

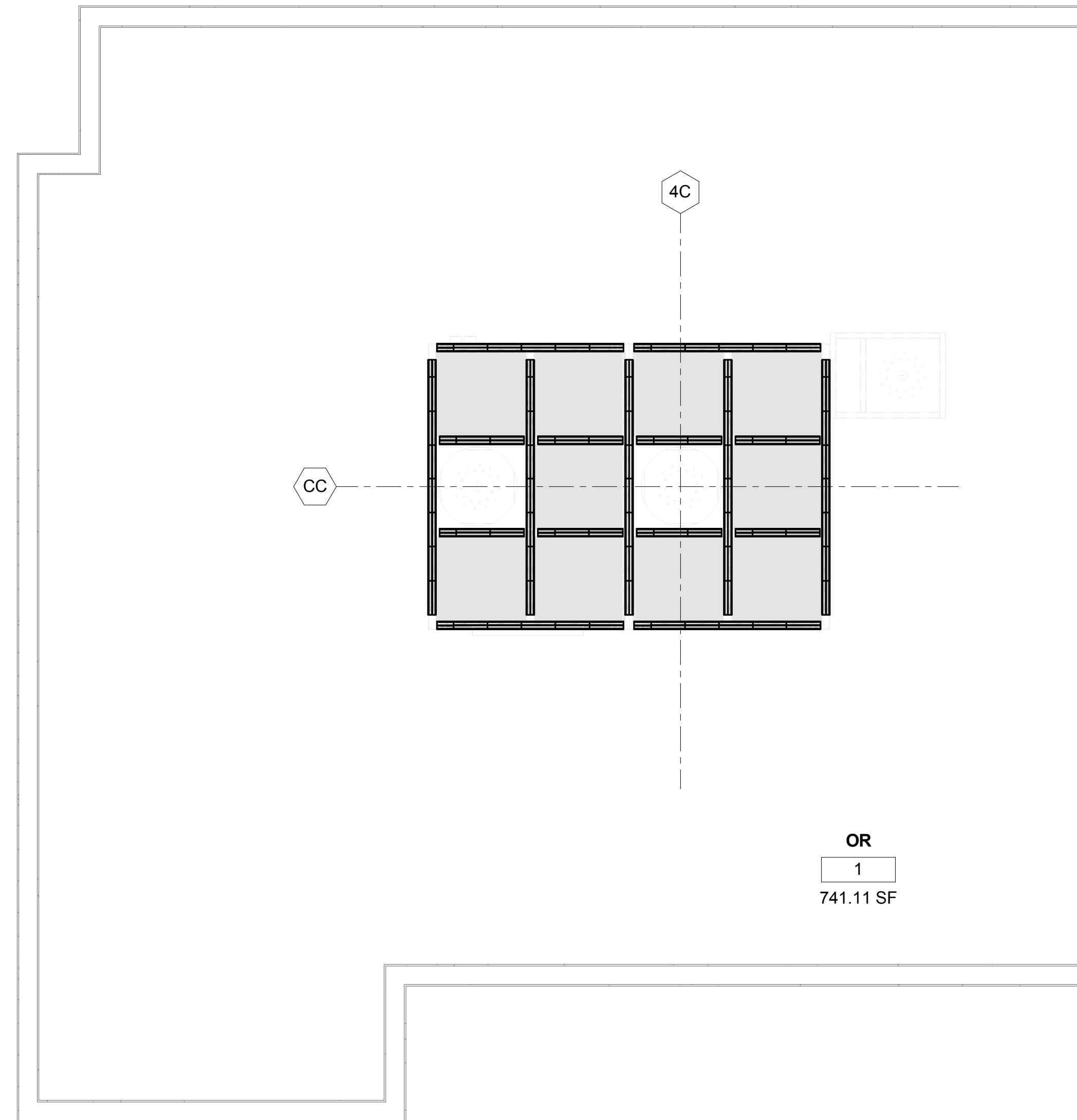
# HUNTAIR

CLEANSUITE®

## 10038B 7 Gen Ctr Mount

DRAWING LIST		DATE : 09/19/2017
DRAWING NO. 1	M1.0	GENERAL NOTES
DRAWING NO. 2	M2.0	MODULE LAYOUT
DRAWING NO. 3	M3.0	BOOM LAYOUT
DRAWING NO. 4	M4.0	STRUCTURAL LAYOUT
DRAWING NO. 5	M5.0	GRID ASSEMBLY & ELECTRICAL
DRAWING NO. 6	M6.0	LIGHTING CALCULATIONS

THIS DRAWING PACKAGE, SPECIFICATIONS, AND CONCEPTS CONTAINED HEREIN ARE THE SOLE PROPERTY OF NORTEK AIR SOLUTIONS, AND MAY NOT BE REPRODUCED OR USED IN ANY FASHION WITHOUT THE PRIOR WRITTEN PERMISSION OF NORTEK AIR SOLUTIONS.



OR  
1  
741.11 SF

1 ROOM LAYOUT  
3/8" = 1'-0"

### GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE ERECTION SHORING AND BRACING AS REQUIRED FOR STABILITY OF ALL STRUCTURES DURING ALL PHASES OF CONSTRUCTION.
- IN NO CASE SHALL WORKING DRAWINGS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THE DRAWINGS.
- THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURES. THEY DO NOT INDICATE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT EXISTING AND NEW STRUCTURES DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING, SHORING, ETC. FOR ALL CONSTRUCTION PHASE LOADS.
- ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH 2006 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE STATE OF **NEW YORK**.
- SEE STRUCTURAL DRAWINGS FOR CLEANSUITE SUPPORT DETAILS

### STRUCTURAL STEEL CONT'D

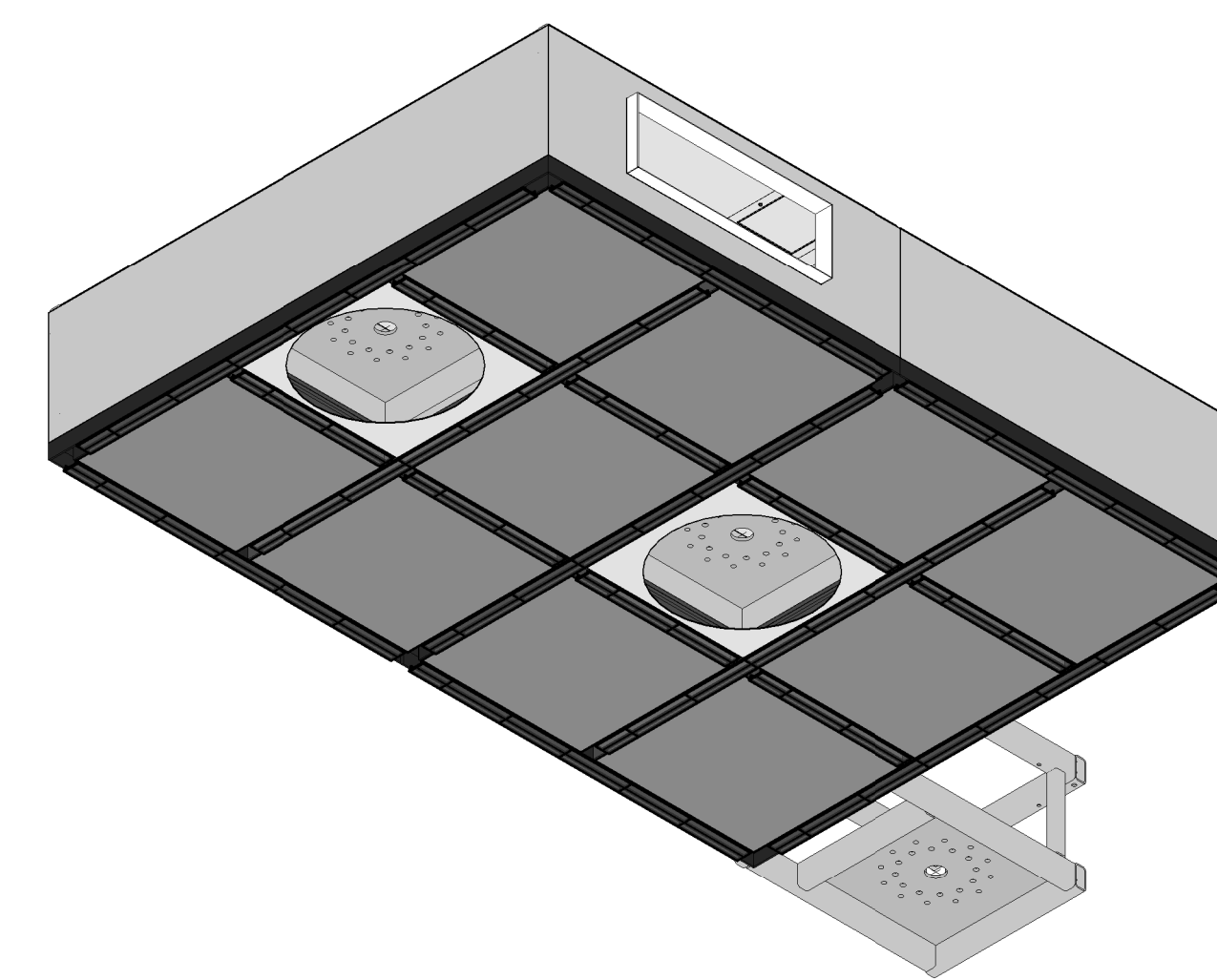
- WELDED CONNECTIONS:
  - WELD MATERIAL:
    - TENSILE STRENGTH: 86 KSI
    - YIELD STRENGTH: 76 KSI AS WELDED WITH 75/ 25%
    - WELD TYPE: FCAW-G FILL METAL E71T-7M
- BOLTED CONNECTIONS:
 

TOP, BOTTOM AND CORNERS OF CLEANSUITE CONNECTIONS:

  - GRADE 5 EQUIVALENT DIA 5/8" BOLT, 24.00" OC.
  - USE A HARDENED WASHER BENEATH THE TURNED ELEMENT OF THE BOLT OF NUT. HARDENED WASHER TO BE AT LEAST 5/16" THICK CONFORMING TO ASTM F436.
  - HOLES HAVE A STANDARD OVERSIZE CALL OUT UNLESS OTHERWISE NOTED.
  - TIGHTEN BOLTS SNUG UNTIL ALL PLIES OF THE JOINT ARE IN FIRM CONTACT
  - ENLARGE BOLT HOLES BY REAMING IF NECESSARY. DO NOT TORCH CUT.

