TO INDICATE ONLY THE EXTENT DIAGRAMMATICALLY, GENERAL CHARACTER AND LOCATION OF THE WORK, WORK INTENDED, BUT HAVING MINOR DETAIL OBVIOUSLY OMITTED, SHALL BE FURNISHED AND INSTALLED COMPLETE BY THIS CONTRACTOR AT THEIR EXPENSE.
- 3.2. THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND THOROUGHLY REVIEW ALL DRAWINGS, SPECIFICATIONS AND POSSIBLE ADDENDUM PRIOR TO BIDDING ON THE WORK. NO EXTRAS TO HIS CONTRACTOR WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT.

4. ROUGH-IN:

- 4.1. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH SHOP DRAWINGS, FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED PRIOR TO ROUGH-IN.
- 4.2. REFER TO EQUIPMENT SPECIFICATIONS IN ALL SPECIFICATION DIVISIONS FOR ROUGH-IN REQUIREMENTS.

5. INSTALLATION:

- 5.1. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A NEAT AND FIRST CLASS MANNER, LEVEL AND PLUMB AND SECURELY SUPPORTED, THE ENTIRE INSTALLATION AND MANNER OF INSTALLATION SHALL MEET THE COMPLETE SATISFACTION OF THE OWNER'S REPRESENTATIVE OR IT SHALL BE REMOVED AND REWORKED AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 5.2. ALL WIRING SHALL BE IN CONDUIT. MC CABLE SHALL BE ALLOWED WHERE A NEW DEVICE IS INDICATED ON PLANS TO BE INSTALLED IN AN EXISTING WALL. THE USE OF BX, NM, OR PREMANUFACTURED CABLE ASSEMBLIES SHALL NOT BE PERMITTED.
- 5.3. ALUMINUM WIRE SHALL NOT BE PERMITTED FOR BRANCH CIRCUIT WIRING.
- 5.4. COORDINATE CONNECTION OF ELECTRICAL SYSTEMS WITH UTILITIES AS INDICATED ON THE DRAWINGS.
6. CUTTING AND PATCHING:
- 6.1. ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- 6.2. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR CUTTING AND PATCHING WORK THAT IS NECESSITATED BY ILL-TIMED, DEFECTIVE, OR NON-COMFORMING INSTALLATIONS.
- 6.3. CONTRACTOR SHALL VERIFY TRANSFORMER LOCATION AND METERING SCHEME WITH LOCAL UTILITY PRIOR TO BID.

7. ELECTRICAL SUBMITTALS:

- 7.1. REFER TO THE CONDITIONS OF THE CONTRACT (GENERAL AND SUPPLEMENTARY) AND DIVISION 10000, SECTION: SHOP DRAWINGS, PRODUCT DATA AND SAMPLES FOR SUBMITTAL DEFINITIONS, REQUIREMENTS AND PROCEDURES.
- 7.2. IN ADDITION TO THE REQUIREMENTS OF DIVISION 10000 THE FOLLOWING APPLIES TO THE SUBMITTALS OF THIS DIVISION:

- 7.2.1. NO ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN THE PROJECT UNTIL SUBMITTALS HAVE BEEN ACCEPTABLY REVIEWED BY THE OWNER'S REPRESENTATIVE AND STAMPED ACCORDINGLY.
- 7.2.2. MAKE ALL ELECTRICAL SUBMITTALS AT ONE TIME WITH WITHIN (14) CALENDAR DAYS OF OWNER'S NOTICE TO PROCEED TO THE GENERAL CONTRACTOR.
- 7.2.3. CONTRACTOR SHALL RESUBMIT ENTIRE SUBMITTAL SET UNLESS COMPLETE RE-SUBMITTAL IS SPECIFICALLY NOTED TO BE NOT REQUIRED.
- 7.2.4. IN CASE OF DISCREPANCIES BETWEEN SETS OF SUBMITTALS, THE SET RETAINED BY THE OWNER'S REPRESENTATIVE SHALL HAVE PRECEDENCE.

8. IDENTIFICATION NAME PLATES:

- 8.0. FURNISH AND INSTALL NAMEPLATES ON ALL ITEMS OF ELECTRICAL EQUIPMENT. NAMEPLATES SHALL BE MADE FROM WHITE ENGRAVING STOCK WITH BLACK LETTERS AND BLACK FOUR EDGE BEVEL. WORKING SHALL SUITABLY DESCRIBE ITEMS AND NAMEPLATES SHALL BE ATTACHED USING PROPER SIZE AND TYPE STAINLESS STEEL BOLTS. GLUE ON, TAPE ON, OR TAPE TYPE NAMEPLATES ARE NOT ACCEPTABLE.

