

# NORTHERN AUDITORIUM IMPROVEMENTS

## PORTAGE PUBLIC SCHOOLS Portage, Michigan 100% CONSTRUCTION DOCUMENTS

### DESIGN TEAM

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Architecture · Engineering · Interiors

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### REFERENCED CODES

BUILDING: 2015 MICHIGAN BUILDING CODE AND 2012 NFPA 101 LIFE SAFETY CODE  
ENERGY: 2015 MICHIGAN ENERGY CODE  
PLUMBING: 2015 MICHIGAN PLUMBING CODE  
MECHANICAL: 2015 MICHIGAN MECHANICAL CODE  
FUEL GAS: (IFGC) 2015 INTERNATIONAL FUEL GAS CODE  
ELECTRICAL: 2017 NATIONAL ELECTRICAL CODE WITH MICHIGAN AMENDMENTS  
BARRIER-FREE: 2015 MICHIGAN BUILDING CODE AND 2009 ICC & C A117.1

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### CONSTRUCTION MANAGER

### SITE ADDRESS

PORTAGE PUBLIC SCHOOLS  
NORTHERN HIGH SCHOOL  
1000 IDAHO AVE  
PORTAGE, MI 49024

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ISSUED FOR \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT TITLE  
NORTHERN AUDITORIUM  
IMPROVEMENTS

OWNER  
PORTAGE PUBLIC  
SCHOOLS

Portage, Michigan

SHEET TITLE  
COVER SHEET

SHEET NUMBER  
**G 001**  
22-103.00

DATE

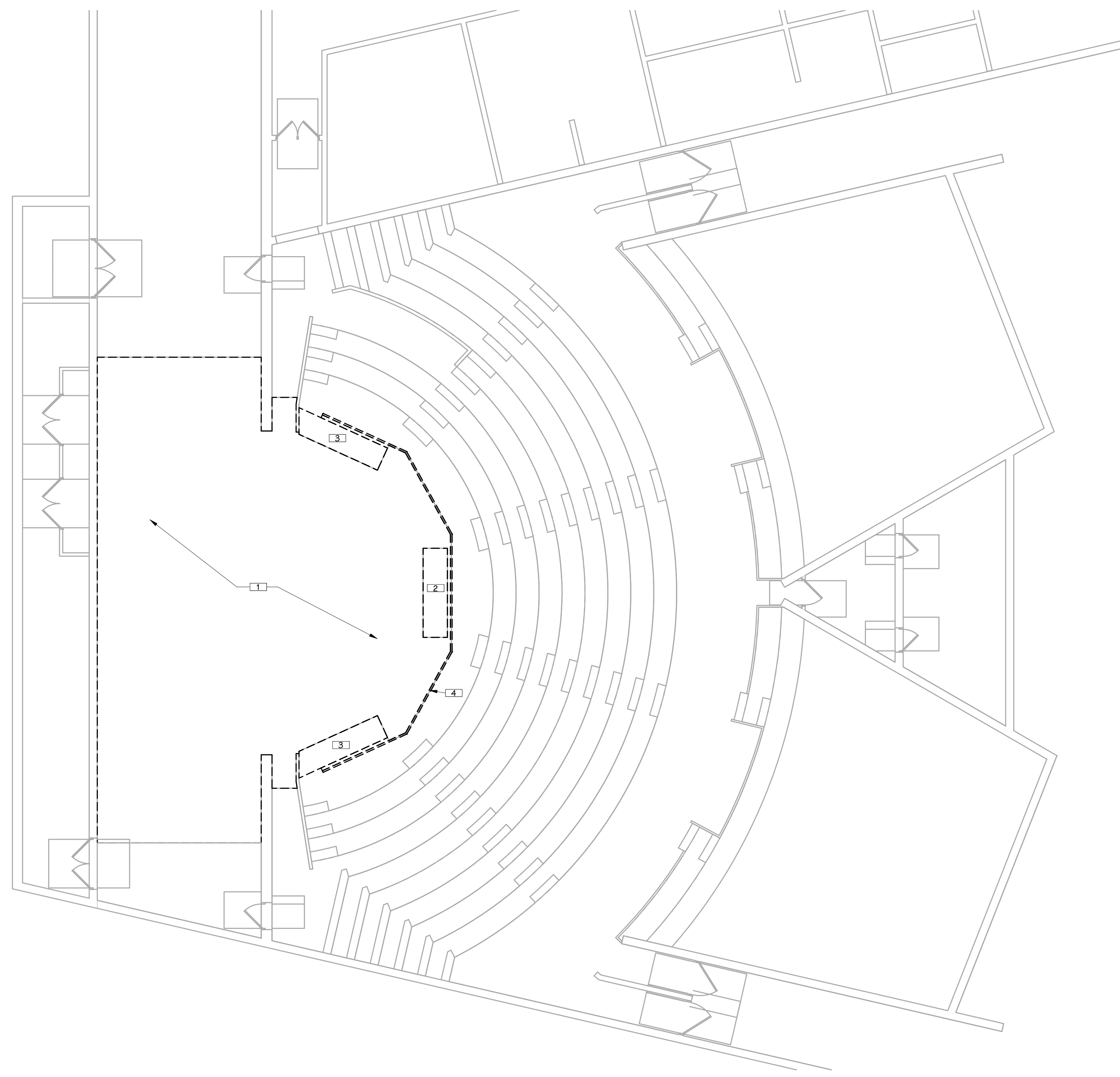
MARCH 25, 2022

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**FIRST FLOOR DEMOLITION PLAN**  
 1/8" = 1'-0"

**KEYED NOTES - DEMOLITION** □

- 1 REMOVE EXISTING WOOD FLOOR SYSTEM DOWN TO CONCRETE. CLEAN AND PREP CONCRETE AS NECESSARY FOR INSTALLATION OF NEW WOOD FLOORING SYSTEM.
- 2 REMOVE AND DISPOSE OF EXISTING REMOVEABLE FLOOR PANEL. SALVAGE ANY HARDWARE AS REQUIRED FOR CONSTRUCTION OF NEW REMOVEABLE PANEL.
- 3 REMOVE AND DISPOSE OF EXISTING REMOVEABLE FLOOR PANEL. SCAFFOLDING TO REMAIN FOR INSTALLATION OF NEW REMOVEABLE FLOOR PANELS. SALVAGE ANY HARDWARE AS REQUIRED FOR CONSTRUCTION OF NEW PANELS.
- 4 REMOVE AND SALVAGE EXISTING NOSING AND TRIM FOR REINSTALLATION.

