

**MSU-PDC**  
MONTANA STATE UNIVERSITY  
BOZEMAN, MONTANA  
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**MUSEUM OF THE ROCKIES -  
REAR GALLERY CEILING  
RENOVATION**



DRAWN BY:	Author	
REVIEWED BY:	Checker	
REV.	DESCRIPTION	DATE



PPA#22-0055

22037

6088.012.

**SHEET TITLE**  
Cover Sheet

**SHEET**  
**G000**

**DATE**  
15 November 2023

**GENERAL NOTES**

1. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK AND SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.
2. DIMENSIONS TAKE PRECEDENCE OVER DRAWING. DO NOT SCALE DRAWINGS TO DETERMINE ANY LOCATIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO CONTINUING WITH WORK.
3. GENERAL CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE IN A BROOM CLEAN CONDITION AT ALL TIMES DURING THE PROJECT.
4. THE CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES OR OMISSIONS HE OR SHE MAY DISCOVER. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY ERROR AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE ARCHITECT. THE MEANS OF CORRECTING ANY ERROR SHALL FIRST BE APPROVED BY THE ARCHITECT.
5. ALL REQUIRED CITY AND/OR COUNTY LICENSE SHALL BE ACQUIRED AND PAID FOR BY THE INDIVIDUAL TRADE. CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED BY LOCAL LAWS, ORDINANCES AND REGULATIONS PERTAINING TO THIS WORK.
6. SHOP DRAWINGS ARE TO BE CHECKED AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING FOR ARCHITECT/ENGINEER REVIEW. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF ALL DIMENSIONS AND DETAILS FOR EACH SUBCONTRACTOR. THE ARCHITECT WILL REVIEW SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT. THE ARCHITECT'S REVIEW OF A SEPARATE ITEM SHALL NOT INDICATE APPROVAL OF AN ASSEMBLY IN WHICH THE ITEM FUNCTIONS.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
8. CITY APPROVED PLANS SHALL BE KEPT IN A SECURE PLACE AND SHALL NOT BE USED BY WORKERS. THE CONTRACTOR SHALL BE RESPONSIBLE THAT ALL SUBCONTRACTORS CONSTRUCTION SETS REFLECT THE SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN, IN GOOD CONDITION, ONE COMPLETE SET OF STAMPED CITY APPROVED PLANS WITH ALL REVISIONS, ADDENDUMS, AND CHANGE ORDERS, ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT AND MUST BE MADE AVAILABLE TO BUILDING AND FIRE INSPECTIONS FOR REFERENCE DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL REQUIRED INSPECTIONS FROM THE APPROPRIATE REGULATORY AGENCIES.
10. CONTRACTOR SHALL SUBMIT COPIES OF INSPECTION REPORTS FOR ALL REQUIRED INSPECTIONS TO THE ARCHITECT AND ENGINEERS.
11. THE CONTRACTOR TO PROVIDE TEMPORARY FENCING AND ENCLOSURES AROUND THE SITE AND CONSTRUCTION STAGING AREA FOR THE PROTECTION OF THE OTHER SITE OCCUPANTS AND PUBLIC SAFETY.
12. THE CONTRACTOR TO CONTROL ALL CONSTRUCTION ACCESS DELIVERIES AND PROTECT ADJACENT SITE ELEMENTS INCLUDING ROADS, DRIVES, CURBS, SIDEWALKS, ETC. DURING THE CONSTRUCTION PHASE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL JOB COMPLETION.
14. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.
15. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS AND SHALL MAINTAIN THE STRUCTURAL INTEGRITY OF ANY CONSTRUCTION UNTIL ALL FINAL LATERAL AND VERTICAL LOAD CARRYING SYSTEMS ARE COMPLETED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE OR REMEDY ANY FAULTY, IMPROPER, OR INFERIOR MATERIALS OR WORKMANSHIP WHICH SHALL APPEAR WITHIN ONE (1) YEAR AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT.
17. CONTRACTOR TO PROVIDE BACKING OR BLOCKING AS REQUIRED FOR MOUNTING ALL WALL MOUNTED SHELVES, EQUIPMENT, ACCESSORIES, CABINETS, ETC.
18. CONTRACTOR TO PROTECT ALL TREES AND ROOTS NOT SLATED FOR REMOVAL DURING CONSTRUCTION.
19. GENERAL CONTRACTOR RESPONSIBLE FOR MAINTENANCE OF STAGING AREA AND TO ENSURE THAT MATERIALS DELIVERY AND STORAGE DOES NOT INTERFERE WITH DAILY OPERATION OF ADJACENT PROPERTIES OR PUBLIC RIGHT OF WAY.
20. GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION STAGING AND BUILDING LAYOUT.
21. ALL DIMENSIONS ARE TAKEN FROM F.O. STUD OR COLUMN CL. U.N.O.
22. ALL DOOR/WINDOW DIMENSIONS ARE TO WINDOW CL. IF NO CL. DIMENSION IS SHOWN FOR A PARTICULAR DOOR/WINDOW TYPE, SEE SCHEDULE AND DOOR/WINDOW DETAILS FOR TYPICAL INSTALLATION DETAIL.
23. GENERAL NOTES SHALL NOT SUBSTITUTE FOR SPECIFICATIONS. CONFLICTS BETWEEN THE TWO SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S NOTICE OR THE STRICTER CRITERIA SHALL BE USED.
24. THIS PROJECT HAS BEEN DESIGNED AND DEVELOPED TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL ADA REQUIREMENTS.
25. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIRE SAFEGING AND JOINT SEALANTS OF BUILDING PENETRATIONS THAT OCCUR DURING CONSTRUCTION.

SHEET #	SHEET NAME
STRUCTURAL	
S101	STRUCTURAL NOTES
S202	ROOF FRAMING PLAN
ARCHITECTURAL	
A100	CEILING PLANS & SECTIONS
FIRE PROTECTION	
FX000	FIRE SUPPRESSION PLANS
MECHANICAL	
M000	MECHANICAL COVER SHEET
M100	MECHANICAL NOTES AND SCHEDULES
M200	MECHANICAL PLANS
ELECTRICAL	
E000	ELECTRICAL COVER SHEET
E100	POWER AND SPECIALTY SYSTEMS PLANS
E200	LIGHTING PLANS

**PROJECT DIRECTORY**

**Owner:**

MONTANA STATE UNIVERSITY, UNIVERSITY  
FACILITIES MANAGEMENT - PDC  
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MATT SEDOR, PROJECT MANAGER  
MSEODOR@45ARCH.COM

**Mechanical:**

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NICK TOLSTEDT  
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**Structural:**

STAHLY ENGINEERING & ASSOCIATES, INC.  
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(406) 522-8594  
THERON THOMPSON, P.E.  
TTHOMPSON@SEAEENG.COM



**PROJECT INFORMATION**

**PROJECT NAME:** MUSEUM OF THE ROCKIES REAR GALLERY CEILING RENOVATION

**ZONING:** PUBLIC LANDS AND INSTITUTIONS DISTRICT (PLI)

**CURRENT APPLICABLE CODES:** 2021 INTERNATIONAL BUILDING CODE  
2021 INTERNATIONAL MECHANICAL CODE  
2021 INTERNATIONAL FUEL GAS CODE  
ICC A117.1-2017 STANDARD FOR ACCESSIBLE BUILDINGS  
2021 INTERNATIONAL ENERGY CONSERVATION CODE  
2020 NATIONAL ELECTRIC CODE  
2021 UNIFORM PLUMBING CODE (UPC) (IAPMO)  
2012 INTERNATIONAL FIRE CODE

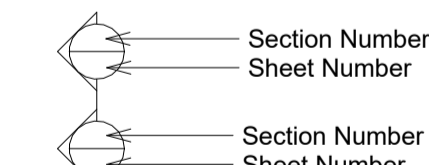
**OCCUPANCY GROUP:** A3 - ASSEMBLY

**CONSTRUCTION TYPE:** II-B (ASSUMED)

**BUILDING AREA:** N/A

**DESCRIPTION OF WORK:** CEILING REPLACEMENT IN REAR GALLERY (ROOM 212) & ADJUSTMENT OF ELECTRICAL/MECHANICAL/LIFE SAFETY SYSTEM DISTRIBUTION.

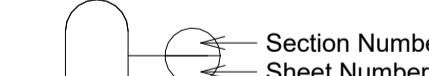
**BUILDING SECTION:**



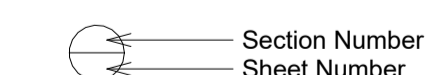
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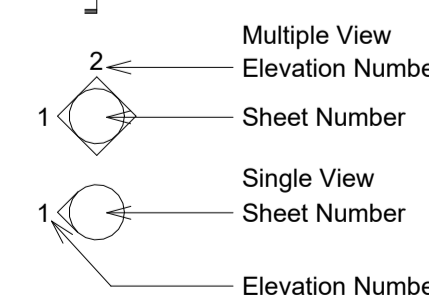
**DETAIL INDICATOR:**



**SECTION DETAIL:**



**ELEVATION INDICATORS:**

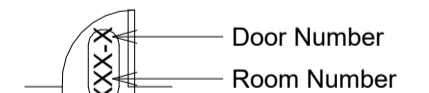


**DRAWING BLOCK:**



**REFERENCE SYMBOLS**

**DOOR OPENING:**



**WINDOW/LOUVER TYPE:**



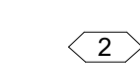
**SYSTEM NOTE:**

F=FLOOR, P=PARTITION  
W=WALL, C=CEILING, R=ROOF

**REVISION:**



**EQUIPMENT INDICATOR:**



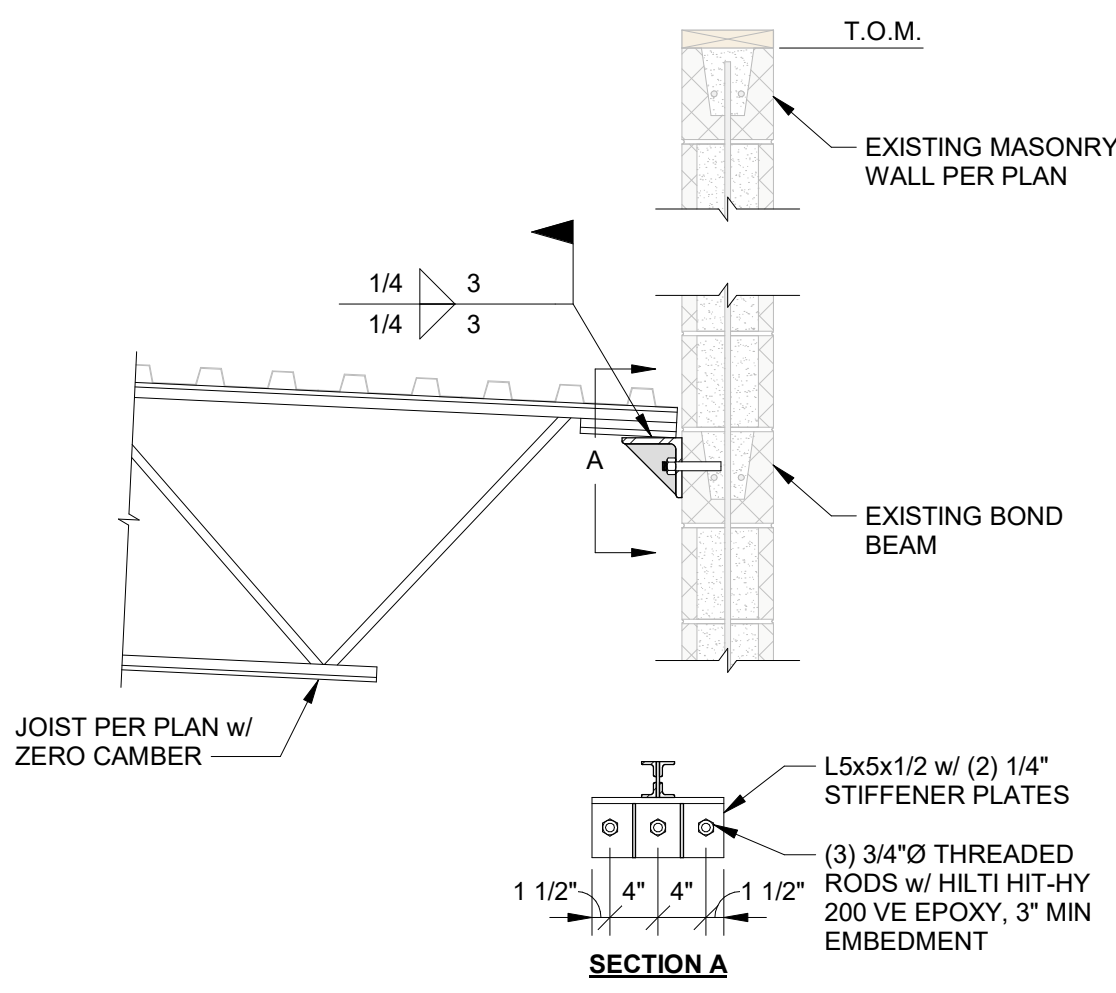
**ELEVATION MARK:**



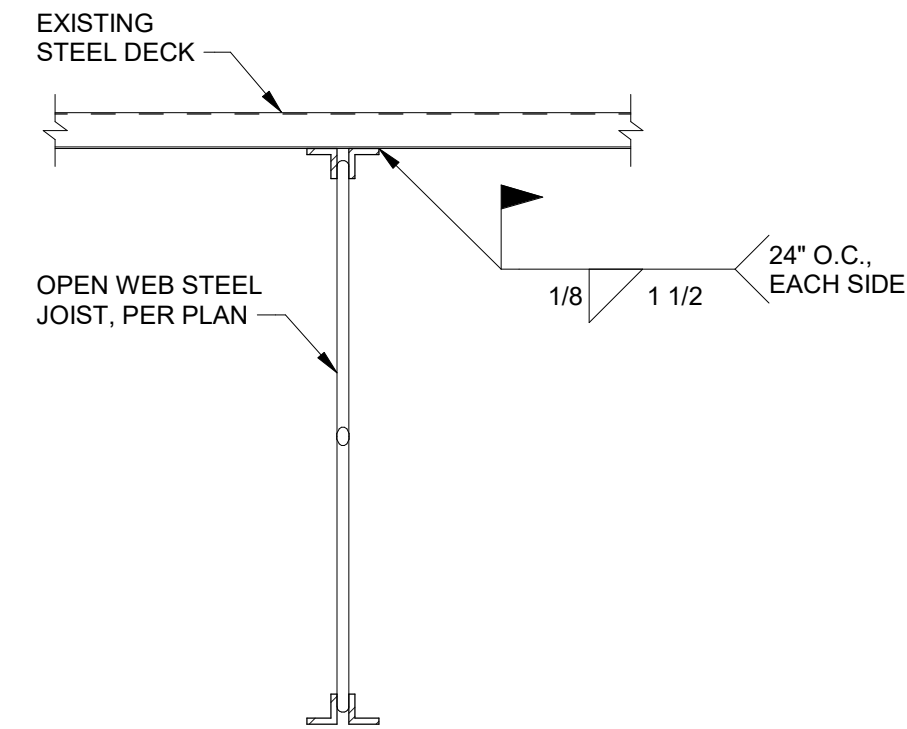
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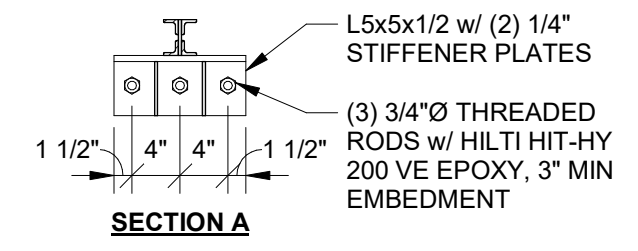




2 ROOF JOIST TO EXISTING MASONRY WALL  
3/4" = 1'-0"



3 STEEL DECK TO JOIST  
1 1/2" = 1'-0"



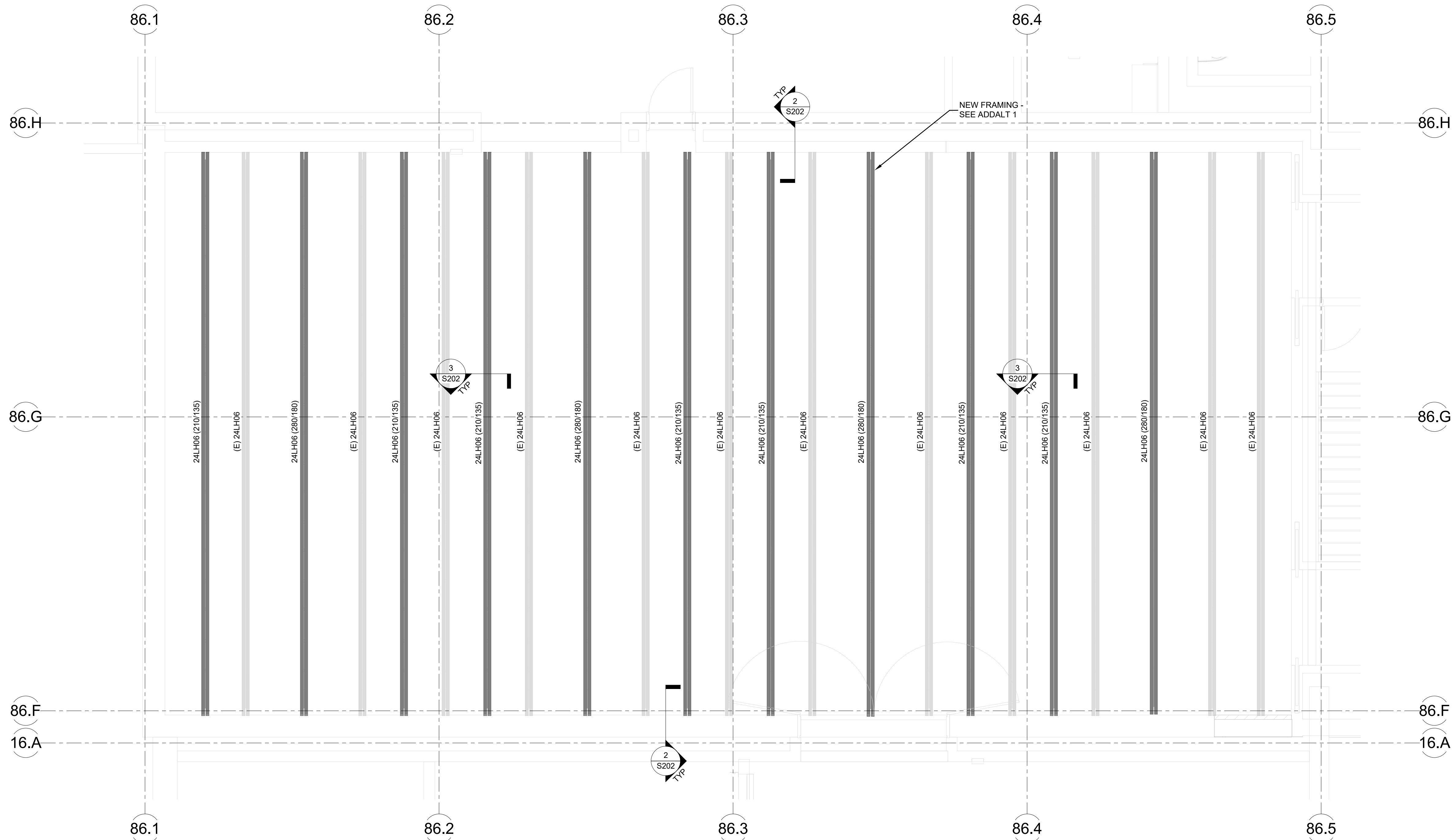
**FRAMING PLAN NOTES:**

- SEE SHEET S0.1 FOR GENERAL STRUCTURAL NOTES

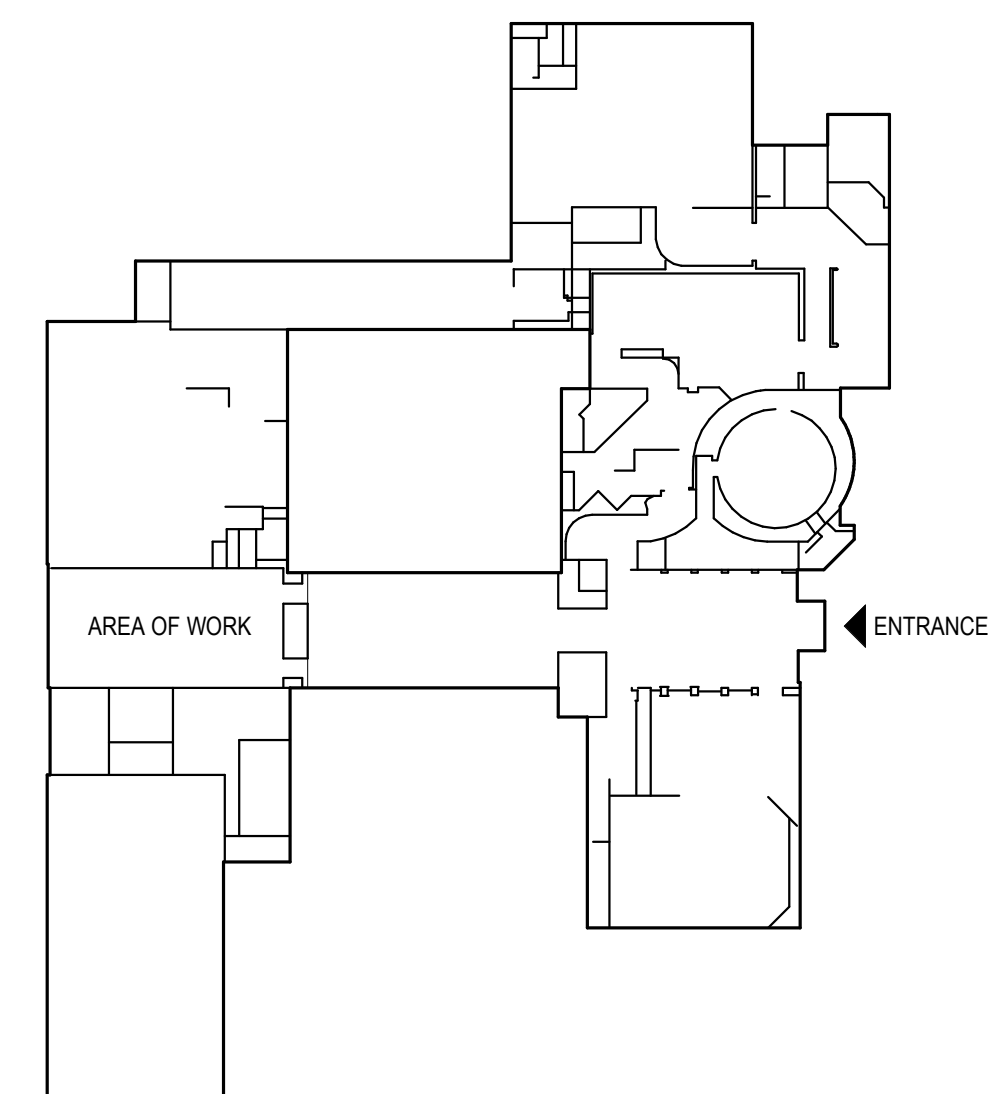
**ALTERNATE BIDS**

ADD ALTERNATE BID NO. 1: ALTERATIONS AND SCOPE OF WORK TO AUGMENT THE ROOF STRUCTURE, IN ANTICIPATION OF FUTURE REAR GALLERY RENOVATIONS.

ADD ALTERNATE BID NO. 2: ALTERATIONS AND SCOPE OF WORK TO PROVIDE & INSTALL A UNISTRUT CEILING RAIL SYSTEM FOR REAR GALLERY EXHIBIT USES.