8.1. AVAILABLE FAULT CURRENT:

- 8.1.1. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE FAULT CURRENT ASSUMPTIONS LISTED ON THE DRAWINGS MATCH WHAT WAS INSTALLED IN THE FIELD AND COORDINATE WITH THE ENGINEER OF RECORD WHERE SOMETHING DEVIATES FROM THOSE ASSUMPTIONS PRIOR TO LABELING THE EQUIPMENT. DEVIATIONS INCLUDE BUT ARE NOT LIMITED TO TRANSFORMER ASSUMPTIONS, CONDUIT TYPE, CONDUCTOR LENGTH, CONDUCTOR SIZE, CONDUCTOR TYPE, ETC..

- 8.1.2. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT AS NOTED ON THE DRAWINGS AND REQUIRED BY NEC. THE FIELD MARKINGS SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED (DATE ON ENGINEERING SEAL) AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.

9. WARRANTIES:

- 9.0. GUARANTEE ALL ELECTRICAL SYSTEM MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF TIME OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE AND PROPERLY CORRECT LATENT DEFECTS ARISING WITHIN THIS PERIOD UPON NOTIFICATION BY THE OWNER'S REPRESENTATIVE WITHOUT ADDITIONAL COMPENSATION.

10. CLEANING:

- 10.0. REGULARLY REMOVE REFUSE AND DEBRIS ACCUMULATING FROM ELECTRICAL CONSTRUCTION AND PRIOR TO ACCEPTANCE OF THIS WORK, LEAVE THE PREMISES BROOM CLEAN INsofar AS AFFECTED BY ELECTRICAL WORK.
- 10.0. CLEAN ALL LIGHT FIXTURES, LAMPS AND LENSES AND PANELBOARD INTERIORS PRIOR TO FINAL ACCEPTANCE.

11. TEST AND ADJUSTMENT:

- 11.0. FURNISH ALL LABOR, INSTRUMENTS AND OTHER SERVICES REQUIRED FOR COMPLETE AND SATISFACTORY TEST AND ADJUSTMENT OF ELECTRICAL SYSTEMS AND RELATED WORK FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.

- 11.0.1. CHECK ALL MOTORS AND ROTATING EQUIPMENT FOR PROPER ROTATION.
- 11.0.2. TEST ALL FEEDERS WITH MEGGER PRIOR TO ENERGIZING TO ASSURE COE RESISTANCE.
- 11.0.3. CHECK ALL FUSES AND OVERLOADS FOR PROPER SIZING.
- 11.0.4. CHECKING OF ALL ELECTRICAL POWER AND CONTROL, WIRING, INTERLOCKS, ETC. RELATED TO MECHANICAL INSTALLATIONS TO DETERMINE THAT ALL WIRING IS CORRECT.
- 11.0.5. ALL EQUIPMENT FURNISHED BY THIS CONTRACTOR WHICH TEST PROVE TO BE DEFECTIVE OR OPERATING IMPROPERLY SHALL BE REMEDIED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

B – PRODUCTS

1. RACEWAYS:

1.1. MC CABLE

- 1.1.1. USE OF MC CABLE IS NOT ALLOWED. REMOVE AND REPLACE DRYWALL AS REQUIRED TO INSTALL NEW BACKBOXES AND CONDUIT.

