



January 13, 2026

Lauren Plouff  
Broaddus & Associates  
2330 Bloomdale Rd  
McKinney, TX 75071

Subject: Collin County Healthcare Facility, Parking Garage, and Medical Examiners  
PCO No. 093; RFI #326 X-Ray and Lodox Equipment Room Layout Clarification

Dear Lauren:

Please find the attached Request for Change (PCO) No. 093. This proposal is submitted for an Add of Twenty-Two Thousand Two Hundred and Fifty-Nine Dollars (\$22,259.00), reflective of the following items:

- **Additional glazing, drywall, painting, and specialties scope of work per finalized discussions and RFI 326 responses:**
  - Includes added drywall material and labor to construct new lead-lined partition scheduled in X-Ray room 140.
  - Includes added painting material and labor to tape, bed, prime and paint the new lead-lined partition scheduled.
  - Includes added glazing material and labor to provide and install the new lead-lined glass opening and associated frame.
  - Includes added wall protection/specialties material and labor for the scheduled changes noted in X-Ray room 140.
- **The electrical line item is submitted as a net zero (0) ONLY for the changes noted within the updated construction documents provided by the design team. Per previously coordinated discussions between Lodox, Broaddus, PGAL, Summit, and the Construction Team, the changes required for the Lodox equipment are incorporated into the updated construction drawings. The other items listed in the Lodox drawings, and not in the updated construction drawings, are confirmed as not required and thus not incorporated into this change.**
- ***This PCO will be an add in the amount of \$22,259.***

**We have not proceeded with this change.** Please sign the attached request for change recap indicating approval of this change.

Sincerely,

Jim Terhune  
Digitally signed by Jim Terhune  
DN: cn=Jim Terhune, o=Christman Building, email=Jim.Terhune@christman.com, c=TX, ou=Christman Company  
Date: 2026.01.13 10:24:58-0500

Jim Terhune  
Sr. Project Manager

CC: Peter Hernandez , PGAL

Collin County       PGAL - Dallas (Addison)       Project Manager       Accounting

Project: 224057- Collin County Public Health Buildings      Owner : Collin County      From: The Christman Company  
2300 Bloomdale Rd      2300 Bloomdale Rd; Suite 3160  
McKinney, TX 75071      McKinney, TX 75071

Issue No. 093 - RFI #326 X-Ray and Lodox Equipment Room Layout CI      Amount

Item: 1 Medical Examiners

Phase	Description	Abbreviation	Amount
18 -	Glass and Glazing	SUBS	10,879.00
21A-	Drywall & Acoustical (ME Bldg & G	SUBS	8,622.00
24 -	Painting	SUBS	838.00
25 -	Miscellaneous Specialties	SUBS	510.00
28 -	Electrical	SUBS	0.00
41 -4110	Payment and Performance Bonds	OTHER	177.00
41 -4120	Builder's Risk Insurance	OTHER	17.00
60 -	Overhead & Profit	OTHER	1,060.00
99 -	General Liability Insurance	OTHER	156.00
Subtotal Item 1			22,259.00
			0.00
Request for Change Total:			\$22,259.00

Qualifications:

- This Issue is  Original    Revised    Budget Only    Firm Quotation.
- Contract time will be  Increased by    Decreased by (   ) work days;    Unchanged    Other: \_\_\_\_\_
- The Christman Company  has    has not proceeded with the work, and this Issue must be accepted within (   ) work days.
- Funded by  Contract change    Allowance    Contingency    Other: \_\_\_\_\_

Owner and/or Architect Action:

- Approved    Proceed as described above (cost and schedule changes to be finalized under a revised Issue)  
 Rejected    Other: \_\_\_\_\_

Authorization:

The Owner and/or Architect hereby direct The Christman Company to proceed with the performance of the work as described above and/or in any additional documents referenced herein. It is understood that the amount of this Request for Change, if noted as "Budget Only" under Qualification 1., will be revised as necessary upon determination of final costs and included in the next Owner Change Order accordingly. If noted as "Firm Quotation" under Qualification 1., the amount of this Request will be included in the next Owner Change Order. In addition, all costs included herein may be included in the next payment application as if they had been included in an Owner Change Order or Construction Change Directive.