1 ROOF FRAMING PLAN  
1/4" = 1'-0"



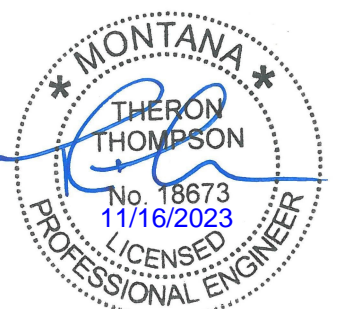
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MOR - REAR EXHIBIT HALL  
REAR GALLERY CEILING  
RENOVATION



DRAWN BY: JHN  
REVIEWED BY: TJT

REV.	DESCRIPTION	DATE



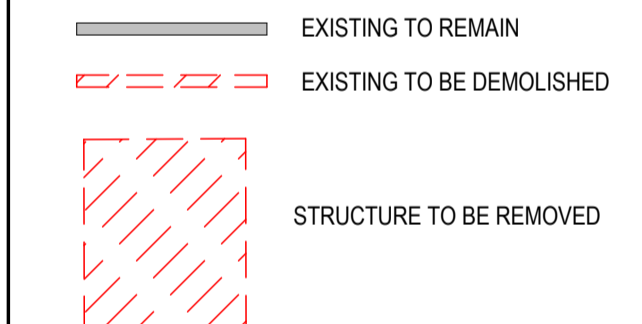
PPA# 22-0055  
22037  
6088.012.  
SHEET TITLE  
ROOF FRAMING  
PLAN  
SHEET  
S202

DATE  
15 November 2023

**GENERAL SHEET NOTES**

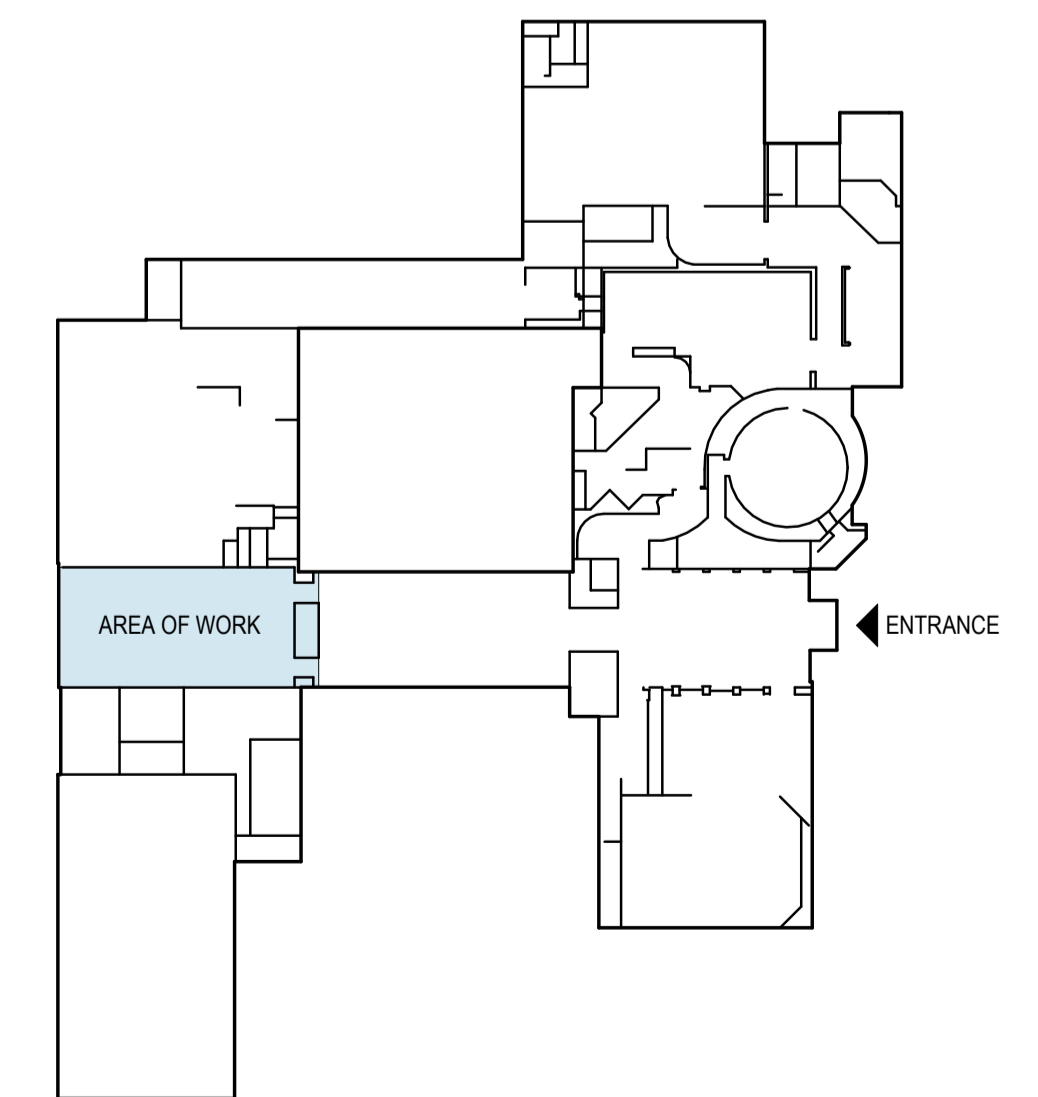
- A. ALL FINISHED CEILING HEIGHTS ARE FROM TOP OF SUBFLOOR BELOW.
- B. SEE ELECTRICAL DRAWINGS FOR LIGHTING TYPES AND SCHEDULES.
- C. SEE ELECTRICAL AND INTERIOR SHEETS FOR LIGHTING PRODUCTS.
- D. CEILING GRIDS ARE TO BE CENTERED IN ROOMS AS SHOWN OR LOCATED PER INDICATED DIMENSIONS. AVOID LAYOUTS THAT RESULT IN CEILING TILES LESS THAN ONE HALF OF FULL TILE WIDTH.
- E. CENTER ALL CEILING-MOUNTED ITEMS LOCATED IN CEILING GRIDS, ACOUSTICAL PANELS, GYPSUM BOARD SOFFITS, AND BETWEEN OTHER CEILING MOUNTED FIXTURES.
- F. FIRE SPRINKLER HEADS AND CEILING MOUNTED DEVICES ARE SHOWN FOR ARCHITECTURAL INTENT ONLY IN SELECTED ROOMS. DEVICES NOT SHOWN SHALL NOT BE INTERPRETED AS NOT REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SATISFY THE REQUIREMENTS OF THE LOCAL JURISDICTION FOR QUANTITY AND LOCATION OF DEVICES THROUGHOUT THE PROJECT. OBTAIN APPROVAL OF THE LAYOUT FROM THE ARCHITECT PRIOR TO INSTALLATION OF ALL SYSTEMS AND DEVICES.
- G. VERIFY ALL SPRINKLER HEAD LOCATIONS WITH FIRE PROTECTION DRAWINGS.
- H. CENTER LIGHTS IN ROOMS OR SPACES UNLESS DIMENSIONED OTHERWISE.
- I. SEE MECHANICAL DRAWINGS FOR DIFFUSER TYPES, CENTER MECH. DIFFUSERS, GRILLES AND ACCESS PANELS IN GRID, ROOM OR SPACE. ALIGN WITH LIGHT FIXTURES WHERE APPLICABLE.
- J. SEE MECHANICAL AND PLUMBING FOR REQUIRED ACCESS PANEL LOCATIONS. PAINT MATCH TO ADJACENT CEILING COLOR.
- K. BRACE SUSPENDED CEILINGS AS REQUIRED.
- L. BRACE ACOUSTIC CEILING CLOUDS AS REQUIRED.
- M. ALL EXPOSED DUCTWORK, SPRINKLER PIPES, CABLE TRAYS, PLUMBING PIPES AND OTHER CEILING UTILITIES TO BE PAINTED P-X.
- N. COORDINATE ACCESS PANELS WITH MECHANICAL.
- O. ALL EXPOSED GWB TO BE PAINTED P-X.
- P. INTERIOR CEILING PLAN DIMENSIONS ARE FACE OF STUD.
- Q. THIS PLAN SHOWS THE LOCATIONS OF ITEMS IN ARCHITECTURALLY SIGNIFICANT ITEMS ONLY. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL PLANS FOR ALL ITEMS NOT SHOWN.
- R. ALL DISHWASHER OUTLETS (DW) MUST BE LOCATED 1' - 6" A.F.F. BEHIND DISHWASHER.
- S. ALL DISPOSAL OUTLETS (DP) MUST BE LOCATED 1' - 6" ABOVE CABINET BASE. WITHIN KITCHEN SINK CABINET UNIT.
- T. ALL MICROWAVE HOOD OUTLETS (MH) MUST BE LOCATED 4'-0" ABOVE COUNTER TOP.
- U. ALL OUTLETS TO BE ARC-FAULT PROTECTION AND TAMPER RESISTANT UNLESS OTHERWISE NOTED WITH ELECTRICAL DIAGRAM SYMBOL.
- V. CONTRACTOR TO COORDINATE ELECTRICAL NEEDS FOR ALL MECHANICAL SYSTEMS.
- W. ALL EXTERIOR OUTLETS TO BE GFI AND WATER PROOF.
- X. ALL ELECTRICAL WORK SHALL BE INSTALLED BY A LICENSED ELECTRICIAN AND SHALL CONFORM WITH THE CURRENT CODES.
- Y. SMOKE DETECTORS (COMBINED WITH CARBON MONOXIDE DETECTOR) INTERCONNECT 120V ALL FLOORS BATTERY BACKUP.
- Z. BATHROOM CIRCUITING SHALL BE EITHER 20 AMPERE CIRCUIT DEDICATED TO EACH BATHROOM OR AT LEAST ONE 20 AMPERE CIRCUIT SUPPLYING ONLY BATHROOM RECEPTACLE OUTLETS.

**DEMOLITION LEGEND**

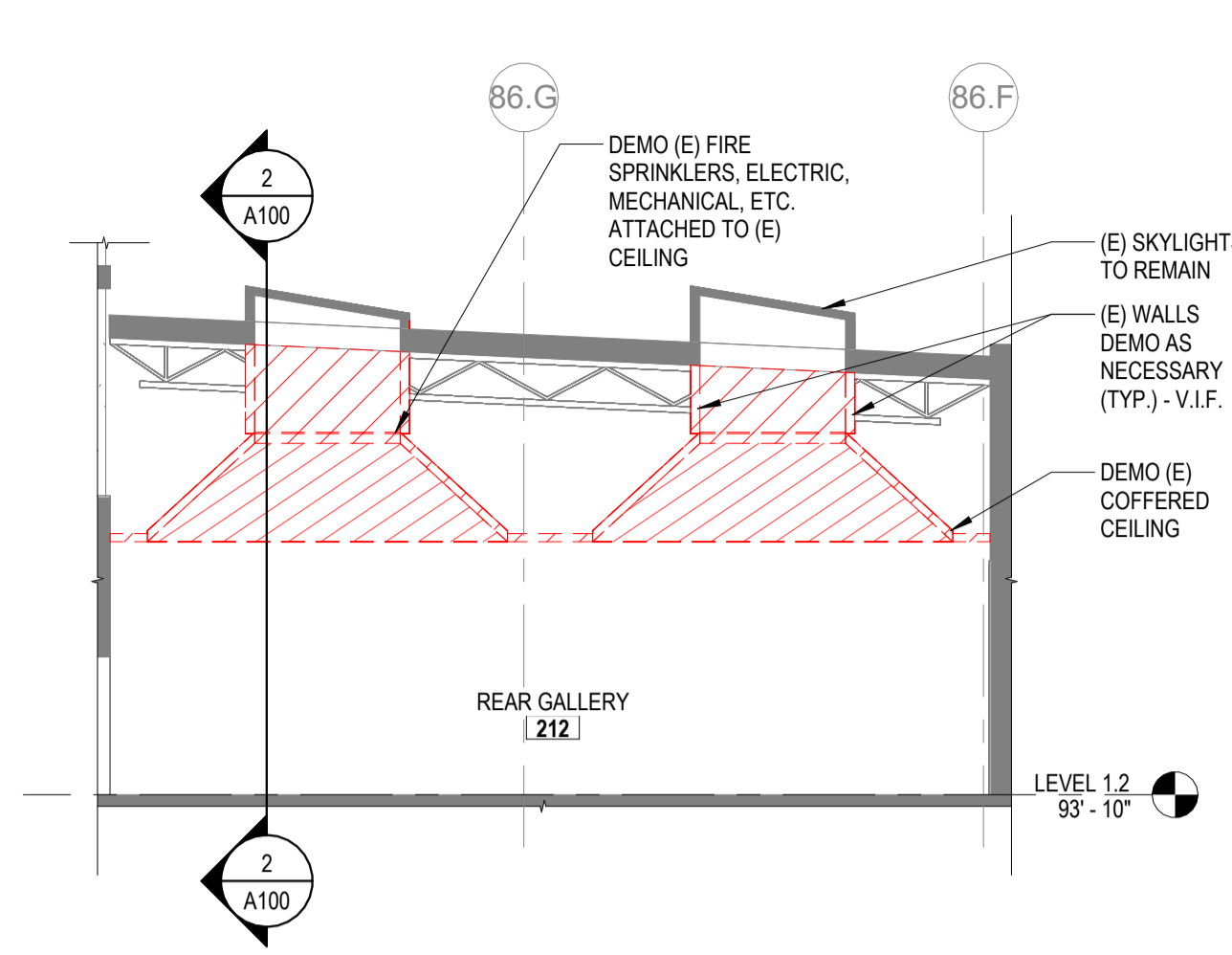


**ALTERNATE BIDS**

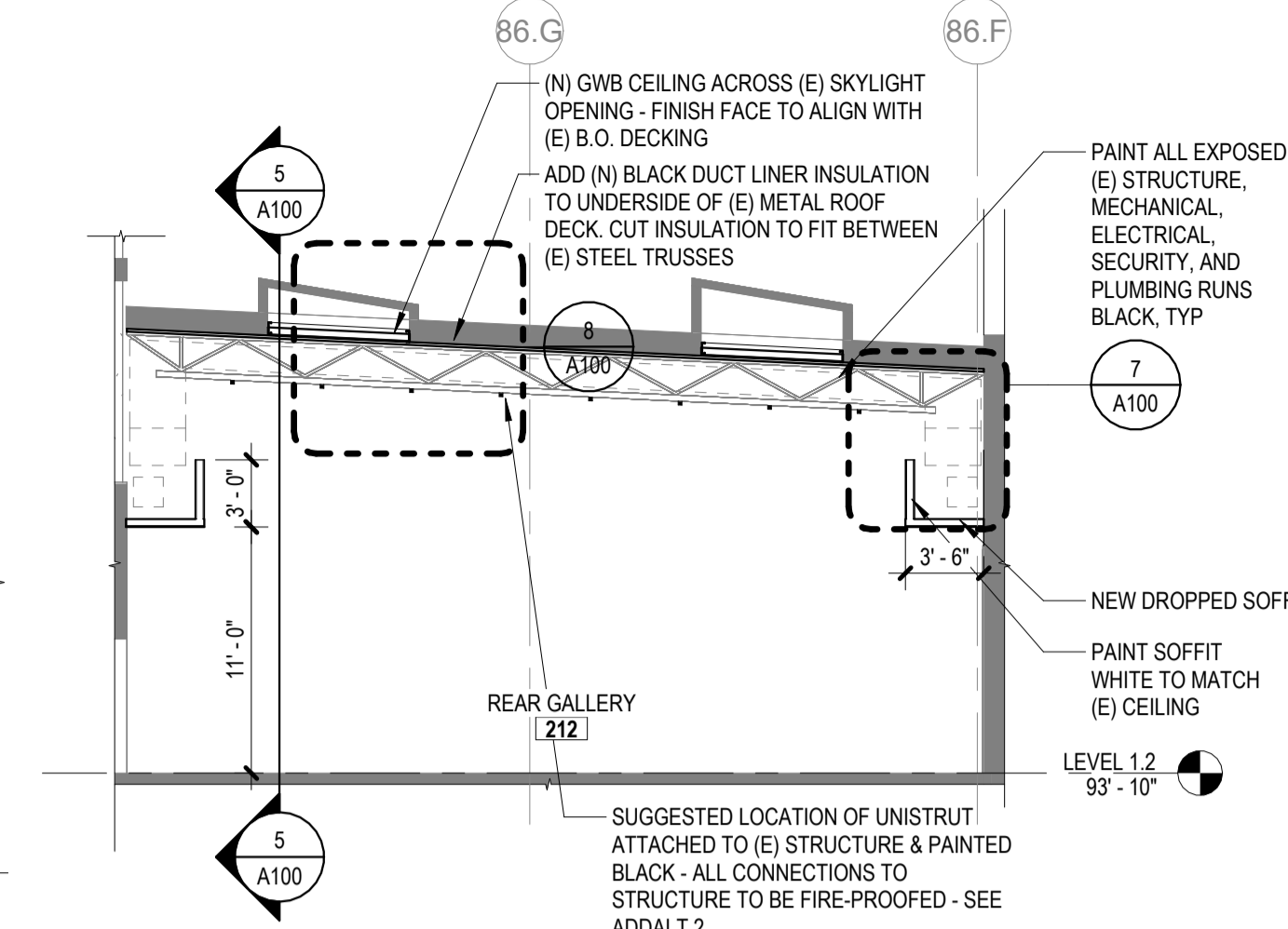
- ADD ALTERNATE BID NO. 1:** ALTERATIONS AND SCOPE OF WORK TO AUGMENT THE ROOF STRUCTURE, IN ANTICIPATION OF FUTURE REAR GALLERY RENOVATIONS.
- ADD ALTERNATE BID NO. 2:** ALTERATIONS AND SCOPE OF WORK TO PROVIDE & INSTALL A UNISTRUT CEILING RAIL SYSTEM FOR REAR GALLERY EXHIBIT USES.



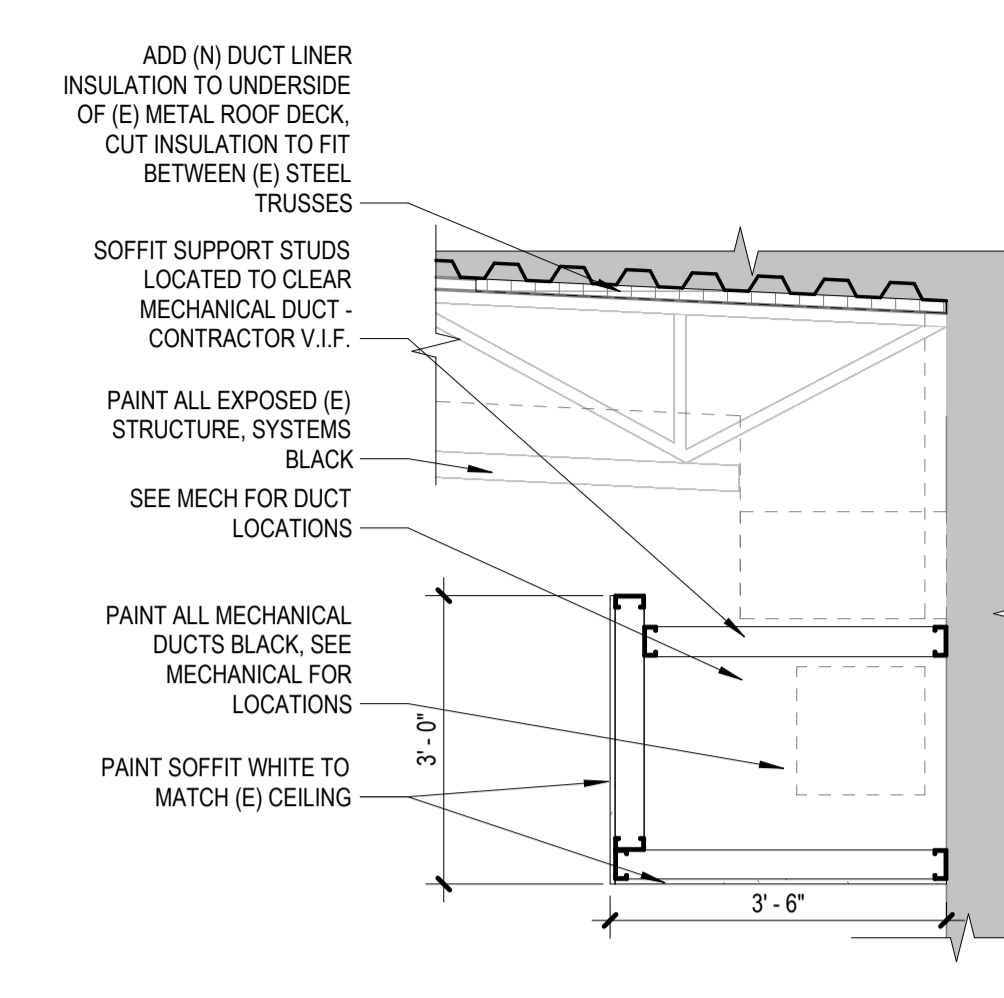
KEYPLAN



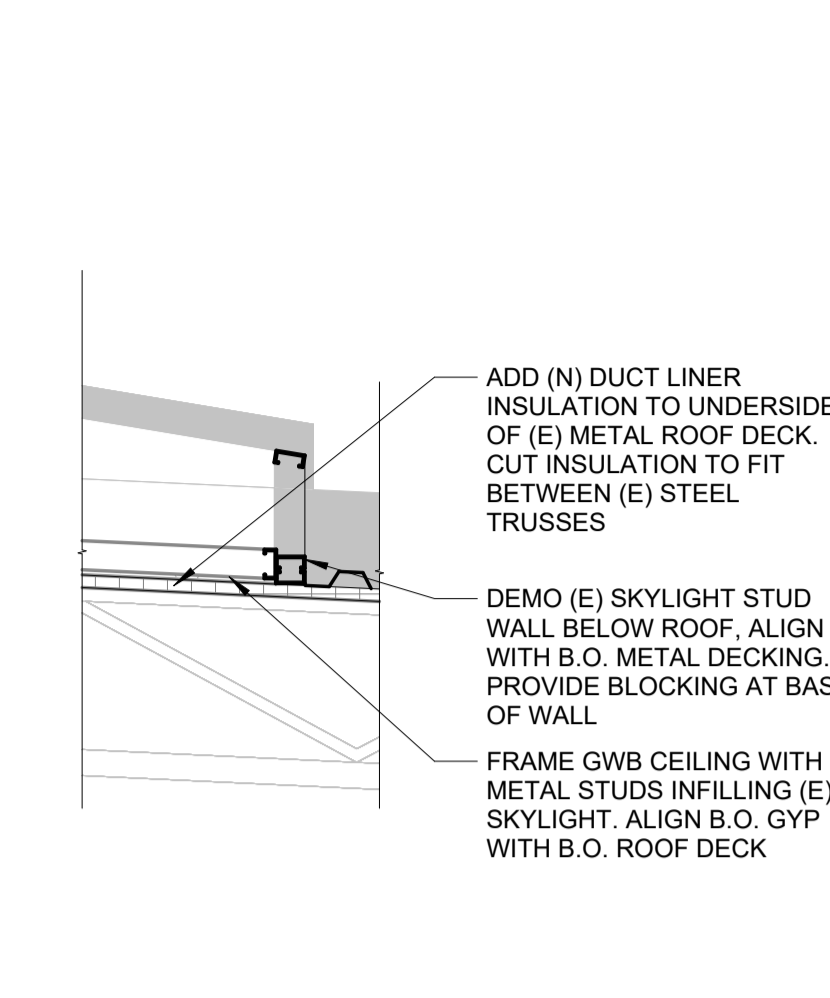
3 ENLARGED DEMO BUILDING SECTION - REAR GALLERY 212 - N/S  
1/8" = 1'-0"