### STRUCTURAL STEEL

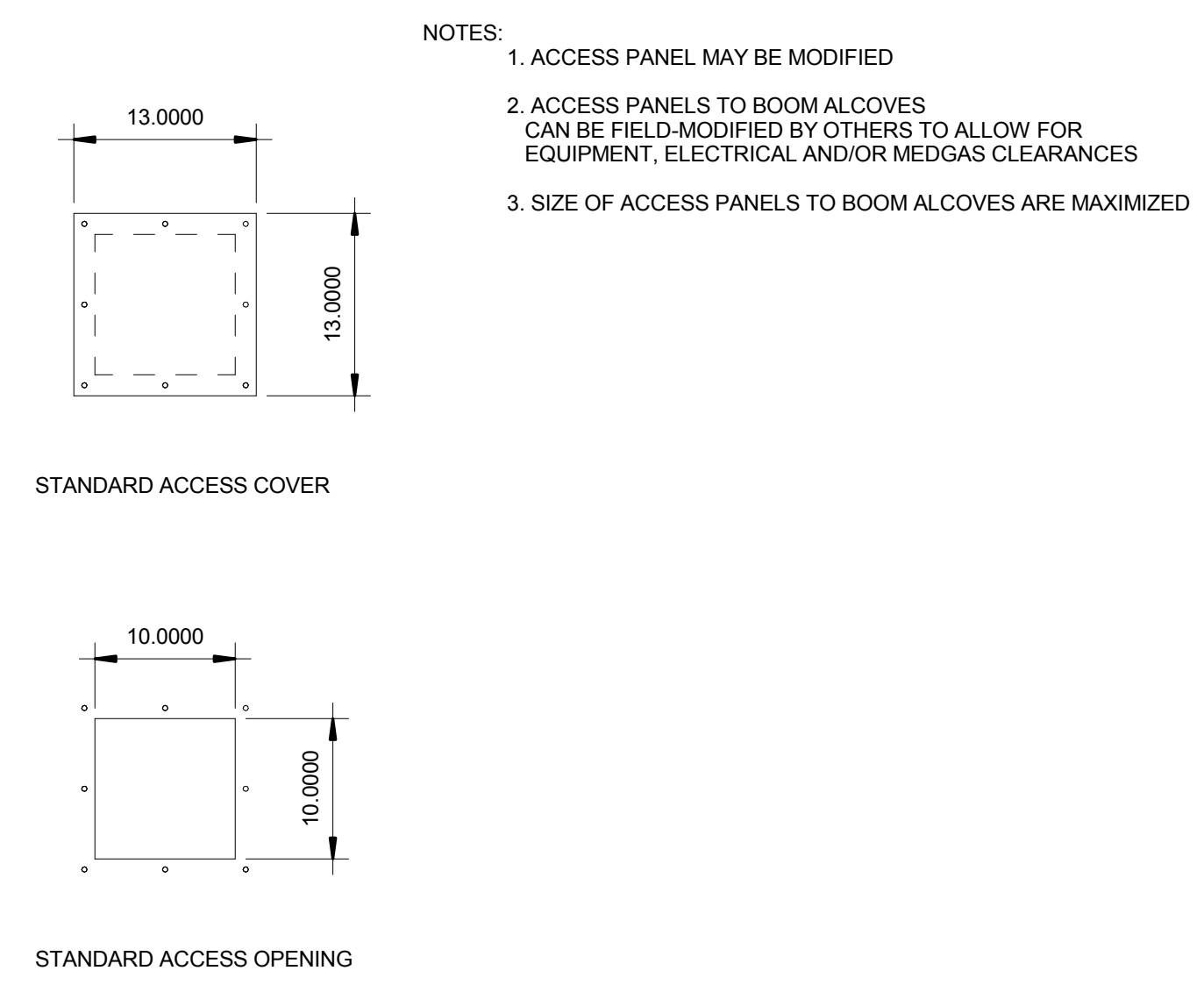
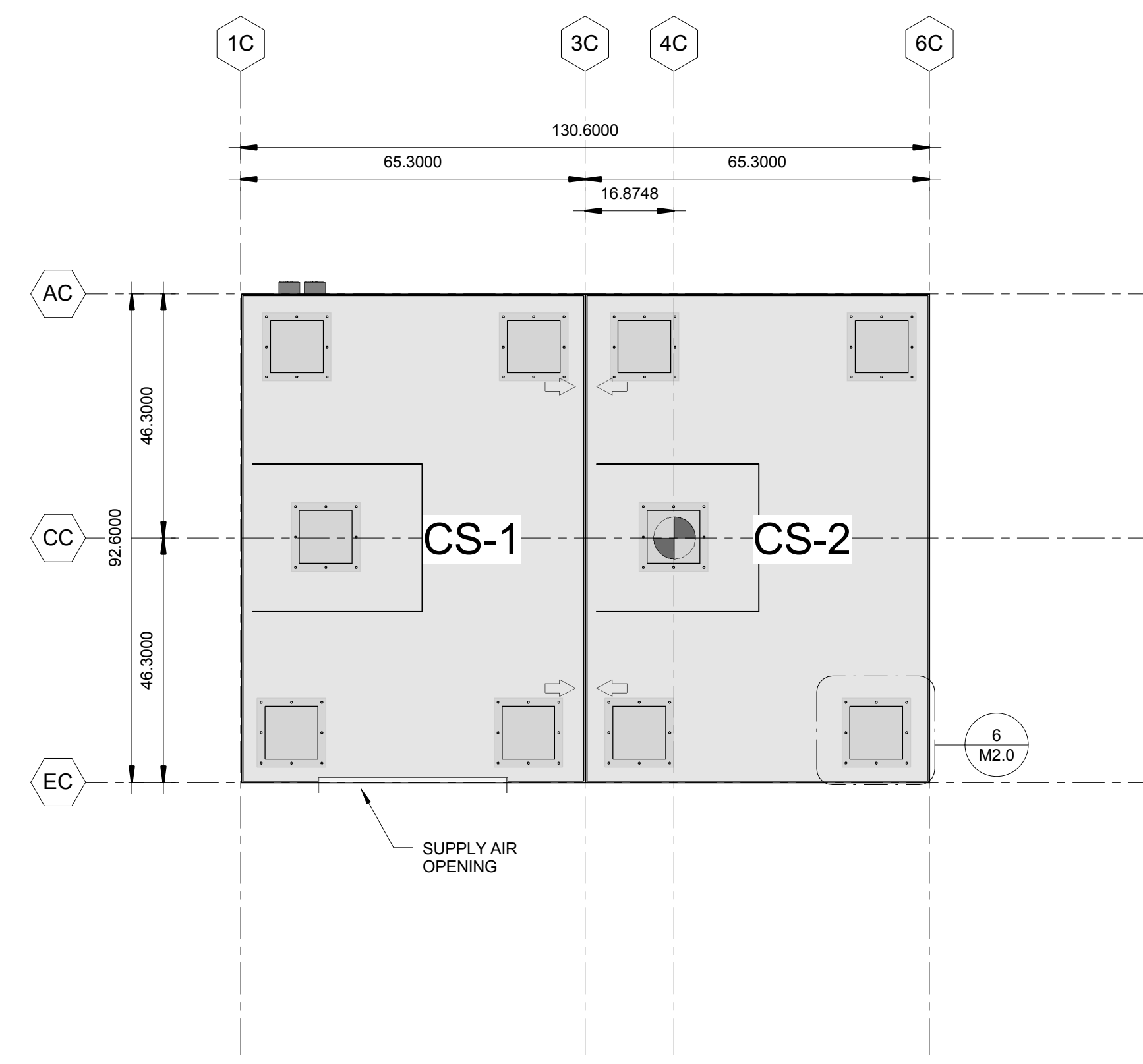
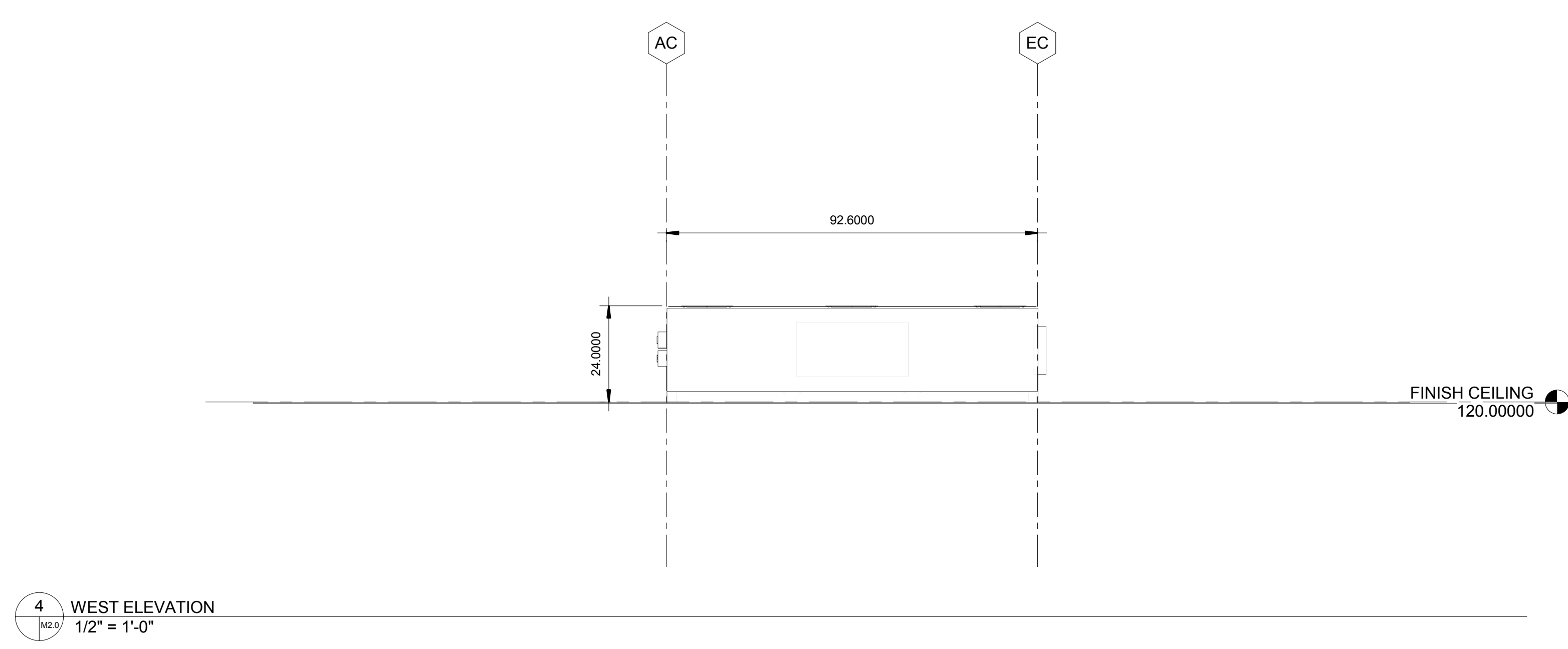
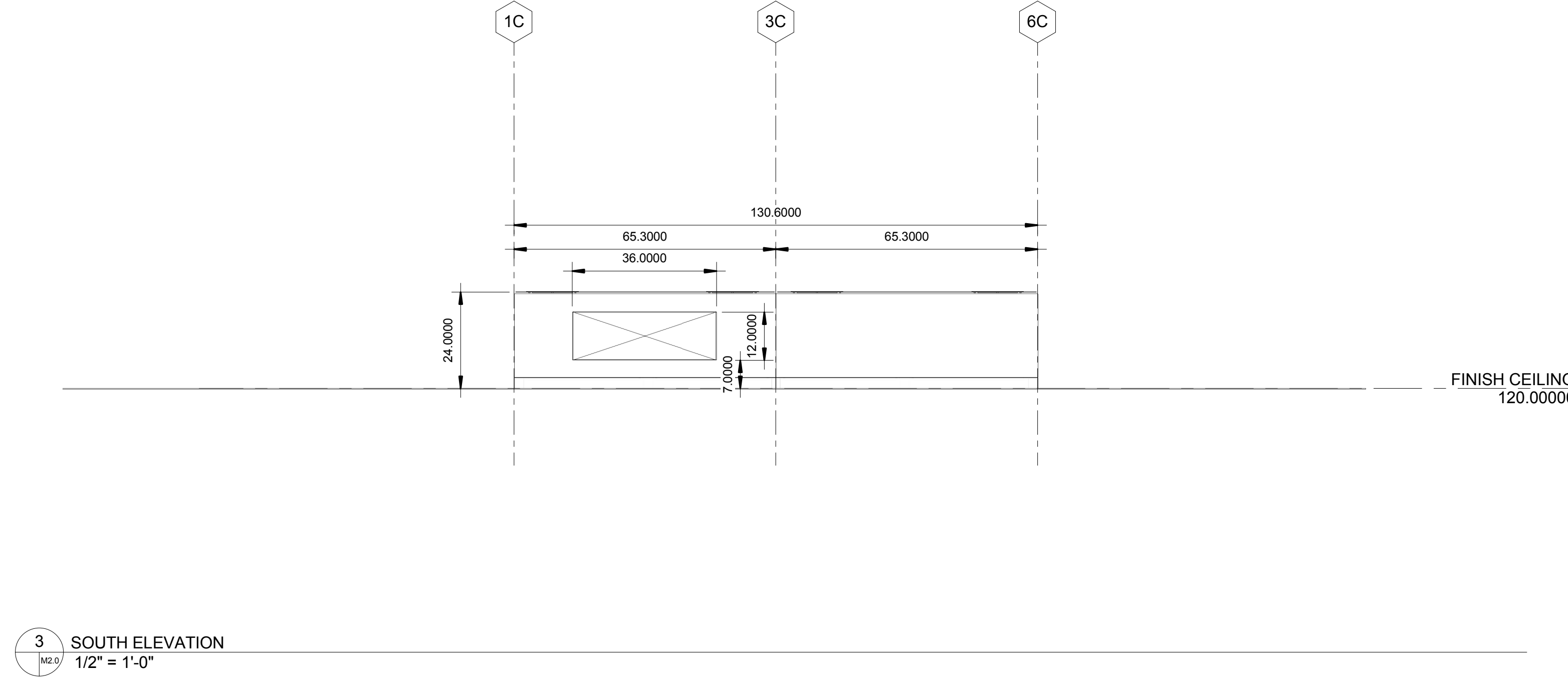
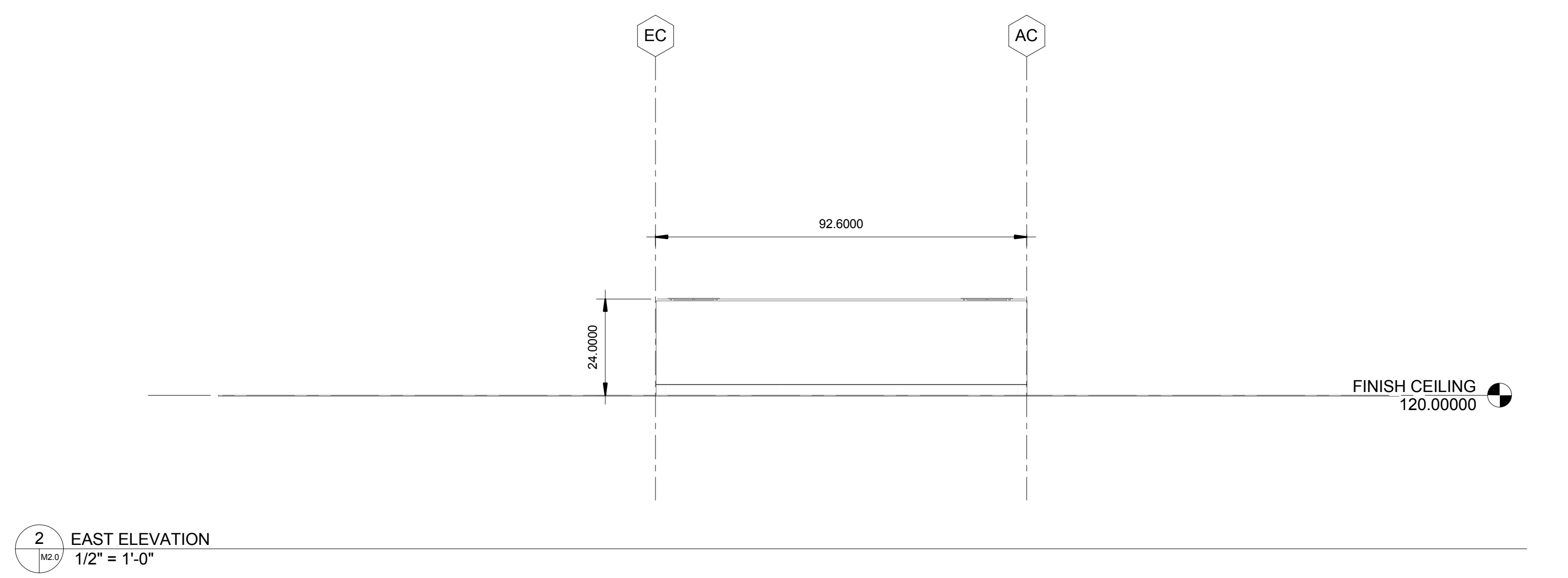
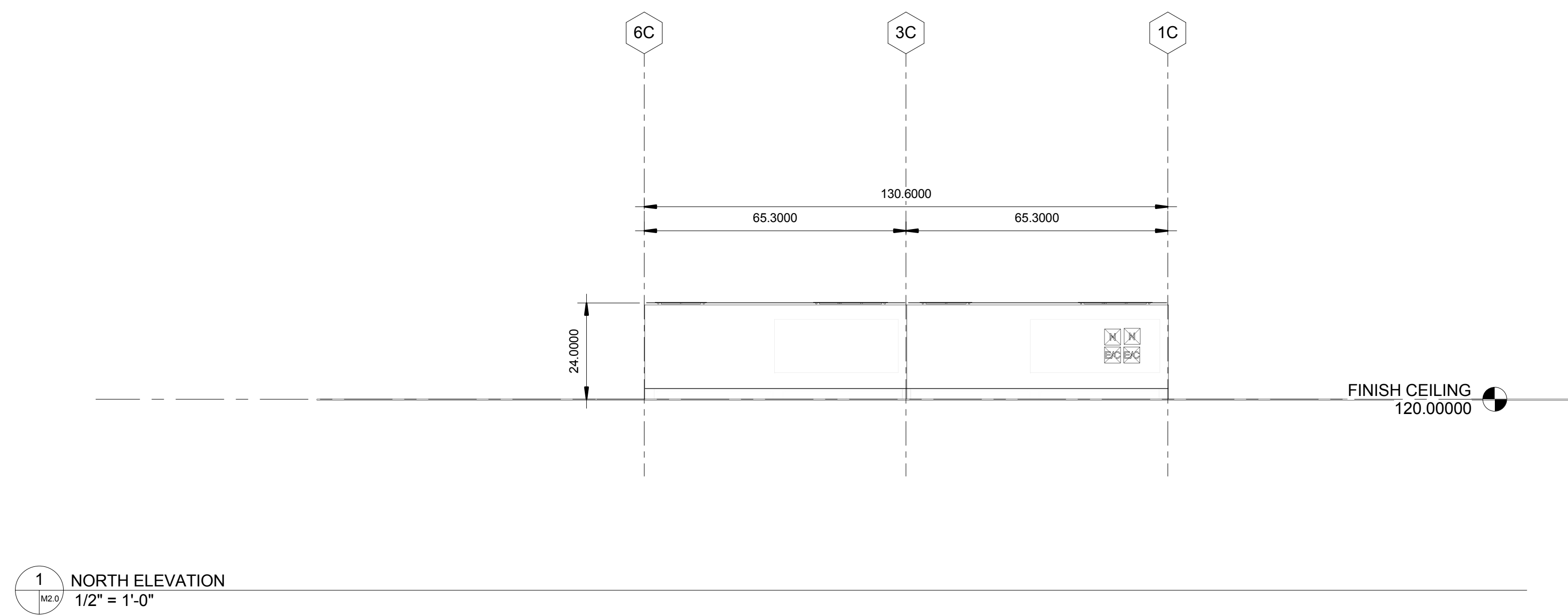
- MATERIAL SHALL CONFORM AS FOLLOWS:
  - TUBE STEEL HOLLOW STRUCTURAL SECTION: ASTM A500 FY= 48KSI, GRADE B.
  - SHEET METAL: ASTM A653 FY= 36KSI
  - PIPE: ASTM A53, FY= 36 KSI
  - BOLTS: (GRADE 5 EQUIVALENT)