SHEET TITLE  
FIRST FLOOR DEMOLITION PLAN

OWNER  
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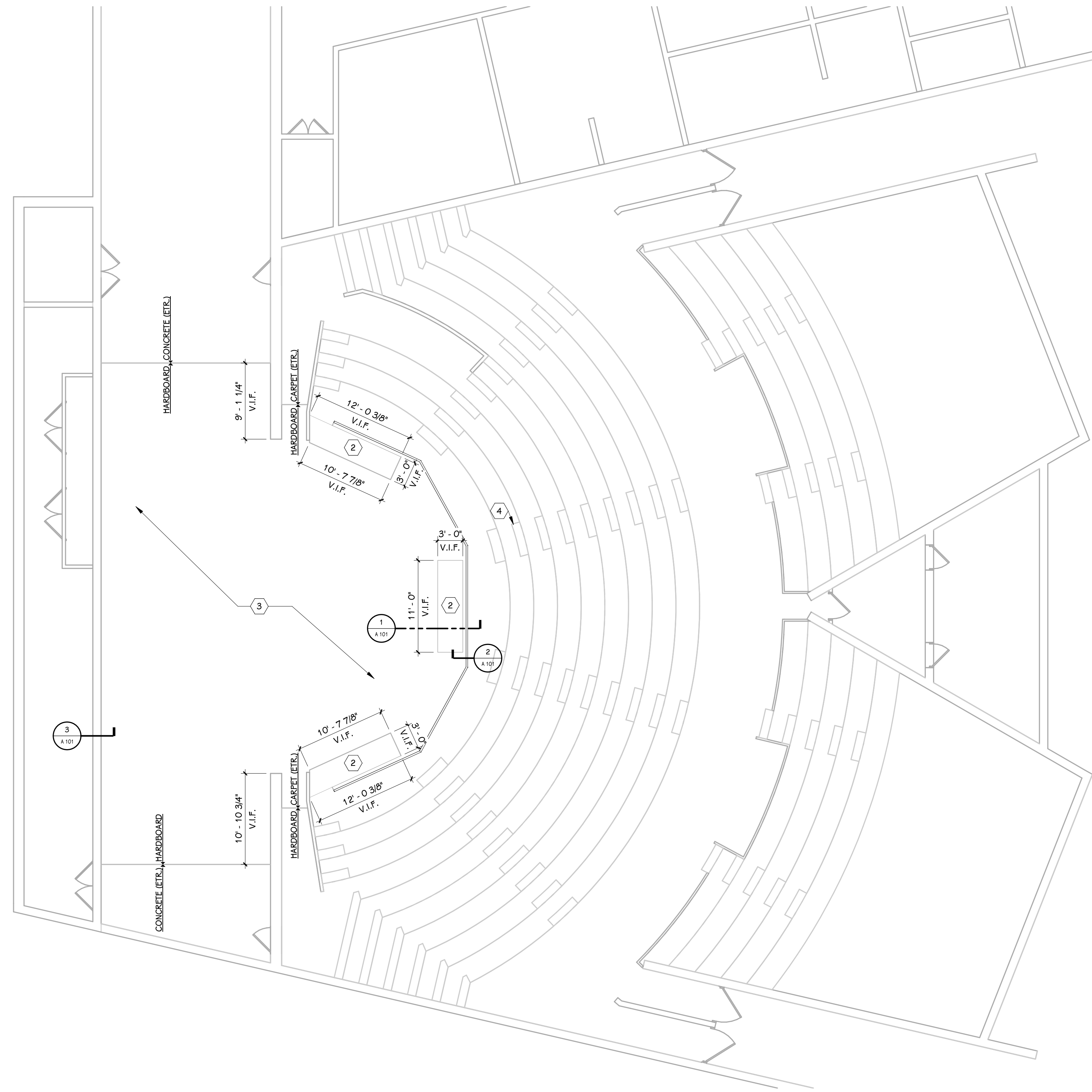
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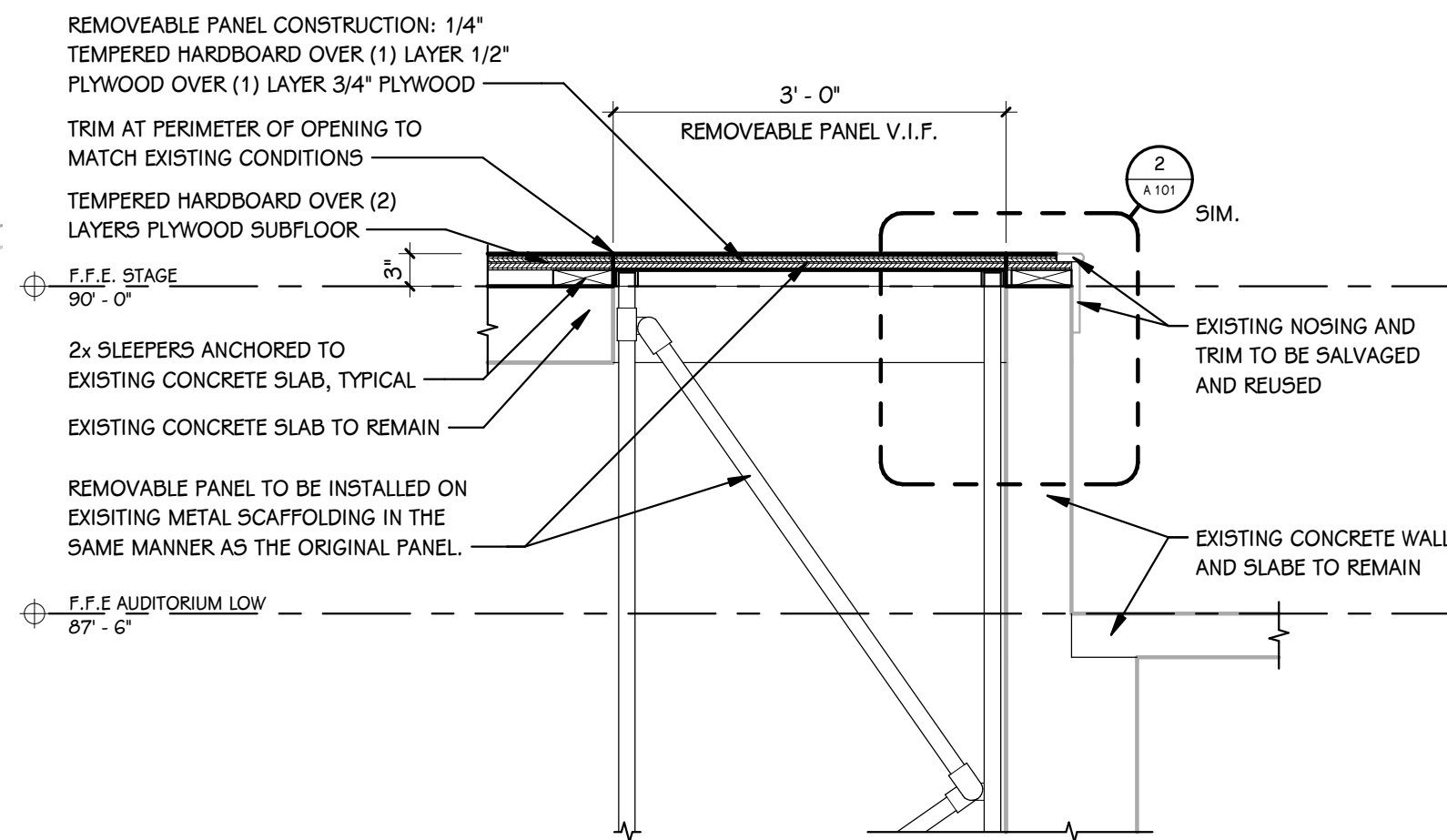
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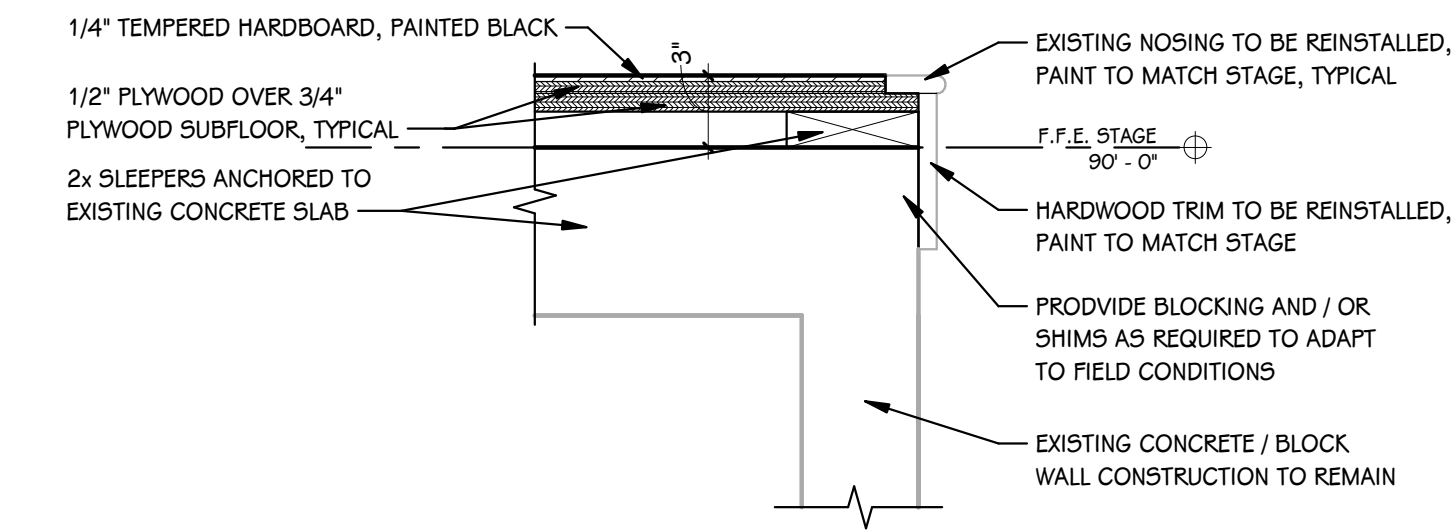