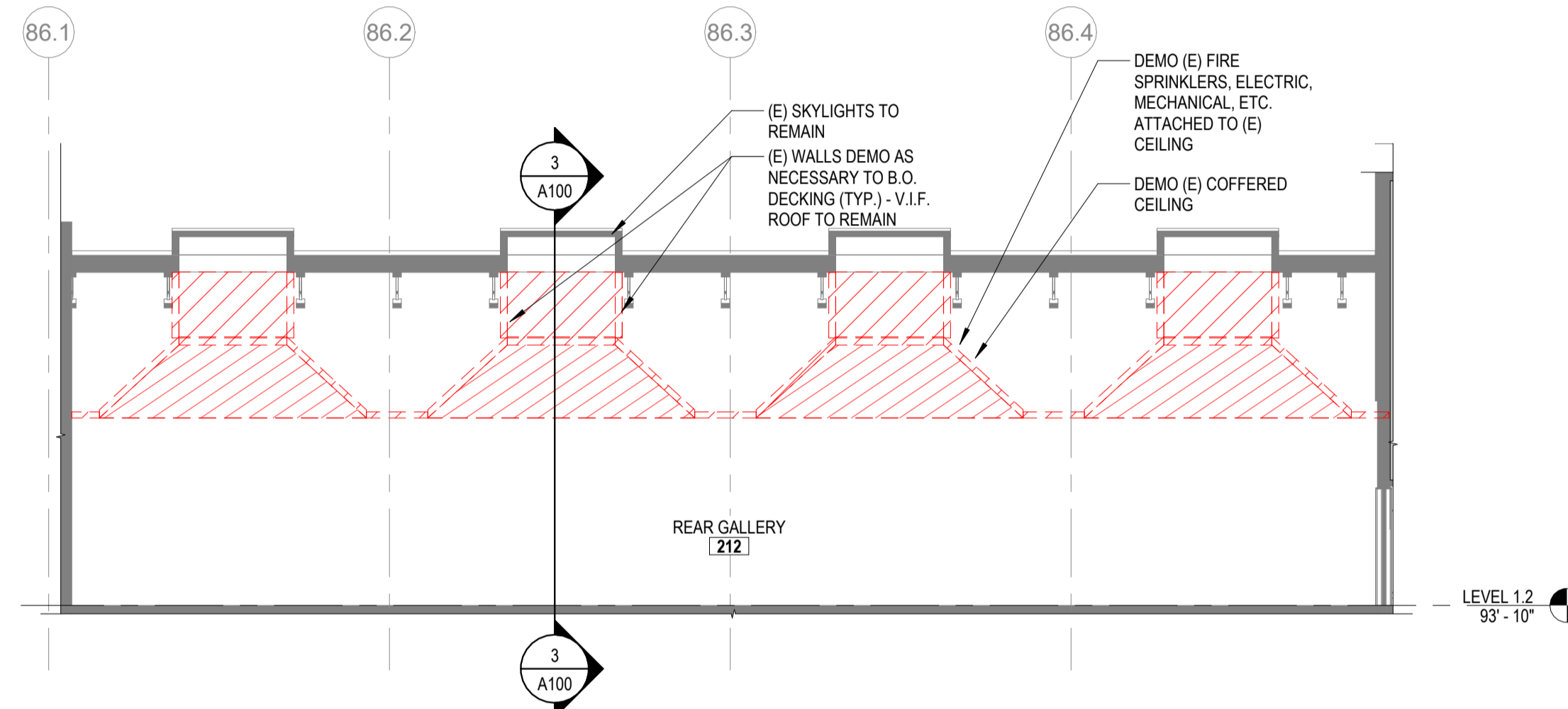
6 ENLARGED BUILDING SECTION - REAR GALLERY 212 - N/S  
1/8" = 1'-0"



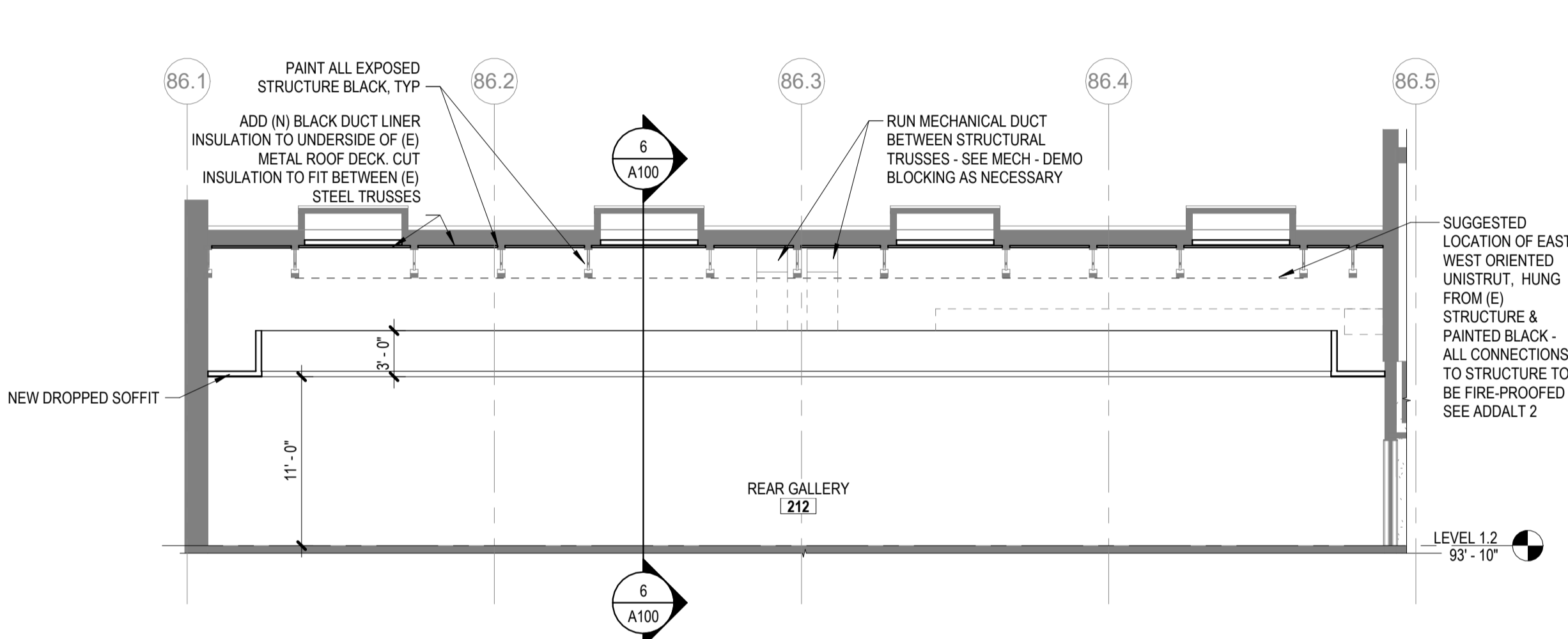
7 DETAIL - MECH SOFFIT  
1/2" = 1'-0"



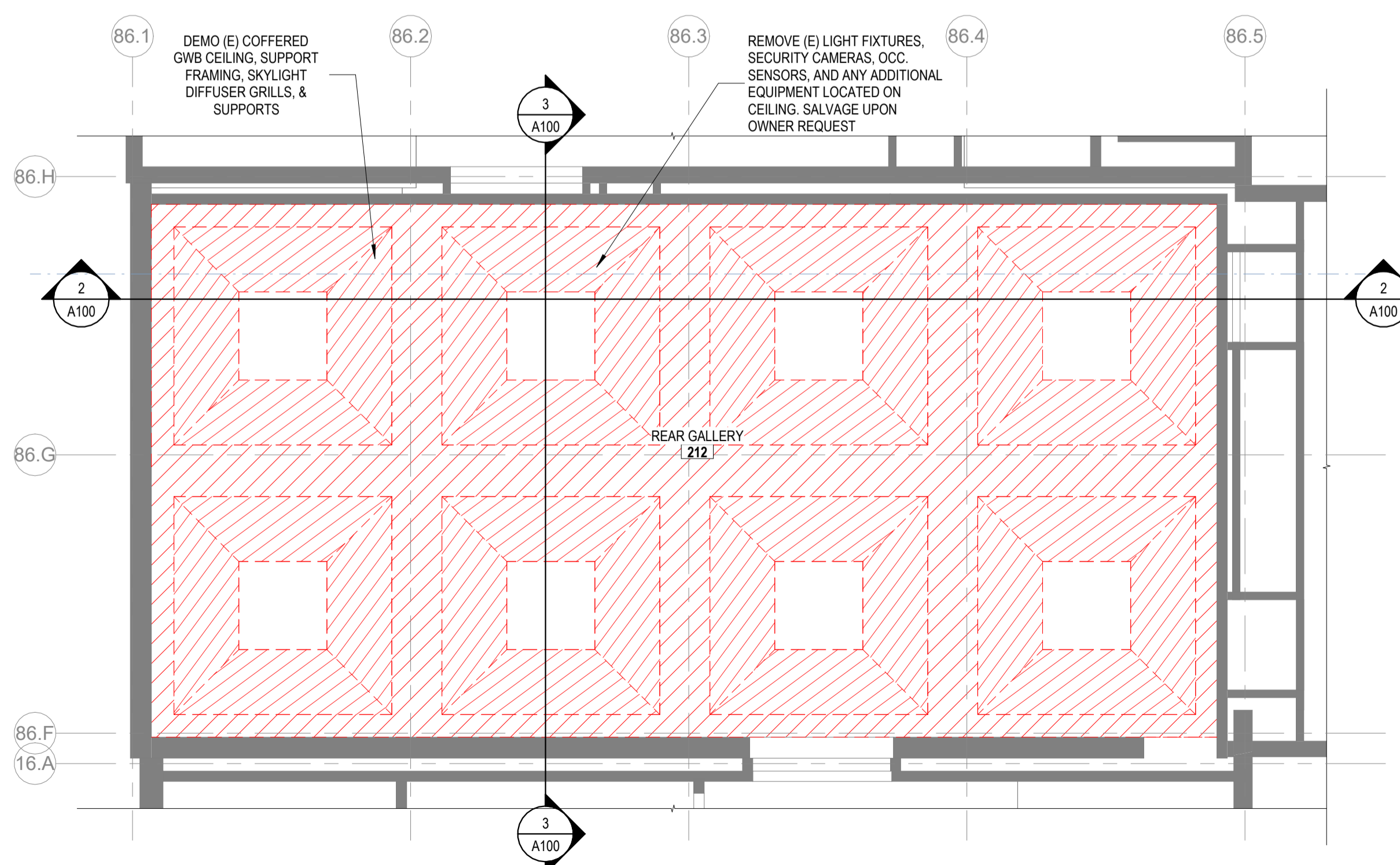
8 DETAIL - SKYLIGHT INFILL  
1/2" = 1'-0"



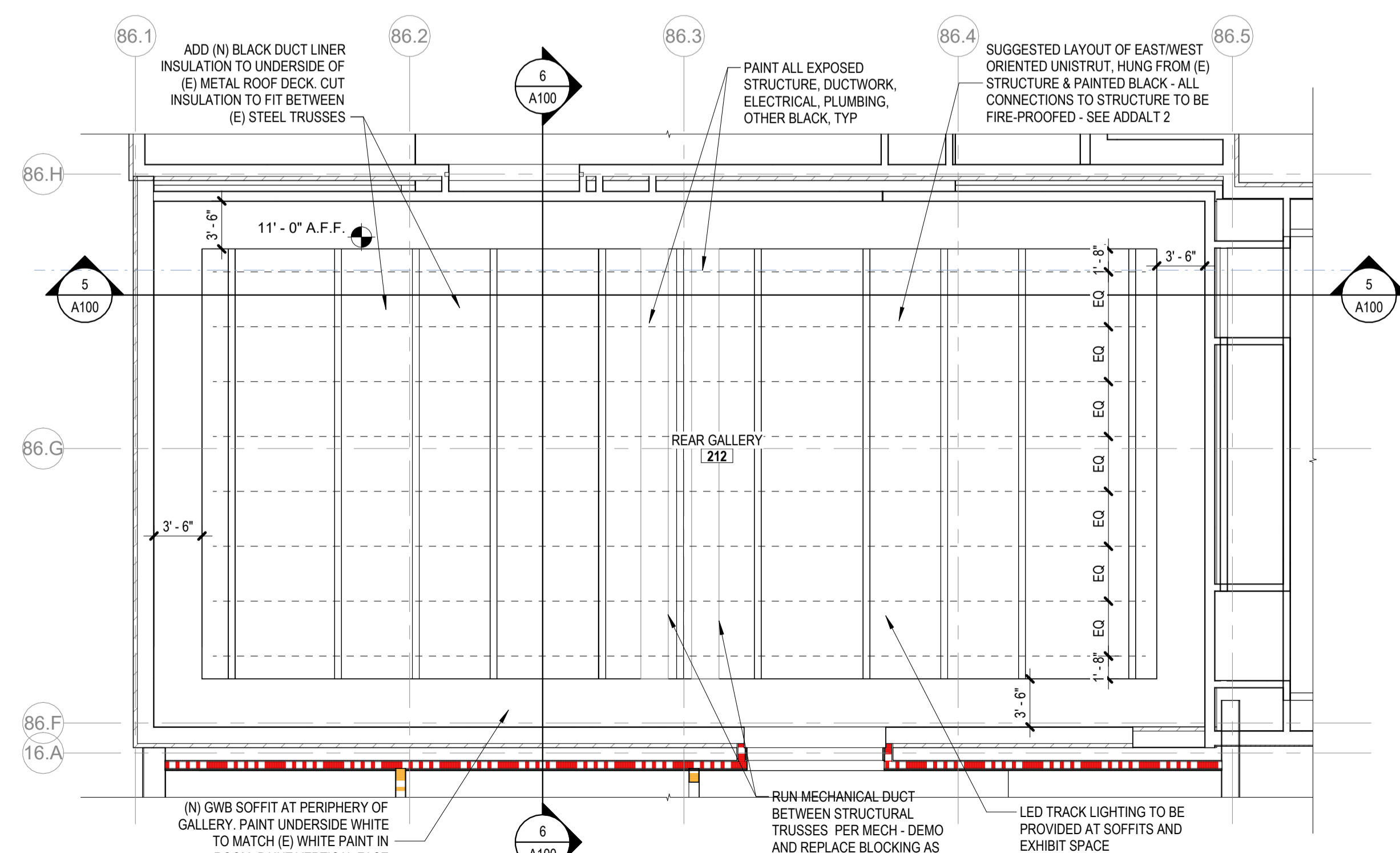
2 ENLARGED DEMO BUILDING SECTION - REAR GALLERY 212 - E/W  
1/8" = 1'-0"



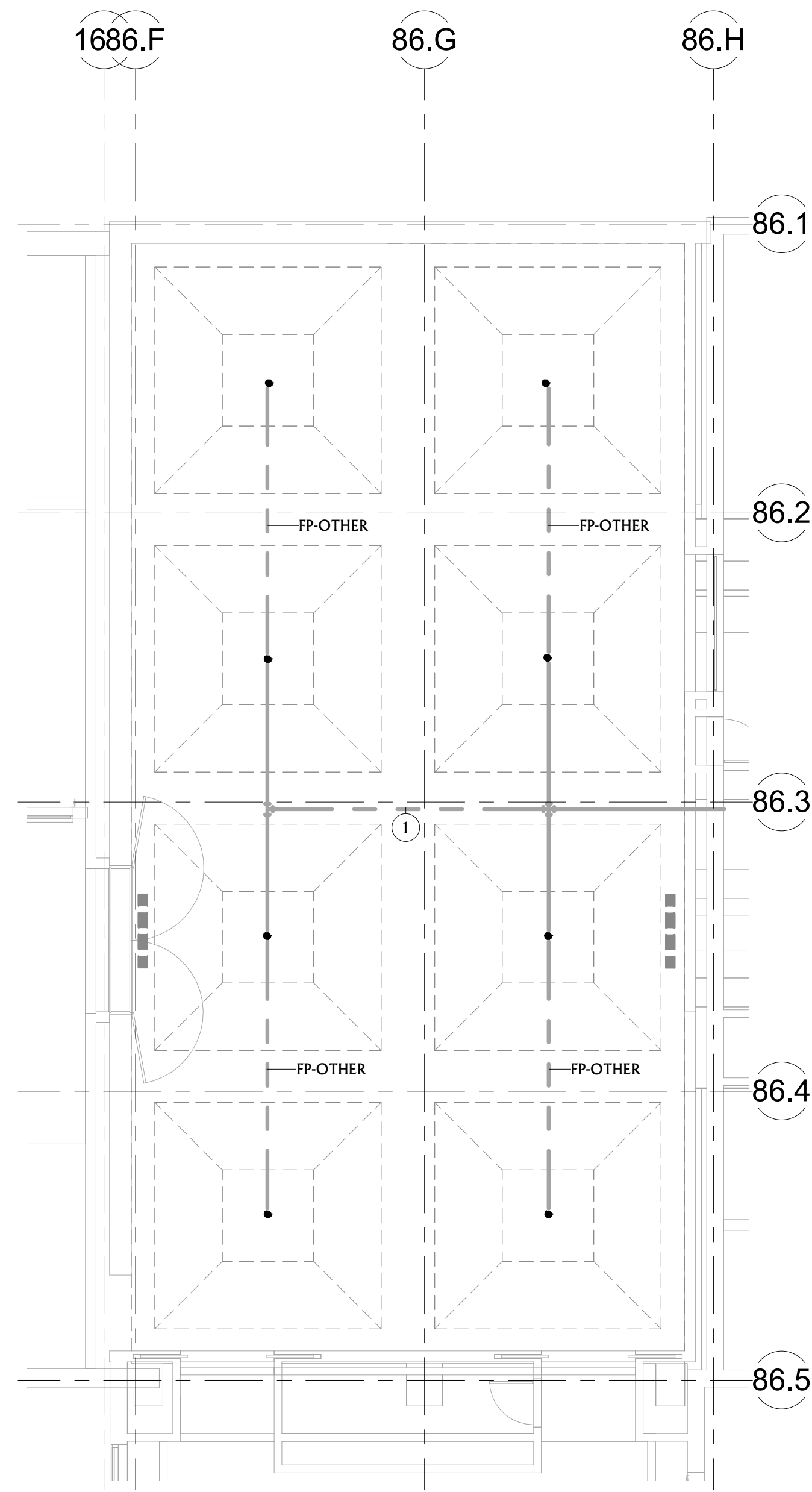
5 ENLARGED BUILDING SECTION - REAR GALLERY 212 - E/W  
1/8" = 1'-0"



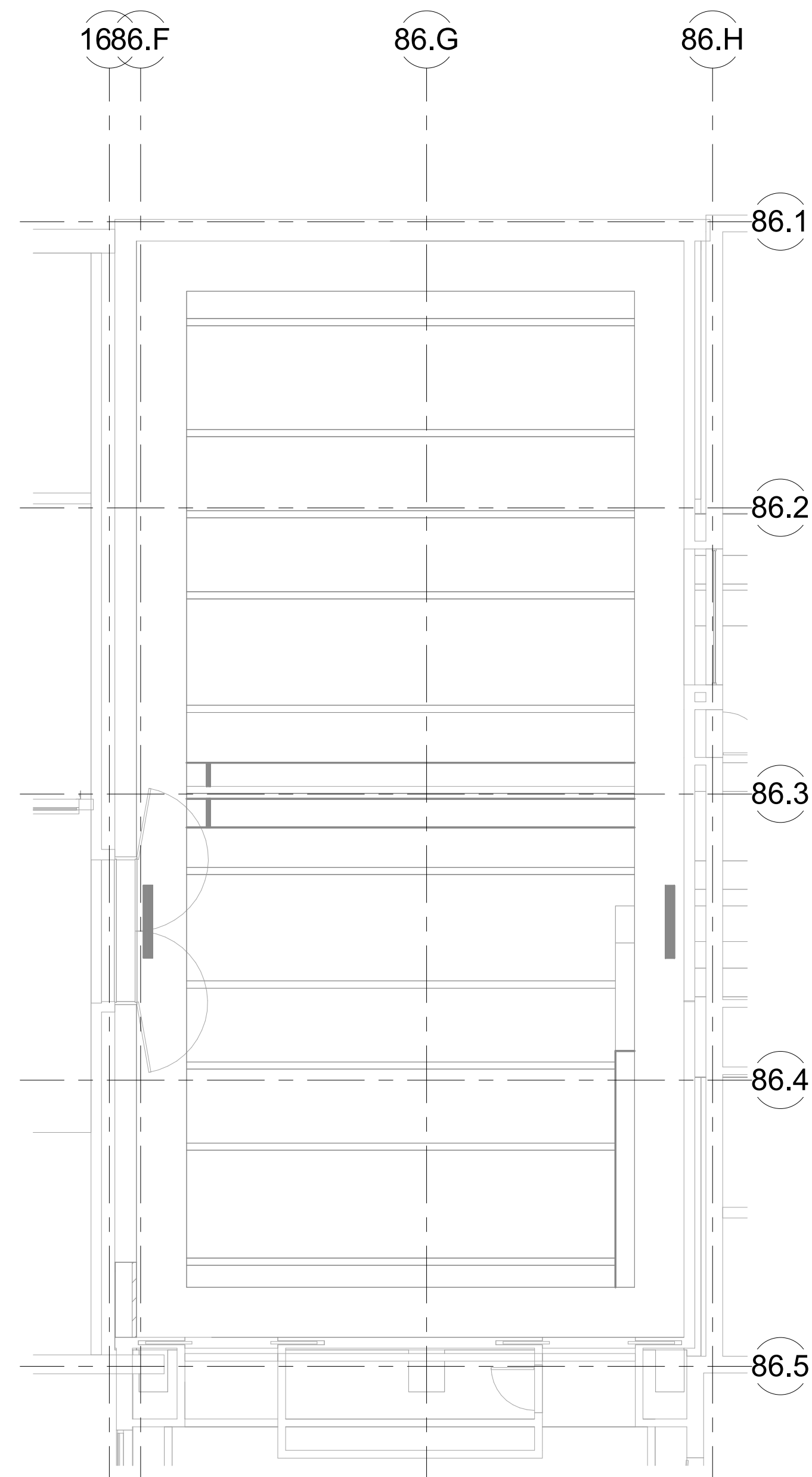
1 ENLARGED DEMO REFLECTED CEILING PLAN - REAR GALLERY 212  
1/8" = 1'-0"



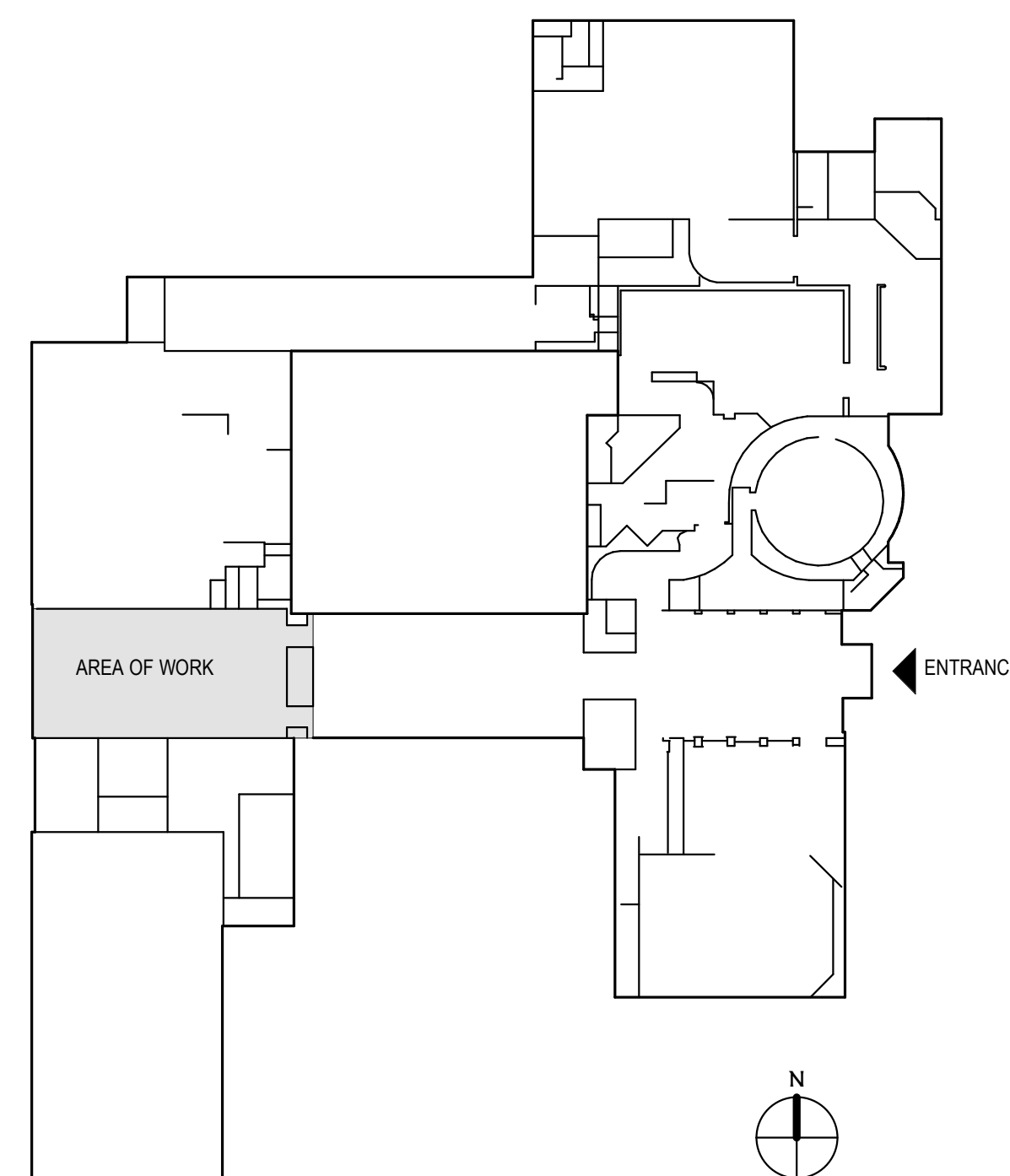
4 ENLARGED REFLECTED CEILING PLAN - REAR GALLERY 212  
1/8" = 1'-0"



