NJRA ARCHITECTS
NJRA Architects, Inc.
5272 S. College Drive, Suite104
Murray, Utah 84123
801.364.9259
www.njraarchitects.com

SKYTRON® INTERMOUNTAIN MEDICAL CENTER LAB #3

Specification for the SKYTRON products found within this information package are specifically designated for your facility. Please ensure that all of your custom specifications have been included. Deviating from the depicted site specific equipment placement could cause equipment conflicts in the room and must be approved by a Skytron Representative.

Equipment References	Drawing Index #	Note that not all drawings will be required for each mount / drawings package	
A (C-69420-6) B (C-69447-1) C (C-70587-7)	00a	**Room Layout -**	Contains overhead view of Skytron equipment
	_1	**Elevation Details -**	Contains elevation view drawings on equipment
	_1.1	**Mounting Structure Details -**	Contains mounting structure details of equipment
	_2	**Carrier Details -**	Contains front, left and right side views of equipment carriers detailing accessories and outlet placement
	_3	**Medical Gas Details -**	Contains medical gas details required for the riser plate installation
	_4	**Electrical Wiring Detail -**	Contains detailed wiring diagram and circuit requirements for equipment booms and lights
	_5	**Communication Details -**	Contains a breakdown of required communications cabling and connections
	_6	**Light Fixture Details -**	Contains details of light wiring for fixture mounts and back box details
	S1a	**Integration Elevation Details -**	Contains elevation drawings of the Integration system
	S1b	**Integration Mounting Details -**	Contains mounting details of the Integration system

PLEASE READ THE FOLLOWING CAREFULLY

I have read the appropriate requirements from the Skytron Pre-Installation Guide for Ergon booms and consulted with the individual trades. I understand there are specific ceiling height, medical gas, electrical, video/communications and structural requirements that must be supplied by the appropriate trade representatives to support this project. Please be aware that modification to the site specific document could result in additional Change Order/Drawing Change fees. These fees take place after the second Submittal Revision or the first Fabrication Revision. Please speak with your Skytron Representative if you have any questions with regards to these fees. All final tie-ins of electrical connections, plumbing and media must be made by a qualified and licensed individual. Skytron does not provide final tie-in services due to local licensing regulations. Finish work (e.g., caulking and trim) is the responsibility of others. Installation of standard product moldings or trim is included in the pricing provided.

EACH DRAWING MUST BE INITIALED AND DATED

☐ **Accepted** - as is ☐ **Accepted** - with changes ☐ **Rejected**

Accepted by:________________ (print)
Accepted by:________________ (signature) Date:____________
Requested Delivery Date________________ P.O. #:____________

Drawing Package Revision Summary

Rev #	Date/Quote	Description
0	4-21-2021 Q-54413-4	New Submittal Package
1		
2		
3		
4		
5		
6		
7		

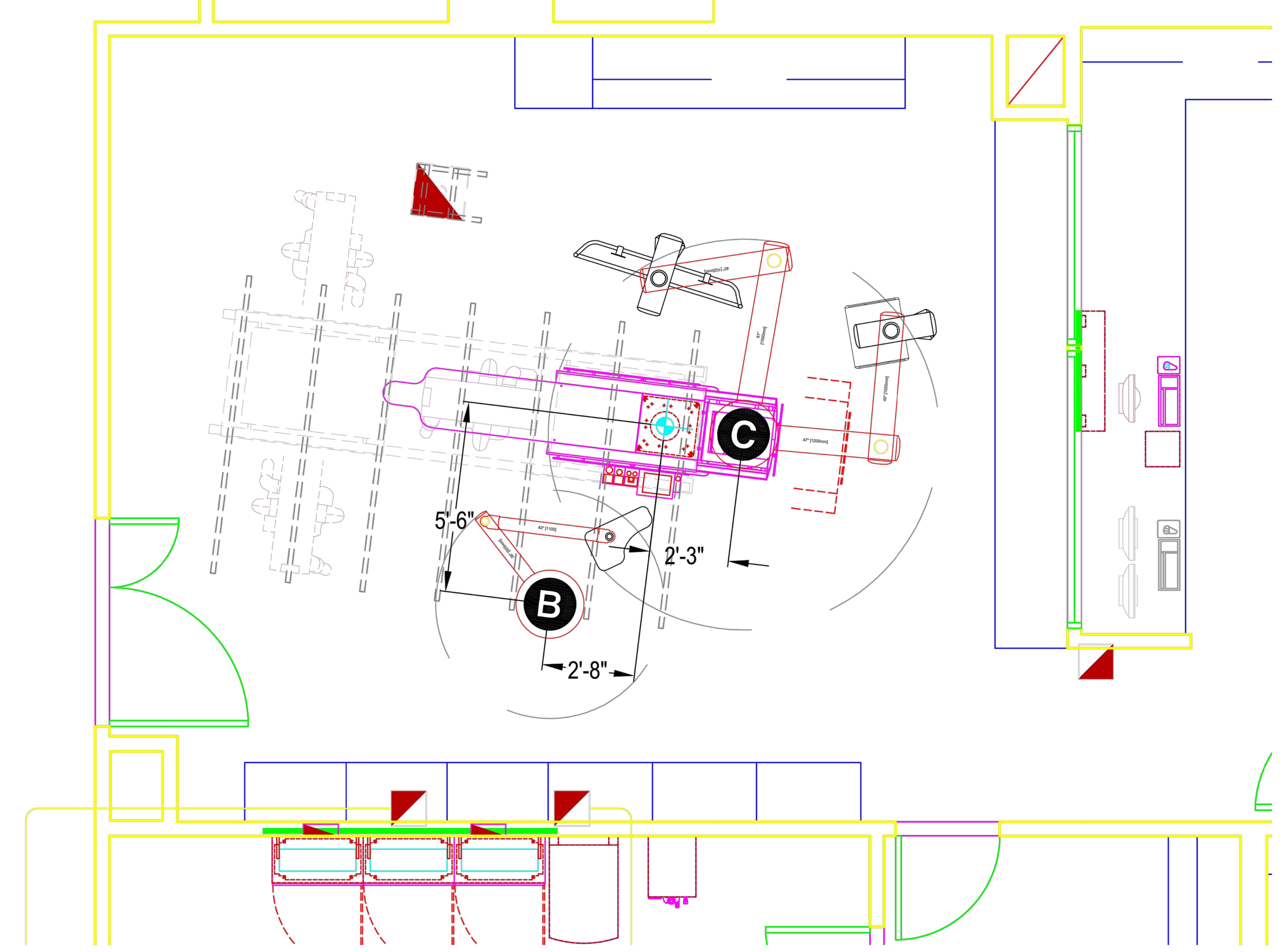
SKYTRON®

SITE SPECIFIC LAYOUT

IN THE EVENT THAT FIXTURE LOCATIONS NEED TO CHANGE PLEASE CHECK WITH SKYTRON ON THE REVISED LAYOUT LOCATION
FINAL CONSTRUCTION DOCUMENTS SHOULD BE PROVIDED BY THE ARCHITECT.
DIMENSION PROVIDED FROM WALLS ARE BASED ON CURRENT INFORMATION PROVIDED TO SKYTRON AT TIME OF DOCUMENT CREATION.