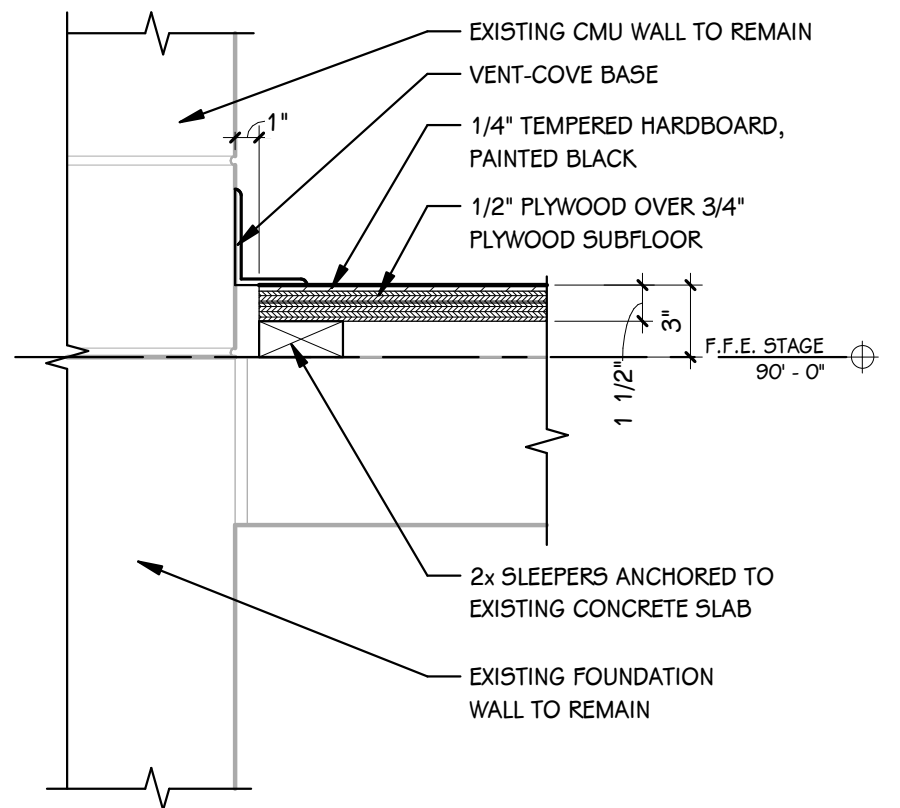
**FIRST FLOOR PLAN**  
1/8" = 1'-0"



**1 REMOVABLE PANEL SECTION**  
3/4" = 1'-0"



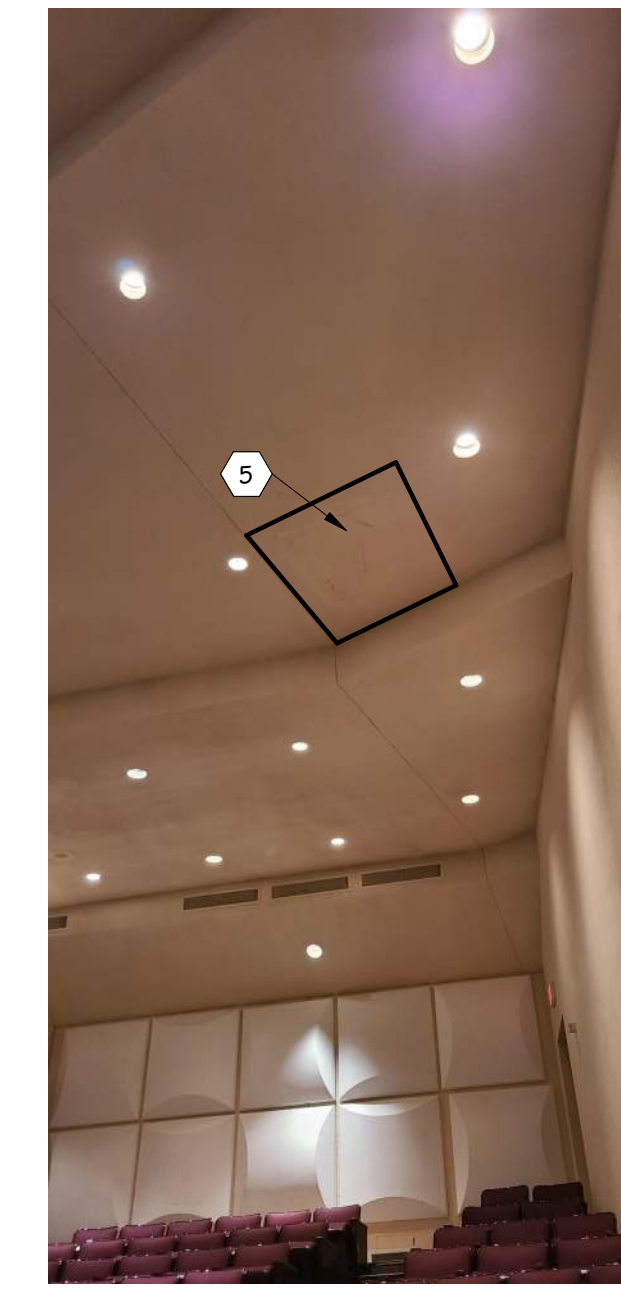
**2 TYPICAL STAGE NOSING DETAIL**  
1 1/2" = 1'-0"