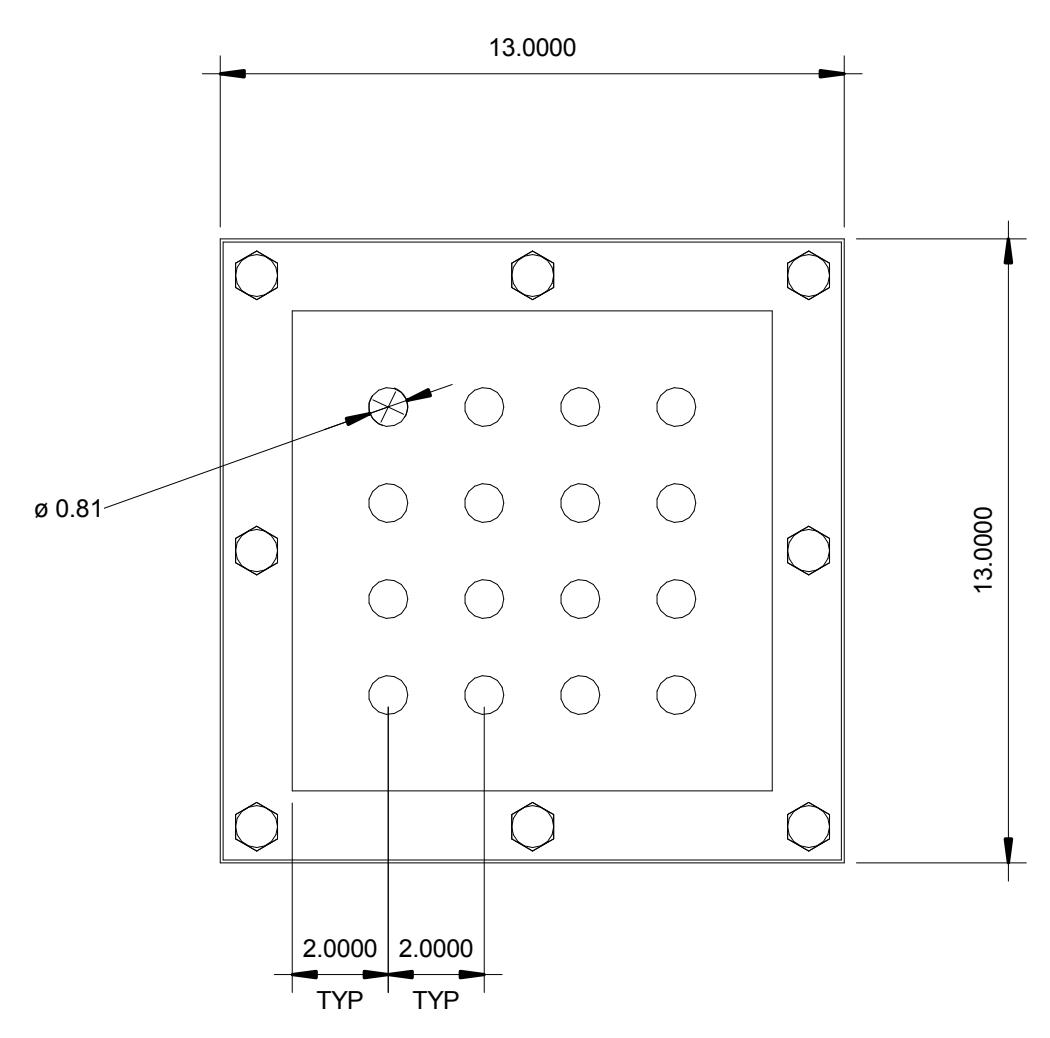
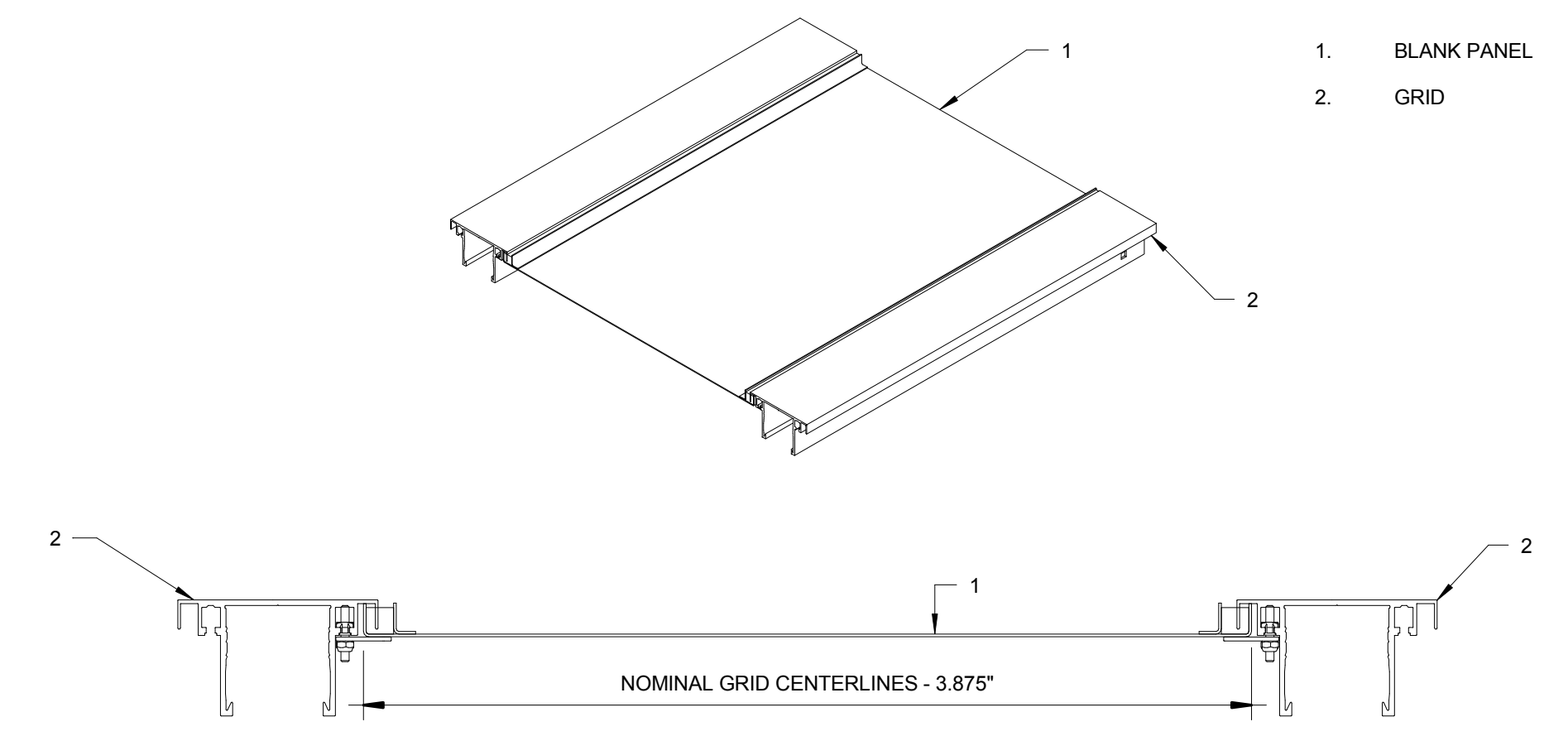
2 CLEANSUITE