EQUIPMENT SCHEDULE	
ID	DESCRIPTION
A	ANESTHESIA
B	X-RAY SHIELD
C	LARGE DISPLAY / EQUIPMENT

* IF SKYVISION IS APPLICABLE REFER TO THE LAST PORTION OF BOOM PACKAGE*



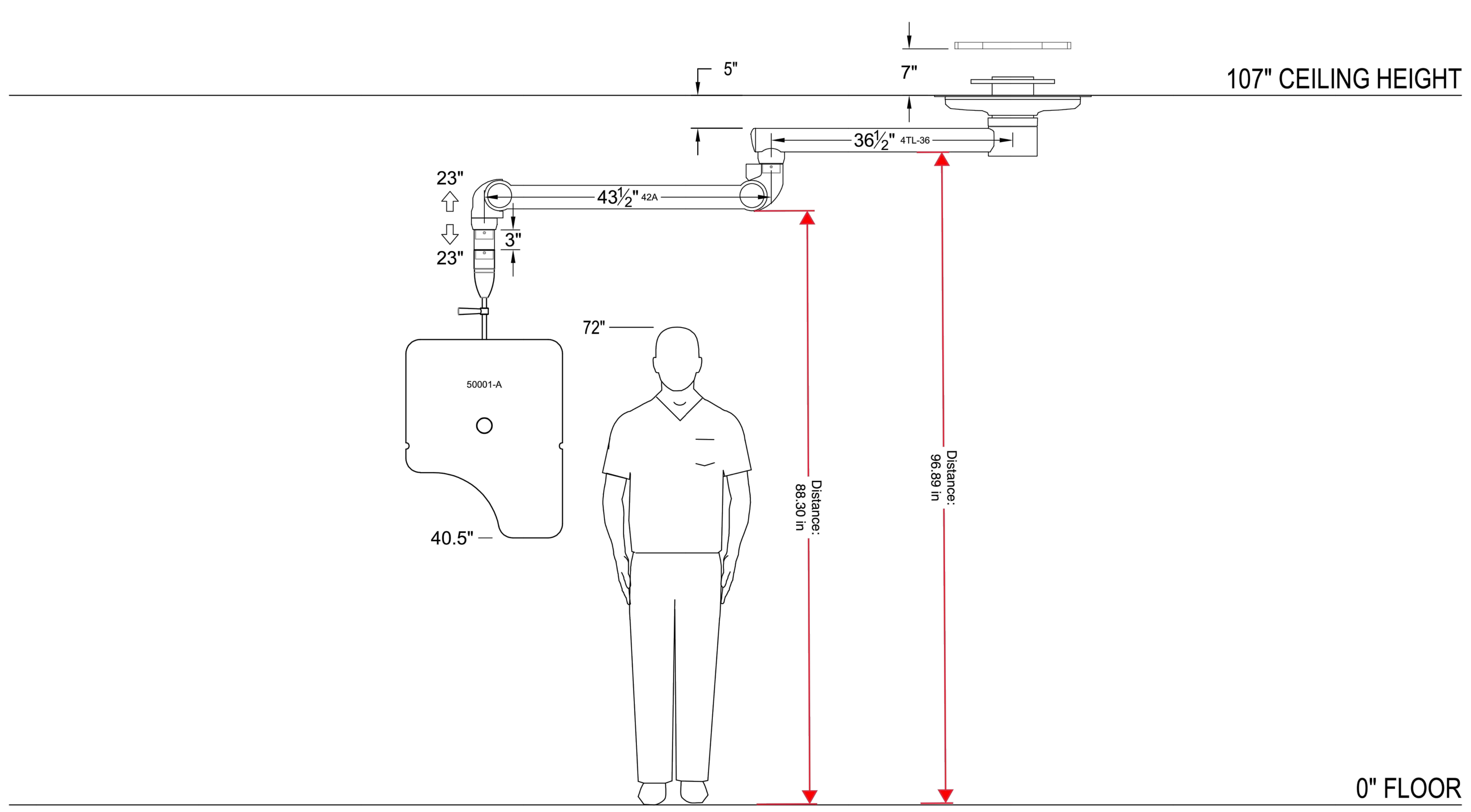
INITIAL:________
DATE:________

PROJECT #: 21-078
SUBMITTAL
PLOT DATE: 10/7/2021
INTERMOUNTAIN MEDICAL CENTER LAB #3
ROOM TYPE: CATH LAB
REV. #: 0
DESCRIPTION: ROOM LAYOUT
SHEET 00a