1  
FX000  
1/8" = 1'-0"  
FIRE SUPPRESSION DEMOLITION PLAN



2  
FX000  
1/8" = 1'-0"  
FIRE SUPPRESSION REMODEL PLAN



## FIRE SPRINKLER NOTES & LEGEND

### FIRE SPRINKLER PERFORMANCE SPECIFICATION NOTES:

- THE INTENT OF THESE DRAWINGS ARE TO PROVIDE PERFORMANCE BASED GUIDELINES FOR FIRE SPRINKLER HEAD PLACEMENT AND PIPE ROUTING IN CRITICAL AREAS. THE FIRE SPRINKLER CONTRACTOR IS RESPONSIBLE DESIGN OF THE NEW FIRE SPRINKLER SYSTEMS, PREPARATION OF FINAL SHOP DRAWINGS BASED ON THE PRECEDING NOTES, DRAWINGS, AND THE PROJECT SPECIFICATIONS, AND THE COMPLETE INSTALLATION OF THE FIRE SPRINKLER SYSTEM WHICH MEETS ALL OF THE REQUIREMENTS OUTLINED WITHIN THESE DRAWINGS, SPECIFICATIONS, AND CODE(S). THE FIRE SPRINKLER CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS UPON COMPLETION OF WORK WHICH REFLECT ACTUAL INSTALLATION CONDITIONS.
- FIRE SPRINKLER CONTRACTOR SHALL DEVELOP, PRODUCE, AND SUBMIT ENGINEERED FIRE SPRINKLER DESIGN CALCULATIONS AND DRAWINGS (SHOP DRAWINGS) TO THE AUTHORITY HAVING JURISDICTION (AHJ) FOR REVIEW AND APPROVAL. AFTER AHJ HAS REVIEWED AND APPROVED THE CALCULATIONS AND DRAWINGS, FIRE SPRINKLER CONTRACTOR SHALL SUBMIT THE DRAWINGS AND CALCULATIONS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY FIRE SPRINKLER INSTALLATION.
- REFER TO ARCHITECTURAL PLANS AND FIRE SPRINKLER PLANS FOR COMPLETE SECTIONS, ELEVATIONS, AND FLOOR PLAN DETAILS/NOTES. COORDINATE WITH FULL DRAWING PACKAGE FOR SCOPE OF WORK REQUIRED BY THIS CONTRACT.
- UPON THE CONTRACTORS REQUEST, ELECTRONIC DRAWING FILES OF THE PROJECTS FLOOR PLANS / REFLECTIVE CEILING PLANS CAN BE PROVIDED FOR CONVENIENCE AND USE IN THE PREPARATION OF SHOP DRAWINGS RELATED TO THE PROJECT SUBJECT TO AGREED UPON TERMS AND CONDITIONS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT AN ACCEPTANCE LETTER OF THE TERMS AND CONDITIONS PRIOR TO RELEASE OF THE ELECTRONIC DRAWINGS. COORDINATE WITH THE PROJECT ENGINEER FOR ADDITIONAL REQUIREMENTS.
- THE PREPARATION OF ALL SHOP DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BE ACCOMPLISHED BY A REGISTERED ENGINEER, LICENSED IN THE STATE OF MONTANA, IF REQUIRED BY LOCAL AUTHORITIES. AT A MINIMUM, WORK MUST BE DONE BY A NICET LEVEL 3 TECHNICIAN.

### FIRE SPRINKLER PROJECT NOTES:

- FIRE SPRINKLER SYSTEM SHALL COMPLY WITH THE INSURANCE SERVICES OFFICE REQUIREMENTS, NFPA 13, ALL OTHER APPLICABLE STATE AND LOCAL CODES. REFER TO ALL NEW ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING PLANS AND SPECIFICATIONS FOR COMPLETE SECTIONS, ROOM NAMES, DETAILS, AND BUILDING PLANS.
- FIRE SPRINKLER SYSTEM SHALL BE DESIGNED TO PROVIDE A HYDRAULIC DENSITY AS REQUIRED BY CODE.
- 1" THRU 2" PIPES SHALL BE SCHEDULE 40 WITH SCREWED FITTINGS. 2-1/2" THRU 4" PIPES SHALL BE SCHEDULE 10 WITH GROOVED FITTINGS.
- FIRE SPRINKLER SYSTEM TEST SHALL BE WITNESSED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO ANY PORTION BEING CONCEALED. GIVE 48 HOURS NOTICE PRIOR TO SYSTEM TEST.
- NO INSTALLATION OF ANY PIPING OR EQUIPMENT IS TO BEGIN PRIOR TO APPROVAL OF THE PLANS AND ISSUANCE OF A PERMIT BY THE AUTHORITY HAVING JURISDICTION.
- COORDINATE ROUTING AND LOCATION OF FIRE SPRINKLER SYSTEM WITH ALL OTHER TRADES PRIOR TO SHOP DRAWING PREPARATION. DUCTWORK INSTALLATION SHALL HAVE ROUTING PRIORITY.
- PROTECT BUILDING OVERHANGS AND COMBUSTIBLE CONCEALED SPACES AS REQUIRED BY APPLICABLE CODES. REVIEW ALL ARCHITECTURAL SECTIONS AND PROVIDE PROTECTION AS REQUIRED AS PART OF THIS PROJECT. PROVIDE DRY PENDENT OR SIDEWALL HEADS IN AREAS SUBJECT TO FREEZING AS REQUIRED.
- FIRE SPRINKLER HEADS SHALL BE CENTERED IN THE LENGTH AND WIDTH OF 2'X2' AND 2'X4' OR OTHER SIZES OF CEILING TILES. THE USE OF NFPA APPROVED STAINLESS STEEL BRAIDED FLEXIBLE SPRINKLER HOSE ASSEMBLIES WITH CEILING MOUNTING BRACKET IS PERMISSIBLE.
- DO NOT INSTALL FIRE PROTECTION MAIN OR BRANCH LINES THROUGH ELECTRICAL, IT, OR DATA ROOMS. USE SIDEWALL HEADS IN THESE ROOMS.
- FIRE SPRINKLER HEADS SHALL BE FULLY CONCEALED WITH WHITE ESCUTCHEON IN ALL NEW LAY-IN AND HARD LID CEILING CONFIGURATIONS. FIRE SPRINKLER HEADS SHALL BE BRASS, UPRIGHT STYLE HEADS IN ALL AREAS OPEN TO STRUCTURE.
- ROUTE FIRE SPRINKLER PIPING AS HIGH AS FEASIBLE IN ALL EXPOSED AREAS. COORDINATE ALL EXPOSED PIPING IN FINISHED AREAS WITH THE ARCHITECT AS REQUIRED. PIPING SHALL BE LEFT CLEAN FOR PAINTING BY OTHERS.
- UPON THE CONTRACTORS REQUEST, ELECTRONIC DRAWING FILES OF THE PROJECTS FLOOR PLANS / REFLECTIVE CEILING PLANS CAN BE PROVIDED FOR CONVENIENCE AND USE IN THE PREPARATION OF SHOP DRAWINGS RELATED TO THE PROJECT SUBJECT TO AGREED UPON TERMS AND CONDITIONS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT AN ACCEPTANCE LETTER OF THE TERMS AND CONDITIONS PRIOR TO RELEASE OF THE ELECTRONIC DRAWINGS. COORDINATE WITH THE PROJECT ENGINEER FOR ADDITIONAL REQUIREMENTS.

### FIRE SPRINKLER HAZARD CLASSIFICATIONS:

LIGHT: EXHIBIT HALL

FIRE FLOW INFORMATION:

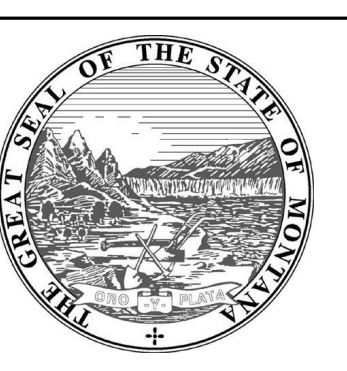
FIRE PROTECTION CONTRACTOR SHALL TEST / VERIFY FLOW DATA PRIOR TO START OF FIRE PROTECTION SHOP DRAWINGS.

## BOZEMAN SHOP DRAWING NOTES

- FIRE SPRINKLER CONTRACTOR SHALL DEVELOP, PRODUCE, AND SUBMIT ENGINEERED FIRE SPRINKLER DESIGN CALCULATIONS AND DRAWINGS (SHOP DRAWINGS) TO THE AUTHORITY HAVING JURISDICTION (AHJ) FOR REVIEW AND APPROVAL. AFTER AHJ HAS REVIEWED AND APPROVED THE CALCULATIONS AND DRAWINGS, FIRE SPRINKLER CONTRACTOR SHALL SUBMIT THE DRAWINGS AND CALCULATIONS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY FIRE SPRINKLER INSTALLATION. **ENGINEERED FIRE SPRINKLER DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED WITHIN 30 DAYS OF RECEIPT OF BUILDING PERMIT.** COORDINATE WITH THE GENERAL CONTRACTOR AS REQUIRED FOR ANTICIPATED PERMIT TIMELINE.
- THE PREPARATION OF ALL SHOP DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BE ACCOMPLISHED BY A REGISTERED ENGINEER, LICENSED IN THE STATE OF MONTANA, IF REQUIRED BY LOCAL AUTHORITIES. AT A MINIMUM, WORK MUST BE DONE BY A NICET LEVEL 3 TECHNICIAN.

### FIRE PROTECTION KEYNOTES

- REMOVE EXISTING HEADS AND RECONFIGURE SYSTEM AS NEEDED. EXISTING FIRE PROTECTION LINE SHOWN FOR REFERENCE ONLY. FIRE PROTECTION LINE LOCATIONS BASED OFF OF 1986 DRAWINGS. INSPECT AND VERIFY LOCATIONS ON SITE.

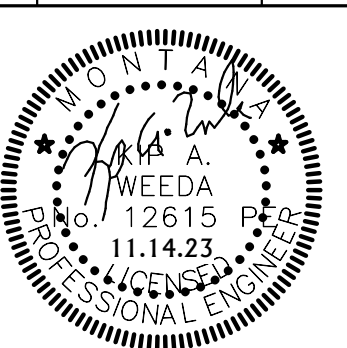


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CONSTRUCTION DOCUMENTS  
MUSEUM OF THE ROCKIES -  
REAR GALLERY CEILING  
RENOVATION



DRAWN BY: <b>Author</b>		
REVIEWED BY: <b>Checker</b>		
REV.	DESCRIPTION	DATE



PPA# 22-0055  
22037

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SHEET TITLE  
FIRE  
SUPPRESSION  
PLANS  
SHEET  
FX000

DATE  
15 November 2023

## PROJECT NOTES

1. THE MECHANICAL/PLUMBING REQUIREMENTS ARE SUPPLEMENTAL TO THE GENERAL REQUIREMENTS OF THESE SPECIFICATIONS. THE MECHANICAL/PLUMBING SECTIONS SHALL APPLY TO PHASES OF THE WORK SPECIFIED, SHOWN ON THE DRAWINGS, OR REQUIRED TO PROVIDE FOR THE COMPLETE INSTALLATION OF MECHANICAL SYSTEMS FOR THIS PROJECT.
2. THE WORK SHALL INCLUDE ALL ITEMS, ARTICLES, MATERIALS, OPERATIONS AND METHODS LISTED, MENTIONED, OR SCHEDULED IN THESE SPECIFICATIONS AND THE ACCOMPANYING DRAWINGS. ALL MATERIAL, EQUIPMENT, AND LABOR SHALL BE FURNISHED TOGETHER WITH ALL INCIDENTAL ITEMS REQUIRED BY GOOD PRACTICE TO PROVIDE THE COMPLETE SYSTEMS DESCRIBED.
3. EXAMINE AND REFER TO ALL ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, UTILITY, LANDSCAPE AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR CONSTRUCTION CONDITIONS WHICH MAY AFFECT THE MECHANICAL WORK. INSPECT THE BUILDING SITE AND EXISTING FACILITIES FOR VERIFICATION OF PRESENT CONDITIONS. MAKE PROPER PROVISIONS FOR THESE CONDITIONS IN PERFORMANCE OF THE WORK AND COST THEREOF.
4. SEE THE GENERAL PROJECT REQUIREMENTS FOR LISTED ALTERNATE BIDS. NOTE ALTERNATES LISTED AND INCLUDE ANY CHANGES IN WORK AND PRICE REQUIRED TO MEET THE REQUIREMENTS OF THE RESPECTIVE ALTERNATE.
5. **CODES AND STANDARDS:**
  - A. WORK SHALL MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS AND SHALL NOT BE LESS THAN THE MINIMUM REQUIREMENTS OF APPLICABLE SECTIONS OF THE LATEST CODES AND STANDARDS OF THE FOLLOWING ORGANIZATIONS:
    - a. INTERNATIONAL BUILDING CODE - 2021
    - b. INTERNATIONAL EXISTING BUILDING CODE - 2021
    - c. ICC A 117.1, ACCESSIBILITY CODE - 2017
    - d. UNIFORM PLUMBING CODE - 2021
    - e. INTERNATIONAL MECHANICAL CODE - 2021
    - f. INTERNATIONAL FUEL GAS CODE - 2021
    - g. NATIONAL ELECTRIC CODE - 2020
    - h. INTERNATIONAL ENERGY CONSERVATION CODE - 2021
    - i. ASME, BOILERS AND PRESSURE VESSEL CODE - 2021
    - j. ASME CSD-1, CONTROLS AND SAFETY DEVICES FOR AUTOMATICALLY FIRED BOILERS - 2018
    - k. ASME A 117.1, SAFETY CODE FOR ELEVATORS AND ESCALATORS - 2019
    - l. ADMINISTRATIVE RULES OF MONTANA TITLE 24, CHAPTER 301 (AMENDMENTS TO THE ABOVE CODES AND STANDARDS)
    - m. LOCAL ENVIRONMENTAL CONDITIONS
    - n. LOCAL UTILITIES
    - o. ASHRAE STANDARDS INCLUDING, BUT NOT LIMITED TO 62.1 AND 90.1
    - p. NFPA STANDARD INCLUDING, BUT NOT LIMITED TO 13 AND 101
    - q. CITY OF BOZEMAN MODIFICATIONS TO THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS
    - r. CITY OF BOZEMAN DESIGN STANDARDS AND SPECIFICATIONS POLICY
6. **FEES AND PERMITS:**
  - A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY FOR ALL FEES AND PERMITS REQUIRED FOR WORK UNDER THEIR CONTRACT AND UNDER THEIR SUPERVISION BY SUBCONTRACT.
  - B. ALL USAGE CONTRACTS BETWEEN THE OWNER AND THE SERVING UTILITIES COMPANY, SUCH AS MEMBERSHIP AND USAGE CHARGES OR FEES, ETC., FOR THE PURPOSE OF OBTAINING THE SERVICES FOR THE UTILITY COMPANY SHALL BE APPLIED FOR AND PAID FOR BY THE OWNER.
7. **MATERIALS AND EQUIPMENT:**
  - A. MANUFACTURERS TRADE NAMES AND CATALOG NUMBERS LISTED ARE INTENDED TO INDICATE THE QUALITY OF EQUIPMENT OR MATERIALS DESIRED. MANUFACTURERS NOT LISTED MUST HAVE PRIOR APPROVAL. WRITTEN PRIOR APPROVAL MUST BE OBTAINED FROM THE ARCHITECT/ENGINEER TEN (10) DAYS PRIOR TO BID OPENING. REQUESTS ARE TO BE SUBMITTED SUFFICIENTLY AHEAD OF THE DEADLINE TO GIVE AMPLIE TIME FOR EXAMINATION. THE ITEMS APPROVED WILL BE LISTED IN AN ADDENDUM AND ONLY THIS LIST OF EQUIPMENT WILL BE ACCEPTED IN LIEU OF SPECIFIED PRODUCTS. SUBMITTALS MUST INDICATE THE SPECIFIC ITEM OR ITEMS TO BE FURNISHED IN LIEU OF THOSE SPECIFIED, TOGETHER WITH COMPLETE TECHNICAL AND COMPARATIVE DATA ON SPECIFIED ITEMS AND PROPOSED ITEMS. SEE LIST OF PRIOR APPROVED MANUFACTURERS AT END OF THIS SECTION.
  - B. EQUIPMENT MAY BE INSTALLED WITH MANUFACTURER'S STANDARD FINISH AND COLOR EXCEPT WHERE SPECIFIC COLOR, FINISH OR CHOICE IS INDICATED. IF THE MANUFACTURER HAS NO STANDARD FINISH, EQUIPMENT SHALL HAVE A PRIME COAT AND TWO FINISH COATS OF GRAY ENAMEL.
  - C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE PROTECTION OF MATERIALS AND EQUIPMENT OF OTHERS FROM DAMAGE AS A RESULT OF HIS WORK.
  - D. MANUFACTURED MATERIAL AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, USED, CLEANED AND CONDITIONED AS DIRECTED BY MANUFACTURER UNLESS HEREIN SPECIFIED TO THE CONTRARY.
  - E. THIS CONTRACTOR SHALL MAKE THE REQUIRED ARRANGEMENT WITH GENERAL CONTRACTOR FOR THE INTRODUCTION INTO THE BUILDING OF EQUIPMENT TOO LARGE TO PASS THROUGH FINISHED OPENINGS.
  - F. STORE MATERIALS AND EQUIPMENT INDOORS AT THE JOB SITE OR, IF THIS IS NOT POSSIBLE, STORE ON RAISED PLATFORMS AND PROTECT FROM THE WEATHER BY MEANS OF WATERPROOF COVERS. COVERINGS SHALL PERMIT CIRCULATION OF AIR AROUND THE MATERIALS TO PREVENT CONDENSATION OF MOISTURE. SCREEN OR CAP OPENINGS IN EQUIPMENT TO PREVENT THE ENTRY OF VERMIN.
8. **INTENT OF DRAWINGS:**
  - A. THE DRAWINGS ARE PARTLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EXACT LOCATION OF PIPING AND DUCTWORK UNLESS SPECIFICALLY DIMENSIONED. RISER AND OTHER DIAGRAMS ARE SCHEMATIC AND DO NOT NECESSARILY SHOW THE PHYSICAL ARRANGEMENT OF THE EQUIPMENT. THEY SHALL NOT BE USED FOR OBTAINING LINEAL RUNS OF PIPING OR DUCTWORK, NOR SHALL THEY BE USED FOR SHOP DRAWINGS FOR PIPING AND DUCTWORK FABRICATION OR ORDERING. DISCREPANCIES SHOWN ON DIFFERENT PLANS, OR BETWEEN PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR RESOLUTION.
9. **RESPONSIBILITY:**
  - A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF A SATISFACTORY AND COMPLETE SYSTEM IN ACCORDANCE WITH THE INTENT OF THE DRAWING AND SPECIFICATIONS. PROVIDE, AT NO EXTRA COST, ALL INCIDENTAL ITEMS REQUIRED FOR COMPLETION OF THE WORK EVEN THOUGH THEY ARE NOT SPECIFICALLY MENTIONED OR INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS.
  - B. THE DRAWINGS DO NOT ATTEMPT TO SHOW COMPLETE DETAILS OF THE BUILDING CONSTRUCTION WHICH AFFECT THE MECHANICAL INSTALLATION; AND REFERENCE IS THEREFORE REQUIRED TO THE ARCHITECTURAL, CIVIL, STRUCTURAL, LANDSCAPE AND ELECTRICAL DRAWINGS AND SPECIFICATIONS AND TO SHOP DRAWINGS OF ALL TRADES FOR ADDITIONAL DETAILS WHICH AFFECT THE INSTALLATION OF THE WORK COVERED UNDER THIS DIVISION OF THE CONTRACT.
  - C. LOCATION OF SYSTEM COMPONENTS SHALL BE CHECKED FOR CONFLICTS WITH OPENINGS, STRUCTURAL MEMBERS AND COMPONENTS OF OTHER SYSTEMS HAVING FIXED LOCATIONS. IN THE EVENT OF ANY CONFLICTS, THE ARCHITECT/ENGINEER SHALL BE CONSULTED AND HIS DECISION SHALL GOVERN. NECESSARY CHANGES SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
  - D. DETERMINE, AND BE RESPONSIBLE FOR, THE PROPER LOCATION AND CHARACTER OF INSERTS FOR HANGERS, CHASES, SLEEVES, AND OTHER OPENINGS IN THE CONSTRUCTION REQUIRED FOR THE WORK, AND OBTAIN THIS INFORMATION WELL IN ADVANCE OF THE CONSTRUCTION PROGRESS SO WORK WILL NOT BE DELAYED.
  - E. FINAL LOCATION OF INSERTS, HANGERS, ETC., REQUIRED FOR EACH INSTALLATION, MUST BE COORDINATED WITH FACILITIES REQUIRED FOR OTHER INSTALLATIONS TO PREVENT INTERFERENCE.
  - F. TAKE EXTREME CAUTION NOT TO INSTALL WORK THAT CONNECTS TO EQUIPMENT UNTIL SUCH TIME AS COMPLETE SHOP DRAWINGS OF SUCH EQUIPMENT HAVE BEEN APPROVED BY THE ARCHITECT/ENGINEER. ANY WORK INSTALLED BY THE CONTRACTOR, PRIOR TO APPROVAL OF SHOP DRAWINGS, WILL BE AT THE CONTRACTOR'S RISK.
  - G. AT ALL TIMES DURING THE PERFORMANCE OF THIS CONTRACT, PROPERLY PROTECT WORK FROM DAMAGE AND PROTECT THE OWNER'S PROPERTY FROM INJURY OF LOSS. MAKE GOOD ANY DAMAGE, INJURY OR LOSS, EXCEPT SUCH AS MAY BE DIRECTLY DUE TO ERRORS IN THE BIDDING DOCUMENTS OR CAUSED BY AGENTS OR EMPLOYEES OF THE OWNER. ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND THE BIDDING DOCUMENTS. PROVIDE AND MAINTAIN PASSAGeways, GUARD FENCES, LIGHTS AND OTHER FACILITIES FOR PROTECTION REQUIRED BY PUBLIC AUTHORITY OR LOCAL CONDITIONS.
  - H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES DUE TO THE WORK OF THEIR CONTRACTORS, TO THE BUILDING OR ITS CONTENTS, PEOPLE, ETC.
10. **REVIEW:**
  - A. ALL WORK AND MATERIAL IS SUBJECT TO REVIEW AT ANY TIME BY THE ARCHITECT/ENGINEER OR HIS REPRESENTATIVE. IF THE ARCHITECT/ENGINEER OR HIS REPRESENTATIVE FINDS MATERIAL THAT DOES NOT CONFORM WITH THESE SPECIFICATIONS OR THAT IS NOT PROPERLY INSTALLED OR FINISHED, CORRECT THE DEFICIENCIES IN A MANNER SATISFACTORY TO THE ARCHITECT/ENGINEER AT THE CONTRACTOR'S EXPENSE.
11. **WORKMANSHIP:**
  - A. **GENERAL:**
    - a. WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY WORKMEN SKILLED IN THE PARTICULAR TRADE, INCLUDING WORK NECESSARY TO PROPERLY COMPLETE THE INSTALLATION IN A WORKMANLIKE MANNER TO PRESENT A NEAT AND FINISHED APPEARANCE.
  - B. **CUTTING, PATCHING, AND FRAMING:**
    - a. OBTAIN ARCHITECT'S/ENGINEER'S APPROVAL BEFORE PERFORMING ANY CUTTING ON STRUCTURAL MEMBERS OR PATCHING OF BUILDING SURFACES. ANY DAMAGE TO THE BUILDING OR EQUIPMENT BY THIS CONTRACTOR SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR AND SHALL BE REPAIRED BY SKILLED CRAFTSMEN OF THE TRADES INVOLVED AT THE CONTRACTOR'S EXPENSE.
    - b. CHASES, OPENINGS, SLEEVES, HANGERS, ANCHORS, RECESSES, EQUIPMENT PADS, FRAMING FOR EQUIPMENT, PROVIDED BY OTHERS ONLY IF SO NOTED ON THE DRAWINGS. OTHERWISE, THEY WILL BE PROVIDED BY THIS CONTRACTOR FOR HIS WORK. WHETHER CHASES, ETC., ARE PROVIDED BY THIS CONTRACTOR OR OTHERS, THIS CONTRACTOR IS RESPONSIBLE FOR CORRECT SIZE AND LOCATIONS.
12. **COORDINATION:**
  - A. THE CONTRACTOR SHALL PLAN HIS WORK TO PROCEED WITH A MINIMUM INTERFERENCE WITH OTHER TRADES AND IT SHALL BE HIS RESPONSIBILITY TO INFORM THE GENERAL CONTRACTOR OF ALL OPENINGS REQUIRED IN THE BUILDING STRUCTURE FOR INSTALLATION OF WORK, AND TO PROVIDE SLEEVES AS REQUIRED. DIMENSIONS OF EQUIPMENT INSTALLED AND/OR PROVIDED BY OTHERS SHALL BE CHECKED IN ORDER THAT CORRECT CLEARANCES AND CONNECTIONS MAY BE MADE.
13. **CLEAN UP:**
  - A. KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH CAUSED BY HIS WORK OR EMPLOYEES.
14. **SHOP DRAWINGS:**
  - A. PROVIDE MANUFACTURER'S LITERATURE AND/OR CERTIFIED PRINTS AS SOON AS POSSIBLE BUT WITHIN THIRTY (30) DAYS AFTER AWARDING OF CONTRACT, FOR ITEMS OF MATERIALS, EQUIPMENT, OR SYSTEMS WHERE CALLED FOR IN SPECIFICATIONS, SHOP DRAWINGS AND LITERATURE COMPLETE SHOWING ITEM USED, SIZE, DIMENSIONS, CAPACITY, ROUGH-IN, ETC., AS REQUIRED FOR COMPLETE CHECK AND INSTALLATION. MANUFACTURERS LITERATURE SHOWING MORE THAN ONE ITEM SHALL BE CLEARLY MARKED AS TO WHICH ITEM IS BEING FURNISHED OR IT WILL BE REJECTED AND RETURNED WITHOUT REVIEW.
  - B. MANUFACTURER'S LITERATURE AND/OR CERTIFIED PRINTS MUST BE CLEARLY MARKED AS FOLLOWS FOR PURPOSES OF IDENTIFICATION AND RECORD. SUBMITTALS NOT MARKED AS DESCRIBED BELOW WILL BE REJECTED AND RETURNED WITHOUT REVIEW.
    - a. DATE:
    - b. NAME OF PROJECT:
    - c. TRADE:
    - d. SUBMITTED BY:
    - e. SPECIFICATION OR PLAN REFERENCE:
  - C. PRIOR TO THEIR SUBMISSION, EACH SUBMITTAL SHALL BE THOROUGHLY CHECKED BY THE CONTRACTOR FOR COMPLIANCE WITH THE CONTRACT DOCUMENT REQUIREMENTS, ACCURACY OF DIMENSIONS, RELATIONSHIP TO THE WORK OF OTHER TRADES, AND CONFORMANCE WITH SOUND, SAFE PRACTICES AS TO ERECTION AND INSTALLATION. EACH SUBMITTAL SHALL THEN BEAR A STAMP EVIDENCING SUCH CHECKING AND SHALL SHOW CORRECTIONS MADE, IF ANY. SUBMITTALS REQUIRING EXTENSIVE CORRECTIONS SHALL BE REJECTED BEFORE SUBMISSION. EACH SUBMITTAL NOT STAMPED AND SIGNED BY THE CONTRACTOR EVIDENCING SUCH CHECKING WILL BE REJECTED AND RETURNED WITHOUT REVIEW.
  - D. ALL SUBMITTALS WILL BE EXAMINED WHEN SUBMITTED IN PROPER FORM FOR COMPLIANCE. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS, FOR DEVIATION FROM THE CONTRACT DOCUMENTS, NOR FOR VIOLATION OF SOUND SAFETY PRACTICES.
  - E. THE CONTRACTOR SHALL KEEP IN THE FIELD OFFICE ONE PRINT OF EACH SUBMITTAL WHICH HAS BEEN REVIEWED AND STAMPED BY THE ARCHITECT OR ENGINEER.
  - F. SUBMITTALS WHICH ARE INCOMPLETE RELATIVE TO QUALITY REQUIREMENTS, CAPACITY, ENGINEERING DATA, DIMENSIONAL DATA OR DETAILED LIST OF SPECIALTY OR CONTROL EQUIPMENT WILL BE REJECTED. LISTS SHALL INCLUDE DESCRIPTIVE CODING AS SPECIFIED OR SHOWN ON DRAWINGS.
  - G. THE ENGINEER WILL PERFORM SHOP DRAWING REVIEW OF EACH ITEM; HOWEVER, SUBSEQUENT REVIEW OF ITEMS PREVIOUSLY REJECTED WILL BE BILLED TO THE CONTRACTOR AT A RATE OF \$195 PER HOUR.
  - H. **SCHEDULE OF SHOP DRAWINGS:**
    - a. INSULATION/ACOUSTICAL LINING
    - b. DUCTWORK
    - c. AIR DISTRIBUTION ACCESSORIES
    - d. DIFFUSERS/REGISTERS/GRILLES