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HOSPITAL NAME_ OR				
<b>GENERAL NOTES</b>				
HOSPITAL NAME HOSPITAL NAME ADDRESS CITY, STATE ZIP				
APPROVALS		DATE		
DESIGN				
CHECKED				
ENGINEERING				
APPROVED				
FILE NAME	XX-XXXX	DRAWING NO.	M1.0	
OLD FILE NAME		PROJECT SCALE	1 : 1	DRAWING SCALE
REV CODE			As indicated	WORK IN CHARGE

INDICATES ISO CENTER  
 INDICATES AIR FLOW



6 TYPICAL ACCESS PANEL  
 1" = 1'-0"

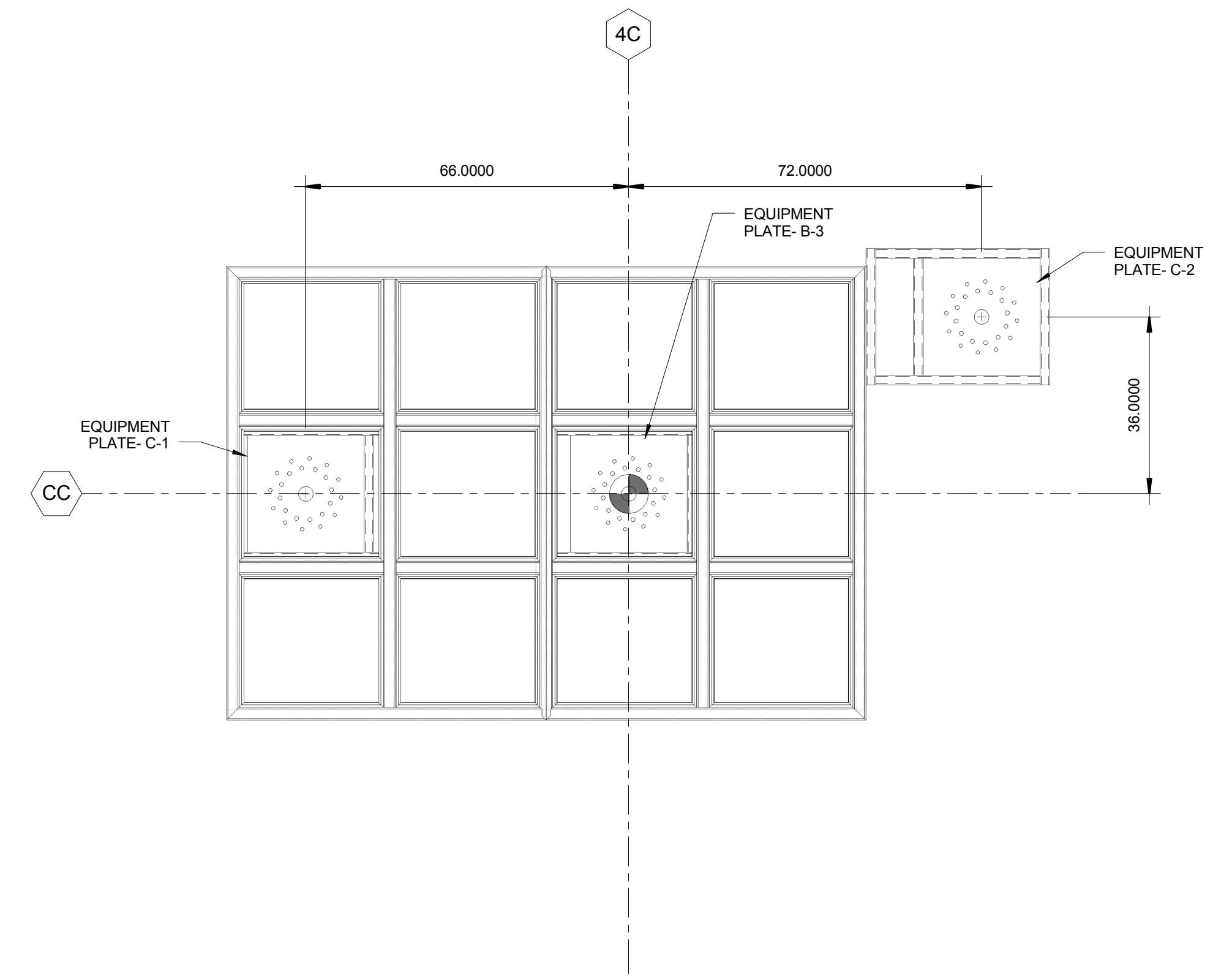


8 MED GAS PLATE  
 3" = 1'-0"

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HOSPITAL NAME_OR				
MODULE LAYOUT				
HOSPITAL NAME HOSPITAL NAME ADDRESS CITY, STATE ZIP				
APPROVALS		DATE		
DESIGN				
CHECKED				
DRAWING				
SAFETY				
PLANNING				
ENGINEERING				
APPROVED				
REV CODE				
FILE NAME	XX-XXXX	DRAWING NO.	M2.0	
OLD FILE NAME		HOOT SCALE	1 : 1	DRAWING SCALE
			As indicated	WORK TO DO

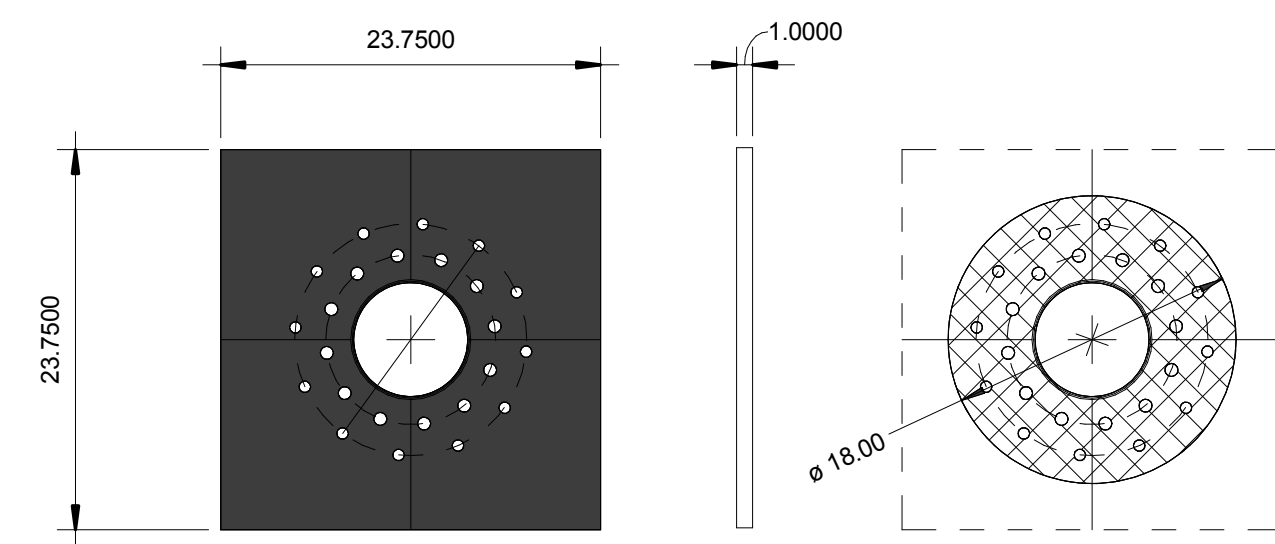
INDICATES ISO CENTER

Boom Plate Schedule						
Count	Type Mark	Manufacturer	Model	Description	Plate Mount Height (FFC)	Comments
3	C1,C2,B3	STERIS		SINGLE MOUNT STANDARD PLATE	5.2500	23.7500x23.7500x1.0000