SKYTRON®

SITE SPECIFIC ELEVATION DETAILS

PLEASE REFER TO MOUNTING STRUCTURE DETAIL PAGE FOR MOUNTING STRUCTURE EXAMPLE



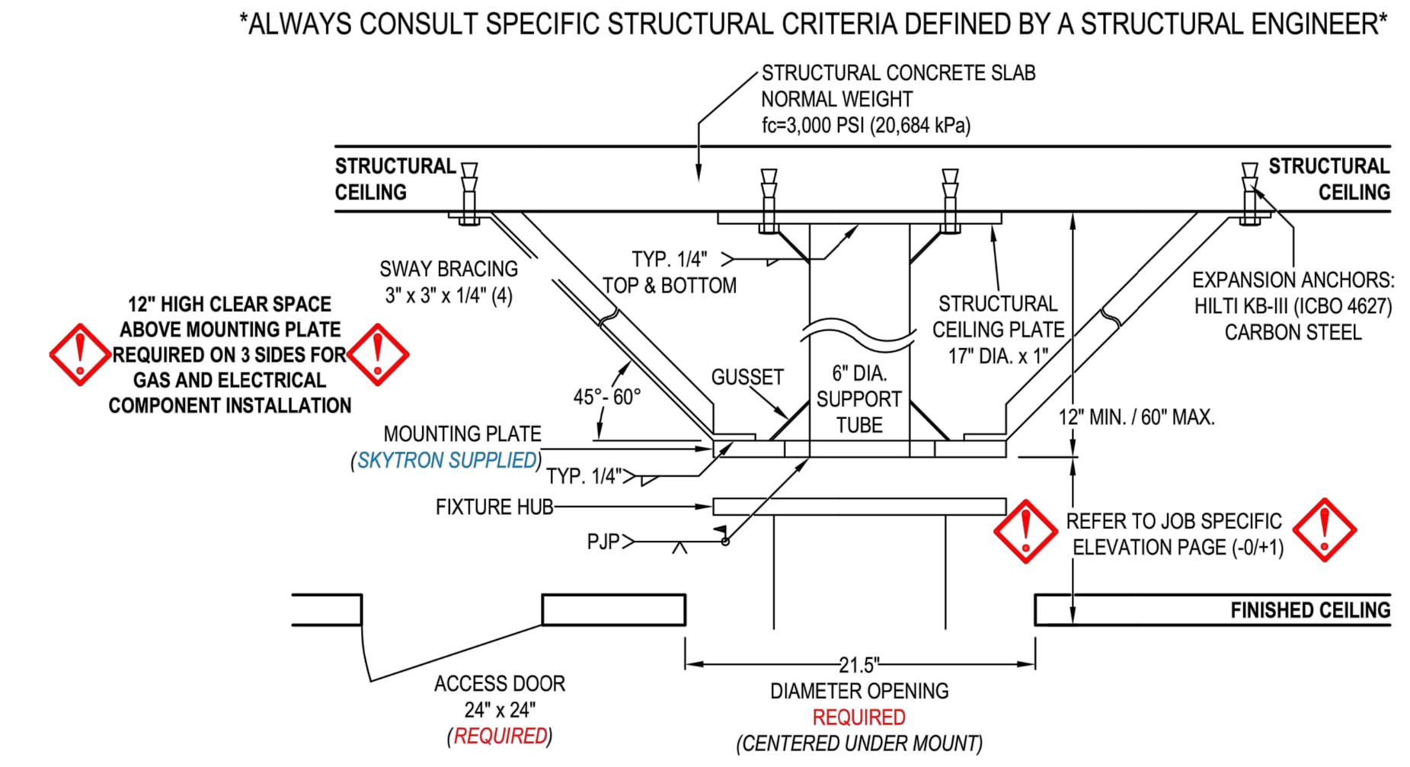
INITIAL:________
DATE:________

MAX. FIXTURE WEIGHT: 487 LBS. MAX. MOMENT LOAD: 2570 FT. LBS. EQUIPMENT CAPACITY: N/A SCALE: $\frac{3}{8}"$ = 1'

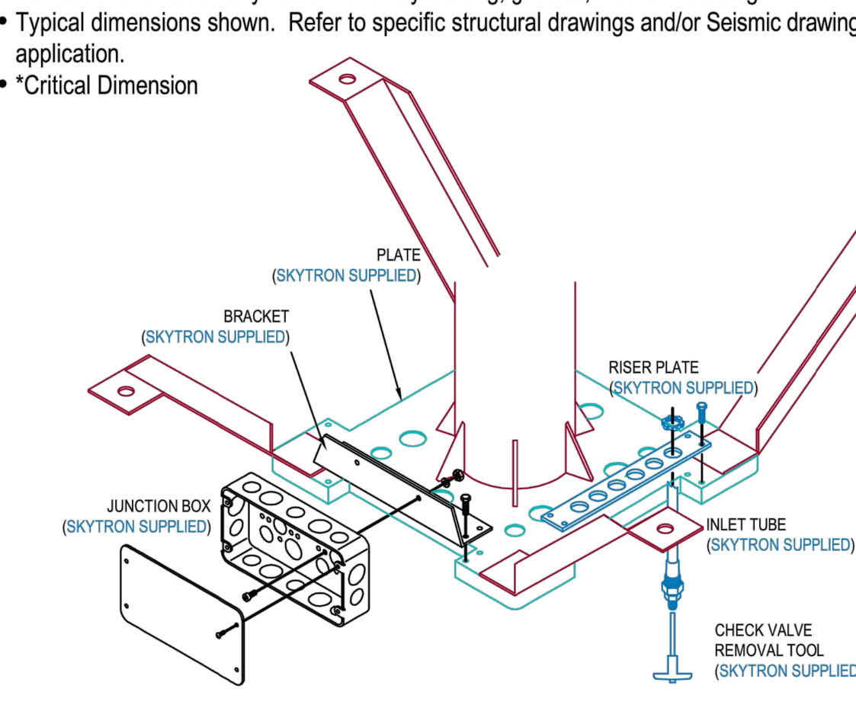
PROJECT #: 21-078
SUBMITTAL
PLOT DATE: 4/21/2021
INTERMOUNTAIN MEDICAL CENTER LAB #3
MDL: F110 SERIES
QTY.: 1
REV. #: 0
DESCRIPTION: ELEVATION DETAILS
SHEET B1

SKYTRON®

TYPICAL BOOM MOUNTING STRUCTURE DETAILS
ALWAYS CONSULT SPECIFIC STRUCTURAL CRITERIA DEFINED BY A STRUCTURAL ENGINEER



NOTES:
- This illustration depicts recommended mounting structure design and its components. Always consult specific structural criteria defined by a structural engineer.
- Do not cover or block any holes with sway bracing, gussets, weld or weld slag.
- Typical dimensions shown. Refer to specific structural drawings and/or Seismic drawings for each application.
- *Critical Dimension



NOTES:
- This illustration depicts a generic mounting structure design and its components. Always consult specific structural criteria defined by a structural engineer.
- 1½" Mounting bolts and nuts shipped with fixture.

INITIAL:________
DATE:________

STRUCTURAL REQUIREMENTS - Architect and Structural Engineer

Mounting Structure Components
The fabrication of each mounting structure may be slightly different but they each require the same basic components to ensure stability.

Sway Bracing (by others)
Sway bracing is designed to rigidly affix the mounting plate to the structural ceiling. The primary purpose of sway bracing is to eliminate sway, or lateral twisting and flexing of the mounting structure as it "reacts" to dynamic load changes caused by moving the fixture radial arms. The sway bracing should be welded to the mounting plate and extend away from the center of the mount. A minimum of four sway braces placed 90° apart and positioned at a 45° and 60° angle is recommended.

Minimum recommended material for sway bracing is 3" x 3" x 1/4" angle iron. **It is recommended that in all applications the sway bracing be fastened to the structural ceiling.**

Structural Ceiling Plate (by others)
The structural ceiling plate rigidly attaches the mount to the structural ceiling using structural anchors appropriate for the ceiling construction. The structural ceiling plate should be a minimum of, 1" ASTM A36 steel plate, 17" diameter with (6) 5/8" diameter holes for structural anchors and is fabricated by others.