## MECHANICAL SYMBOLS LEGEND

### AIR TERMINALS, EQUIPMENT & SPECIALTIES

NEW EQUIPMENT

EXISTING TO REMAIN

EXISTING EQUIP TO BE REMOVED OR RELOCATED

SUPPLY AIR TERMINAL (NEW, EXIST., DEMO.)

RETURN AIR TERMINAL (NEW, EXIST., DEMO.)

EXHAUST AIR TERMINAL (NEW, EXIST., DEMO.)

LINEAR SLOT AIR TERMINAL

PUMP

P.O.D.C. - POINT OF DISCONNECTION

P.O.C. - POINT OF CONNECTION

### EQUIPMENT TAG

TYPE OF EQUIPMENT

EQUIPMENT NUMBER (REFER TO SCHEDULE)

### DIFFUSER/GRILLE TAG

AIR TERMINAL NUMBER

AIR TERMINAL CFM (REFER TO SCHEDULE)

WALL LOUVER

SIDEWALL AIR TERMINAL

T'STAT

SWITCH

### DUCTWORK & ACCESSORIES

NEW DUCTWORK

EXISTING DUCTWORK TO REMAIN

EXISTING DUCTWORK TO BE REMOVED

DUCT BREAK

RISE IN DUCTWORK

FALL IN DUCTWORK

FIRE DAMPER

SMOKE DAMPER

FIRE/SMOKE DAMPER

BACKDRAFT DAMPER

MANUAL VOLUME DAMPER

MOTORIZED DAMPER

18x12 INSIDE CLEAR DUCT SIZE: FIRST FIGURE INDICATED IS SIDE OF DUCT SHOWN

DUCTWORK END CAP

FLEXIBLE DUCTWORK

SQUARE ELBOW UP SUPPLY/RETURN/EXH.

SQUARE ELBOW DN SUPPLY/RETURN/EXH.

ROUND ELBOW UP SUPPLY/RETURN/EXH.

ROUND ELBOW DN SUPPLY/RETURN/EXH.

SQUARE DIFFUSERS SUPPLY/RETURN/EXH.

ROUND DIFFUSERS FULL / HALF

INDICATED AIR FLOW SUPPLY / RETURN

DUCT REDUCER

### DUCTWORK SHADING

SUPPLY AIR

RETURN AIR

EXHAUST AIR

OUTSIDE AIR

EXISTING

DEMOLITION

NEW

THIS IS A STANDARDIZED SYMBOLS LEGEND. ALL SYMBOLS SHOWN MAY NOT APPEAR ON OR WITHIN THIS SET OF CONTRACT DOCUMENTS.

## SHEET LIST

M000	MECHANICAL COVER SHEET
M100	MECHANICAL NOTES AND SCHEDULES
M200	MECHANICAL PLANS
FX000	FIRE SUPPRESSION PLANS

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**CONSTRUCTION DOCUMENTS**

**MUSEUM OF THE ROCKIES - REAR GALLERY CEILING RENOVATION**

**45**

ARCHITECTURE

DRAWN BY: <b>Author</b>	
REVIEWED BY: <b>Checker</b>	
REV.	DESCRIPTION DATE

**PPA# 22-0055**

**22037**

**6088.012.**

**SHEET TITLE**

**MECHANICAL COVER SHEET**

**SHEET**

**M000**

**DATE**

**15 November 2023**

### DUCTWORK CONSTRUCTION SCHEDULE

1. SUPPLY DUCTWORK SHALL BE CONSTRUCTED AS LOW-PRESSURE DUCTWORK OPERATING AT STATIC PRESSURES LESS THAN OR EQUAL TO 2" W.C.
2. RETURN DUCTWORK SHALL BE CONSTRUCTED AS LOW-PRESSURE DUCTWORK OPERATING AT STATIC PRESSURES LESS THAN OR EQUAL TO 2" W.C.
3. INSULATED DUCTWORK SHALL INCLUDE THE FOLLOWING
  - A. ALL UN-LINED INTERIOR SUPPLY DUCTWORK
    - a. EXPOSED INTERIOR SUPPLY DUCTWORK IN PAINTED CEILING APPLICATIONS AND REQUIRING INSULATION SHALL BE PROVIDED AS BLACK OR WHITE PSK FACING W/O PRINT TO MATCH CEILING FINISH.
4. LINED DUCTWORK SHALL INCLUDE THE FOLLOWING
  - A. ALL TRANSFER DUCTWORK
  - B. ALL SUPPLY AND RETURN DUCTWORK WITHIN 15' OF FAN COIL UNITS.
5. UN-INSULATED AND UN-LINED DUCTWORK SHALL INCLUDE THE FOLLOWING
  - A. ALL INTERIOR EXHAUST DUCTWORK UNLESS OTHERWISE NOTED
  - B. ALL INTERIOR RETURN DUCTWORK UNLESS OTHERWISE NOTED
  - C. ALL EXPOSED INTERIOR SUPPLY DUCTWORK WITHIN THE SPACE SERVED
6. INSULATED FLEXIBLE DUCTWORK MAY BE USED AT THE CONTRACTOR'S OPTION FOR A MAXIMUM OF 5 FT. LENGTH TO EACH DIFFUSER/REGISTER/GRILLE UNLESS OTHERWISE NOTED.
7. DUCT INSULATION SHALL BE 1 1/2-INCH FIBERGLASS INSULATION WITH MINIMUM R-VALUE OF 5 AND A HEAVY DUTY FSK VAPOR BARRIER.
8. ALL DUCT DIMENSIONS SHOWN ON PLANS ARE CLEAR INTERIOR DIMENSIONS.
9. ALL INSULATION SYSTEMS SHALL NOT EXCEED THE 25/50 FLAME AND SMOKE SPREAD RATINGS AS DEFINED BY ASTM E 84.

### TEST AND BALANCE NOTES

1. TEST AND BALANCE WORK IS TO BE IN ACCORDANCE WITH NEBB STANDARDS.
2. CONTRACTOR SHALL PROVIDE TEST AND BALANCE SERVICES FOR NEW DUCT SYSTEMS.
  - A. PREREAD DIFFUSERS AND ADJUST NEW DIFFUSERS TO ORIGINAL AIR FLOWS.
3. SEE THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

### PROJECT SEISMIC RESTRAINT NOTES

1. MECHANICAL/PLUMBING SYSTEMS AND EQUIPMENT ON THIS PROJECT SHALL BE INSTALLED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE 2006 INTERNATIONAL BUILDING CODE (SEISMIC USE GROUP 'III', SEISMIC DESIGN CATEGORY 'D', COMPONENT IMPORTANCE FACTOR 1.5) AND THE LATEST EDITION OF SMACNA'S SEISMIC RESTRAINT MANUAL. SPRINKLER SYSTEMS AND EQUIPMENT SHALL BE INSTALLED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 13.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE SHOP DRAWINGS AND PROFESSIONAL STRUCTURAL ENGINEER SEISMIC RESTRAINT DRAWINGS FOR REVIEW AND APPROVAL. SUBMIT SHOP DRAWING INFORMATION ON EACH MAJOR PIECE OF EQUIPMENT AND FOR EACH MAJOR CATEGORY OF COMMONLY INSTALLED EQUIPMENT.

### MECHANICAL ACOUSTIC CONTROL NOTES

1. DUCTS SHALL ONLY BE LOCATED IN SOFFITS OR DROPPED CEILINGS BELOW THE SOUND ISOLATION CEILING UNLESS OTHERWISE INDICATED.
2. INSTALLATION OF MECHANICAL SYSTEMS SHALL NOT SHORT-CIRCUIT RESILIENT CHANNEL OF SOUND ISOLATION CEILINGS. SUPPORT OF MECHANICAL SYSTEM SHALL NOT RIGIDLY CONNECT GYPSUM BOARD TO FRAMING ABOVE. IF ANY MECHANICAL EQUIPMENT INSTALLATION IS ANTICIPATED TO SHORT-CIRCUIT THE RESILIENT CHANNEL, PROVIDE WITH BLOCKING AND "KINETICS LINBRACE ISOLATION BRACKET" OR APPROVED EQUAL. COORDINATE WITH THE ARCHITECT, ENGINEER, AND ACOUSTIC CONSULTANT AS REQUIRED.
3. PROVIDE ALL RIGID PIPING WITH "HUBBARD HOLDRITE" OR EQUAL ACOUSTIC HANGER SYSTEM WITH ACOUSTICALLY LINED HANGERS.
4. PROVIDE FLEXIBLE PIPING, DUCT, AND ELECTRICAL CONNECTIONS TO ALL VIBRATING EQUIPMENT.
5. SUPPORT ALL PIPING WITH SPRING AND NEOPRENE HANGERS WITHIN 50' OF CONNECTIONS TO VIBRATING EQUIPMENT OR THROUGHOUT THE MECHANICAL ROOM, WHICHEVER IS GREATER.
6. SEE THE ARCHITECTURAL ACOUSTICAL DETAILS FOR ADDITIONAL REQUIREMENTS OF PENETRATIONS IN SOUND RATED ASSEMBLIES.

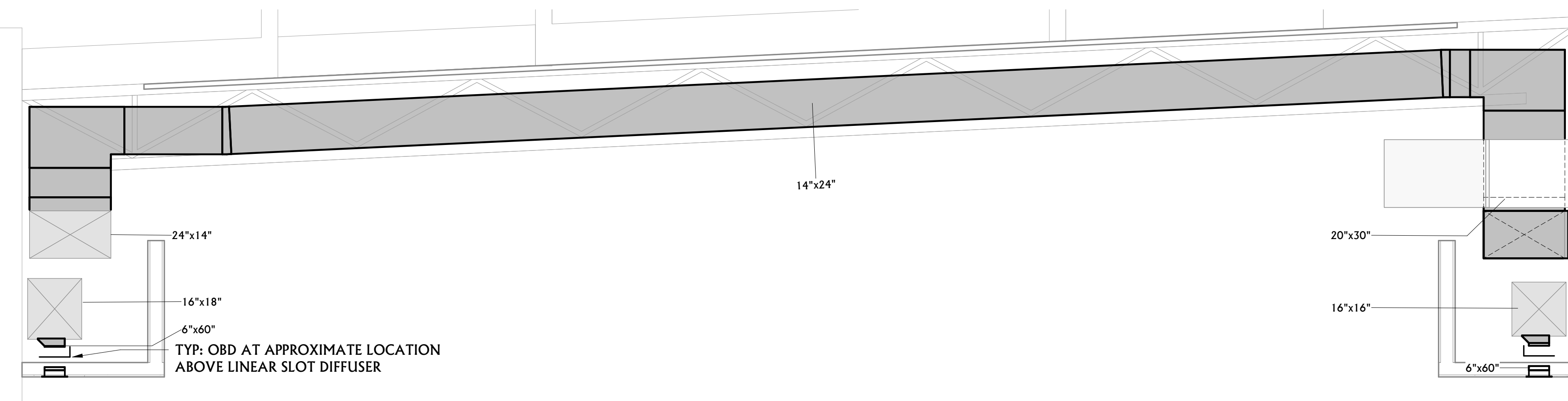
### RETURN PLENUM

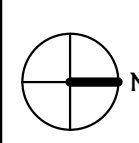
1. THE SPACE ABOVE CEILING IS USED AS A RETURN AIR PLENUM. UTILIZE PLENUM RATED CABLING FOR ALL LOW VOLTAGE CABLING IN CEILING PLENUM.
2. NO COMBUSTIBLE MATERIALS SHALL BE LOCATED IN PLENUM. ALL MATERIAL IN PLENUM SHALL MEET THE 25/50 FLAME AND SMOKE SPREAD RATING PER ASTM E84.

### GRILLE - REGISTER - DIFFUSER SCHEDULE

PLAN CODE	MFGR.	MODEL NUMBER	FUNCTION	FACE SIZE	MATERIAL	CFM	VOLUME DAMPER	REMARKS
LSD-1	NAILOR	5075	SUPPLY	6-3/8" X 60"	EXTRUDED ALUMINUM	540	OBD IN DUCT	SEE NOTES

- NOTES:  
1. PAINT TO MATCH ADJACENT SURFACES.



 **1**  
M100  
1/2" = 1'-0"

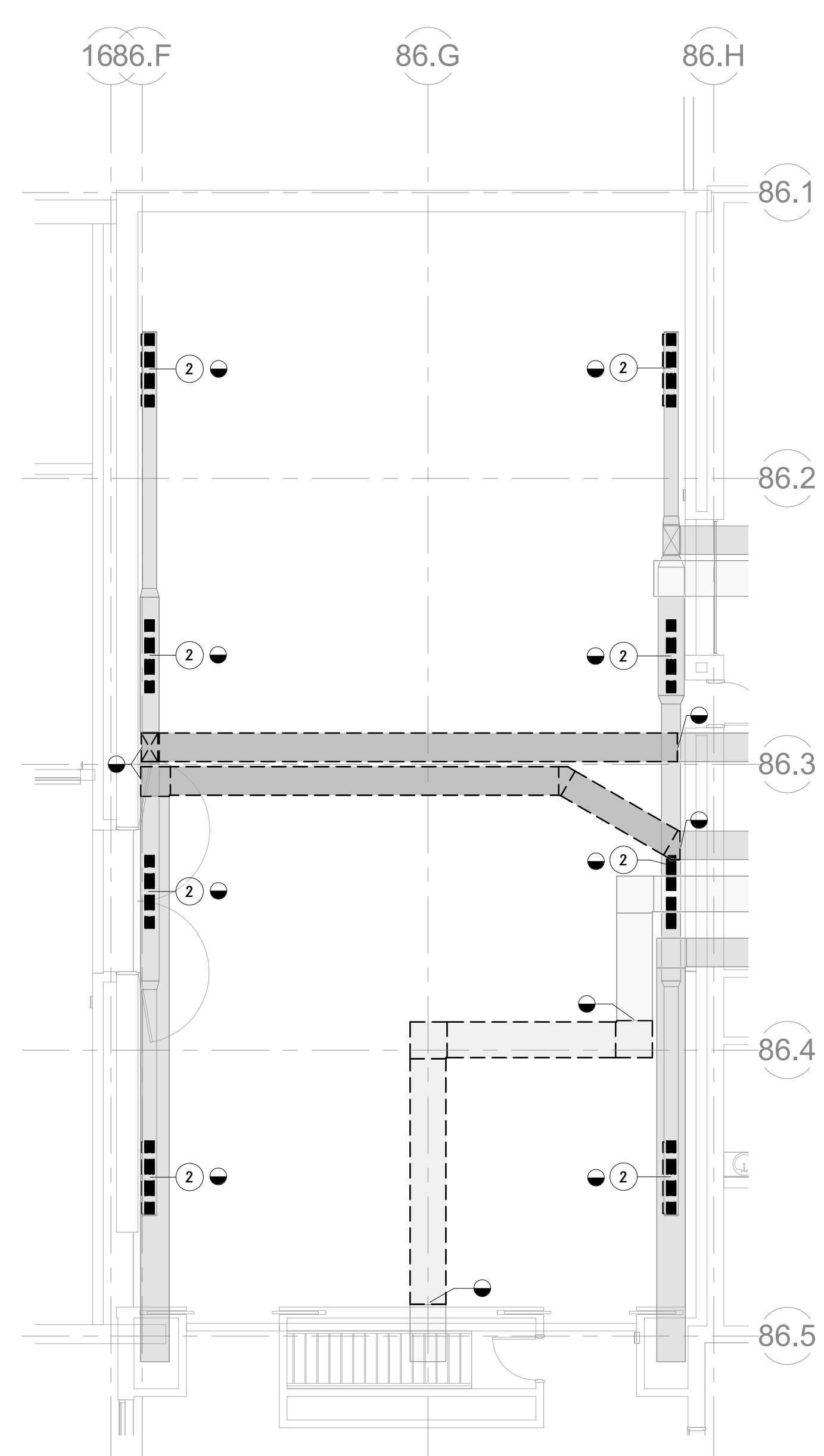
**TYPICAL DUCT LAYOUT**

MECHANICAL GENERAL DEMOLITION NOTES	
A	CONTRACTOR SHALL CUT ALL FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO PERFORM THE WORK DEPICTED IN THESE CONTRACT DOCUMENTS AND SPECIFICATIONS. GENERAL CONTRACTOR SHALL PATCH ALL ASSOCIATED FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
B	COORDINATE HVAC AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AS REQUIRED.
C	THE INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM EXISTING DRAWINGS AND FIELD OBSERVATIONS. FIELD VERIFY ALL EXISTING CONDITIONS AND PROVIDE DEMOLITION AS REQUIRED TO ACCOMMODATE EXISTING CONSTRUCTION.
D	NOTIFY THE OWNER OF ANY SYSTEM SHUT-DOWNS AND APPROXIMATE SHUT-DOWN TIME PRIOR TO COMMENCING WITH WORK.
E	CONTRACTOR SHALL REMOVE ALL DEMOLISHED MATERIALS FROM BUILDING, UNLESS SPECIFICALLY NOTED TO BE ABANDONED IN PLACE.
F	DRAWINGS SHOW GENERAL LOCATIONS OF MATERIALS TO BE REMOVED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXTENT OF WORK REQUIRED FOR A COMPLETE SYSTEM REMOVAL.
G	OWNER HAS FIRST RIGHT OF REFUSAL FOR ALL EQUIPMENT/MATERIAL CALLED OUT TO BE REMOVED. CONTRACTOR SHALL PRESENT ALL DEMO'D EQUIPMENT/MATERIAL TO OWNER PRIOR TO REMOVING FROM SITE.
H	DEMO ALL T-STATS AND CONTROLS ASSOCIATED WITH DEMO'D MECHANICAL EQUIPMENT.