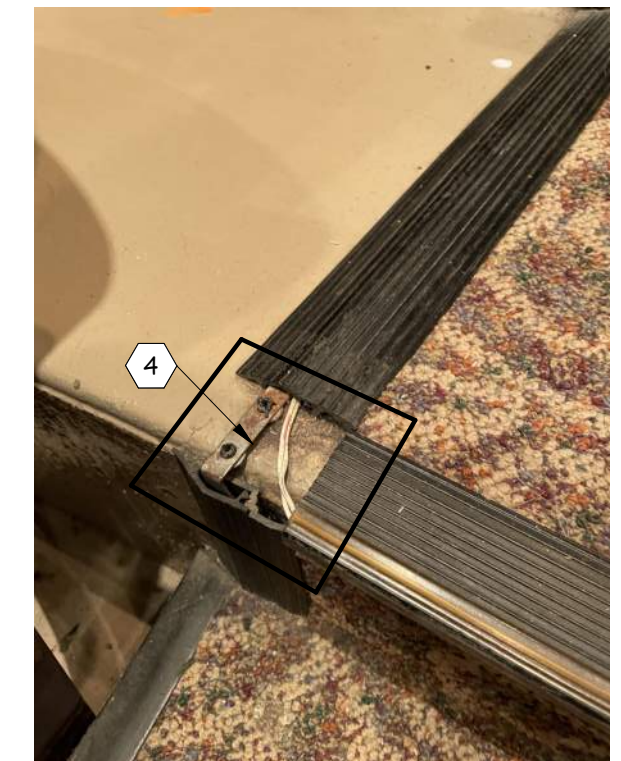
**3 TYPICAL WOOD FLOOR AT WALL**  
1 1/2" = 1'-0"



**5 PLASTER CEILING REPAIR (SOUTH LECTURE AREA)**  
SCALE: NONE



**6 PLASTER CEILING REPAIR (NORTH LECTURE AREA)**  
SCALE: NONE



**4 TYPICAL MISSING/DAMAGED CORNER TRIM ON STAIR LIGHTS**  
SCALE: NONE

**GENERAL NOTES**









1. ALL DIMENSIONS ARE TO BE VERIFIED IN FIELD PRIOR TO FABRICATION.
2. ARCHITECT IS TO BE NOTIFIED OF ANY OBSTRUCTIONS, NOT NOTED IN DRAWINGS, WHICH WOULD PREVENT DEMO AND/OR INSTALLATION OF NEW STAGE FLOORING.
3. CONTRACTOR IS TO VERIFY WITH OWNER WHICH STAGE JUNCTION BOXES ARE TO REMAIN AND WHICH ARE TO BE REMOVED. ALL BOXES THAT ARE TO BE DEMOLISHED ARE TO BE REMOVED IN THEIR ENTIRETY.

**KEYED NOTES - NEW CONSTRUCTION**

2. REMOVABLE WOOD FLOOR PANEL ON EXISTING METAL SCAFFOLDING. MATERIAL, FINISH AND ELEVATION TO MATCH STAGE FLOORING.
3. PAINTED HARDBOARD FLOORING, REFER TO DETAILS FOR ADDITIONAL INFORMATION.
4. INSTALL NEW CORNER TRIM ON EXISTING STEP LIGHTING WHERE MISSING OR DAMAGED, TRIM IS TO MATCH EXISTING LIGHTING SYSTEM. CONTRACTOR IS TO IDENTIFY AND CONFIRM LOCATIONS WITH OWNER.
5. PATCH AND REPAIR AREAS OF DAMAGED PLASTER, PAINT TO MATCH EXISTING SURFACES.



**AUDIO/VISUAL/LIGHTING SYMBOLS**

-  PROJECTOR, (REFER TO DETAILS)
-  EXISTING ETC DIMMER RACK, (REFER TO DETAILS)
-  EXISTING AUXILIARY LIGHTING EQUIPMENT RACK, (REFER TO DETAILS)
-  ARCHITECTURAL CONTROL PROCESSOR, (REFER TO DETAILS)
-  TOUCHSCREEN LIGHTING CONTROL, (REFER TO DETAILS)
-  LIGHTING BUTTON STATION, (REFER TO DETAILS)
-  EXISTING EQUIPMENT RACK, (REFER TO DETAILS)
-  LOUDSPEAKER CEILING - MOUNTED, (REFER TO DETAILS)

**GENERAL TECHNOLOGY NOTES**

- 1 TECHNOLOGY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR NEW WORK OR WHERE DEVICES ARE REMOVED AND NOT REPLACED.
- 2 WALL MOUNT DEVICES ARE TO ALIGN VERTICALLY AND HORIZONTALLY. A PRE-INSTALL DEVICE COORDINATION MEETING FOR DEVICE FINISHES AND LAYOUT MAY BE REQUIRED IN THE SPECIFICATION FOR THIS PROJECT.
- 3 REFER TO TECHNOLOGY, ELECTRICAL AND ARCHITECTURAL DETAILS AND ELEVATIONS FOR SYMBOL INFORMATION AND ELEVATION DETAIL.
- 4 DEVICES AND EQUIPMENT SHOWN DASHED OR WITH AN "X" ARE TO BE REMOVED. FIXTURES, DEVICES AND EQUIPMENT SHOWN LIGHTLY OR WITH AN "E" ARE EXISTING TO REMAIN UNDISTURBED.
- 5 DEVICES SHOWN WITH AN "R" ARE EXISTING TO BE REPLACED WITH NEW DEVICE AND COVERPLATE.
- 6 TEMPORARILY SUPPORT EXISTING CEILING DEVICES TO REMAIN IN EXISTING CEILINGS TO BE REPLACED. REINSTALL DEVICES INTO NEW CEILING.
- 7 CONTRACTOR SHALL BE RESPONSIBLE FOR PROJECT PHASING. TEMPORARY WIRING TO KEEP SYSTEMS RUNNING SHALL BE PROVIDED AS REQUIRED WHILE BUILDING IS OCCUPIED BETWEEN PHASES OF CONSTRUCTION.
- 8 ALL EQUIPMENT AND DEVICES SHALL BE CAREFULLY REMOVED TO AVOID DAMAGE. OWNER SHALL BE GIVEN FIRST RIGHT OF REFUSAL ON EQUIPMENT. TURN OVER DEVICES TO OWNER AT OWNER'S REQUEST. REFUSED EQUIPMENT SHALL BE RECYCLED OR DISPOSED OF OFF SITE BY CONTRACTOR.
- 9 EACH TECHNOLOGY CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF INDICATED TECHNOLOGY DEVICES AND/OR CABLING OF THE TYPE THAT THE CONTRACTOR IS PROVIDING FOR IN NEW CONSTRUCTION. ADHERE TO PHASING REQUIREMENTS.
- 10 CONTRACTOR SHALL FOLLOW EXISTING CABLE PATH WHERE POSSIBLE. IN EXPOSED AREAS, INSTALL CABLING IN CONDUIT OR PANDUIT LD SERIES SURFACE RACEWAY UP TO 10' AFF. PAINT CONDUIT/RACEWAY TO MATCH WALL. SUPPORT CABLING ABOVE 10' WITH J-HOOKS.