1 BOOM PLATE SCHEDULE  
1/2" = 1'-0"

2 BOOM LAYOUT  
1/2" = 1'-0"



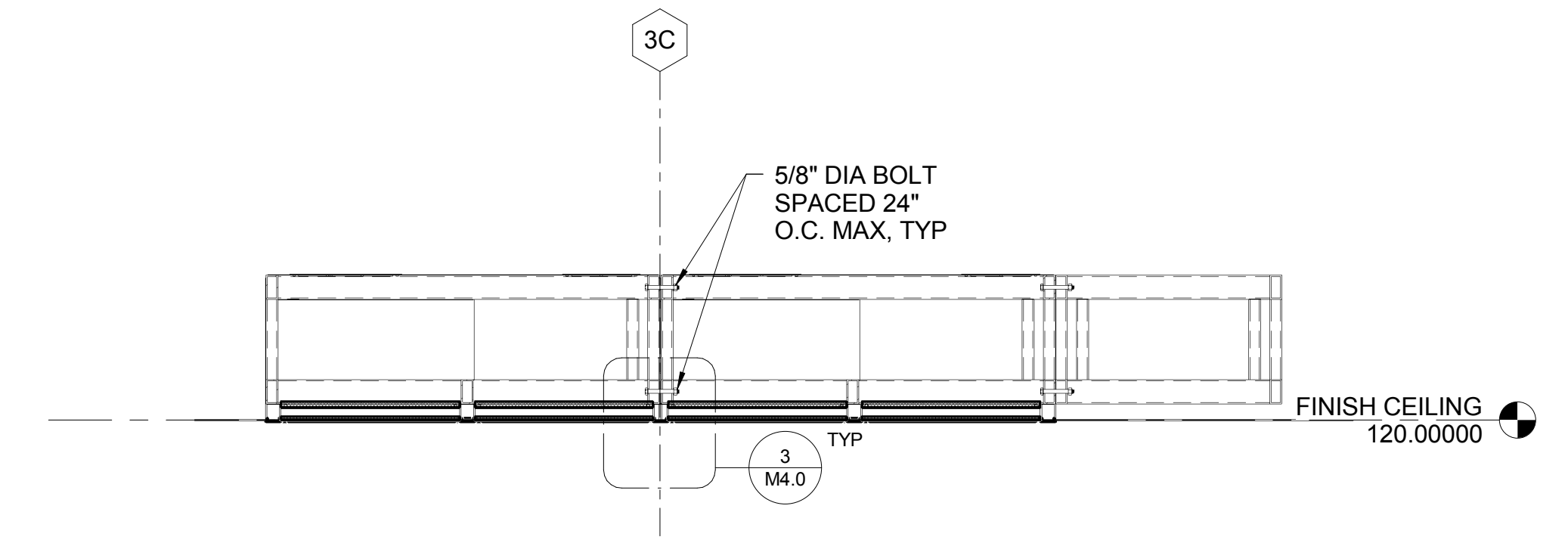
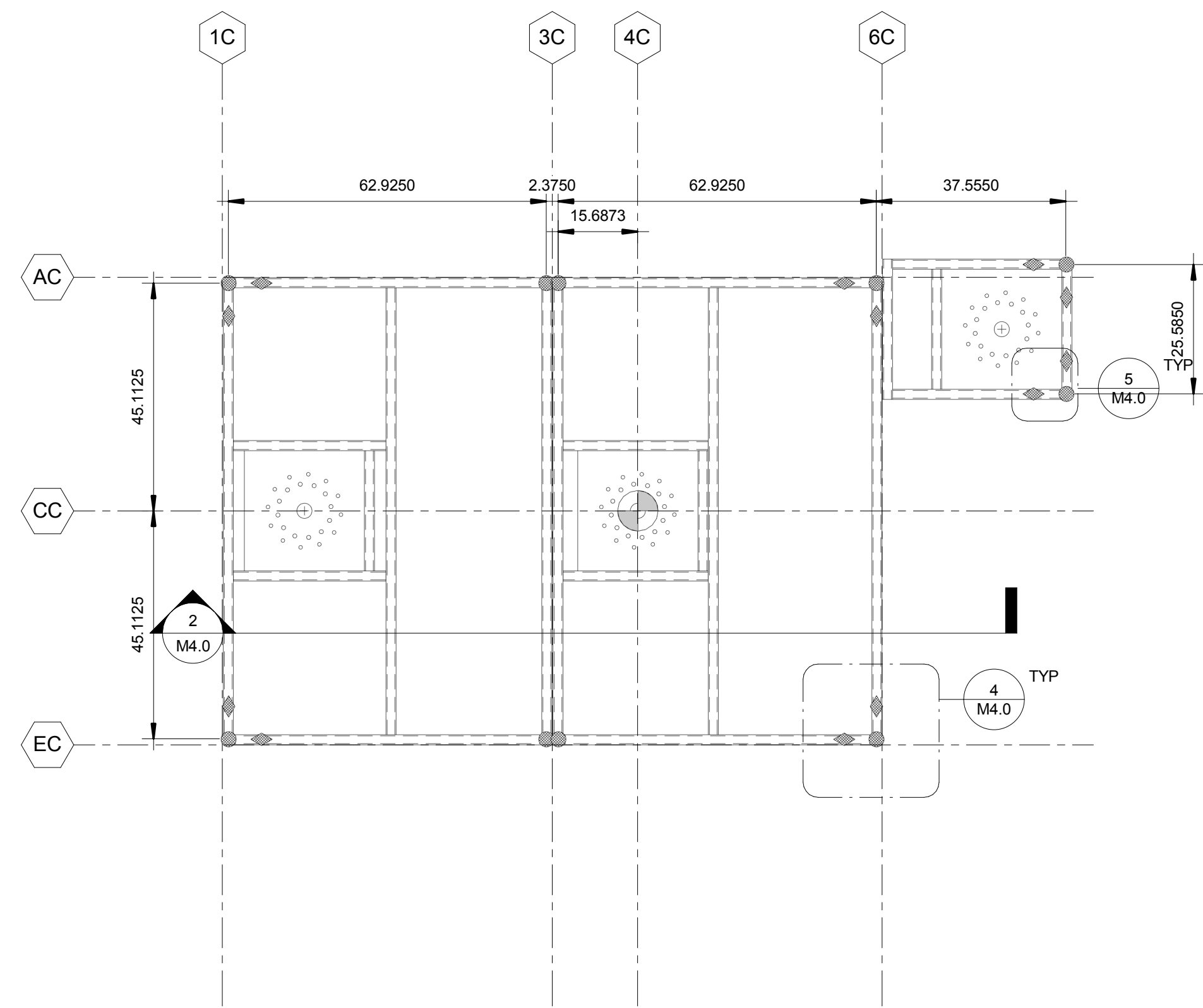
4 STERIS EQUIPMENT PLATE  
1" = 1'-0"

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HOSPITAL NAME_OR				
<b>EQUIPMENT LAYOUT</b>				
HOSPITAL NAME HOSPITAL NAME ADDRESS CITY, STATE ZIP				
APPROVALS		DATE		
DESIGN				
CHECKED				
INSTRUMENT				
SAFETY				
PLANNING				
APPROVED				
REV CODE				
FILE NAME	XX-XXXX	DRAWING NO.	M3.0	
OLD FILE NAME		NOT SCALE	DRAWING SCALE	WORK NO.
		1 : 1	As indicated	

- NOTES:
- GRAVITY SUPPORT AND SEISMIC SUPPORT PROVIDED BY OTHERS. SEE PLAN AND KEY NOTES FOR CONNECTION HOLE DIAMETER AND LOCATIONS
  - SEISMIC KICKER HOLES PROVIDED UPON REQUEST TO EACH INDIVIDUAL MODULE CORNER

KEY NOTE

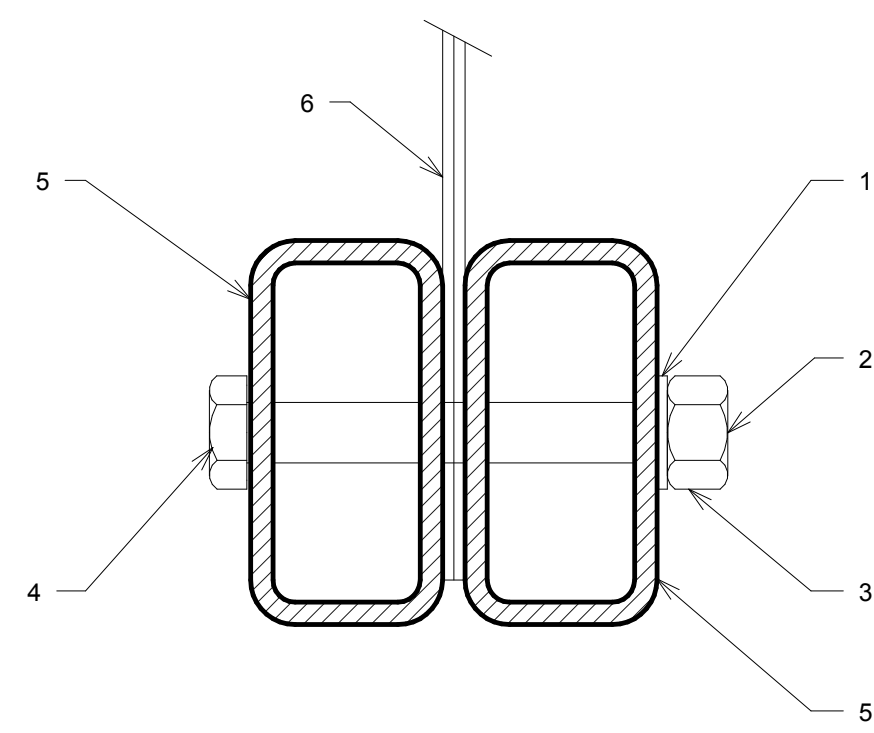
- INDICATES GRAVITY SUSPENSION POINT (.688" DIA HOLE)
- INDICATES SEISMIC KICKER LOCATIONS (.563" DIA HOLE)
- INDICATES ISO CENTER



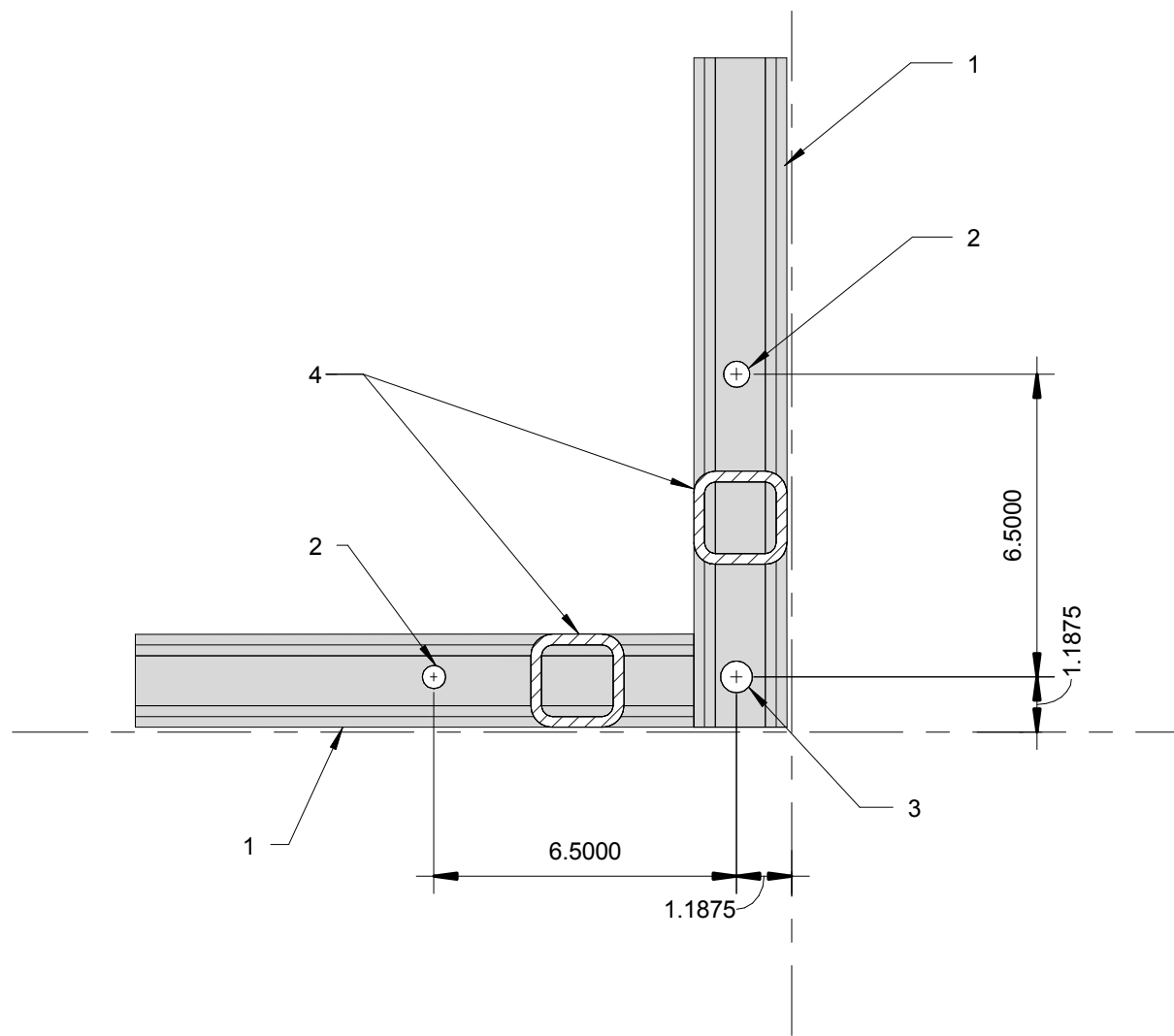
1 STRUCTURAL LAYOUT / SUSPENSION POINTS  
1/2" = 1'-0"