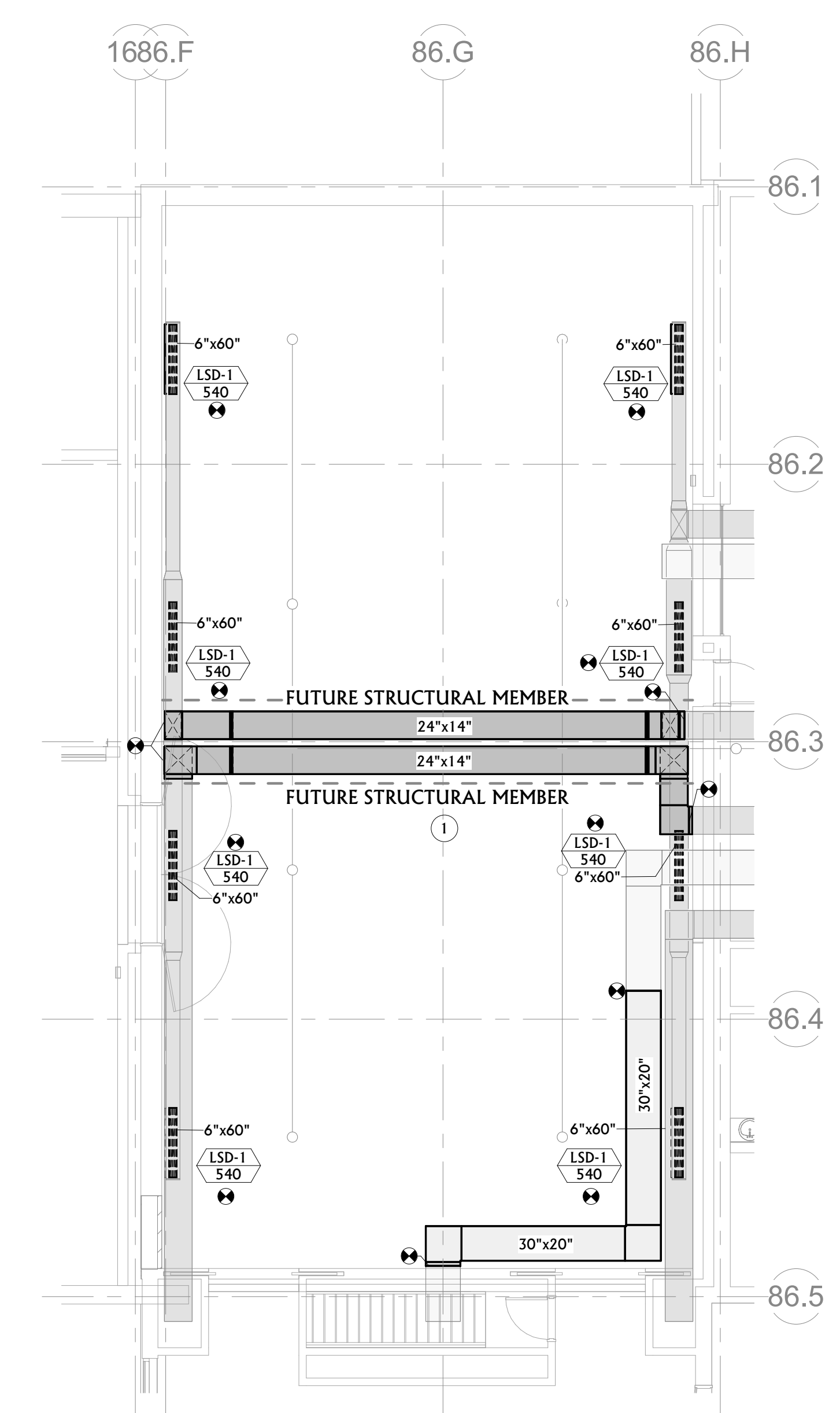
MECHANICAL GENERAL NOTES	
A	MECHANICAL CONTRACTOR SHALL CUT ALL FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO PERFORM THE WORK DEPICTED IN THESE CONTRACT DOCUMENTS AND SPECIFICATIONS. GENERAL CONTRACTOR SHALL PATCH ALL ASSOCIATED FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
B	COORDINATE EXACT LOCATION OF DIFFUSERS AND GRILLES WITH REFLECTED CEILING PLAN AND LIGHTING LAYOUT.
C	FLEX DUCT RUN OUTS SHALL BE LIMITED TO 5'-0".
D	COORDINATE HVAC AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AS REQUIRED.
E	ALL CEILING DIFFUSERS TO BE 4-WAY UNLESS OTHERWISE NOTED.
F	DUCT PENETRATIONS THROUGH ROOF TO BE COORDINATED WITH JOIST LAYOUT.
G	ALL DUCTS ABOVE CORRIDOR AREAS TO BE MINIMUM 24 GAUGE SHEET METAL.
H	PROVIDE FLUSH CUP CONCEALED OPERATORS ON ALL HAND DAMPERS LOCATED ABOVE HARD CEILINGS.
I	LINE ALL SUPPLY AND RETURN DUCTS WITH 1" A.L. WITHIN 15' OF FANS.
J	ALL DUCT DIMENSIONS SHOWN ON PLANS ARE CLEAR INTERIOR DIMENSIONS.
K	PROVIDE LOCKING COVERS FOR ALL THERMOSTATS/SENSORS.
L	PROGRAMMABLE THERMOSTATS SHALL BE PROVIDED WITH NEW BATTERIES AT TIME OF SUBSTANTIAL COMPLETION.
M	PROVIDE ACCESS PANELS FOR EACH FIRE DAMPER PER IMC STANDARDS/REQUIREMENTS.
N	VERIFY EXACT LOCATION OF T-STATS WITH ARCHITECT PRIOR TO INSTALLATION.
O	SEAL ALL MECHANICAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH UL-APPROVED FIRE RATED SYSTEM.

ADD ALTERNATE NOTES	
1.	REMOVE ALL EXISTING DUCT WORK IN EXHIBIT HALL TO ALLOW FOR STRUCTURAL JOIST INSTALLATION AND REPLACE WITH NEW DUCT OF THE SAME SIZE.

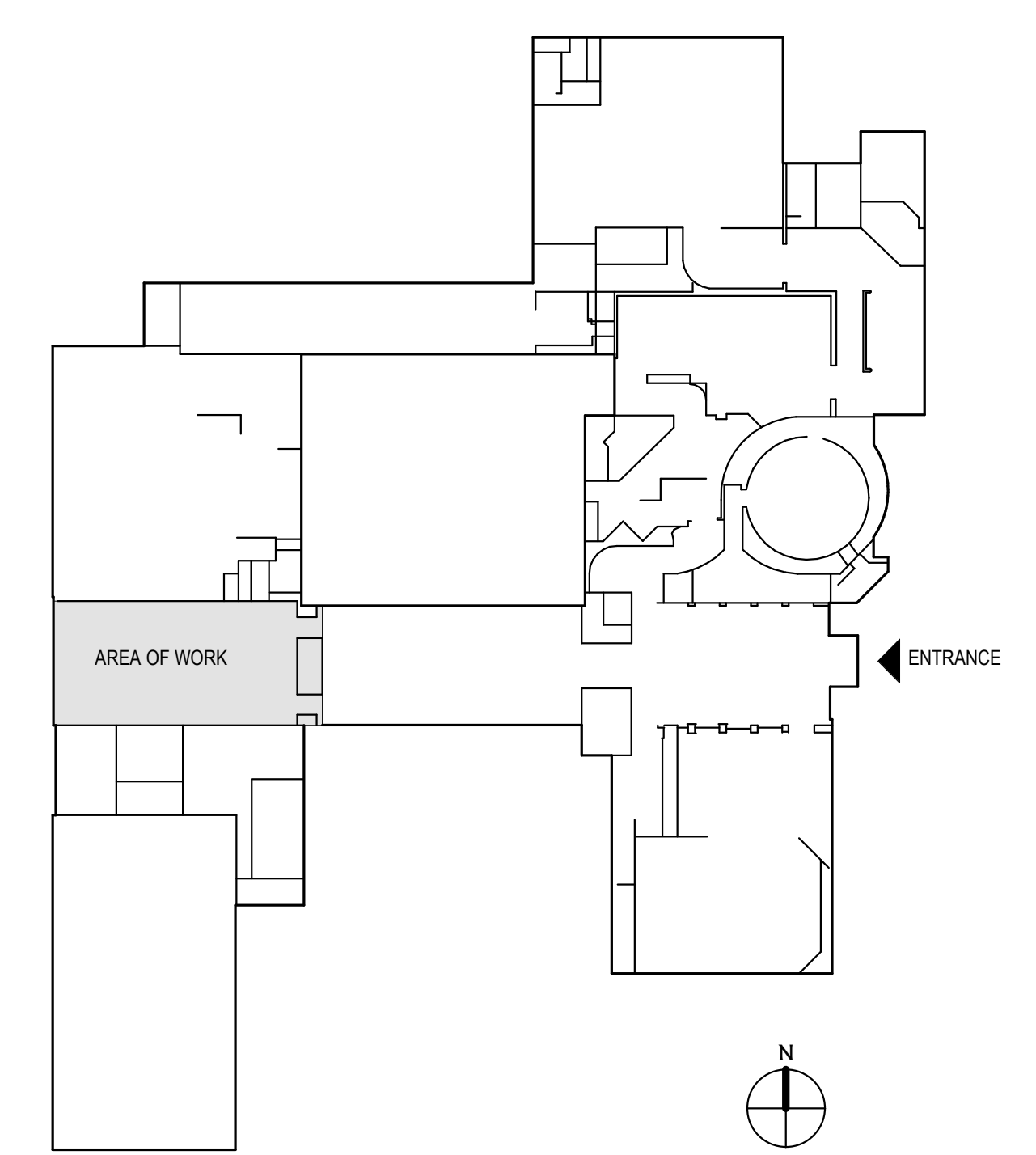
MECHANICAL KEYNOTES	
1	ROUTE NEW SUPPLY DUCTING IN STRUCTURE BETWEEN STRUCTURAL MEMBERS.
2	REMOVE EXISTING LINEAR SLOT DIFFUSER AND CONNECTION TO MAIN DUCT RUN AT APPROXIMATE LOCATION.



**1 REAR EXHIBIT MECHANICAL DEMOLITION PLAN**  
M200 1/8" = 1'-0"



**2 REAR EXHIBIT MECHANICAL REMODEL PLAN**  
M200 1/8" = 1'-0"

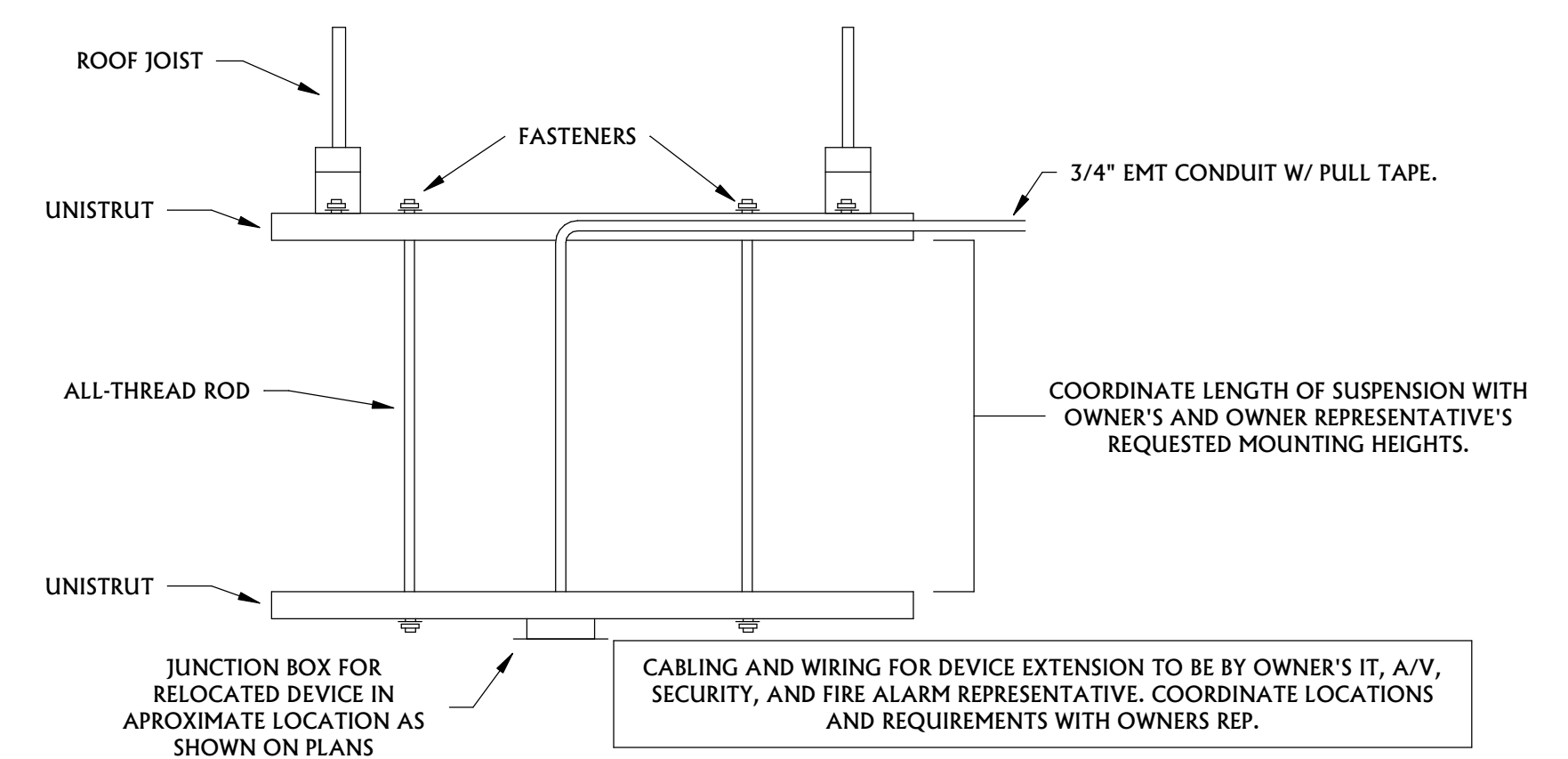




# ELECTRICAL PROJECT NOTES

- THE ELECTRICAL WORK SHALL INCLUDE ALL ITEMS, ARTICLES, MATERIALS, OPERATIONS, AND METHODS LISTED, MENTIONED OR SCHEDULED IN THESE DRAWINGS. ALL MATERIAL, EQUIPMENT AND LABOR SHALL BE FURNISHED TOGETHER WITH ALL INCIDENTAL ITEMS REQUIRED BY GOOD PRACTICE TO PROVIDE THE COMPLETE ELECTRICAL SYSTEM DESCRIBED.
- EXAMINE AND REFER TO ALL ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS FOR CONSTRUCTION CONDITIONS WHICH MAY EFFECT THE ELECTRICAL WORK. INSPECT THE BUILDING SITE AND EXISTING FACILITIES FOR VERIFICATION OF PRESENT CONDITIONS. MAKE PROPER PROVISIONS FOR THESE CONDITIONS IN PERFORMANCE OF THE WORK AND COST THEREOF.
- ANY WORK THAT REQUIRES POWER DISRUPTION SHALL BE COORDINATED WITH OWNER FOR BEST TIME AND DAY. NO POWER DISRUPTIONS SHALL BE UNSCHEDULED WHERE THEY AFFECT OWNERS BUSINESS OR PRACTICES.
- THE ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE PLANS AND SHALL NOT BE LESS THAN THE MINIMUM REQUIREMENTS OF ALL APPLICABLE SECTIONS OF THE LATEST CODES AND STANDARDS THAT ARE ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- THE ELECTRICAL CONTRACTOR SHALL PAY ALL FEES AND ARRANGE FOR ALL PERMITS REQUIRED FOR WORK DONE UNDER HIS CONTRACT AND UNDER HIS SUPERVISION BY SUBCONTRACT.
- THE ELECTRICAL CONTRACTOR SHALL AND HEREBY DOES WARRANT AND GUARANTEE THAT ALL WORK EXECUTED UNDER HIS CONTRACT WILL BE FREE FROM DEFECTS OF MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THIS WORK AND THAT HE WILL, AT HIS OWN EXPENSE, REPAIR AND/OR REPLACE ALL SUCH DEFECTIVE MATERIALS AND WORK DURING THE TERM OF THE WARRANTY.
- MANUFACTURER'S TRADE NAMES AND CATALOG NUMBERS LISTED ARE INTENDED TO INDICATE THE QUALITY OF EQUIPMENT OR MATERIAL DESIRED. MANUFACTURERS NOT LISTED MUST HAVE PRIOR APPROVAL. WRITTEN PRIOR APPROVAL MUST BE OBTAINED FROM THE ARCHITECT TEN (10) DAYS PRIOR TO BID OPENING.
- PROVIDE ONE (1) PDF COPY OF MANUFACTURER'S LITERATURE AND/OR CERTIFIED PRINTS WITHIN THIRTY (30) DAYS OF AWARD OF CONTRACT FOR SHOP DRAWING REVIEW. MANUFACTURER'S LITERATURE SHOWING MORE THAN ONE ITEM SHALL BE CLEARLY MARKED AS TO WHICH ITEM IS BEING FURNISHED. EACH SUBMITTAL SHALL BE STAMPED AND SIGNED BY THE ELECTRICAL CONTRACTOR OR THEY WILL BE REJECTED AND RETURNED WITHOUT REVIEW.
- THE DRAWINGS ARE PARTLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EXACT LOCATIONS OF CONDUIT UNLESS SPECIFICALLY DIMENSIONED. THEY SHALL NOT BE USED FOR OBTAINING QUANTITIES OR LINEAL RUNS OF CONDUIT.
- ALL CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS WILL NOT BE PERMITTED. MINIMUM CONDUCTOR SIZE SHALL BE NO. 12 AWG. BRACH CIRCUITS SHALL BE INSTALLED UTILIZING CONDUIT. ALL HOME RUNS SHALL UTILIZE CONDUIT FOR ROUTING OF CONDUCTORS. ALL CONDUIT SHALL BE EMT UNLESS OTHERWISE NOTED. PROVIDE NO. 10 AWG MINIMUM WIRE SIZE FROM PANELBOARD TO FIRST LIGHTING FIXTURES AND FIRST RECEPTACLE FOR CIRCUIT RUNS OF 50 FEET OR MORE. EXPOSED CONDUIT SHALL BE PAINTED TO MATCH THE SURROUNDING AREA PAINT COLOR. COORINATE PAINT COLOR WITH OWNER.
- ALL WIRING DEVICES, INCLUDING SWITCHES AND RECEPTACLES SHALL BE SPECIFICATION GRADE, 20-AMPERE UNLESS OTHERWISE NOTED. CONSULT ARCHITECT FOR ALL DEVICE COLORS AND STYLES. DEVICES INSTALLED IN UNFINISHED AREAS SHALL HAVE GALVANIZED COVER PLATES.
- REFER TO DEVICE MOUNTING HEIGHT DETAIL FOR INSTALLATION HEIGHT OF DEVICES IN PROJECT.
- ALL PANEL BOARDS SHALL CONTAIN COPPER BUSSING, BOLT ON CIRCUIT BREAKERS AND FLUSH LOCKABLE TRIM COVER BOLTING TO FRONT OF CAN. PROVIDE INTEGRAL TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS) DEVICE WITH 160 KA SURGE CURRENT RATING AT 240 VAC FOR MAIN DISTRIBUTION PANEL (MDP). TVSS SHALL BOLT ONTO PANEL BUS IN SAME FASHION AS CIRCUIT BREAKER. DEVICE SHALL BE EQUAL TO SQUARE-D SURGELOGIC.
- PROVIDE UPDATED TYPE WRITTEN PANEL DIRECTORIES FOR ALL PANELS AT PROJECT CLOSE. HAND WRITTEN DIRECTORIES ARE NOT ACCEPTABLE.
- PROVIDE DISCONNECT SWITCHES WHERE INDICATED OR REQUIRED BY NEC. DISCONNECT SWITCHES SHALL BE NEMA RATED AND UL LISTED.
- ALL TELEPHONE & DATA CABLING AND JACKS ARE BY THE OWNER. PROVIDE TEL/DATA ROUGH-INS AT LOCATIONS INDICATED.
- FIRE SEAL ALL CONDUIT PENETRATIONS WITH FIRE-RATED MATERIAL. WHERE FIRESTOP PILLOWS ARE CALLED FOR USE SPECIFIED TECHNOLOGIES INC. (STI) SERIES S5B, OR EQUAL.
- LABEL ALL MOTOR STARTERS, DISCONNECTS AND PANEL BOARDS WITH SELF ADHESIVE BACKED ENGRAVED ACRYLIC LABELS WITH 1/2-INCH HIGH LETTERS ON A 1-1/2-INCH HIGH LABEL.
- UPON COMPLETION OF WORK, PREPARE A "BROCHURE OF EQUIPMENT" CONTAINING DATA PERTINENT TO EQUIPMENT AND SYSTEMS ON JOB. BINDERS CONTAINING MATERIALS SHALL BE (3) THREE RING BINDERS OF SUFFICIENT NUMBER TO HOLD ALL LITERATURE. CONTAINED IN BINDERS SHALL BE: INSTALLATION, MAINTENANCE, AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT; PARTS LISTS; WIRING DIAGRAMS; ONE COPY OF EACH SHOP DRAWING AND LITERATURE SUBMITTAL; RECORD DRAWINGS, ETC.

PAINT ALL UNISTRUT, CONDUIT, ALL-THREAD, FASTENERS, AND JUNCTION BOXES TO MATCH SURROUNDING AREAS. COORDINATE PAINT COLOR WITH OWNER.



**1 UNISTRUT MOUNTING DETAIL**  
NOT TO SCALE

## LUMINAIRE SCHEDULE

CALLOUT	MANUFACTURER	MODEL	MOUNTING	LAMP	ELECTRICAL DATA	DESCRIPTION
EM1	LITHONIA	ELM4L B UVOLT LTP	SURFACE/WALL	LED	120 V/1-5 VA	EMERGENCY LIGHTING UNIT. COORDINATE FINISH WITH ARCHITECT.

# ELECTRICAL LEGEND

## FIRE ALARM DEVICES

[F]	MANUAL PULL STATION
[F<]	AUDIO/VISUAL HORN/STOBE DEVICE
[F>]	VISUAL STROBE DEVICE
[F<F>]	AUDIO SPEAKER DEVICE
[F<F>]	CEILING MOUNTED AUDIO/VISUAL SPEAKER/STROBE DEVICE
[F>F<]	CEILING MOUNTED AUDIO SPEAKER DEVICE
[M]	MAGNETIC DOOR HOLDER
[SD]	SMOKE DETECTOR
[HD]	HEAT DETECTOR
[CD]	CARBON MONOXIDE DETECTOR
[BSD]	DUCT SMOKE DETECTOR
[FSD]	FIRE SMOKE DAMPER
[FACP]	FIRE ALARM CONTROL PANEL
[FAA]	FIRE ALARM REMOTE ANNUNCIATOR
[E]	ADDRESSABLE INTERFACE DEVICE BY EC FOR FIRE/SMOKE DAMPERS
[ESV]	ELEVATOR SHAFT VENT, CONNECT TO FIRE ALARM SYSTEM
[PS]	SPRINKLER CONNECTION, PRESSURE SWITCH
[TS]	SPRINKLER CONNECTION, TAMPER SWITCH
[FS]	SPRINKLER CONNECTION, FLOW SWITCH
[EM]	ADDRESSABLE CONTROL MODULE
[HM]	ADDRESSABLE MONITORING MODULE
[LAA]	SPRINKLER CONNECTION, LOW AIR ALARM

## COMMUNICATION DEVICES

[V/F]	COMBINATION VOICE/ DATA DEVICE JACKS, BOX INDICATES FLOOR MOUNTING
[V/V]	VOICE DEVICE JACK, BOX INDICATES FLOOR MOUNTING
[C]	CABLE TV JACK
[I]	INTERCOM JACK
[ARMP]	AREA OF RESCUE ASSISTANCE - MASTER STATION
[ARRP]	AREA OF RESCUE ASSISTANCE - REMOTE STATION
[S]	CEILING MOUNTED SPEAKER
[S]	WALL MOUNTED SPEAKER
[S]	WALL MOUNTED VOLUME CONTROLLER
[C/S]	COMBINATION WALL SPEAKER/ CLOCK UNIT
[C]	WALL CLOCK

## SECURITY SYSTEM DEVICES

[CCV]	CLOSED CIRCUIT CAMERA
[MS]	CEILING MOUNTED MOTION SENSOR
[MS]	CORNER MOUNTED MOTION SENSOR
[MS]	WALL MOUNTED MOTION SENSOR
[KP]	KEY PAD
[CR]	CARD READER
[EL]	ELECTRIC LOCK
[ES]	ELECTRIC STRIKE
[MRX]	MOTION REQUEST TO EXIT SENSOR
[PRX]	PUSHBUTTON REQUEST TO EXIT SENSOR

## MISCELLANEOUS LEGEND

[W]	WITH	[AFF]	ABOVE FINISHED FLOOR
[AC]	ABOVE COUNTER	[AFG]	ABOVE FINISHED GRADE
[EC]	ELECTRICAL CONTRACTOR	[WM]	WIRE MOLD
[E]	EXISTING	[GC]	GENERAL CONTRACTOR
[R]	RELOCATED	[GND]	GROUND
(N)	NEW DEVICE	[UG]	UNDER GROUND
[C]	CONDUIT	[BOD]	BOTTOM OF DEVICE
[BFG]	BELOW FINISHED GRADE	[TOD]	TOP OF DEVICE
[UC]	UNDER COUNTER	[COD]	CENTER OF DEVICE
[WP]	WEATHER PROOF	[BOF]	BOTTOM OF FIXTURE
[MC]	MECHANICAL CONTRACTOR	[PC]	PLUMBING CONTRACTOR

[I] REFER TO ELECTRICAL NOTES

[HOMERUN] HOMERUN TO ELECTRICAL PANEL

[#] NUMBER OF HASH MARKS INDICATES NUMBER OF CURRENT CARRYING CONDUCTORS. NO MARKS INDICATES TWO. GROUNDING CONDUCTOR NOT SHOWN BUT SHALL BE INCLUDED IN ALL CONDUITS.