**AUDIO SYSTEM NOTES**

- 1 AUDIO SYSTEM SHALL BE FREE OF NOISE, RATTLE, HUM, BUZZ, OR ANY OTHER AUDIO DISTORTIONS
- 2 SECURE CABLES UTILIZING VELCRO STRAPS. WIRE 'ZIP TIES' SHALL NOT BE USED
- 3 ROUTE ALL CABLES IN A MANNER THAT WILL ENSURE SIGNAL INTEGRITY AND WILL NOT INTRODUCE CROSSTALK
- 4 PROVIDE A SERVICE LOOP FOR RACKS AND EQUIPMENT SUITABLE TO EASILY PLUG AND UNPLUG EQUIPMENT FOR TROUBLESHOOTING OR REPLACEMENT
- 5 NEATLY DRESS ALL CABLING INSTALLED INSIDE AND OUTSIDE OF RACKS IN A SUITABLE HARNESS TO KEEP CABLES CLEAN, NEAT, AND TIDY
- 6 COMMISSION AUDIO SYSTEM USING AUDIO MEASUREMENT MICROPHONE AND SOFTWARE (SMAART OR EASERA)
- 7 ADJUST EQ AND CROSSOVER SETTINGS IN AMPLIFIER AND/OR DSP TO PROVIDE FLAT FREQUENCY RESPONSE, FULL RANGE AUDIO WITH PROTECTIVE LIMITING
- 8 USE SPEECH, HIGH QUALITY REFERENCE AUDIO, AND SINE WAVE SWEEPS TO TEST THE SYSTEM - CORRECT ANY ABNORMALITIES
- 9 VERIFY PROPER FUNCTION OF ALL INSTALLED EQUIPMENT (NEW AND EXISTING)
- 10 TURN OVER EXISTING UNUSED EQUIPMENT TO OWNER - NEATLY ORGANIZED
- 11 COORDINATE WITH OWNER FOR LABELING OF EQUIPMENT AND AUDIO CONSOLE CHANNELS AND BUSES AS WELL AS CONSOLE CONFIGURATION
- 12 REMOTE MOUNT ALL ANTENNAS AS REQUIRED FOR MAXIMUM PERFORMANCE
- 13 CONFIGURE DELAYS ON ANY SPEAKERS THAT ARE STAGGERED IN A LISTENING PLANE TO TIME-ALIGN AUDIO
- 14 CONNECT COMPONENTS TO POWER SEQUENCER IN SUCH A WAY AS TO MITIGATE POPPING AND SYSTEM DAMAGE DURING SYSTEM POWER UP AND POWER DOWN

**VIDEO SYSTEM NOTES**

- 1 INSTALLED VIDEO SYSTEMS SHALL NOT HAVE NOISE, FLICKER, UNEVEN BRIGHTNESS, OR ANY OTHER VISUAL ANOMOLIES OR DEFICIENCIES
- 2 EDID SHALL BE MANAGED AND MAINTAINED TO ENSURE PROPER DISPLAY IDENTIFICATION BY SOURCES
- 3 HDCP SHALL BE MAINTAINED FROM ALL SOURCES TO ALL SINKS
- 4 COORDINATE ALL NETWORK NEEDS WITH OWNER INCLUDING IP ADDRESSING, PROTOCOLS REQUIRED FOR EQUIPMENT OPERATION, AND BANDWIDTH IMPLICATIONS

**THEATRICAL LIGHTING NOTES**

- 1 DMX WIRE MUST BE INSTALLED AS A DAISY-CHAIN UNLESS SHOWN OTHERWISE
- 2 TOTAL LENGTH OF A DMX CABLE RUN SHALL NOT EXCEED 1000 FEET AND SHALL NOT INCLUDE MORE THAN 32 DEVICES
- 3 A DMX TERMINATOR MUST BE INSTALLED AT THE END OF EACH RUN
- 4 NETWORK WIRING RUNS SHALL NOT EXCEED 295 FEET
- 5 SECURE CABLES USING VELCRO STRAPS. WIRE 'ZIP-TIES' SHALL NOT BE USED.
- 6 PROVIDE A SERVICE LOOP FOR RACKS AND EQUIPMENT SUITABLE TO EASILY PLUG AND UNPLUG EQUIPMENT FOR TROUBLESHOOTING OR REPLACEMENT
- 7 NEATLY DRESS ALL CABLING INSTALLED INSIDE AND OUTSIDE OF RACKS IN A SUITABLE HARNESS TO KEEP CABLES CLEAN, NEAT, AND TIDY
- 8 PROVIDE ALL NETWORK EQUIPMENT REQUIRED FOR AN OPERABLE SYSTEM
- 9 VERIFY SEAMLESS CONTROL OF ALL THEATRICAL AND ARCHITECTURAL LIGHTING FROM ALL CONTROL STATIONS
- 10 COORDINATE WITH OWNER FOR LABELING OF EQUIPMENT, PROGRAMMING OF LIGHTING CONSOLE, AND PROGRAMMING OF BUTTON STATION AND TOUCH SCREEN PRESETS

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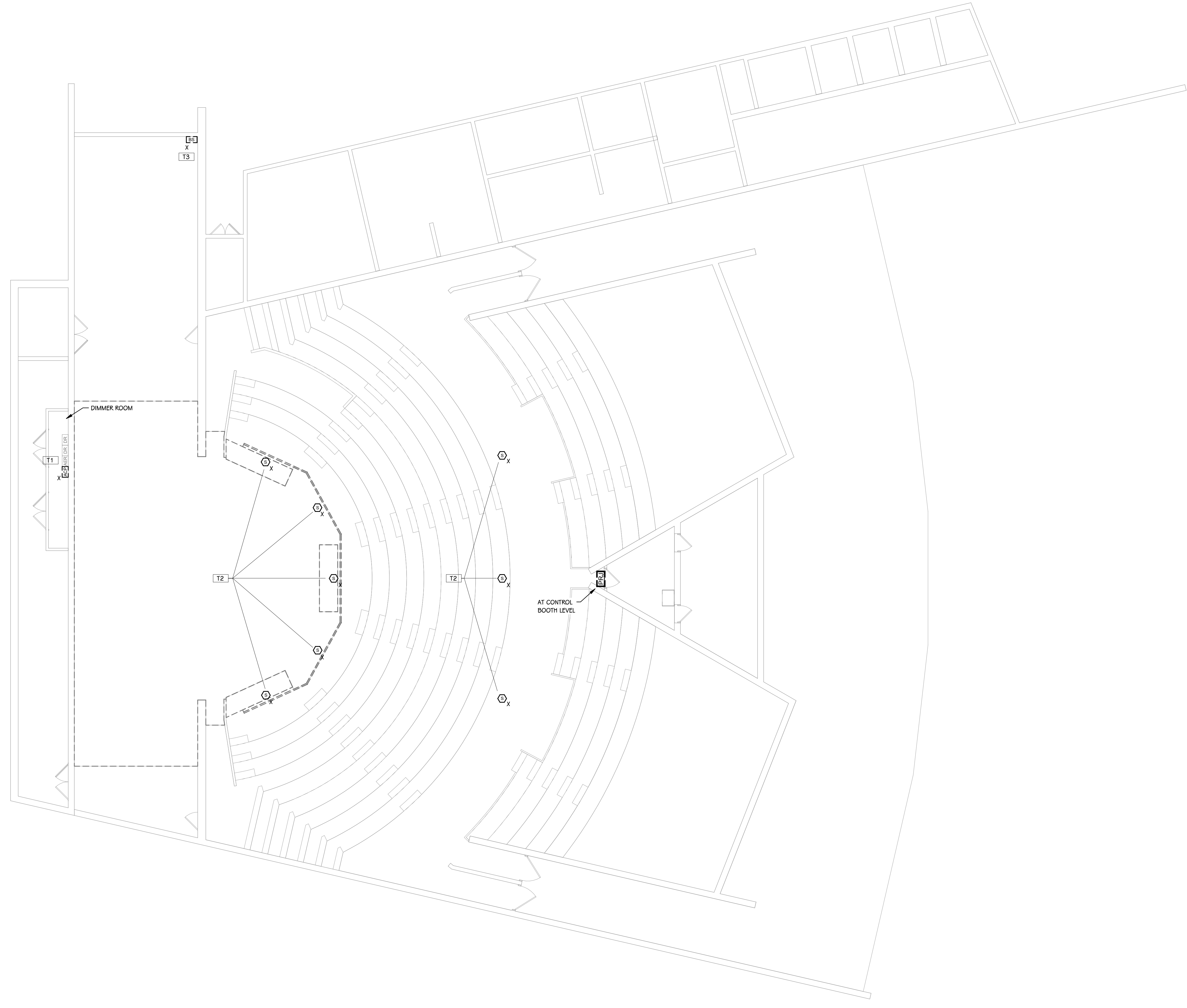
PROJECT TITLE  
NORTHERN AUDITORIUM IMPROVEMENTS