Expansion Anchors (by others)
Test 50% of the anchors at 2,000 pounds (907 kg) tension, or 50 ft. lb. (68 N●m) torque per CBC 1925A.3.5.
Installed anchors must meet the following criteria:
1. *Hydraulic Ram Method:* The anchor should have no observable movement at the applicable test load. For wedge and sleeve type anchors, a practical way to determine observable movement is that the washer under the nut becomes loose.
2. *Torque Wrench Method (Wedge or Sleeve Type):* The applicable test torque must be reached within one-half (1/2) turn of the nut. Testing should occur no sooner than 24 hours after installation of anchors. If any anchor fails testing, test all anchors until 20 consecutive anchors pass, then resume the initial testing frequency. Test equipment is to be calibrated by an approved testing laboratory in accordance with standard recognized procedures.

Support Tube (by others)
The support tube required to attach the mounting plate to the structural ceiling plate should be ASTM 500 Grade B, 6" diameter tube. Support tube is to be welded to structural ceiling plate and mounting plate. A minimum of 6 gussets placed 60° apart should be welded to support tube at the structural ceiling plate and the mounting plate.

Mounting Plate (SKYTRON supplied)
The 17.5" x 17.5" x 1" ASTM A36 steel mounting plate is a SKYTRON supplied item. The Support tube and sway bracing are welded to the mounting plate. The mounting plate contains the corresponding bolt pattern for attaching the fixture and provides the mounting areas for the junction box and gas riser plates.

Mounting Structure Design
Seismic structural applications differ. Please contact your local SKYTRON representative for specific calculations. The mounting structure **must** be designed and fabricated to position **the bottom of the SKYTRON mounting plate as shown on site specific elevation page**. This is a critical dimension in order to accommodate proper clearance required for ceiling cover function. The mounting plate must be perfectly level (+/- 0.1°) and allow no more than two-tenths of a degree (0.2°) of rotation at the mounting plate when the specified load is applied. **The mounting structure must be tested** for strength and stiffness prior to installation of the fixture. Please contact your SKYTRON representative to schedule testing.

Please consult your SKYTRON representative during early stages of construction to facilitate this process. The testing process is a required, documented function prior to closing of the finished ceiling.

Ceiling Requirements
A 24" x 24" access door must be mounted adjacent to the mounting structure for entry by service personnel for service access.

SKYTRON provides a 24" ceiling cover designed to cover 21.5" diameter ceiling hole cutout.

Additional Items(SKYTRON supplied)
In addition to the pre-installation kit. SKYTRON provides the following items:
(6) 1-1/4" x 10" threaded rods. (24) 1-1/4" hex nuts, pump enclosure (if applicable)

PROJECT #: 21-078
SUBMITTAL
PLOT DATE: 4/21/2021
INTERMOUNTAIN MEDICAL CENTER LAB #3
MDL: F110 SERIES
QTY.: 1
REV. #: 0
DESCRIPTION: ELEVATION DETAILS
SHEET B1.1

Intermountain Healthcare
IMC- Cath Lab 3 Remodel Project
5121 South Cottonwood Street
Murray, UT 84107

NJRA Project # 20230
Construction Documents December 15, 2021

Skytron Equipment

EQ 109

NJRA ARCHITECTS

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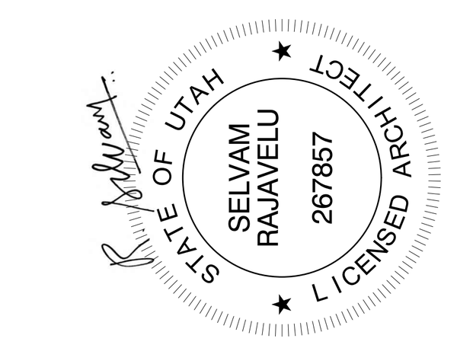
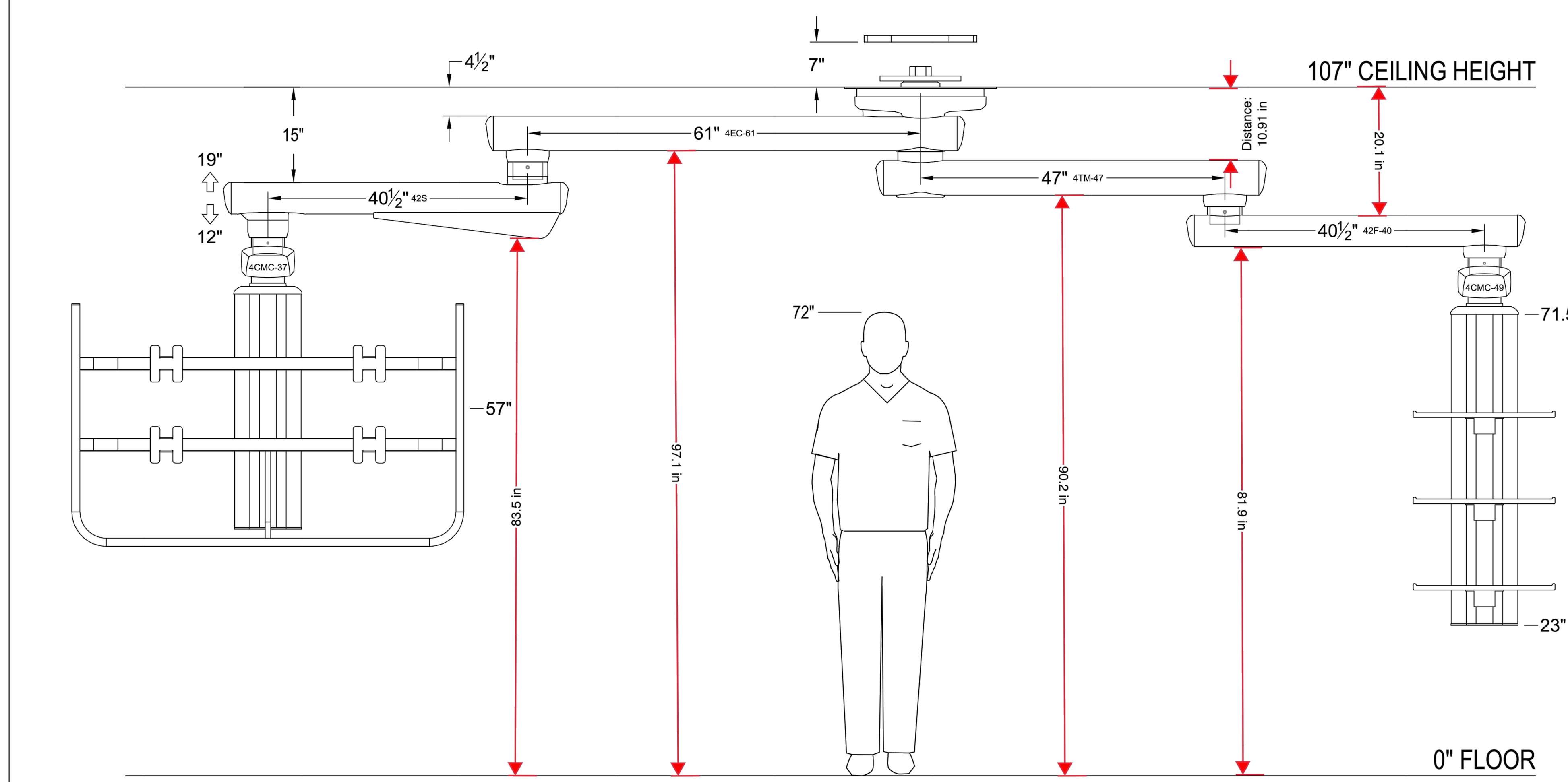