Authorized By Owner:  
Collin County  
2300 Bloomdale Rd; Suite 3160  
McKinney, TX 75071

Accepted By Architect  
PGAL - Dallas (Addison)  
14135 Midway Road, Suite G-200  
Addison TX 75001

Submitted By Contractor:  
The Christman Company

By: \_\_\_\_\_

By: 

By:  Jim Terhune

Date: \_\_\_\_\_

Date: 1/16/26

Date: \_\_\_\_\_



## RFI #326: ME - X-Ray and Lodox Equipment Room Layout Clarification

<b>Revision</b>	0	<b>Status</b>	Closed on 01/05/26
<b>To</b>	Pierre Zoungrana (PGAL) Peter Hernandez (PGAL)	<b>From</b>	Aaron Capetillo (The Christman Company (DFW)) 130 E John W. Carpenter Freeway Suite 200 Irving, Texas 75062
<b>Date Initiated</b>	Nov 7, 2025	<b>Due Date</b>	Nov 26, 2025
<b>Location</b>	Medical Examiner's Building	<b>Project Stage</b>	Course of Construction
<b>Cost Impact</b>	TBD	<b>Schedule Impact</b>	TBD
<b>Spec Section</b>		<b>Cost Code</b>	
<b>Drawing Number</b>		<b>Reference</b>	
<b>Linked Drawings</b>			
<b>Received From</b>	Tom Troy (George-Mckenna Electrical Contractors)		
<b>Copies To</b>	David Beebe (The Christman Company (DFW)), Paul Bonnette (PGAL), Aaron Capetillo (The Christman Company (DFW)), James Case (The Christman Company (DFW)), Anthony Ferraro (The Broaddus Companies), Jared Gardner (The Christman Company (DFW)), Bob Guill (The Christman Company (DFW)), Brad Harris (Collin County), Carolina Haylow (The Christman Company (DFW)), Peter Hernandez (PGAL), Tim Konganda (PGAL), Cooper Martindale (Summit Consultants, Inc.), Andrew Murphy (Summit Consultants, Inc.), Lauren Plouff (The Broaddus Companies), Jim Russell (The Christman Company (DFW)), Jim Terhune (The Christman Company (DFW)), John Zoski (Collin County), Pierre Zoungrana (PGAL)		

### Activity

#### Question

**Question from Aaron Capetillo The Christman Company (DFW) on Friday, Nov 7, 2025 at 05:30 PM CST**

The x-ray equipment/Lodox drawings and cut sheets provided does not have a room layout that is aligns with the room layout in the contract documents. Please see the attached for reference. This layout discrepancy was also noted by Summit Consultant's notes, with very clear direction to coordinate the exact locations with the design team.

Per the coordination discussion held with PGAL, Lodox vendor, Broaddus, and Christman, our contractor is needing project specific shop drawings or confirmed rough-in locations and heights for disconnects, in-wall junction boxes, power and technology, etc. within the layout of the current design space. Please provide additional information requested for the appropriate rough-in to be installed.

**Updated 11/12/25:** Per coordination discussion held on 11/12/25, please provide an updated room layout for X-ray 140. Please be sure to capture changes to equipment and casework locations, as well as affected wall finishes, accessories, convenience outlets, data, etc. for an accurate set of construction documents.

We are requesting an expedited review of this issue, so that in-wall and overhead rough-in of the lead-lined walls can be completed in this area. This is a **critical issue**.

**Attachments**

[RFI 326 - ME - X-Ray Lodox Equipment Rough-In Clarification Attachment.pdf](#)

Official Response

**Response from Pierre Zougrana PGAL** on Monday, Jan 5, 2026 at 03:00 PM CST

Per the 01/05/2026 meeting, refer to the attachment for the updated electrical sheet.

**Attachments**

[RFI 326.1\\_ELECTRICAL.pdf](#)

Official Response

**Response from Pierre Zougrana PGAL** on Tuesday, Dec 9, 2025 at 03:04 PM CST

Refer to the file attached for updated information regarding the X-RAY plan modifications.