[—] NORMAL CIRCUIT CONCEALED IN WALL OR EXPOSED

[—] UNDERGROUND OR BURIED CIRCUIT

## POWER DEVICES

[S]	SINGLE POLE SWITCH, SUBSCRIPT INDICATES TYPE: 2 2-POLE 3 3-WAY 4 4-WAY D DIMMER K KEYED LV LOW VOLTAGE MC MOMENTARY CONTACT OS OCCUPANCY SENSOR P PILOT LIGHT T TIMER - 1 HOUR TIMER, MOTOR RATED FOR EXHAUST FANS
[D]	DUPLEX RECEPTACLE SUBSCRIPT INDICATES TYPE: AC ABOVE COUNTER GFCI GROUND FAULT CIRCUIT INTERRUPTER IG ISOLATED GROUND TR TAMPER RESISTANT U USB WP WEATHERPROOF WR WEATHER-RESISTANT FILLED CENTER INDICATES GFCI DEVICE
[D]	DOUBLE DUPLEX RECEPTACLE, SUBSCRIPT ABOVE INDICATE TYPE
[D]	DUPLEX RECEPTACLE IN FLOOR BOX
[D]	DOUBLE DUPLEX RECEPTACLE IN FLOOR BOX
[D]	SIMPLEX RECEPTACLE
[D]	DUPLEX RECEPTACLE, CEILING MOUNTED. DEVICE AND COVER SHALL MATCH CEILING FINISH
[D]	SWITCHED DUPLEX RECEPTACLE, BOX INDICATES DEVICE LOCATED IN FLOOR BOX
[D]	208V SINGLE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
[D]	208V THREE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
[D]	SIMPLEX RECEPTACLE IN FLOOR BOX
[D]	MUSHROOM HEAD PUSH BUTTON
[D]	PHOTO CELL
[D]	WALL MOUNTED CLOCK HANGER/ POWER RECEPTACLE
[D]	CORNER WALL MOUNTED OCCUPANCY SENSOR
[D]	CEILING MOUNTED OCCUPANCY SENSOR, STYLE 1
[D]	CEILING MOUNTED OCCUPANCY SENSOR, STYLE 2
[D]	CEILING MOUNTED OCCUPANCY SENSOR, STYLE 3
[D]	OCCUPANCY SENSOR POWER PACK, BOX INDICATES WALL MOUNTING
[D]	SPECIAL PURPOSE CONNECTION, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
[D]	JUNCTION BOX, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
[D]	MOTOR CONNECTION
[D]	RELAY
[D]	NON-FUSED DISCONNECT SWITCH
[D]	FUSED DISCONNECT SWITCH
[D]	COMBINATION STARTER/DISCONNECT SWITCH
[D]	CONTACTOR
[D]	MANUAL MOTOR STARTER
[D]	AQUASTAT BY PLUMBING CONTRACTOR, WIRED BY EC.
[D]	VARIABLE FREQUENCY DRIVE
[D]	CO2 DETECTOR BY MC, ROUGH-IN BY EC
[D]	THERMOSTAT BY MC, ROUGH-IN BY EC
[D]	PAD MOUNTED UTILITY TRANSFORMER
[D]	ELECTRICAL PANEL - SEE PANEL SCHEDULES FOR MOUNTING CONFIGURATION

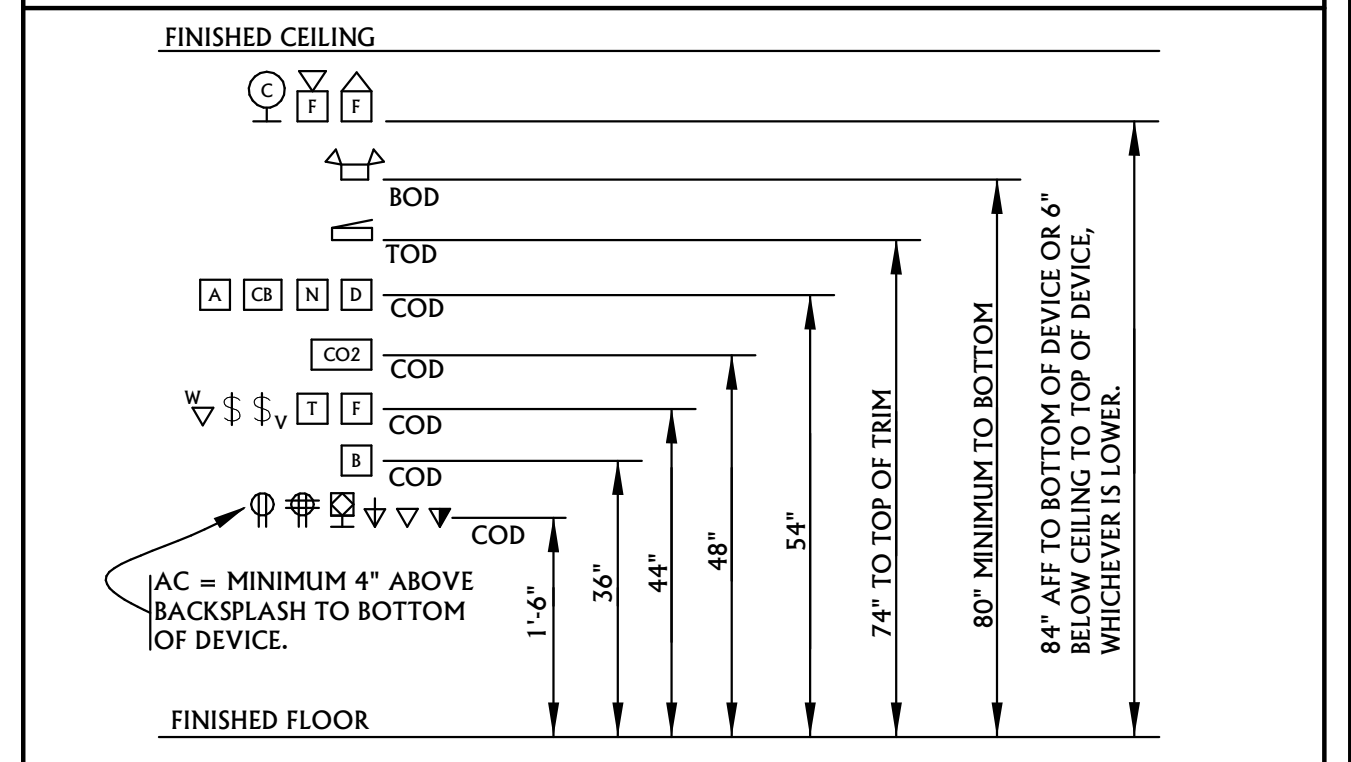
## LIGHTING DEVICES

[L]	LAY-IN OR RECESSED LIGHTING FIXTURE
[S]	SURFACE MOUNTED LIGHTING FIXTURE
[D]	DIRECT/ INDIRECT LIGHTING PENDANT MOUNTED FIXTURE.
[S]	SURFACE MOUNTED OR CHAIN HUNG STRIP FIXTURE
[W]	WALL BRACKET LIGHTING FIXTURE
[R]	RECESSED DOWN LIGHT, HALF MOON INDICATES WALL WASH TRIM AND DIRECTION.
[C]	SURFACE MOUNTED CYLINDER FIXTURE
[H]	WALL MOUNTED FIXTURE
[S]	WALL SCONCE FIXTURE
[E]	FILLED CENTER OR SLASH INDICATES FIXTURE IS AN EMERGENCY DEVICE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY POWER.
[E]	EXIT SIGN, BRACKET INDICATES WALL MOUNTING. NUMBER OF FACES AND DIRECTION INDICATED BY FILLED AREAS.
[E]	REMOTE DOUBLE HEAD EGRESS FIXTURE
[E]	SITE GROUND MOUNTED FLOOD FIXTURE
[E]	DOUBLE HEAD WALL MOUNTED BATTERY PACK POWERED EGRESS FIXTURE.
[E]	SQUARE HEAD POLE MOUNTED SITE LIGHT FIXTURE.
[E]	ROUND HEAD POLE MOUNTED SITE LIGHT FIXTURE.

## ELECTRICAL ABBREVIATIONS

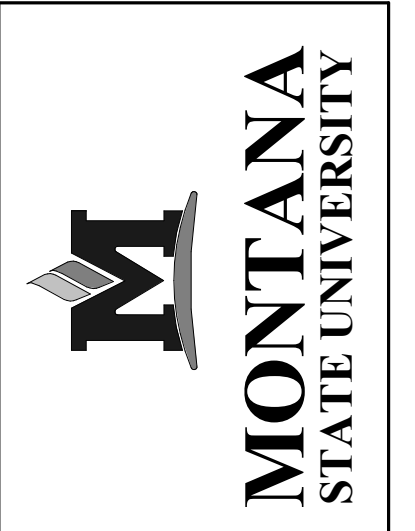
A	AMP(S)	LTS	LIGHTS
ACCU	AIR CONDITIONING CONDENSING UNIT	LW	LIGHT WHITE
ADJ	ADJUSTABLE	MC	MECHANICAL CONTRACTOR
ADMIN	ADMINISTRATION	MCA	MINIMUM CIRCUIT AMPS
AFF	ABOVE FINISH FLOOR	MCB	MAIN CIRCUIT BREAKER
AHU	AIR HANDLING UNIT	MDP	MAIN DISTRIBUTION PANEL
AL	ALUMINUM	MECH	MECHANICAL
AMP	AMPERE(S)	MFA	MINIMUM FEEDER AMPACITY
APPL	APPLIANCE	MFG	MANUFACTURER
APPROX	APPROXIMATE	MIN	MINIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MLO	MAIN LUGS ONLY
BLS	BUILDING BREAKER	MOC	MOMENTARY CONTACT
BLDG BRK	BRITISH THERMAL UNIT/HOUR	MOCB	MAXIMUM OVERCURRENT PROTECTION
BTU/HR		MP	MAIN PANEL
C	CONDUIT	MTD	MOUNTED
CB	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CCT	CIRCUIT	NO	NUMBER
CCTV	CLOSED CIRCUIT TELEVISION	OCB	OVERCURRENT PROTECTION
CUH	CABINET UNIT HEATER	OFF	OFFICE
CLB	CUBIC FEET PER MINUTE	OH	OVERHEAD
COM	COMMUNICATION	P	PHASE
COMM	COMMISSARY	PNL	PANEL
COMP	COMPRESSOR	PREP	PREPARATION
COND	CONDENSER	PROD	PROVIDE & INSTALL
CONTR	CONTRACTOR	P/I	PROVIDE & INSTALL
CU	COPPER	RA	REMOTE ANNUNCIATOR
CTV	CABLE TELEVISION	RAF	RETURN AIR FAN
CW	COOL WATER PUMP	RECP	RECEPTACLE
CWP	COLD WATER PUMP	RECP	RECEPTACLE
DIA	DIAMETER	REF	REFRIGERATOR
DISC	DISCONNECT	REF	REFRIGERANT
DPS	DOOR POWER SUPPLY	REQD	REQUIRED
DWG	DRAWING	RM	ROOM
EC	ELECTRICAL CONTRACTOR	RMS	ROOM(S)
EF	EXHAUST FAN	RR	RESTROOMS
ELEC	ELECTRIC	RS	RAPID START
EMD	ESTIMATED MAXIMUM DEMAND	SDP	SUB DISTRIBUTION PANEL
EMER	EMERGENCY	SER	SERVICE
ENGR	ENGINEER	SF	SUPPLY FAN
ETC	ETCETERA	SN	SHEET
EWC	ELECTRIC WATER COOLER	SHT	SOLID NEUTRAL SWITCH, PILOT
EXT	EXTERIOR	SP	SPECIFICATIONS
FA	FIRE ALARM FACILITY	SPST	SINGLE THROW SWITCH, SINGLE POLE-SINGLE THROW
FAC	FIRE ALARM CONTROL PANEL	STD	STANDARD
FIX	FIXTURE	STL	STEEL
FLA	FULL LOAD AMPS	STOR	STORAGE
FLA	FOOT	SW	SWITCH
GC	GENERAL CONTRACTOR	TBD	TELEPHONE BACK BOARD
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TV	TELEVISION TYPICAL
GFI	GROUND FAULT INTERRUPTER	UG	UNDERGROUND
HP	HORSEPOWER	UGL	UNDERGROUND ELECTRICAL
HPS	HIGH PRESSURE SODIUM	UHT	UNDERGROUND TELEPHONE
HTD	HIGH INTENSITY DISCHARGE	UH	UNIT HEATER
HT	HEIGHT	V	VOLT(S)
HTRS	HEATERS	VA	VOLT AMPERES
HW	HOT WATER	VEST	VESTIBULE
HWP	HOT WATER HEATER	W	WIRE
HWP	HOT WATER PUMP	W	WATT(S)
HZ	HERTZ	WM	WITH WATT MISER
INC	INCORPORATED	XFMR	TRANSFORMER
J-BOX	JUNCTION BOX		
KHZ	KILOHERTZ		
KIT	KITCHEN		
KVA	KILOVOLT AMPERE(S)		
KW	KILOWATT(S)		

## INTERIOR MOUNTING HEIGHTS



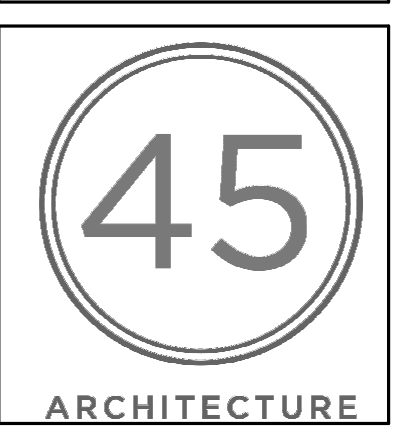
## ELECTRICAL SHEET LIST

E000	ELECTRICAL COVER SHEET
E100	POWER & SPECIAL SYSTEMS PLANS
E200	LIGHTING PLANS

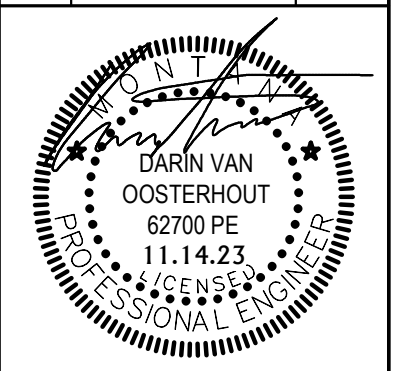


MSU-PDC  
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PHONE: 406.994.5413  
FAX: 406.994.5665

CONSTRUCTION DOCUMENTS  
**MUSEUM OF THE ROCKIES - REAR GALLERY CEILING RENOVATION**



DRAWN BY: **ST**  
REVIEWED BY: **DV**  
REV. DESCRIPTION DATE



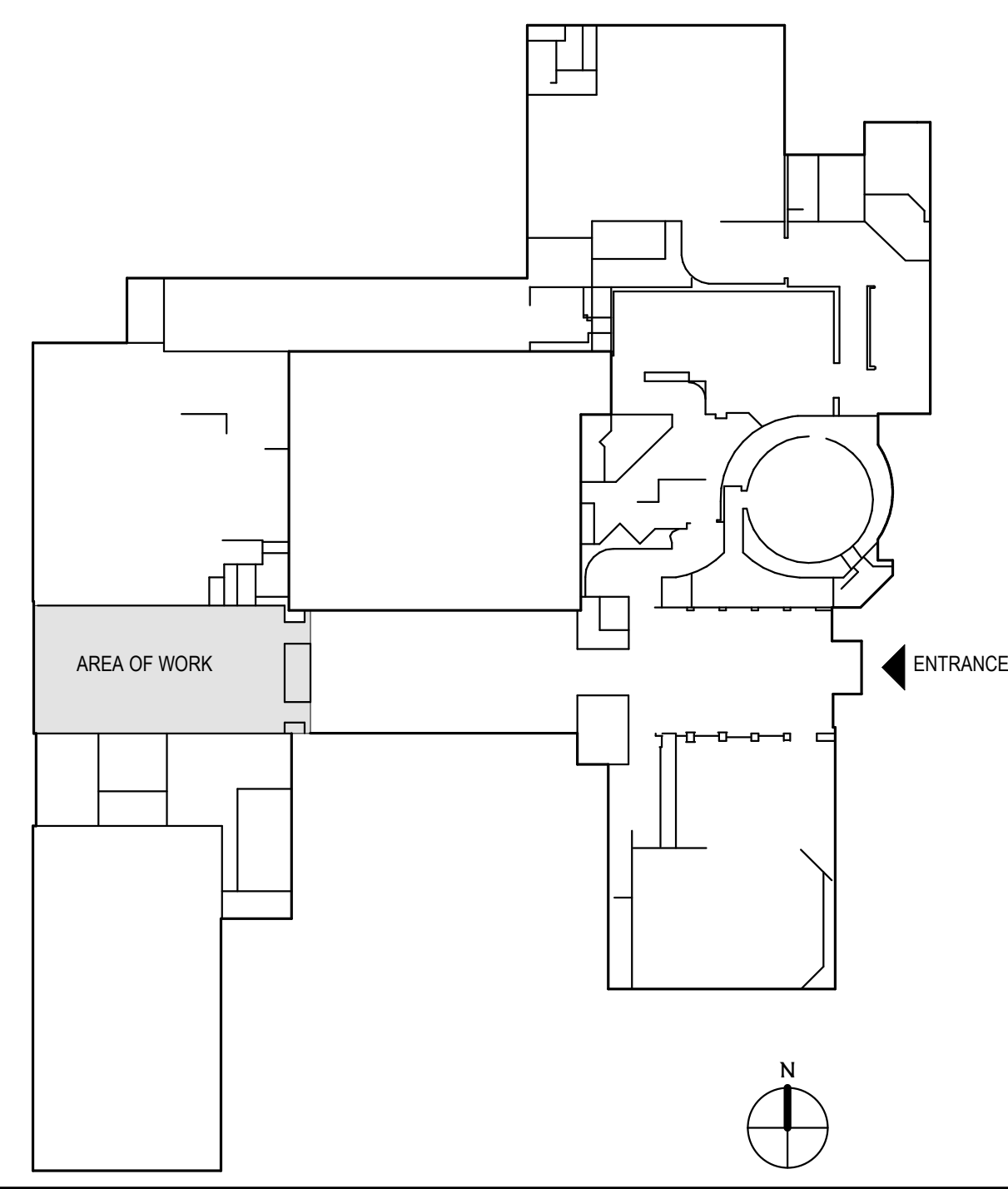
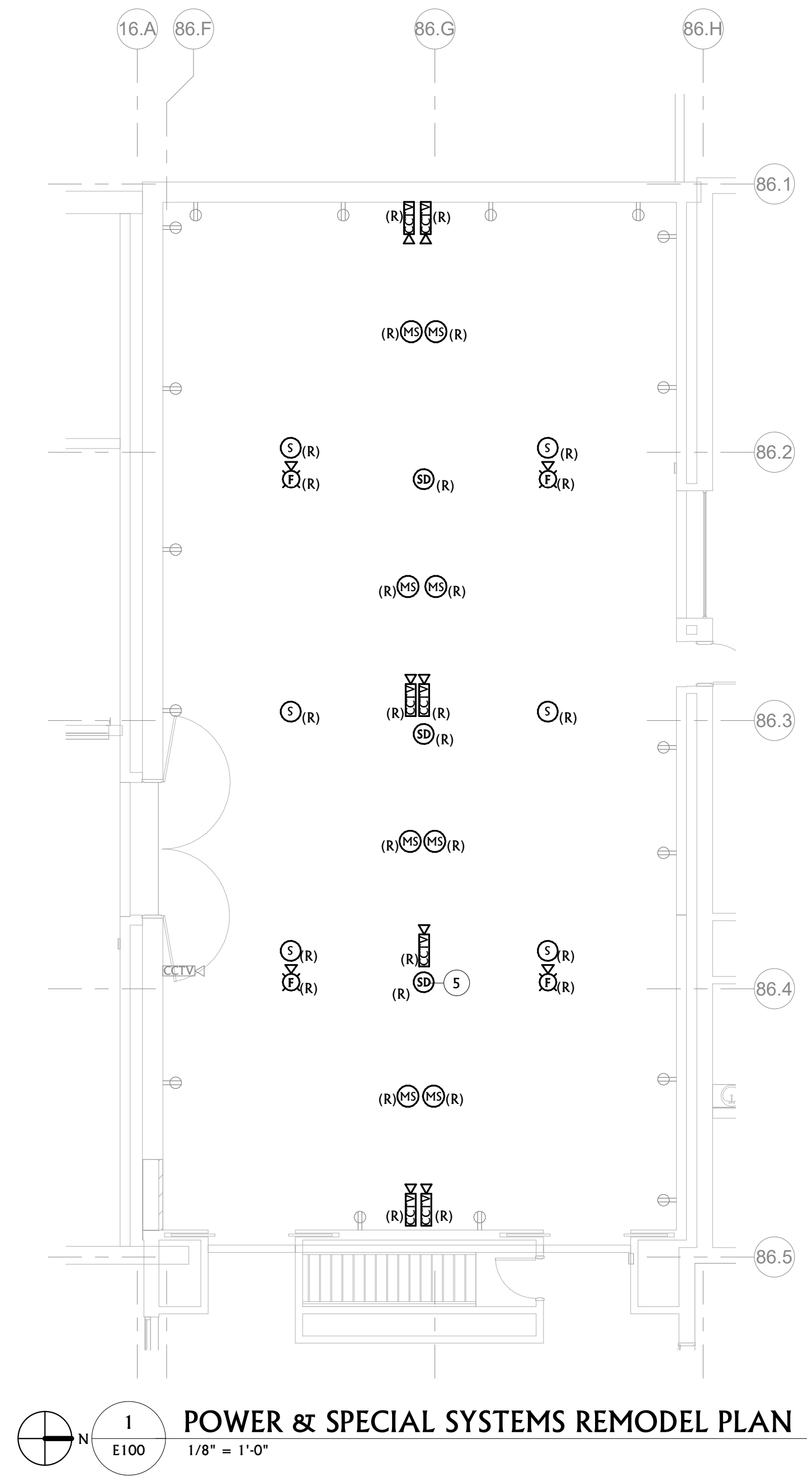
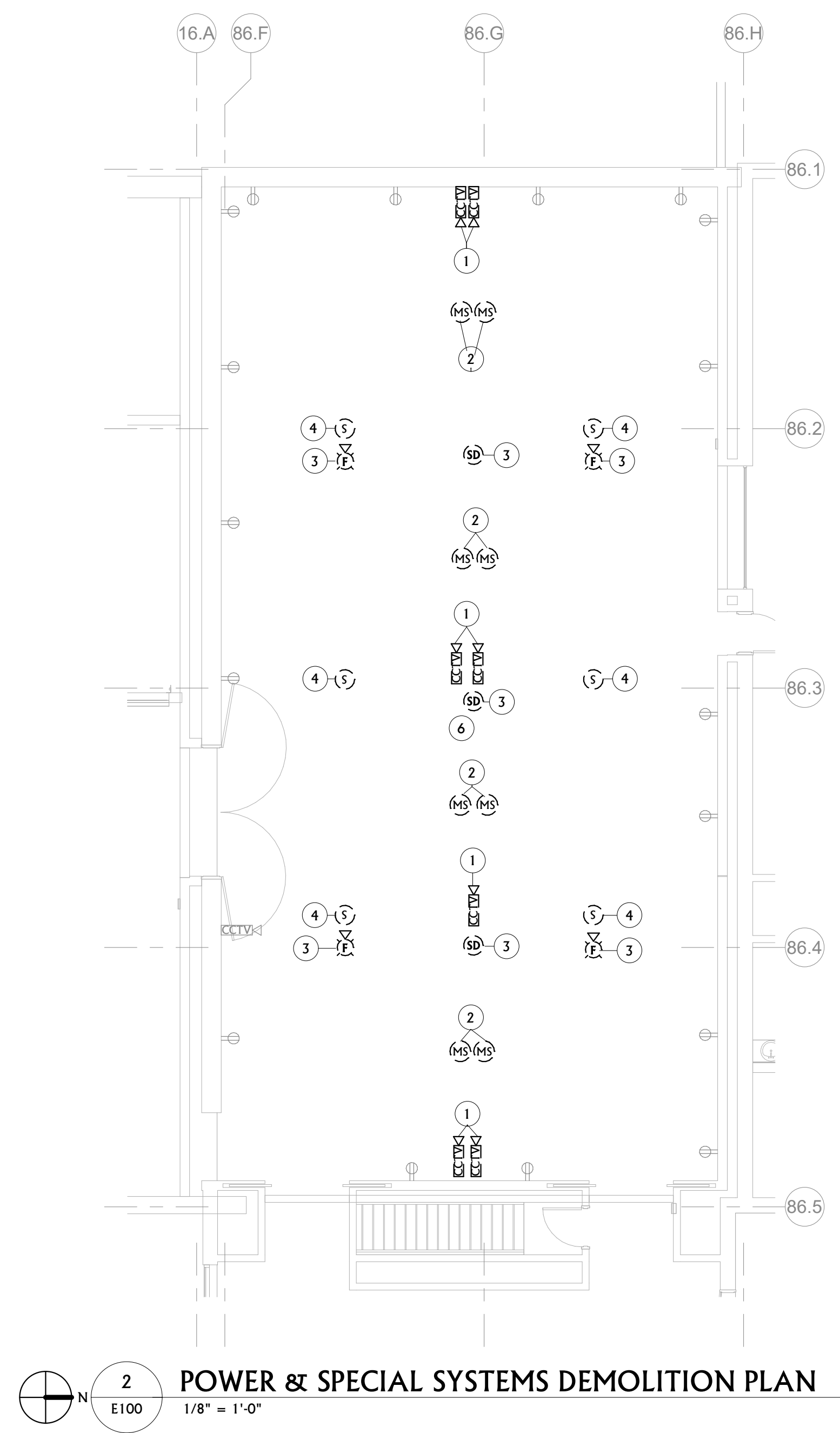
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ELECTRICAL COVER SHEET  
SHEET  
**E000**  
DATE  
15 November 2023