2 MODULE TO MODULE CONNECTION DETAIL  
1/2" = 1'-0"

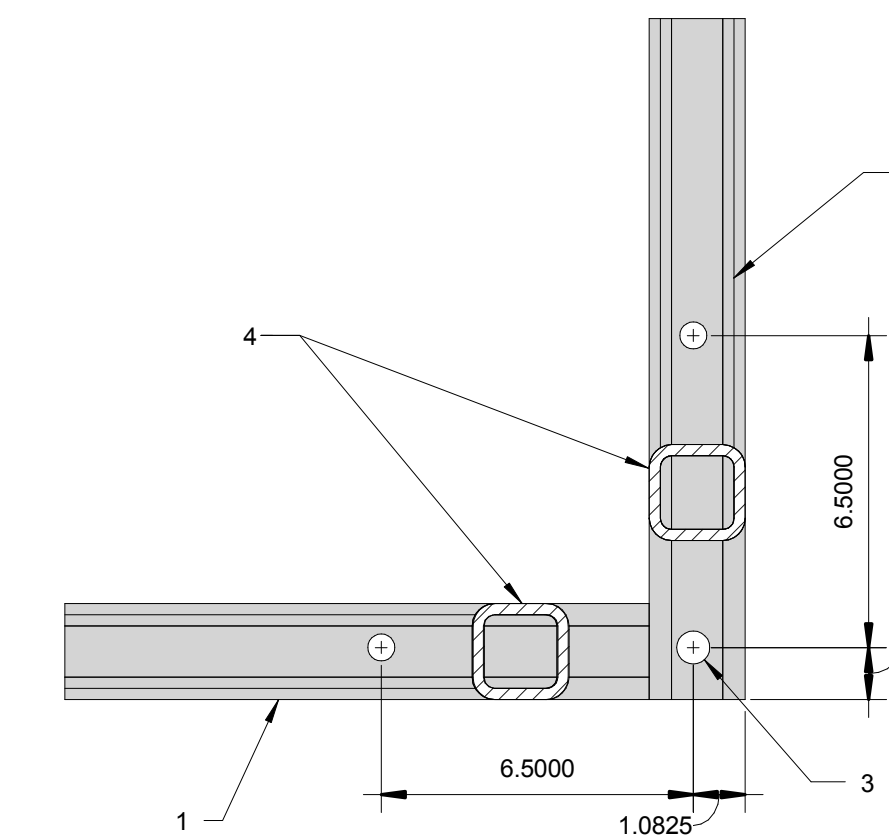
- STD WASHER 5/8 FLAT Zinc
- NO THREAD EXTENSION NECESSARY
- NUT 5/8-11x3/8 JAM Zinc
- BOLT 5/8-11x4.75 CAP Gr5 Zinc
- HSS
- WALL



- HSS4x2
- SEISMIC HOLE
- SUSPENSION HOLE
- HSS2x2 VERTICAL



- HSS4x2
- SUSPENSION HOLE
- HSS2x2 VERTICAL



3 MODULE TO MODULE CONNECTION DETAIL  
6" = 1'-0"

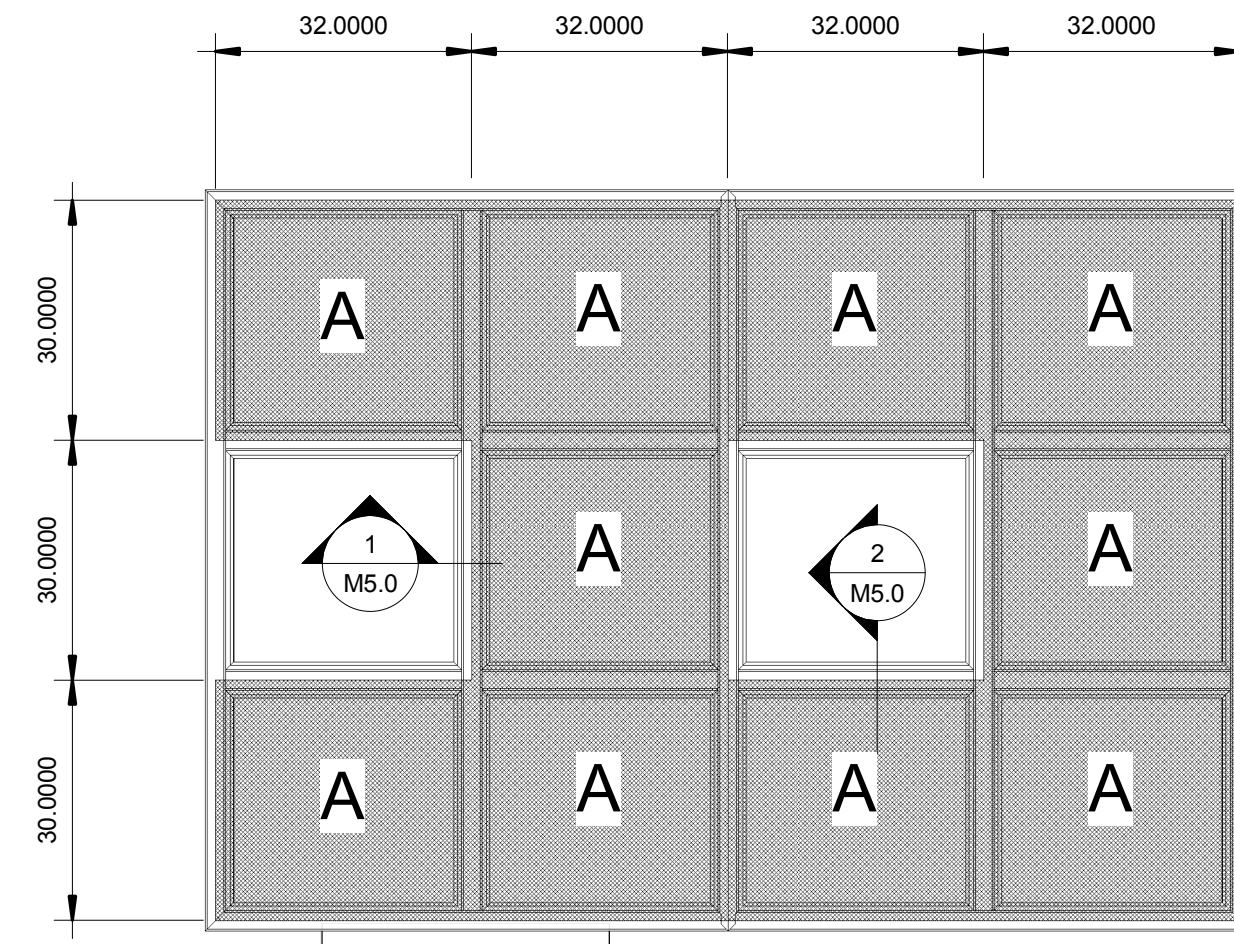
4 CORNER SUSPENSION POINT  
3" = 1'-0"

5 TRUSS CORNER SUSPENSION POINT DETAIL  
3" = 1'-0"

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HOSPITAL NAME_OR				
<b>STRUCTURAL LAYOUT</b>				
HOSPITAL NAME HOSPITAL NAME ADDRESS CITY, STATE ZIP				
APPROVALS		DATE		
DESIGNER				
CHECKED				
DESIGN CHECK				
SAFETY				
PLANNING				
ENGINEERING				
APPROVED				
REV CODE				
FILE NAME	XX-XXXX	DRAWING NO.	M4.0	
OLD FILE NAME		PROJECT SCALE	1:1	DRAWING SCALE
			As indicated	WORK IN NO.

Air Filter/ Diffuser Schedule					
Type Mark	Count	Description	Model	Manufacturer	Comments
A	10		DIFFUSER	HUNTAIR	
Grand total: 10					

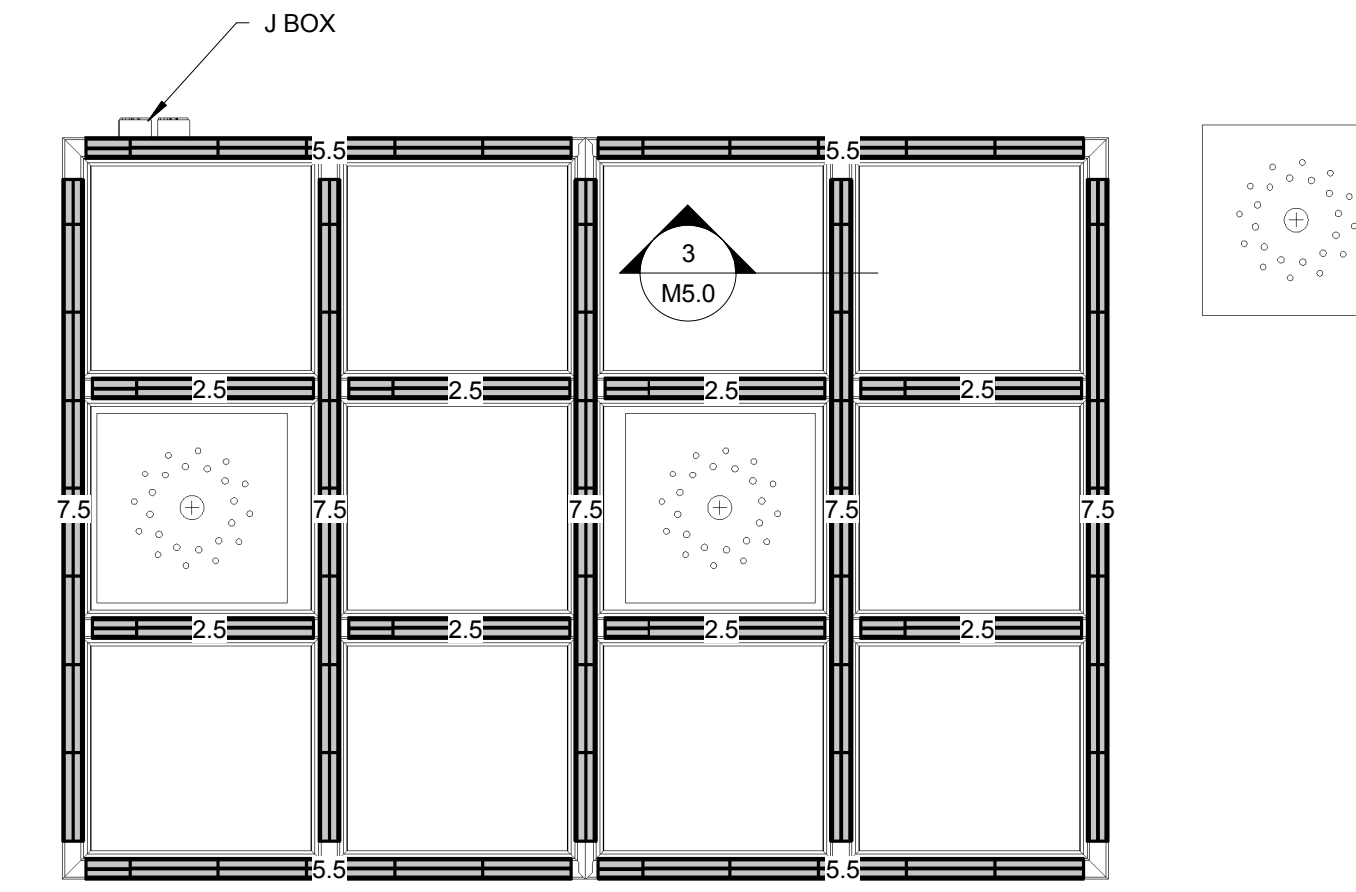
- NOTE:
- LED LENS IS CLEAR-DIFFUSER
  - LIGHTING ON (2) CIRCUITS (PERIMETER AND INTERIOR)  
(2) J-BOXES PROVIDED PER CIRCUIT  
(1) 120/277VAC POWER  
(1) 0-10V LED DIMMING CONTROL
  - LOW VOLTAGE AND ELECTRICAL WIRING FOR BOOMS ARE WIRED DIRECTLY TO BOOM AND PROVIDED BY OTHERS
  - PERIMETER WATTAGE = 250.7  
INTERIOR WATTAGE = 287.9