SKYTRON — Sheet C1

SITE SPECIFIC ELEVATION DETAILS

PLEASE REFER TO MOUNTING STRUCTURE DETAIL PAGE FOR MOUNTING STRUCTURE EXAMPLE



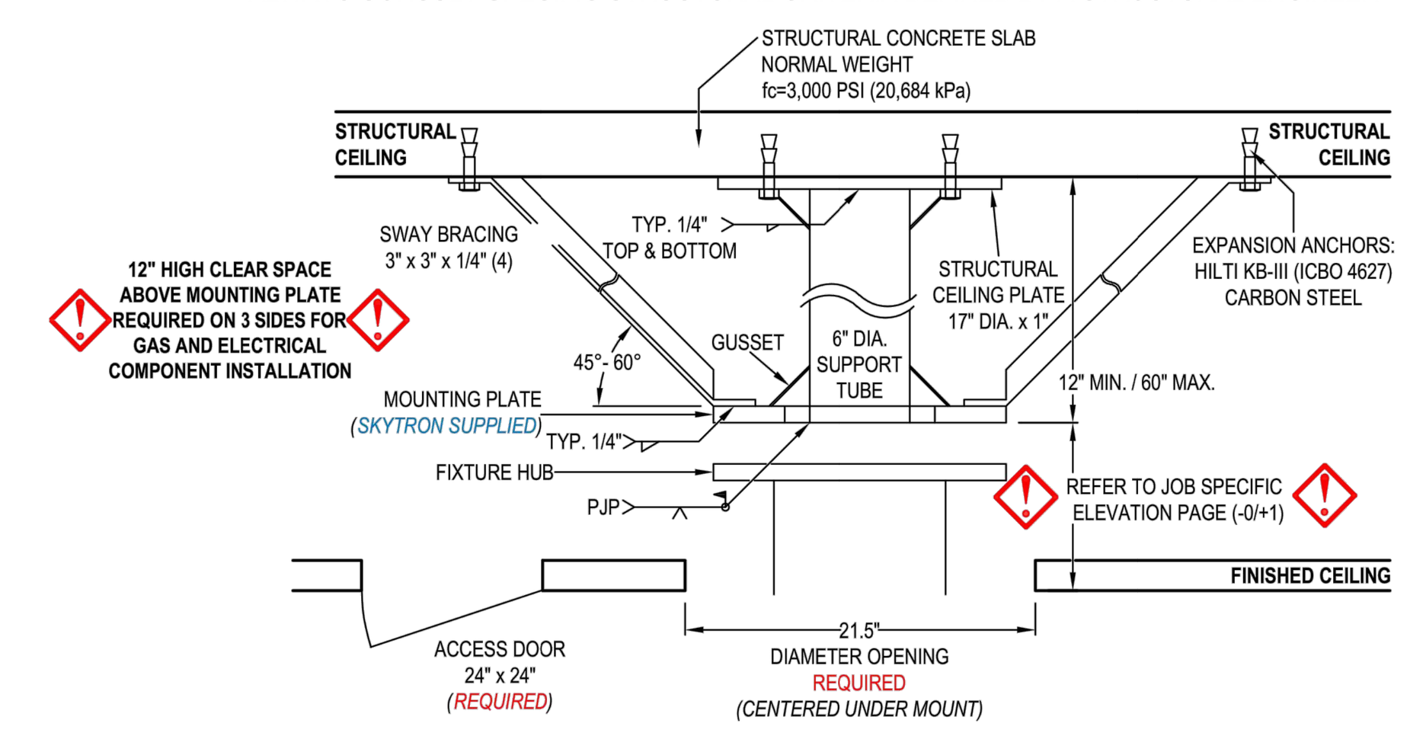
INITIAL: ____ DATE: ____

MAX. FIXTURE WEIGHT: 1673 LBS. MAX. MOMENT LOAD: 8829 FT. LBS. EQUIPMENT CAPACITY: 4CMC-37 - 273 LBS. 4CMC-49 - 256 LBS. SCALE: 3/8" = 1'

PROJECT #: 21-078 SUBMITTAL PLOT DATE: 4/21/2021
INTERMOUNTAIN MEDICAL CENTER LAB #3
MDL: F340 SERIES QTY.: 1 DESCRIPTION: ELEVATION DETAILS REV. #: 0
SHEET C1