1.2. INSTALLATION

- 1.2.1. EXTENT OF RACEWAY WORK IS INDICATED DIAGRAMMATICALLY ON THE DRAWINGS AND IN THE SCHEDULES.
- 1.2.2. WHEN THE SIZE IS NOT INDICATED ON PLANS, CONDUIT SHALL BE SIZED FOR CONDUCTORS IN ACCORDANCE WITH TABLES 3(A)(B)(C), CHAPTER 9 OF THE N.E.C.
- 1.2.3. THE ROUTING AND METHOD OF INSTALLATION OF ALL CONDUITS SHALL BE CO-ORDINATED SO AS NOT TO INTERFERE WITH OTHER EQUIPMENT INSTALLATIONS AND SHALL MEET WITH THE COMPLETE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- 1.2.4. USE ONLY THE TYPES OF RACEWAYS SPECIFIED HEREIN.
- 1.2.5. TYPES OF RACEWAYS SPECIFIED IN THIS SECTION INCLUDE THE FOLLOWING:
 - 1.2.5.1. ELECTRICAL METALLIC TUBING (EMT): MINIMUM TRADE SIZE 0.5"
 - 1.2.5.2. FLEXIBLE METAL CONDUIT: MINIMUM TRADE SIZE 0.5"
 - 1.2.5.3. LIQUID-TIGHT FLEXIBLE METAL CONDUIT (SEALTIGHT): MINIMUM TRADE SIZE 0.5"
 - 1.2.5.4. RIGID METAL CONDUIT: MINIMUM TRADE SIZE 0.5"
 - 1.2.5.5. RIGID NONMETALLIC CONDUIT (PVC) SCHEDULE 40: MINIMUM TRADE SIZE 0.5"
- 1.2.6. ALL LOW VOLTAGE WIRING THAT IS NOT PLENUM RATED SHALL BE INSTALLED IN CONDUIT.

1.2. FITTINGS

- 1.2.1. FITTINGS FOR EMT SHALL BE COMPRESSION TYPE WITH FACTORY INSTALLED INSULATED THROAT CONNECTORS. DIE CAST OR POT METAL FITTINGS ARE NOT ACCEPTABLE.
- 1.2.2. FITTINGS FOR FLEXIBLE CONDUIT SHALL BE STEEL OR CAST IRON.
- 1.2.3. FITTINGS FOR RIGID CONDUIT SHALL BE STEEL THREADED TYPE.
- 1.2.4. FITTINGS FOR PVC SHALL BE SCHEDULE 40 GLUE-ON TYPE.

1.3. INSTALLATION OF RACEWAYS:

- 1.3.1. ALL CONDUITS SHALL BE INSTALLED CONCEALED, EXCEPT IN EQUIPMENT ROOM, CHASES OR AS INDICATED ON THE DRAWINGS. ALL CONDUITS, EXPOSED AND CONCEALED SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING LINES AND SHALL BE GROUPED TOGETHER AS MUCH AS POSSIBLE.
- 1.3.2. A SEPARATE GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL RUNS, WHERE SIZES LARGER THAN #12 AWG ARE REQUIRED BY THE NEC. THE CONDUCTOR SHALL BE SIZED AS INDICATED IN THE N.E.C. ALL GROUNDING CONDUCTORS SHALL HAVE A GREEN OUTER COVERING, OR GREEN MARKING TAPE OVER THEIR ENTIRE EXPOSED LENGTHS.
- 1.3.3. MECHANICALLY FASTEN TOGETHER METAL CONDUITS, ENCLOSURES AND RACEWAYS FOR CONDUCTORS TO FORM A CONTINUOUS ELECTRICAL CONDUCTOR. CONNECT TO ELECTRICAL BOXES, FITTINGS AND CABINETS TO PROVIDE ELECTRICAL CONTINUITY AND FIRM MECHANICAL ASSEMBLY. AVOID USE OF DISSIMILAR METALS THROUGH SYSTEM TO ELIMINATE POSSIBILITY OF ELECTROLYSIS.
- 1.3.5. INSTALL EXPANSION FITTINGS IN RACEWAYS EVERY 200' LINEAR RUN OR WHEREVER STRUCTURAL EXPANSION JOINTS ARE CROSSED. PROVIDE NYLON PULL CORD IN ALL EMPTY CONDUITS.