ELECTRICAL POWER GENERAL NOTES	
A	REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON DEVICE LOCATIONS, DIMENSIONS, ETC. CAREFULLY EXAMINE ARCHITECTURAL FLOOR PLANS, CEILING PLANS, ELEVATIONS, ETC. FOR INFORMATION THAT AFFECTS ELECTRICAL WORK. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND ELECTRICAL PLANS.
B	ALL DARK ITEMS ARE NEW, UNLESS NOTED OTHERWISE. ALL SHADED ITEMS ARE EXISTING TO REMAIN.
C	ALL ITEMS DENOTED WITH AN (R) ARE RELOCATED OR REINSTALLED. ALL ITEMS DENOTED WITH AN (E) ARE EXISTING TO REMAIN.
D	CONNECT ALL DEVICES TO EXISTING CIRCUITS SERVING THE AREA UNLESS NOTED OTHERWISE. VERIFY EXISTING LOAD PRIOR TO CONNECTING ADDITIONAL DEVICES.
E	CONNECT ALL FIRE ALARM DEVICES TO EXISTING FIRE ALARM SYSTEM.
F	CONNECT ALL SPEAKERS TO EXISTING OVERHEAD PAGING SYSTEM.
G	FIRE SEAL ALL PENETRATIONS IN FIRE RATED WALLS. COORDINATE WITH ARCHITECTURAL FOR LOCATIONS.

ADD ALTERNATE NOTES	
I.	REMOVE ALL EXISTING ABOVE CEILING CONDUIT, WIRING, JUNCTION BOXES, ETC. AS REQUIRED TO SUPPORT REMOVAL AND REPLACEMENT OF STRUCTURAL ROOF JOISTS. THIS INCLUDES, BUT IS NOT LIMITED TO, POWER, LIGHTING, DATA, FIRE ALARM, SECURITY, AND A/V. EC RESPONSIBLE FOR RE-INSTALLING NEW CONDUIT, JUNCTION BOXES, POWER AND LIGHTING WIRING. EC RESPONSIBLE FOR INSTALLING NEW CONDUIT AND JUNCTION BOXES FOR DATA, FIRE ALARM, SECURITY, AND A/V WIRING AS NECESSARY. OWNERS REPRESENTATIVE IS RESPONSIBLE FOR INSTALLING NEW WIRING FOR DATA, FIRE ALARM, SECURITY, AND A/V. COORDINATE ALL REQUIREMENTS WITH STRUCTURAL PLANS AND OWNERS REPRESENTATIVES.

ELECTRICAL GENERAL DEMOLITION NOTES	
A	ELECTRICAL CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES IN AREAS OF THIS FACILITY AFFECTED BY REMODEL WORK INCLUDING BUT NOT LIMITED TO: JUNCTION BOXES, OUTLETS, LIGHTS, CABLE, CONDUIT AND WIRE. ALL DEVICES MAY NOT BE SHOWN ON THIS SHEET AND SITE INVESTIGATION IS REQUIRED FOR EXACT QUANTITIES. CONFIRM DEMOLITION SCOPE WITH GENERAL CONTRACTOR AT PRE-BID WALK AND RECYCLE WHERE FEASIBLE. DISPOSE OF ALL FLUORESCENT LAMPS AND BALLASTS IN A LEGAL AND ENVIRONMENTALLY FRIENDLY MANNER. PROVIDE PROPER DISPOSAL DOCUMENTATION STATING ITEMS DISPOSED OF AND QUANTITY TO OWNER FOR RETENTION.
B	EXISTING CONDUITS STUBBED THROUGH THE FLOOR THAT ARE NOT REUSED OR ARE ABANDONED SHALL BE CUT AT THE FLOOR SURFACE, GROUND FLUSH AND FILLED WITH GROUT. FLOOR FINISH SHALL MATCH THAT OF EXISTING.
C	DEVICES SHOWN ARE BASED ON EXISTING PLANS AND LIMITED VISUAL FIELD OBSERVATIONS AND ARE ONLY INTENDED TO CONVEY SCOPE. DEMO OR MODIFY ALL EXISTING ELECTRICAL INSTALLATIONS AS REQUIRED TO SUPPORT PROJECT. FIELD VERIFY ALL CONDITIONS PRIOR TO BIDDING.
D	ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NEC, STATE AND LOCAL BUILDING CODE.
E	RETURN ANY USABLE/ SALVAGEABLE ELECTRICAL DEVICES TO OWNER INCLUDING BUT NOT LIMITED TO: LIGHT FIXTURES, ELECTRICAL HEATERS, PANELS, CIRCUIT BREAKERS ETC. CONFIRM WITH OWNER ITEMS THAT ARE DESIRABLE FOR RETENTION.
F	ALL DASHED ITEMS ON DEMOLITION PLANS ARE TO BE REMOVED UNLESS NOTED OTHERWISE. SOLID ITEMS ARE TO REMAIN OR TO BE RELOCATED AS NOTED. NOTE - ITEMS SHOWN IN THE DEMOLITION PLANS ARE BASED ON "EXISTING DRAWINGS". ADDITIONAL ELECTRICAL ITEMS MAY BE ENCOUNTERED THAT ARE NOT SHOWN - ALL GENERAL ELECTRICAL ITEMS IN THE AREA OF REMODEL ARE TO BE REMOVED THAT ARE AFFECTED BY REMODEL. VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING.
G	ANY WORK THAT REQUIRES POWER DISRUPTIONS SHALL BE SCHEDULED AND APPROVED BY THE OWNER. ALL WORK SHALL BE PERFORMED WITH NO DISRUPTION OF THE OWNER'S BUSINESS.
H	SOME DEVICES AND SYSTEMS THAT ARE NOT REMOVED MAY BE AFFECTED BY DEMOLITION AND CONSTRUCTION. PROVIDE ALL LABOR AND MATERIALS REQUIRED TO MAINTAIN OR RESTORE CONTINUITY AND FUNCTION OF ALL EXISTING DEVICES AND SYSTEMS THAT ARE NOT REMOVED BUT ARE AFFECTED BY DEMO OR CONSTRUCTION WORK.
I	REMOVE ALL ABANDONED WIRE, RACEWAY AND CABLING IN THE PROJECT AREA.
J	PROVIDE UPDATED, TYPEWRITTEN DIRECTORIES FOR ALL EXISTING PANELS AFFECTED BY DEMOLITION WORK. LABEL ALL CIRCUIT BREAKERS THAT HAVE THEIR ENTIRE LOAD REMOVED AS 'SPARE'.
K	MAINTAIN OR RESTORE FUNCTIONALITY TO ALL SYSTEMS THAT ARE AFFECTED BY PROJECT PHASING. CONTRACTOR SHALL PROVIDE ALL WORK TO MAINTAIN, CONNECT, RECONNECT, MODIFY OR RESTORE THE FUNCTION OF ALL SYSTEMS THAT ARE AFFECTED IN ANY WAY BY PROJECT PHASING. PROVIDE ALL WORK FOR TEMPORARY CONNECTIONS OR SYSTEM MODIFICATIONS REQUIRED TO ACCOMMODATE PROJECT PHASING. REFER TO ARCHITECTURAL FOR PHASING INFORMATION.

ELECTRICAL KEYNOTES	
1	PREPARE EXISTING CEILING MOUNTED SECURITY CAMERA FOR RELOCATION. SEE POWER AND SPECIAL SYSTEMS REMODEL PLAN FOR NEW LOCATION.
2	PREPARE EXISTING CEILING MOUNTED MOTION SENSOR FOR RELOCATION. SEE POWER AND SPECIAL SYSTEMS REMODEL PLAN FOR NEW LOCATION.
3	PREPARE EXISTING CEILING MOUNTED FIRE ALARM DEVICE FOR RELOCATION. SEE POWER AND SPECIAL SYSTEMS REMODEL PLAN FOR NEW LOCATION.
4	PREPARE EXISTING CEILING MOUNTED SPEAKER FOR RELOCATION. SEE POWER AND SPECIAL SYSTEMS REMODEL PLAN FOR NEW LOCATION.
5	PROVIDE ROUGH-IN FOR RELOCATED DEVICE. EC TO EXTEND EXISTING CONDUIT TO APPROXIMATE LOCATION AND PROVIDE UNISTRUT STRUCTURE AND NEW JUNCTION BOX FOR MOUNTING. CABLING AND WIRING FOR NEW DEVICE LOCATION TO BE BY OWNERS REPRESENTATIVE. COORDINATE REQUIREMENTS WITH OWNERS REPRESENTATIVE. SEE DETAIL 6000/1 FOR ADDITIONAL INFORMATION. TYPICAL OF ALL RELOCATED DEVICES SHOWN ON POWER AND SPECIAL SYSTEMS REMODEL PLANS.
6	EC TO FIELD VERIFY ALL ABOVE CEILING CONDUIT AND WIRING NEEDING TO BE RE-ROUTED OR REPLACED BY REMOVAL OF CEILING. THIS INCLUDES, BUT IS NOT LIMITED TO, POWER, LIGHTING, FIRE ALARM, DATA, SECURITY, AND A/V. EC TO FIELD VERIFY PRIOR TO SUBMITTING BID.

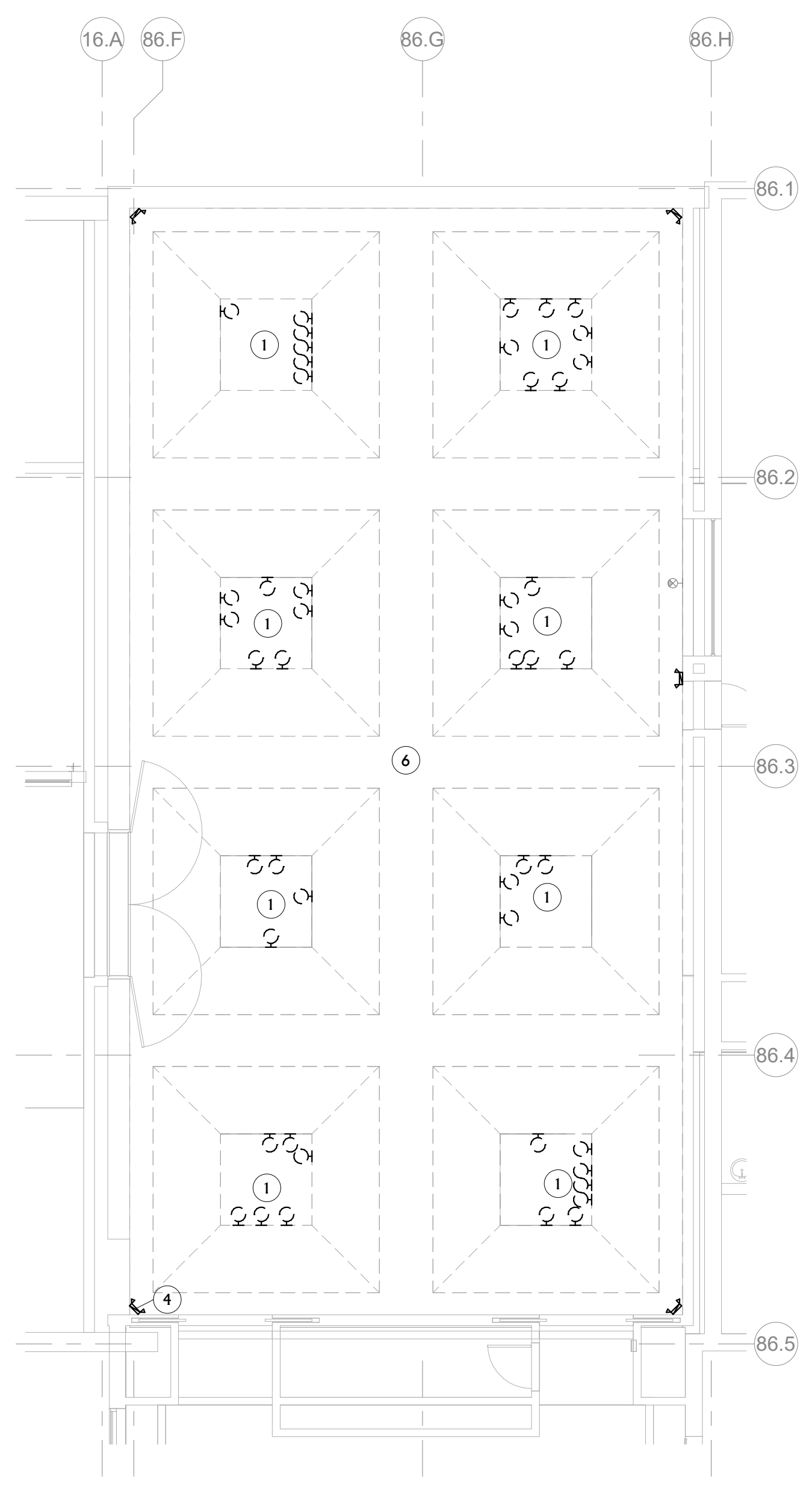


ELECTRICAL KEYNOTES	
1	DEMO ALL TRACK LIGHTING IN ITS ENTIRETY. PREPARE EXISTING LIGHTING CIRCUIT FOR REUSE WITH REMODEL LIGHTING.
2	PROVIDE NEW JUNCTION BOX FOR FUTURE TRACK AND EXHIBIT LIGHTING. EXTEND EXISTING LIGHTING CIRCUIT WIRING AND CONDUIT AS NECESSARY TO APPROXIMATE LOCATION SHOWN. TYPICAL OF ALL NEW JUNCTION BOXES SHOWN ON LIGHTING REMODEL PLANS.
3	LOCATIONS AND QUANTITY OF NEW JUNCTION BOXES SHOWN IS APPROXIMATE. COORDINATE EXACT LOCATIONS AND QUANTITY WITH OWNERS EXHIBIT LIGHTING REPRESENTATIVE.
4	DEMO EXISTING EMERGENCY LIGHTING UNIT. PREPARE LIGHTING CIRCUIT FOR REUSE WITH NEW EMERGENCY LIGHTING UNITS. TYPICAL OF ALL EMERGENCY LIGHTING UNITS TO BE DEMOED.
5	REUSE EXISTING EMERGENCY LIGHTING CIRCUIT FROM DEMOED UNIT FOR NEW UNIT. EXTEND CONDUIT AND WIRING AS NECESSARY. TYPICAL OF ALL NEW EMERGENCY LIGHTING UNITS SHOWN ON REMODEL PLANS.
6	EC TO FIELD VERIFY ALL ABOVE CEILING CONDUIT AND WIRING NEEDING TO BE RE-ROUTED OR REPLACED BY REMOVAL OF CEILING. THIS INCLUDES, BUT IS NOT LIMITED TO, POWER, LIGHTING, FIRE ALARM, DATA, SECURITY, AND A/V. EC TO FIELD VERIFY PRIOR TO SUBMITTING BID.

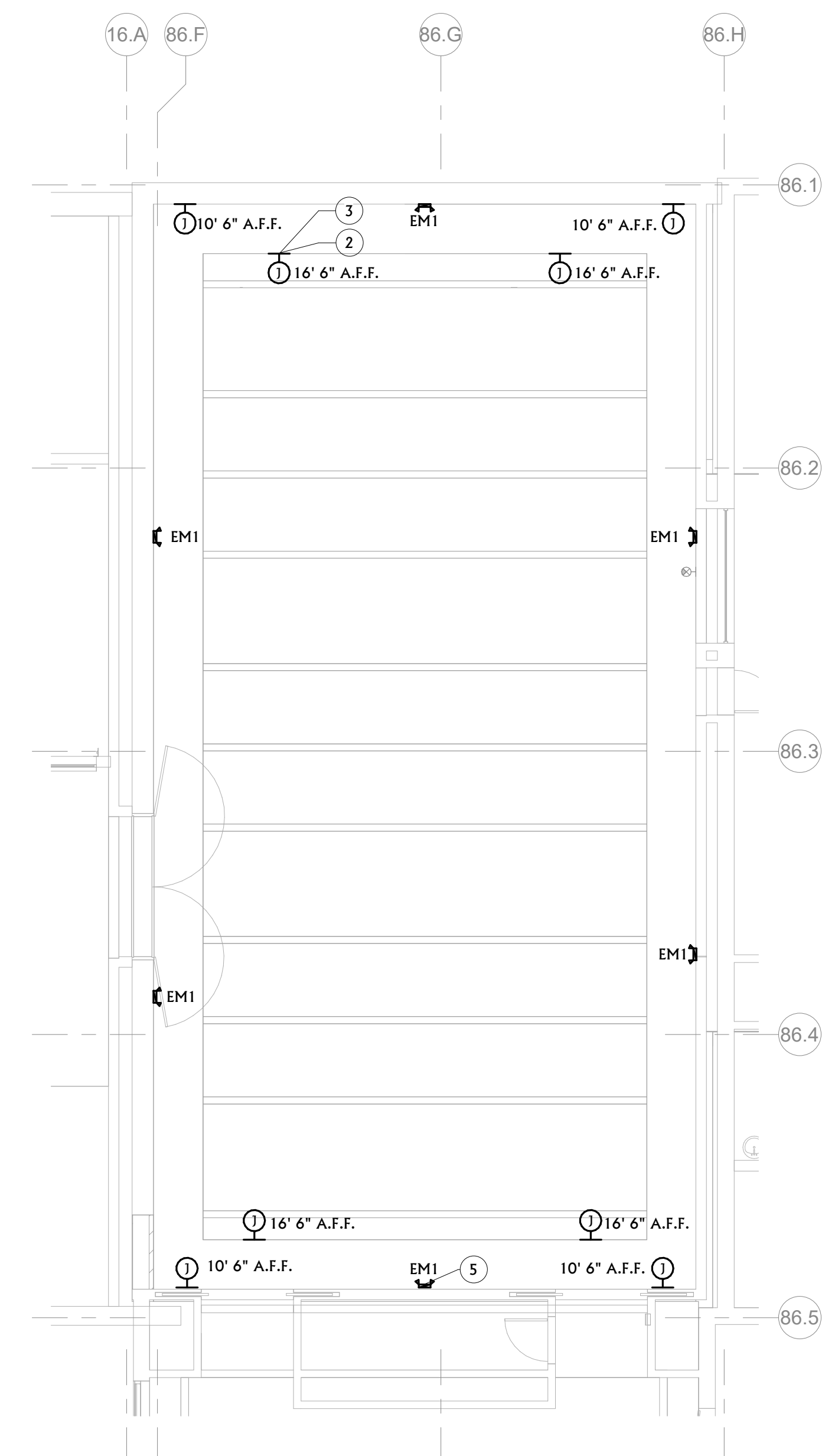
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ELECTRICAL LIGHTING GENERAL NOTES	
A	REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON DEVICE LOCATIONS, DIMENSIONS, ETC. CAREFULLY EXAMINE ARCHITECTURAL FLOOR PLANS, CEILING PLANS, ELEVATIONS, ETC. FOR INFORMATION THAT AFFECTS ELECTRICAL WORK. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND ELECTRICAL PLANS.
B	ALL DARK ITEMS ARE NEW, UNLESS NOTED OTHERWISE NOTED. ALL SHADED ITEMS ARE EXISTING TO REMAIN.
C	ALL ITEMS DENOTED WITH AN (R) ARE RELOCATED OR REINSTALLED. ALL ITEMS DENOTED WITH AN (E) ARE EXISTING TO REMAIN.
D	MODIFY AND REUSE EXISTING CIRCUITS WHERE POSSIBLE. CIRCUITING SHALL BE AS SHOWN BUT CIRCUIT NUMBERS MAY BE CHANGED TO MAKE USE OF EXISTING AVAILABLE CIRCUITS. PROVIDE NEW BREAKERS AND WIRING AS NEED TO ACCOMMODATE NEW CIRCUITING.
E	CONNECT ALL LIGHTING FIXTURES TO EXISTING LIGHTING CIRCUITS UNLESS NOTED OTHERWISE. VERIFY EXISTING LOAD PRIOR TO CONNECTING ADDITIONAL LIGHTING FIXTURES.
F	CONNECT ALL EXIT SIGNS AND EMERGENCY FIXTURES TO EXISTING EMERGENCY CIRCUITS SUPPLYING AREA UNLESS NOTED OTHERWISE. WIRING NOT SHOWN.
G	VERIFY VOLTAGE OF EXISTING LIGHTING CIRCUITS PRIOR TO SUBMITTALS. COORDINATE ANY MODIFICATIONS TO LIGHTING CIRCUITS OR FIXTURES WITH ENGINEER.
H	FIRE SEAL ALL PENETRATIONS IN FIRE RATED WALLS. COORDINATE WITH ARCHITECTURAL FOR LOCATIONS.



2  
E200  
LIGHTING DEMOLITION PLANS  
1/8" = 1'-0"



1  
E200  
LIGHTING REMODEL PLANS  
1/8" = 1'-0"