SKYTRON — Sheet C1.1

TYPICAL BOOM MOUNTING STRUCTURE DETAILS
ALWAYS CONSULT SPECIFIC STRUCTURAL CRITERIA DEFINED BY A STRUCTURAL ENGINEER



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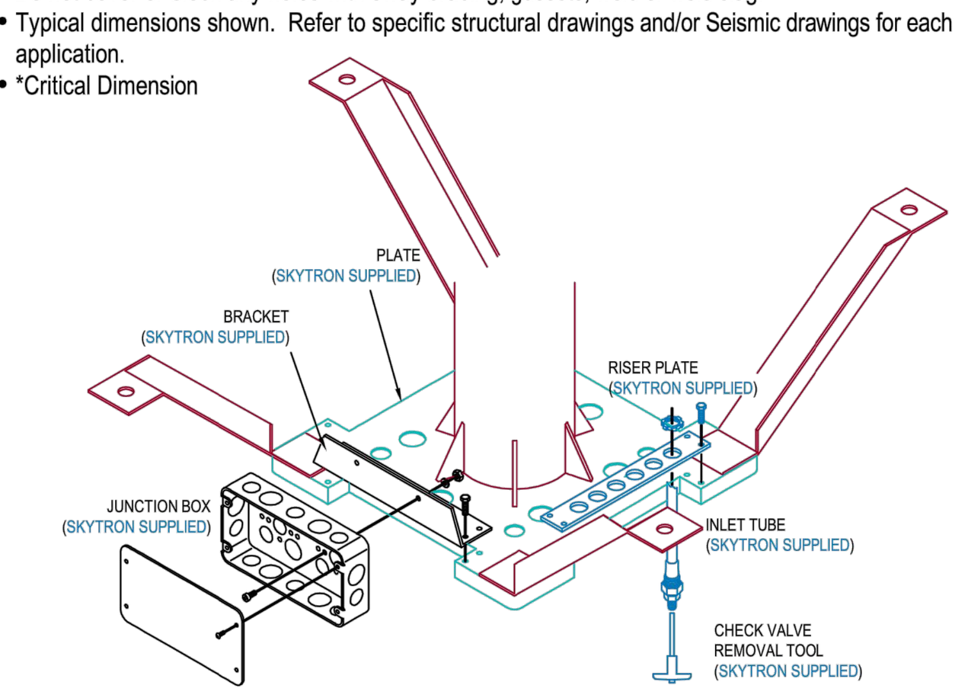

NOTES:
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- 1¼" Mounting bolts and nuts shipped with fixture.

INITIAL: ____ DATE: ____

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Ceiling Requirements
A 24" x 24" access door must be mounted adjacent to the mounting structure for entry by service personnel for service access.

SKYTRON provides a 24" ceiling cover designed to cover 21.5" diameter ceiling hole cutout.

Additional Items(SKYTRON supplied)
In addition to the pre-installation kit. SKYTRON provides the following items:
(6) 1-1/4" x 10" threaded rods. (24) 1-1/4" hex nuts, pump enclosure (if applicable)

PROJECT #: 21-078 SUBMITTAL PLOT DATE: 4/21/2021
INTERMOUNTAIN MEDICAL CENTER LAB #3
MDL: F340 SERIES QTY.: 1 DESCRIPTION: ELEVATION DETAILS REV. #: 0
SHEET C1.1

SKYTRON — Sheet C2a

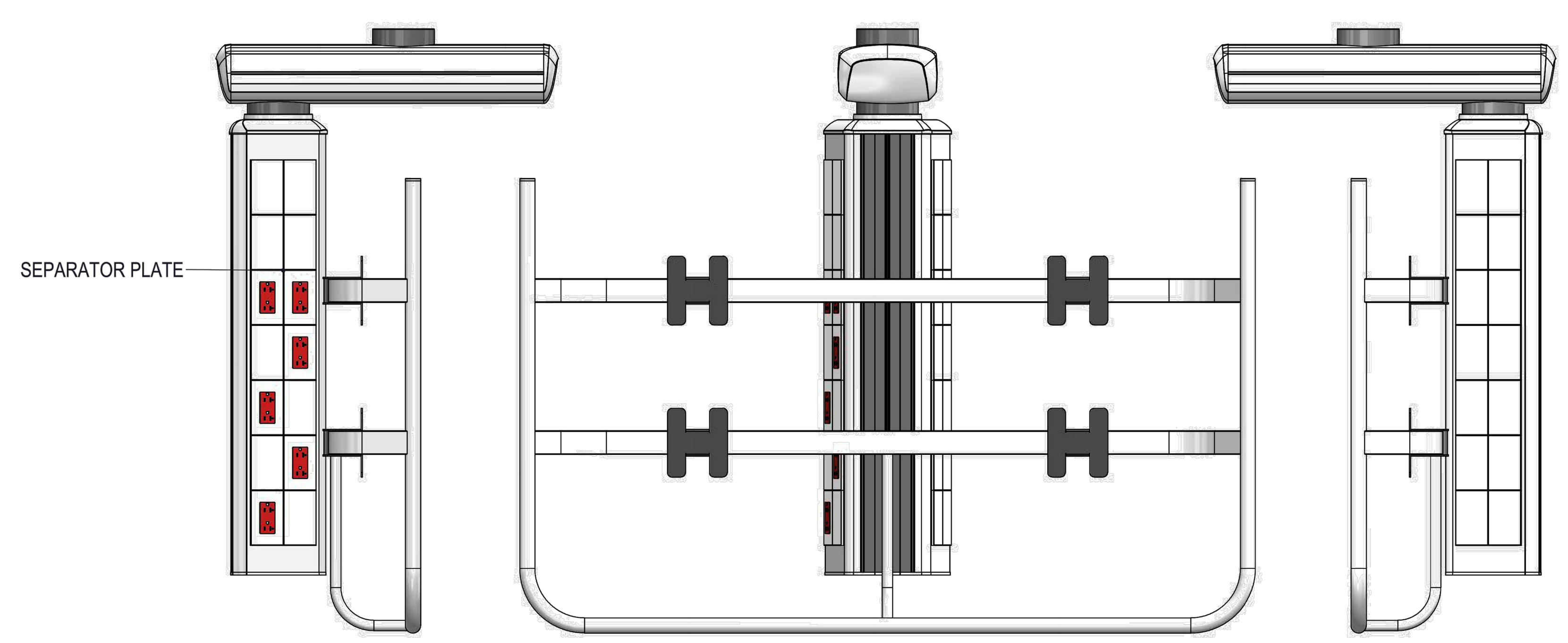
SITE SPECIFIC CARRIER DETAILS

ACCESSORY LIST

(1) BACK UP DISPLAY MOUNTS

*ACCESSORIES NOT SHOWN UNLESS OTHERWISE NOTED

*COMMUNICATIONS CAN ONLY BE ADDED ABOVE THE SEPARATOR PLATE



INITIAL: ____ DATE: ____

CARRIER DIMENSIONS: 48.5"H x 61"W x 28"D GAS OUTLETS: N/A ELECTRICAL: (6) 125V, 20A DUPLEX - RED

PROJECT #: 21-078 SUBMITTAL PLOT DATE: 4/21/2021
INTERMOUNTAIN MEDICAL CENTER LAB # 3
MDL: F340 SERIES QTY.: 1 DESCRIPTION: CARRIER DETAILS REV #: 0
SHEET C2a