1.4. CONDUIT INSTALLATION:

- 1.4.1. USE RIGID METAL CONDUIT FOR ALL WEATHER EXPOSED WORK. FOR ALL STUB-UPS IN KITCHEN AREA, FOR ALL ROOF PENETRATIONS THROUGH PATE FLUES AND FOR FREEZER/COOLER PENETRATIONS.
- 1.4.2. USE EMT FOR ALL INTERIOR CONCEALED AND FOR EXPOSED WORK NOT SUBJECT TO MECHANICAL INJURY.
- 1.4.3. USE SCHEDULE 40 PVC FOR ALL UNDERGROUND WORK OR WORK INDICATED ON THE DRAWINGS.
- 1.4.4. USE FLEXIBLE METAL CONDUIT FROM OUTLET BOXES TO RECESSED LIGHTING FIXTURE AND FINAL 24" OF CONNECTION TO ITEMS SUBJECT TO MOVEMENT OR VIBRATION.
- 1.4.5. USE LIQUID-TIGHT FLEXIBLE CONDUIT FOR FINAL 24" CONNECTION TO ITEMS WHERE SUBJECTED TO ONE OR MORE OF THE FOLLOWING CONDITIONS:
 - 1.4.5.1. EXTERIOR LOCATION.
 - 1.4.5.2. MOIST OR HUMID ATMOSPHERE WHERE CONDENSATE CAN BE EXPECTED TO ACCUMULATE.
 - 1.4.5.3. CORROSIVE ATMOSPHERE.
 - 1.4.5.4. SUBJECT TO WATER SPRAY OR DRIPPING OIL, WATER OR GREASE.
 - 1.4.5.5. FINAL CONNECTION TO ROTATING OR VIBRATING EQUIPMENT.
- 1.4.6. CUT CONDUITS STRAIGHT; PROPERLY REAM AND CUT THREADS FOR HEAVY WALL CONDUIT. DEEP AND CLEAN.
- 1.4.7. FIELD BEND CONDUIT WITH BENDERS DESIGNED FOR THE PURPOSE SO AS NOT TO DISTORT NOR VARY INTERNAL DIAMETER.

2. CONDUCTORS

2.1. CONDUCTORS:

- 2.1.1. CONDUCTOR SIZES SHALL BE AS INDICATED IN PANEL SCHEDULE.
- 2.1.2. GROUNDING CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NEC TABLE 250.122.
- 2.1.3. ALL WIRE SHALL BE COPPER WITH THIN INSULATION.
- 2.1.4. THE USE OF ARMORED, BX, NM OR ANY MANUFACTURED CABLE ASSEMBLY (EXCEPT MC) SHALL NOT BE INCORPORATED INTO THE WORK.
- 2.1.5. ALL WIRING SHALL BE IN CONDUIT.
- 2.1.6. COLOR CODING OF CONDUCTORS SHALL BE AS FOLLOWS:
 - 2.1.6.1. 120/208V SYSTEMS: PHASE A – BLACK, PHASE B – RED, PHASE C – BLUE, NEUTRAL – WHITE, GROUND – GREEN.
 - 2.1.6.2. 277/480V SYSTEMS: PHASE A – YELLOW, PHASE B – BROWN, PHASE C – ORANGE, NEUTRAL – NATURAL GRAY, GROUND – GREEN.

- 2.1.7. AWG #10 AND SMALLER SHALL BE SOLID. AWG #8 AND LARGER SHALL BE STRANDED.

- 2.1.8. ALL LOW VOLTAGE WIRING THAT IS NOT PLENUM RATED SHALL BE INSTALLED IN CONDUIT.

2.2. WIRE CONNECTIONS:

- 2.2.8. ALL FEEDER AND SUB FEEDER WIRING CONNECTIONS SHALL BE MADE WITH COMPRESSION CONNECTORS BY SQUARE D OR ACCEPTABLE EQUIVALENT.
- 2.2.7. ALL BRANCH WIRING CONNECTION SHALL BE 3M SCOTCH LOCK CONNECTORS OR ACCEPTABLE EQUIVALENT.
- 2.2.8. WHERE CABLE CONNECTIONS REQUIRE INSULATION, SCOTCH #33, ELECTRICAL TAPE SHALL BE USED FOR WRAPPING.

3. BOXES AND FITTINGS

3.1. BOXES AND FITTINGS:

- 3.1.1. EXTENT OF ELECTRICAL BOX AND ASSOCIATED FITTING WORK IS INDICATED BY DRAWINGS AND SCHEDULES.

3.2. OUTLET BOXES:

- 3.2.1. CEILING: 4" SQUARE, 2-1/8" DEEP FOR EXPOSED OR FLURRED WORK, 3" DEEP FOR BOXES POURED IN CONCRETE. PROVIDE CONCRETE POUR BOXES OF THE TYPE SPECIALLY DESIGNED FOR THE APPLICATION. PROVIDE PLASTER RINGS WHERE REQUIRED.
- 3.2.2. WALL: 4" SQUARE, 2-1/8" DEEP BOXES: PROVIDE EXTENSION RINGS OR COVERS OF SUFFICIENT DEPTH TO BRING COVERS FLUSH WITH THE FINISHED SURFACE.