OWNER  
PORTAGE PUBLIC SCHOOLS

SHEET TITLE  
TECHNOLOGY SYMBOLS AND GENERAL NOTES

Portage, Michigan

SHEET NUMBER  
**T 001**  
DATE  
MARCH 25, 2022  
22-103.00



- TECHNOLOGY DEMOLITION KEYED NOTES**
- T1 REMOVE EXISTING ARCHITECTURAL CONTROL PROCESSOR AND SPECIFIC EQUIPMENT FROM DIMMER RACKS AND AUXILIARY EQUIPMENT RACK TO BE REPLACED AS PART OF CONTROL SYSTEM AND POWER PACKAGE UPGRADE. REFER TO LIGHTING SYSTEM DIAGRAM ON T401 FOR EQUIPMENT DETAILS.
  - T2 DISCONNECT AND REMOVE SPEAKERS AND RIGGING THAT WILL NOT BE REUSED. COIL ANY UNUSED SPEAKER CABLE NEATLY ABOVE CEILING AND ATTACH TO STRUCTURE WITH CABLE TIES. TURN OVER SPEAKERS TO OWNER AND DISPOSE OF RIGGING OFF SITE.
  - T3 REMOVE EXISTING BUTTON STATION AND TURN OVER TO OWNER. CABLING TO REMAIN. INSTALL 1-GANG STAINLESS STEEL BLANK COVER PLATE.

 **AUDITORIUM TECHNOLOGY DEMOLITION PLAN**  
1/8" = 1'-0"

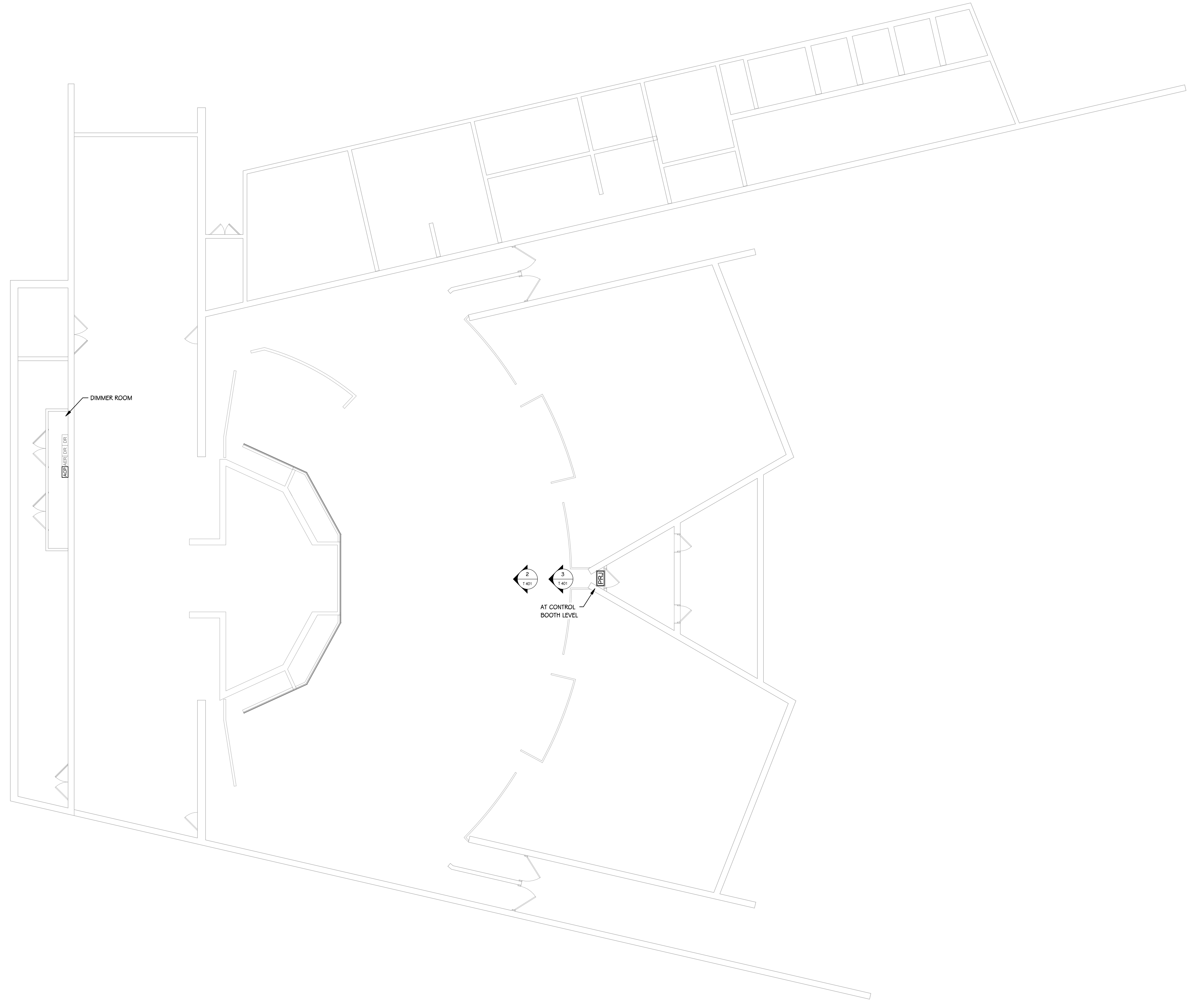
SHEET TITLE  
AUDITORIUM TECHNOLOGY  
DEMOLITION PLAN

SHEET NUMBER  
**TD 101**  
22-103.00

OWNER  
Portage, Michigan

PROJECT TITLE  
PORTAGE PUBLIC SCHOOLS  
NORTHERN AUDITORIUM IMPROVEMENTS

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- TECHNOLOGY KEYED NOTES**
- 1 UTILIZE EXISTING SPEAKER LOCATION. MAINTAIN MOUNTING HEIGHT. ATTACH TO ABOVE STEEL STRUCTURE. ADJUST OR REPLACE RIGGING AS NECESSARY TO OPTIMIZE AUDIO COVERAGE OF SEATING.
  - 2 MATCH MOUNTING HEIGHT OF EXISTING MAIN SPEAKERS. INSTALL NEW RIGGING ATTACHED TO ABOVE STEEL STRUCTURE AND ADJUST TO OPTIMIZE AUDIO COVERAGE OF SEATING AREA.