### SYSTEM SIZING

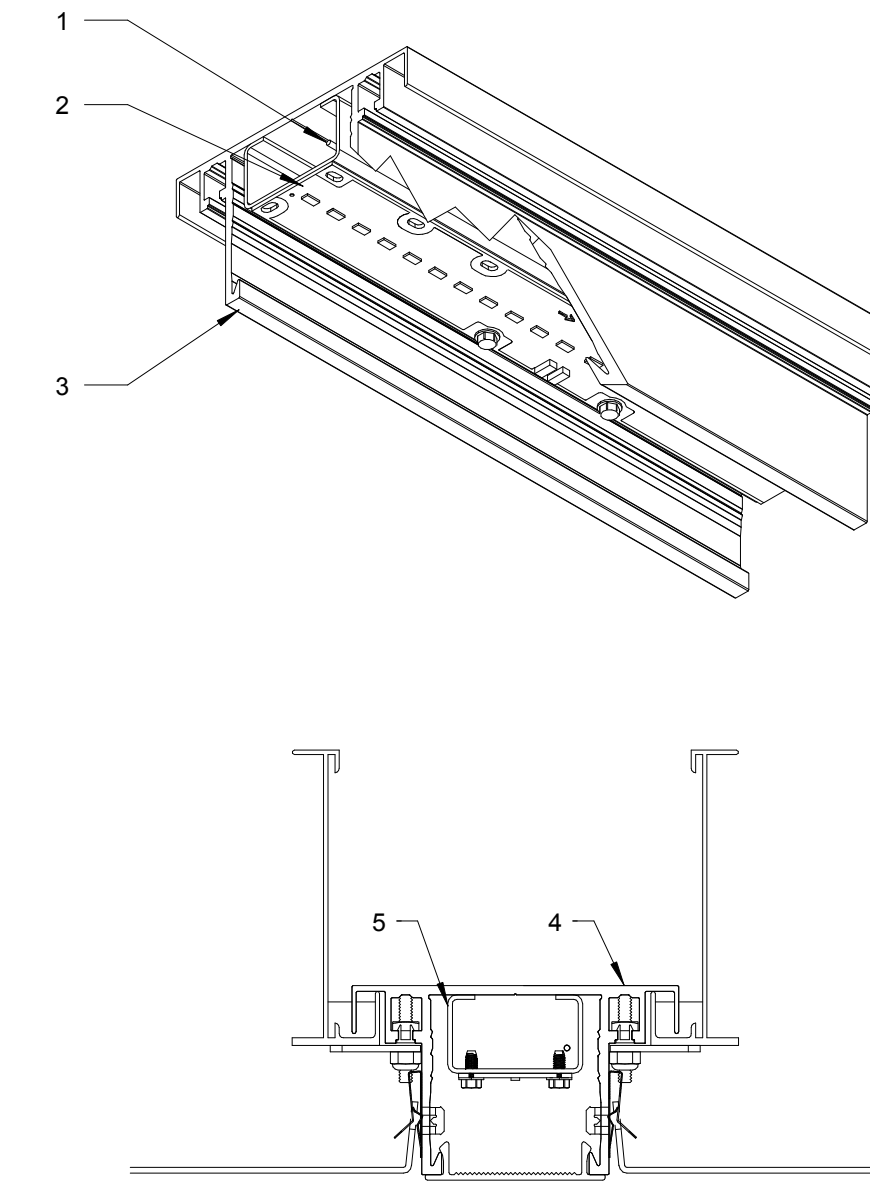
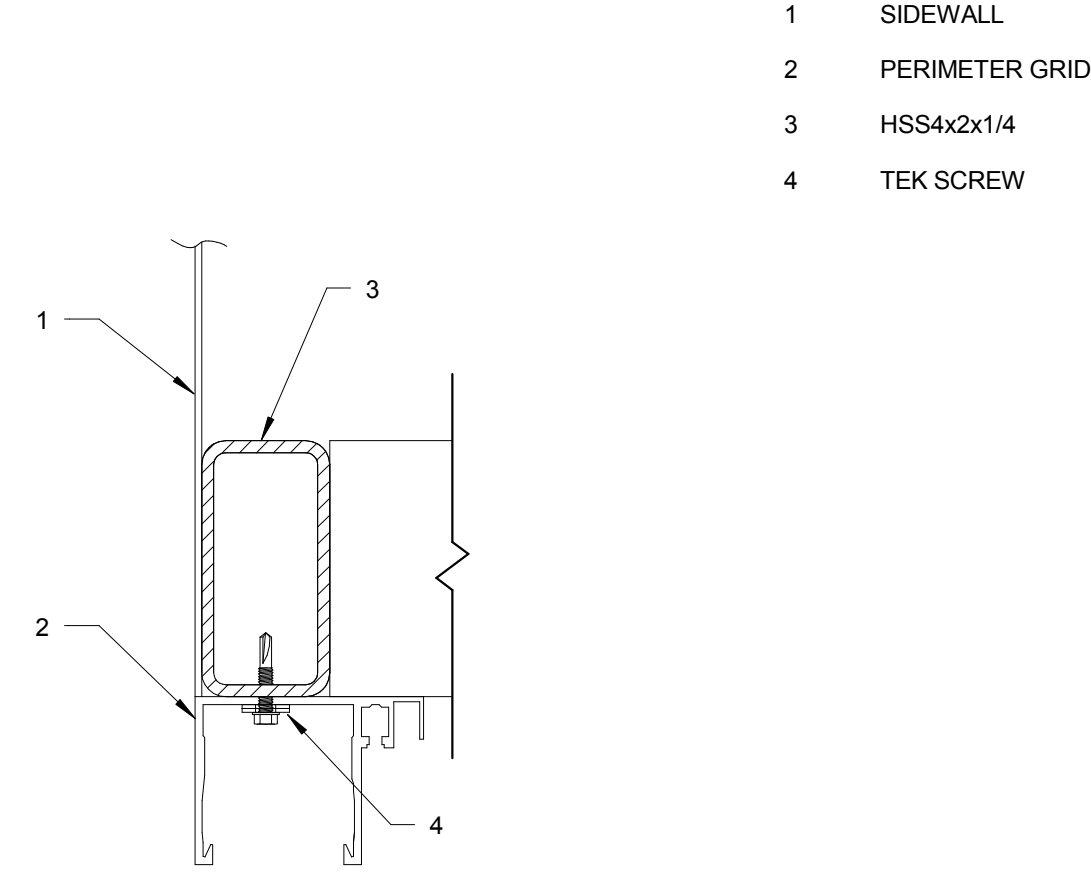
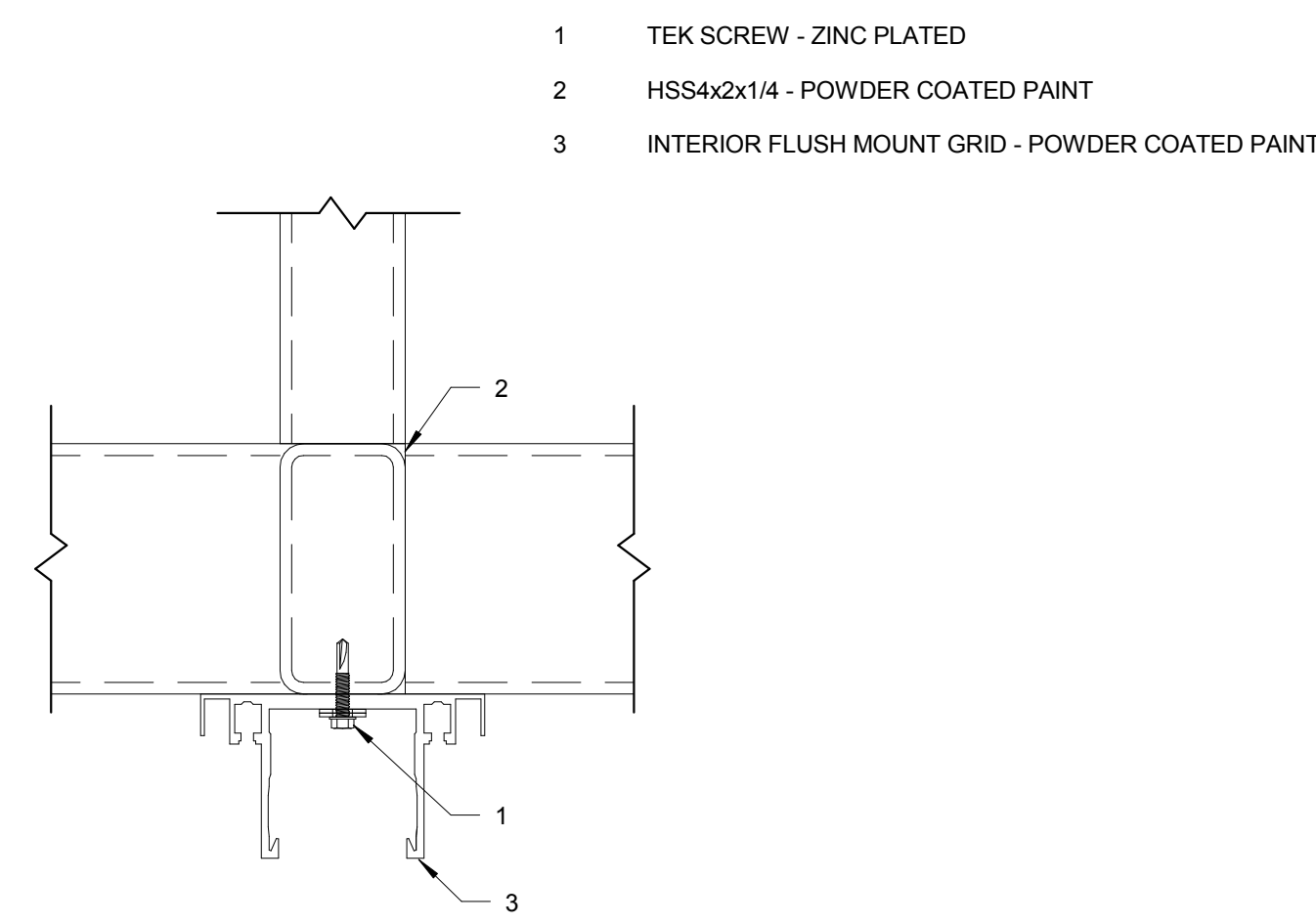
CFM: 1667.5  
DIFA: 66.7 SF  
VELOCITY: 25 FPM