3.3. PULL AND JUNCTION BOXES:

- 3.3.1. PROVIDE BOXES WHERE REQUIRED TO FACILITATE THE PULLING OF WIRES OR CABLES. BOXES SHALL BE IN ACCORDANCE WITH ARTICLE 370 OF THE NEC.

3.4. ACCESSORIES:

- 3.4.1. PROVIDE CORROSION-RESISTANT KNOCKOUT CLOSURES, CONDUIT

- LOCKNUTS AND MALLEABLE IRON CONDUIT BUSHINGS, OFFSET CONNECTORS, OF TYPES AND SIZES, TO SUIT RESPECTIVE INSTALLATION REQUIREMENTS AND APPLICATIONS.

3.5. INSTALLATION OF BOXES AND FITTINGS:

- 3.5.1. POSITION RECESSED OUTLET BOXES ACCURATELY TO ALLOW FOR SURFACE FINISH THICKNESS.
- 3.5.2. FASTEN ELECTRICAL BOXES FIRMLY AND RIGIDLY TO SUBSTRATES OR STRUCTURAL SURFACES TO WHICH ATTACHED OR SOLIDLY EMBED ELECTRICAL BOXES IN CONCRETE OR MASONRY.

3.6. LOCATIONS OF OUTLETS:

- 3.6.1. IN GENERAL, THE VARIOUS OUTLETS ARE TO BE LOCATED AT THE FOLLOWING HEIGHTS ABOVE FINISHED FLOOR TO THE CENTER LINE OF BOX, UNLESS NOTED OTHERWISE AT AN INDIVIDUAL OUTLET ON THE DRAWINGS.

- 3.6.1.1. WALL SWITCHES: 48" AFF
- 3.6.1.2. RECEPTACLES: 18" AFF
- 3.6.1.3. DATA/VOICE OUTLETS: 18" AFF
- 3.6.1.4. OUTLETS ABOVE COUNTERTOPS: 6" ABOVE BACKSPASH

- 3.6.2. OUTLET MOUNTING HEIGHTS INDICATED ON THE DRAWINGS AT THE OUTLETS TAKE PRECEDENCE. REFER TO DRAWINGS FOR DETAILS OF OTHER EQUIPMENT MOUNTING HEIGHTS. MOUNTING HEIGHTS FOR FLUSH OUTLETS IN BLOCK WALLS MAY BE CHANGED FOR INSTALLATION. CONSULT OWNER'S REPRESENTATIVE IN FIELD PRIOR TO ANY SUCH INSTALLATION.

4. CONNECTIONS FOR EQUIPMENT:

- 4.1. GENERAL: FOR EACH ELECTRICAL CONNECTION INDICATED PROVIDE COMPLETE ASSEMBLY OF MATERIALS, INCLUDING BUT NOT NECESSARILY LIMITED TO, PRESSURE CONNECTORS, TERMINALS (LUGS), ELECTRICAL INSULATING TAPE, HEAT-SHRINKABLE INSULATING TUBING, CABLE TIES, SOLDERLESS WIRE-NUTS, AND OTHER ITEMS AND ACCESSORIES AS NEEDED TO COMPLETE SERVICES AND TERMINATIONS OF TYPES INDICATED.

5. WIRING DEVICES:

5.1. GENERAL

- 5.1.1. THE EXTENT OF WIRING DEVICE WORK IS INDICATED BY THE DRAWINGS AND SCHEDULES.
- 5.1.2. PROVIDE WIRING DEVICES WHICH ARE U.L. LISTED AND LABELED.