 **AUDITORIUM MAIN LEVEL TECHNOLOGY PLAN**  
1/8" = 1'-0"

SHEET TITLE  
AUDITORIUM MAIN LEVEL TECHNOLOGY  
PLAN

SHEET NUMBER  
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- TECHNOLOGY KEYED NOTES**
- 1 UTILIZE EXISTING SPEAKER LOCATION. MAINTAIN MOUNTING HEIGHT. ATTACH TO ABOVE STEEL STRUCTURE. ADJUST OR REPLACE RIGGING AS NECESSARY TO OPTIMIZE AUDIO COVERAGE OF SEATING.
  - 2 MATCH MOUNTING HEIGHT OF EXISTING MAIN SPEAKERS. INSTALL NEW RIGGING ATTACHED TO ABOVE STEEL STRUCTURE AND ADJUST TO OPTIMIZE AUDIO COVERAGE OF SEATING AREA.

 **AUDITORIUM TECHNOLOGY CEILING PLAN**  
1/8" = 1'-0"

SHEET TITLE  
AUDITORIUM TECHNOLOGY CEILING  
PLAN

SHEET NUMBER  
**T 151**  
22-103.00

DATE  
MARCH 25, 2022

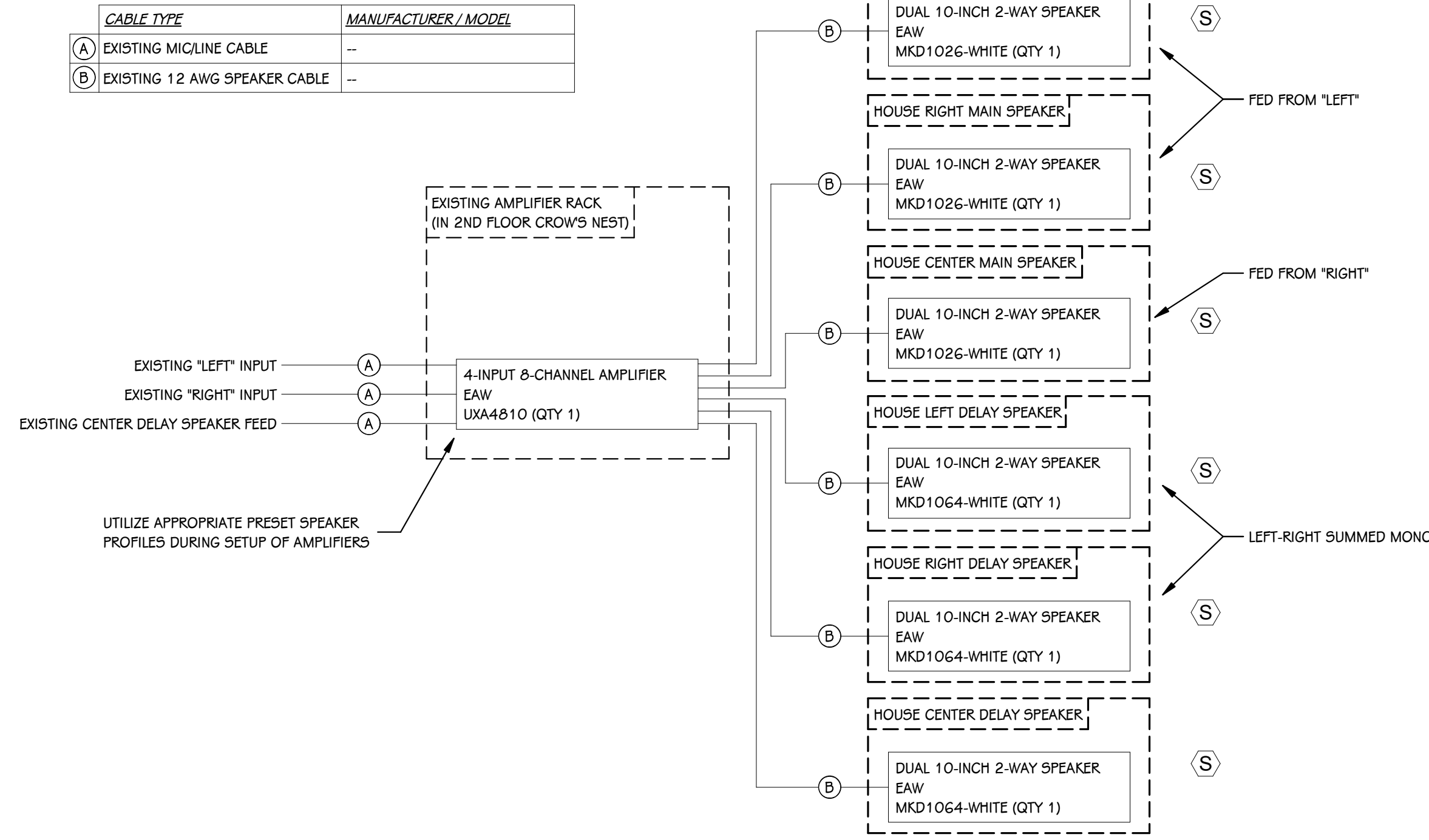
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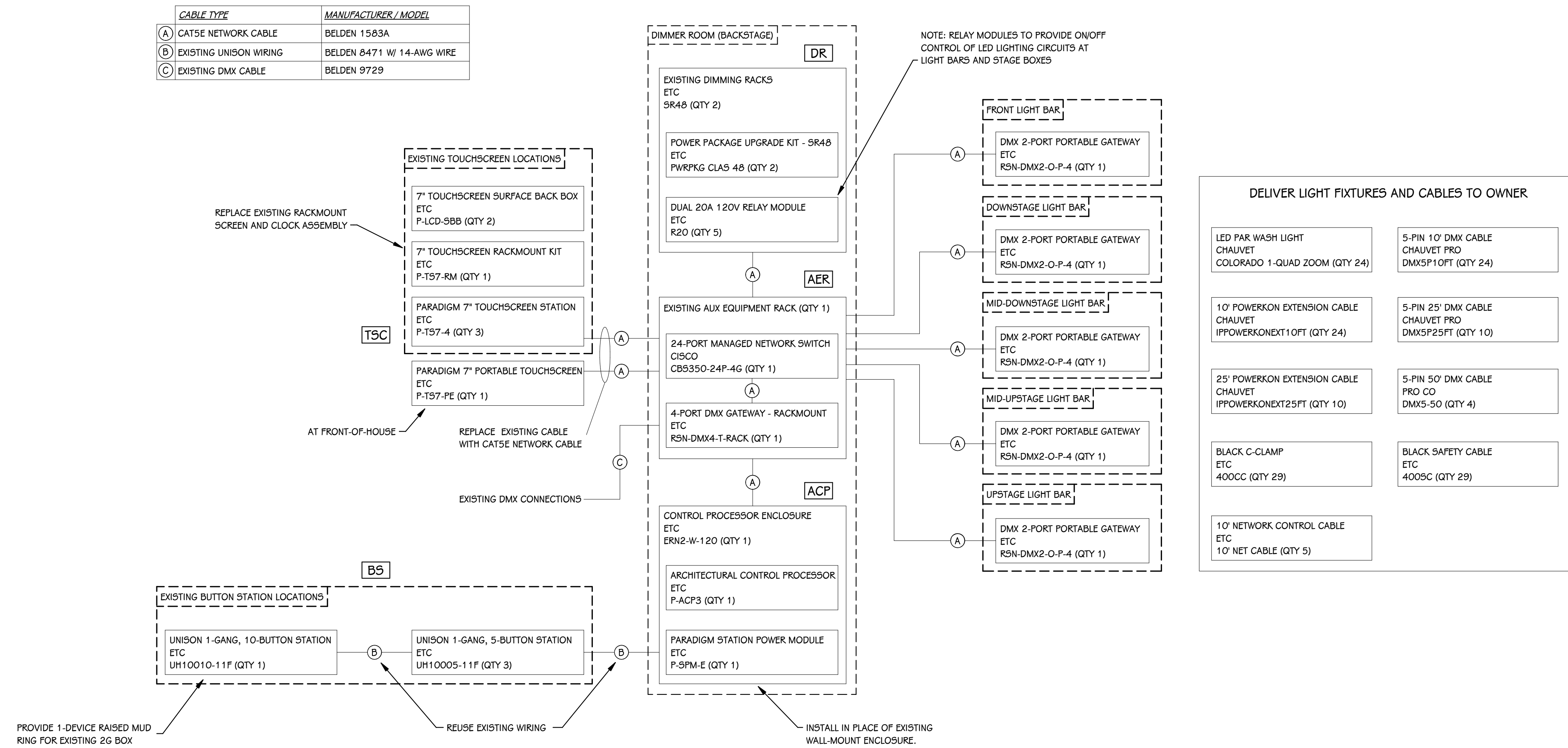
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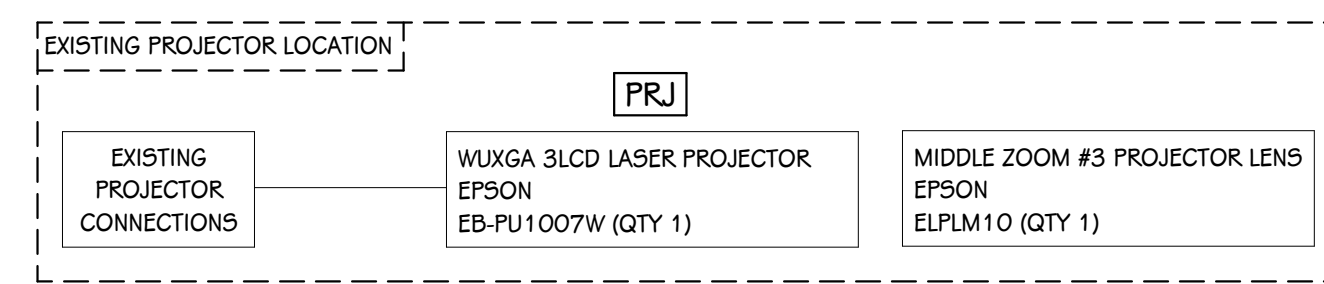