CFM: 2334.5  
DIFA: 66.7 SF  
VELOCITY: 35 FPM



5 GRID LAYOUT  
1/2" = 1'-0"

6 LIGHTING LAYOUT  
1/2" = 1'-0"



1 TYPICAL TUBE TO GRID ATTACHMENT-INTERIOR  
1" = 1'-0"

2 TUBE TO GRID ATTACHMENT-EXTERIOR  
1" = 1'-0"

3 TYP LED LIGHTING DETAIL  
1/2" = 1'-0"

- LIGHT FIXTURE
- LED STRIP
- LENS CLIP IN EXTRUSION
- 2.6 BOTTOM LOAD GRID EXTRUSION
- LED MOUNTING STRUT

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HOSPITAL NAME\_OR

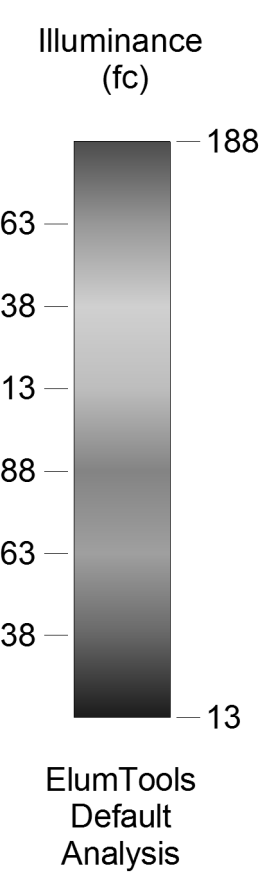
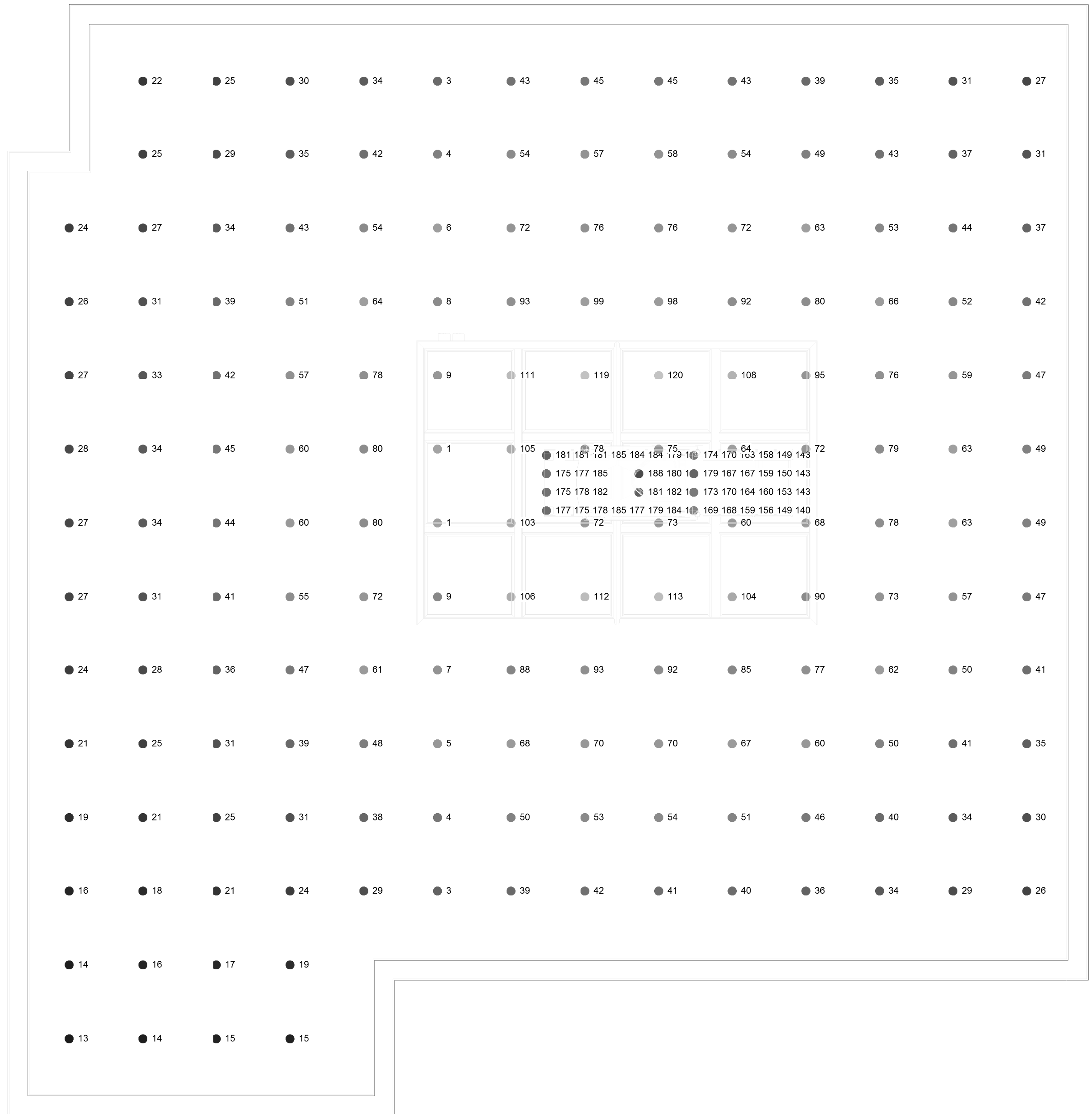
## GRID ASSEMBLY & ELEC

HOSPITAL NAME  
HOSPITAL NAME  
ADDRESS  
CITY, STATE ZIP

APPROVALS	DATE

FILE NAME	XX-XXXX	DRAWING NO.	M5.0
OLD FILE NAME		DRAWING SCALE	As indicated

Author 12/20/17 9:38:41 AM



### GENERAL NOTES

- THESE RESULTS ARE ESTIMATED.
- LUMINAIRE HEIGHT : 10 FT
- CALCULATION GRID HEIGHT ABOVE THE FLOOR: 3 FT (STANDARD TABLE HEIGHT)
- EXTERNAL LIGHTING NOT INCLUDED.
- SHARED LIGHT IS NOT INCLUDED.
- WALL LOCATIONS ARE APROXIMATE.
- LIGHT LOSS FACTOR: 0.91
- ONLY DIRECT LIGHT IS CALCULATED.

### DISCLAIMER

CALCULATIONS HAVE BEEN PERFORMED ACORDING TO IES STANDARDS AND GOOD PRACTICE. SOME DIFFERENCES BETWEEN MEASURED VALUES AND CALCULATED RESULTS MAY OCCUR DUE TO TOLERANCES IN CALCULATION METHODS, TESTING PROCEDURES, COMPONENT PERFORMANCE, MEASUREMENT TECHNIQUES AND FIELD CONDITIONS SUCH AS VOLTAGE AND TEMPERATURE VARIATIONS. INPUT DATA USED TO GENERATE THE ATTACHED CALCULATIONS SUCH AS ROOM DIMENSIONS, REFLECTANCES, FURNATURE AND ARCHITECTURAL ELEMENTS SIGNIFICANTLY AFFECT THE LIGHTING CALCULATIONS. IF THE REAL ENVIRONMENT CONDITIONS DO NOT MATCH THE INPUT DATA, DIFFERENCES WILL OCCUR BETWEEN MEASURED VALUES AND THE CALCULATED VALUES.

Revit Categories		ElumTools Material Properties											
Category Override	Category Name	Category Type	Surface Type	Color	Reflectance	Transmittance	Mesh Level	Color Bleed	Luminance	Luminance Color	Luminaire Luminous	Specularity (Raytrace Only)	Glossiness (Raytrace Only)
Category Type: Common (3)													
<input checked="" type="checkbox"/>	Ceilings	Common	Opaque, 1-sided		0.80	0.00	0 (Default)		1.00	0	<input checked="" type="checkbox"/>	0.00	0.00
<input checked="" type="checkbox"/>	Floors	Common	Opaque, 1-sided		0.40	0.00	0 (Default)		1.00	0	<input checked="" type="checkbox"/>	0.00	0.00
<input checked="" type="checkbox"/>	Walls	Common	Opaque, 1-sided		0.70	0.00	0 (Default)		1.00	0	<input checked="" type="checkbox"/>	0.00	0.00

ElumTools General Use Illuminance Results					
Project Name	Project Number	Calculation Points Name	Average	Minimum	Maximum
HOSPITAL_NAME_OR	XX-XXXX	STERIS 5085 General Surgical Table	171 fc	140 fc	188 fc
HOSPITAL_NAME_OR	XX-XXXX	OR 1	53 fc	13 fc	120 fc

LIGHTING FIXTURE SCHEDULE								
Manufacturer	Model	Count	Total Light Loss Factor	Luminaire Lumens	Wattage	Photometric File Data	OmniClass Number	OmniClass Title
Huntair	26-LED03-0-188-WOR-WPCL	88	0.91	540 lm	0 W	IESNA LM-63-2002 [TEST]IL05091 [ISSUEDATE]07/14/15 [MANUFACTURER]HUNT AIR CLEANPAK [LUMCAT]26-LED03-0-188-WOR-WPCL [LUMINAIRE]EXTRUDED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR [MOUNT]NISHI FABRICATED SEMI-SPECULAR METAL CIRCUIT BOARD MOUNT, 1 [MOUNT]WHITE CIRCUIT BOARD WITH 22 LEDS, EXTRUDED TRANSLUCENT LINEAR [MOUNT]PRISMATIC PLASTIC LENS, LENS PRISMS IN AND PARALLEL WITH LENGTH [MOUNT]OF HOUSING [LAMP]TWENTY-TWO WHITE MULTI-CHIP LIGHT EMITTING DIODES (LEDS), [MOUNT]VERTICAL BASE-UP POSITION. [NOTE]THIS REPORT WAS PRORATED FROM ITL TEST NUMBER 80138 WHICH WAS [MOUNT]A 4'x8' LED LUMINAIRE. THE DATA WAS DIVIDED BY FOUR TO [MOUNT]REPRESENT A 1' LUMINAIRE WITH 22 LEDS. ACTUAL PERFORMANCE MAY [MOUNT]VARY. [OTHER]TEST PROCEDURE: IESNA LM-79-08 [OTHER]TEST DISTANCE = 35.0 FEET [ABSOLUTE]LUMENS]540 [TILT]NONE 22 -1 1 37 5 1 1 0.208333 0.973958 0.005208 1 1 0 0 2.5 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5 40 42.5 45 47.5 50 52.5 55 57.5 60 62.5 65 67.5 70 72.5 75 77.5 80 82.5 85 87.5 90 0 22.5 45 67.5 90 228 228 227 225 222 219 216 211 208 203 194 187 180 172 164 155 146 138 129 120 111 102 93 85 77 68 60 53 45 37 30 23 17 11 6 2 0 228 228 224 222 220 217 213 208 203 197 190 183 176 168 160 152 144 135 127 118 109 101 93 84 75 66 60 53 45 38 31 24 18 13 8 4 2 228 227 226 224 221 217 213 208 202 195 188 181 173 165 157 148 140 131 123 114 108 97 89 82 74 66 59 52 45 38 32 25 20 14 10 6 4 228 228 226 224 221 216 211 205 200 193 185 177 169 160 152 143 134 125 117 108 100 92 85 77 70 63 56 49 43 37 31 25 20 15 11 8 5 228 227 225 223 219 215 210 204 198 190 183 175 166 158 149 140 131 123 114 106 98 90 83 75 68 62 55 49 42 36 31 25 20 16 12 8 6	23.80.70.11	Luminaires for Internal Lighting

1 LIGHTING CALCULATION  
1/2" = 1'-0"

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LIGHTING CALCULATIONS				
HOSPITAL NAME HOSPITAL NAME ADDRESS CITY, STATE ZIP				
APPROVALS		DATE		
DESIGN				
CHECKED				
INVOICE				
SALES				
PLANNING				
ENGINEERING				
APPROVED				
REV CODE				
FILE NAME	XX-XXXX	DRAWING NO.	M6.0	
OLD FILE NAME		DRAWING SCALE	1 : 1	WORKING
		AS indicated		