5.2. ACCEPTABLE MANUFACTURERS:

- 5.2.1. HUBBELL, INTERMATIC, LEVITON, COOPER WIRING DEVICES

5.3. FABRICATED WIRING DEVICES:

- 5.3.1. SWITCHES SHALL BE 20 AMP, 120/277 VOLT RATED, HUBBELL #1221 – IVORY OR WHITE.
- 5.3.2. DIMMER SWITCHES SHALL BE LEVITON #IP SERIES – IVORY OR WHITE. SLIDE DIMMER SWITCH WITH ON/OFF BUTTON. PROVIDE 0-10V OR LINE VOLTAGE COMPATIBILITY AS REQUIRED FOR CONNECTED LIGHT SWITCHES. LINE VOLTAGE SWITCHES SHALL BE 120/277V RATED AT 20A.
- 5.3.3. RECEPTACLES SHALL BE 20 AMP, 125 VOLT RATED, HUBBELL #5362 – IVORY OR WHITE. FOR OTHER APPLICATIONS REFER TO THE DRAWINGS.
- 5.3.4. USB RECEPTACLES SHALL BE 20 AMP, 125 VOLT RATED, HUBBELL #USB2002 – COLOR TO MATCH OTHER DEVICES. FOR OTHER APPLICATIONS REFER TO THE DRAWINGS.
- 5.3.5. PROVIDE SMOOTH FINISH PLATES FOR ALL DEVICES WITH APPROPRIATE MOUNTING ARRANGEMENTS FOR GAUGED DEVICES, FOR TELEPHONE AND COMPUTER/FAX AND MICROPHONE OUTLETS. PROVIDE BUSHED HOLE COVER PLATE. PLATES SHALL BE IVORY, WHITE OR STAINLESS STEEL.
- 5.3.6. ELECTRONIC TIMER SWITCHES SHALL BE INTERMATIC E235 15,30,45,60,120 MINUTE TIMER WITH 120V RATING, 1800W MAXIMUM WATTAGE AND COLOR TO MATCH OTHER DEVICES.

C – ELECTRICAL DEMO NOTES:

1. INFORMATION ON THESE DRAWINGS REPRESENTS INFORMATION FROM OLD DRAWINGS AND LIMITED SITE INSPECTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID. NO EXTRAS SHALL BE PAID DUE TO UNANTICIPATED CONDITIONS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORING, PATCH, AND REPAIR OF ALL WALL AND FLOOR SYSTEM AS REQUIRED DUE TO NEW CONSTRUCTION. MAINTAIN ALL FIRE RATINGS.
3. FOR ALL EXISTING FIXTURES, RECEPTACLES, WIRING, EQUIPMENT, ETC. SHOWN TO BE REMOVED, THE OWNER SHALL HAVE THE FIRST RIGHT OF REFUSAL.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL ELECTRICAL DEVICES AND WIRING IN ALL DEMOLISHED WALLS WHETHER SPECIFICALLY INDICATED OR NOT.
5. WHERE DEMOLISHED DEVICES ARE PART OF A CIRCUIT THAT IS THRU-WIRED, OR HAS ADDITIONAL DEVICES ON THE CIRCUIT THAT ARE TO REMAIN UNCHANGED, THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE EXISTING CIRCUIT. ANY ADDITIONAL CONDUIT, CONDUCTOR, BOXES, ETC. NEEDED TO MODIFY THE EXISTING CIRCUIT TO MAINTAIN THE INTEGRITY ARE THE RESPONSIBILITY OF THIS CONTRACTOR AND SHALL BE INCLUDED IN BID.

6. REMOVE CONDUIT IN ALL DEMOLISHED WALLS.

7. REMOVE ANY UNUSED CONDUCTORS, CONDUIT, AND WIRING IN DEMOLISHED WALLS TO LOCATED THE AREA OF CONSTRUCTION, REMOVE ALL UNUSED WIRING. CONDUIT CAN BE ABANDONED IN PLACE WHERE IT WILL REMAIN CONCEALED.
8. REMOVE AND REPLACE DEVICES AS REQUIRED DUE TO NEW WALL OR CEILING FINISHES.

9. WHEN A FIXTURE, DEVICE OR PIECE OF EQUIPMENT IS NOTED FOR REMOVAL, ALONG WITH ASSOCIATED WIRING OR ASSOCIATED WIRING AND CONDUIT. CONTRACTOR SHALL REMOVE WIRING AND CONDUIT BACK TO NEAREST JUNCTION BOX SO THAT NO CONDUIT OR WIRING IS EXPOSED IN OCCUPIED AREA. WIRING SHALL BE DISCONNECTED UPSTREAM OF REMOVED FIXTURE, DEVICE OR PIECE OF EQUIPMENT SO THAT WIRING TERMINATION CANNOT BE ACCIDENTALLY ENERGIZED.