1 AUDITORIUM AUDIO SYSTEM DIAGRAM  
 T 401 SCALE: NONE



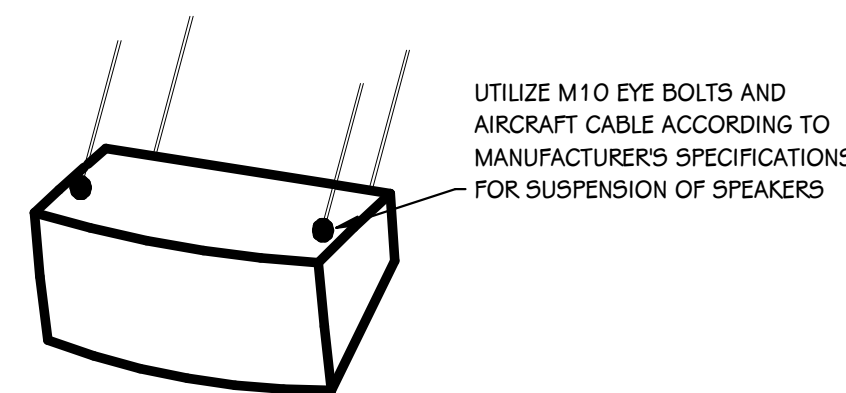
2 AUDITORIUM LIGHTING SYSTEM DIAGRAM  
 T 401 SCALE: NONE



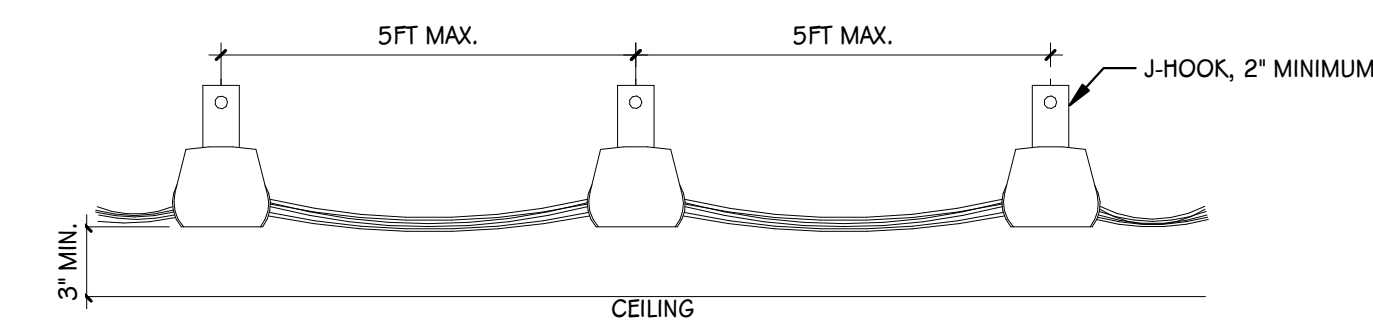
3 PROJECTOR DETAIL  
 T 401 SCALE: NONE

MOUNT SPEAKERS HORIZONTALLY IN LOCATIONS SHOWN ON T 151

ADJUST VERTICAL TILT AND HORIZONTAL ROTATION TO OPTIMIZE COVERAGE OF SEATING AREA



SPEAKER MOUNTING DETAIL  
 SCALE: NONE



CABLE SUPPORT DETAIL  
 SCALE: NONE