SKYTRON — Sheet C2b

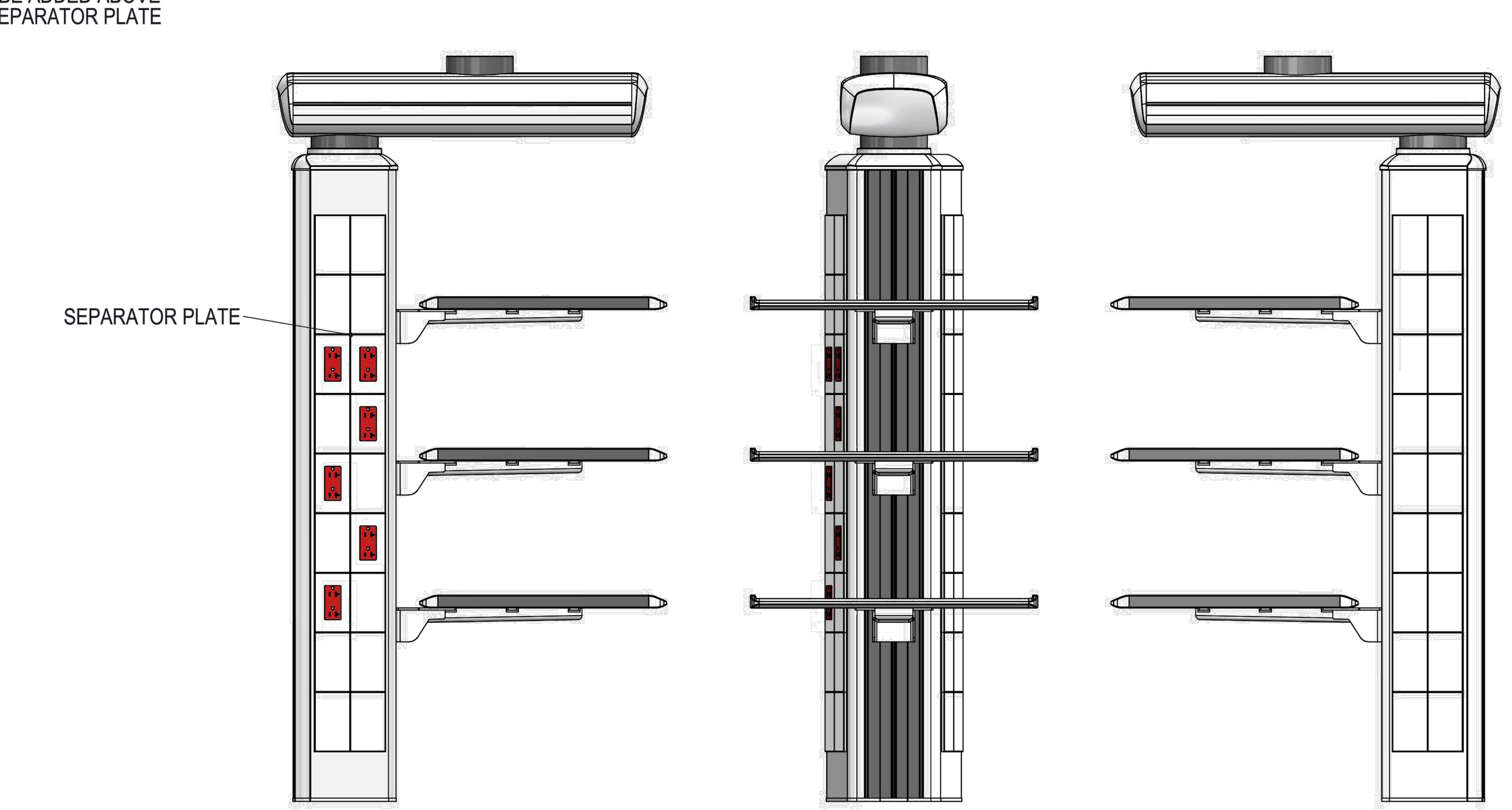
SITE SPECIFIC CARRIER DETAILS

ACCESSORY LIST

(3) 22" SHELF - SHOWN BELOW

*ACCESSORIES NOT SHOWN UNLESS OTHERWISE NOTED

*COMMUNICATIONS CAN ONLY BE ADDED ABOVE THE SEPARATOR PLATE



INITIAL: ____ DATE: ____

CARRIER DIMENSIONS: 55.5"H x 22"W x 30"D GAS OUTLETS: OHMEDA ELECTRICAL: (6) 125V, 20A DUPLEX - RED

PROJECT #: 21-078 SUBMITTAL PLOT DATE: 4/21/2021
INTERMOUNTAIN MEDICAL CENTER LAB # 3
MDL: F340 SERIES QTY.: 1 DESCRIPTION: CARRIER DETAILS REV #: 0
SHEET C2b

Intermountain Healthcare
IMC- Cath Lab 3 Remodel Project

5121 South Cottonwood Street
Murray, UT 84107

NJRA Project # 20230
Construction Documents December 15, 2021

Skytron Equipment

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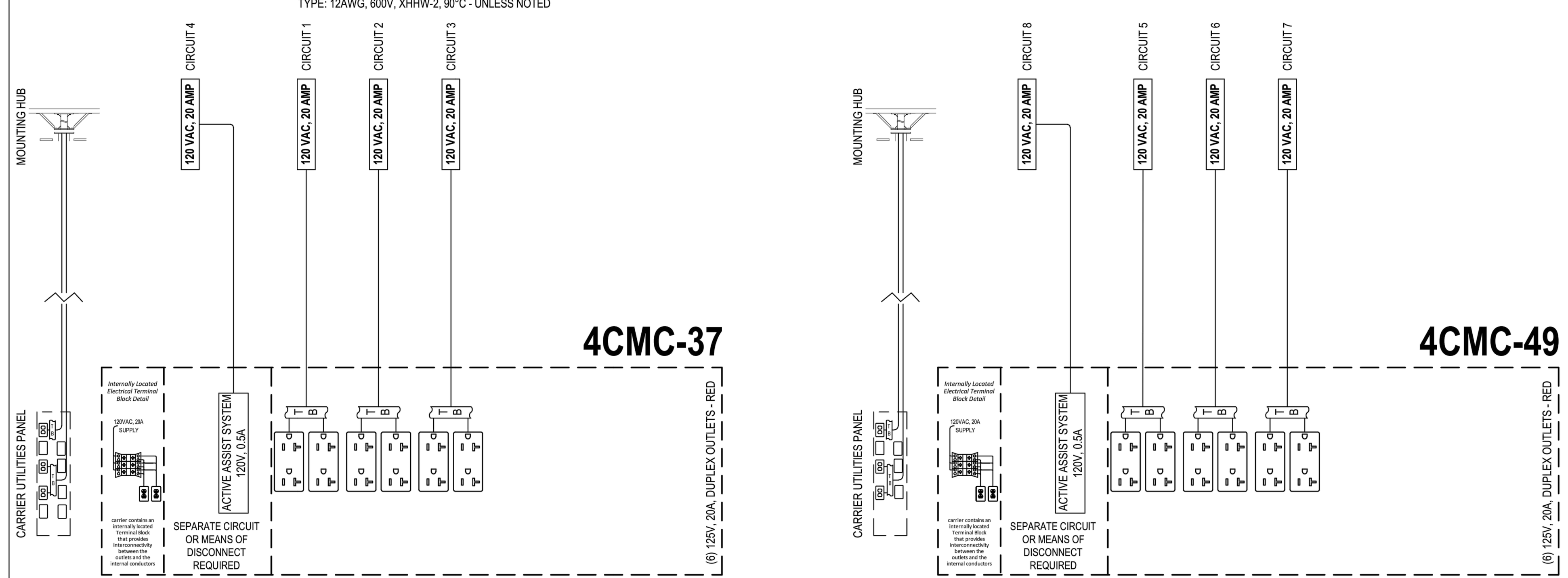
SKYTRON®