ELECTRICAL SYMBOLS

	ELECTRICAL DEVICE MOUNTED IN FLOORBOX. REFERENCE SPECIFICATIONS
	ELECTRICAL DEVICE MOUNTED IN BOX AT CEILING OR UP IN STRUCTURE
	20A, 120V DUPLEX RECEPTACLE
	VOLTAGE AND AMPERAGE CORRESPONDING TO NEMA NUMBER SHOWN
	20A, 120V QUADPLEX RECEPTACLE
	USB DUPLEX RECEPTACLE
	DEVICE INSTALLED ABOVE COUNTER. COORDINATE COUNTER HEIGHT WITH ARCHITECTURAL PLANS
	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	WEATHERPROOF RECEPTACLE
	WHILE-IN-USE COVER WEATHERPROOF RECEPTACLE
	TAMPER PROOF RECEPTACLE
	TV WIRING LOCATION
	CEILING SPEAKER
	CONCEALED SERVICE FLOOR BOX WITH DEVICE SHOWN
	SURFACE SERVICE FLOOR BOX WITH DEVICE SHOWN
	DATA OUTLET
	DOOR HOLD-OPEN
	FLOW SWITCH
	TAMPER SWITCH
	FIRE ALARM HORN/STROBE
	FIRE ALARM STROBE
	SMOKE DETECTOR
	HEAT DETECTOR
	FIRE ALARM BELL
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE ALARM PANEL
	EQUIPMENT OR FIXTURE TAG
	BELOW GRADE CONDUIT AND WIRING. SEE PANEL SCHEDULE FOR WIRE SIZE
	HOMERUN PANEL AND CIRCUIT DESIGNATION. SEE PANEL SCHEDULE FOR WIRE SIZE
	CONDUIT AND WIRING WITH QUANTITY OF WIRES PLUS GROUND. SEE PANEL SCHEDULE FOR WIRE SIZE
	CONDUIT AND WIRING WITH QUANTITY OF WIRES. SEE PANEL SCHEDULE FOR WIRE SIZE
	2x4 LIGHT FIXTURE
	ROUND LIGHT FIXTURE, SURFACE MOUNTED OR RECESSED DEPENDING ON FIXTURE TYPE
	LINEAR LIGHT FIXTURE, SURFACE MOUNTED OR RECESSED DEPENDING ON FIXTURE TYPE
	TRACK LIGHT FIXTURE COMPLETE WITH ALL MOUNTING ACCESSORIES REQUIRED FOR OPERATION
	EMERGENCY LIGHT FIXTURE
	CEILING MOUNTED EXIT SIGN
	WALL MOUNTED EXIT SIGN
	ELECTRICAL EQUIPMENT
	ELECTRICAL PANEL – SURFACE MOUNT
	ELECTRICAL PANEL – RECESSED
	WALL MOUNT OCCUPANCY SENSOR
	WALL MOUNT LOW VOLTAGE OCCUPANCY SENSOR
	CEILING MOUNT LOW VOLTAGE OCCUPANCY SENSOR
	CEILING MOUNT LINE VOLTAGE OCCUPANCY SENSOR
	WALL SWITCH, SINGLE POLE UNLESS NOTED OTHERWISE WITH NUMERICAL DESIGNATION
	KEYED WALL SWITCH
	WALL DIMMER SWITCH
	MULTIPLE LIGHT SWITCHES INSTALLED UNDER SINGLE COVER PLATE
	GROUNDING ELECTRODE
	DISCONNECT SWITCH
	TIMESWITCH
	PHOTOCELL
	LIGHTING CONTACTOR
	WHERE SHOWN, WIRE ADJACENT FIXTURE AS UNSWITCHED NIGHT LIGHT.
	CLOCK
	PANIC ALARM TROUBLE STROBE
	ACCESS CONTROL CARD SWIPE
	ACCESS CONTROL DOOR POWER SUPPLY
	ACCESS CONTROL CENTRAL CONTROLLER

ABBREVIATIONS:

AC	ABOVE COUNTER INSTALL 4" ABOVE BACKSPASH UNLESS OTHERWISE NOTED.
WP OR WPI	WEATHERPROOF. PROVIDE WEATHERPROOF WHILE IN USE ENCLOSURE AND GFCI DEVICE.
60"	DIMENSIONS ADJACENT TO ANY SYMBOL INDICATES MOUNTING HEIGHT TO CENTERLINE OF DEVICE.
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ASC	AVAILABLE SHORT CIRCUIT CURRENT
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED

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H