SITE SPECIFIC WIRING DETAILS

INTERNAL FIXTURE WIRING TYPICAL, EXTRA FLEX STEEL CONDUIT

TYPE: 12AWG, 600V, XHHW-2, 90°C - UNLESS NOTED



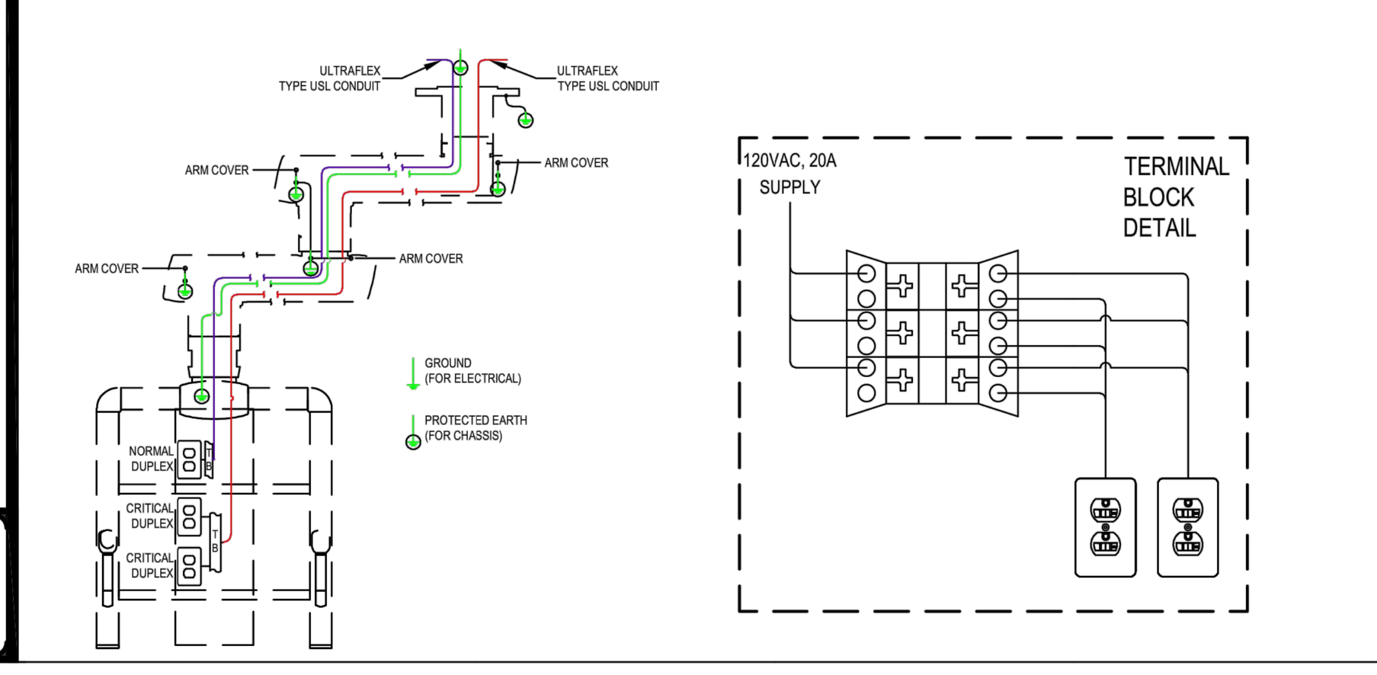
ELECTRICAL REQUIREMENTS - Electrical Engineer

Each boom fixture is fabricated in accordance to the specifications required by the customer. The Configuration drawings supplied by SKYTRON will indicate the type and quantity of circuits required. SKYTRON provides all wiring and electrical materials for connection from fixture to junction box or pump enclosure (if applicable). SKYTRON supplies an electrical junction box (8-5/8" x 4-5/8" x 1-3/4") to facilitate field wiring for up to six circuits that is mounted on the mounting plate in the correct position and if applicable, a hydraulic pump enclosure/junction box (8"L x 6"W x 4"H) that is to be remote mounted within 24" of the mounting structure (by contractor). The pump enclosure can be shipped with the installation kit upon request. Typical wire type is 12AWG, 600V, XHHW-2. Each circuit requires a separate, properly circuit protected, 120VAC, 60Hz power supply line enclosed in rigid metal conduit. All electrical materials for connection to SKYTRON supplied junction box or pump enclosure and installation labor for such materials to be provided by customer. All wiring and materials to be in accordance with federal, state and local codes. It is the customer's responsibility to meet conformity to NFPA and NEC standards with respect to the color, type and number of receptacles provided in a patient care area. (e.g. Color - red/white, Amperage - 15 or 20, dedicated circuits, tamper resistant, LED, GFCI)

Specific conductor colors and/or wiring for isolated applications are available upon request.

INITIAL:______ DATE:______	REQUIRED FOR FABRICATION VERIFY AND INITIAL POWER TYPE	ISOLATED POWER BROWN W/YELLOW STRIPE, ORANGE W/BLUE STRIPE, GREEN W/YELLOW STRIPE INITIAL: ______	NON-ISOLATED POWER BLACK, WHITE, GREEN INITIAL: ______

GENERIC BOOM ELECTRICAL WIRING DIAGRAM FOR FIXED ARMS



PROJECT #: 21-078
SUBMITTAL
PLOT DATE: 4/21/2021

INTERMOUNTAIN MEDICAL CENTER LAB #3

MDL: F340 SERIES REV. #: 0
QTY.: 1
DESCRIPTION: ELECTRICAL WIRING DETAILS

SHEET C4

NJRA ARCHITECTS
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STATE OF UTAH SELVAM RAJAVELU 267857 LICENSED ARCHITECT

Intermountain Healthcare

IMC- Cath Lab 3 Remodel Project

5121 South Cottonwood Street
Murray, UT 84107

NJRA Project # 20230
Construction Documents December 15, 2021

Skytron Equipment

EQ 111