**Attachments**

[RFI #326 ME - LODOX LAYOUT CLARIFICATION UPDATE..pdf](#)

Official Response

**Response from Lauren Plouff The Broaddus Companies** on Wednesday, Nov 26, 2025 at 12:44 PM CST

Please see attached Lodox Shop Drawings

**Attachments**

[Lodox Shop Drawings.pdf](#)

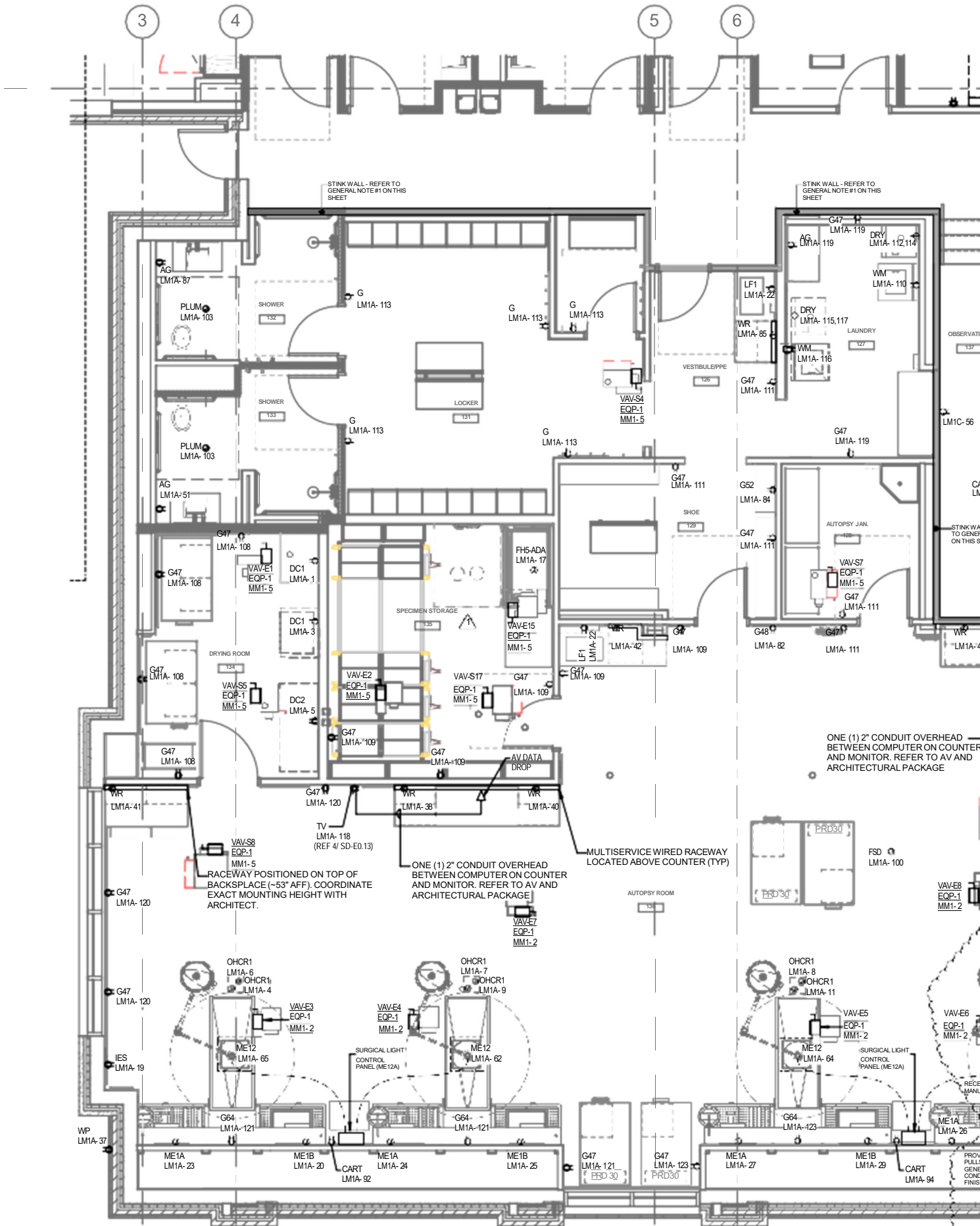
Official Response

**Response from Pierre Zougrana PGAL** on Thursday, Nov 20, 2025 at 12:34 PM CST

Refer to the attached file for updated lodox layout (Architecture, Laboratory, Electrical and Technology).

**Attachments**

[RFI #326 ME - LODOX LAYOUT CLARIFICATION.pdf](#)



STINK WALL - REFER TO GENERAL NOTE #1 ON THIS SHEET

STINK WALL - REFER TO GENERAL NOTE #1 ON THIS SHEET

ONE (1) 2" CONDUIT OVERHEAD BETWEEN COMPUTER ON COUNTER AND MONITOR. REFER TO AV AND ARCHITECTURAL PACKAGE

RACEWAY POSITIONED ON TOP OF BACKSPACE (-53" AFF). COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT.

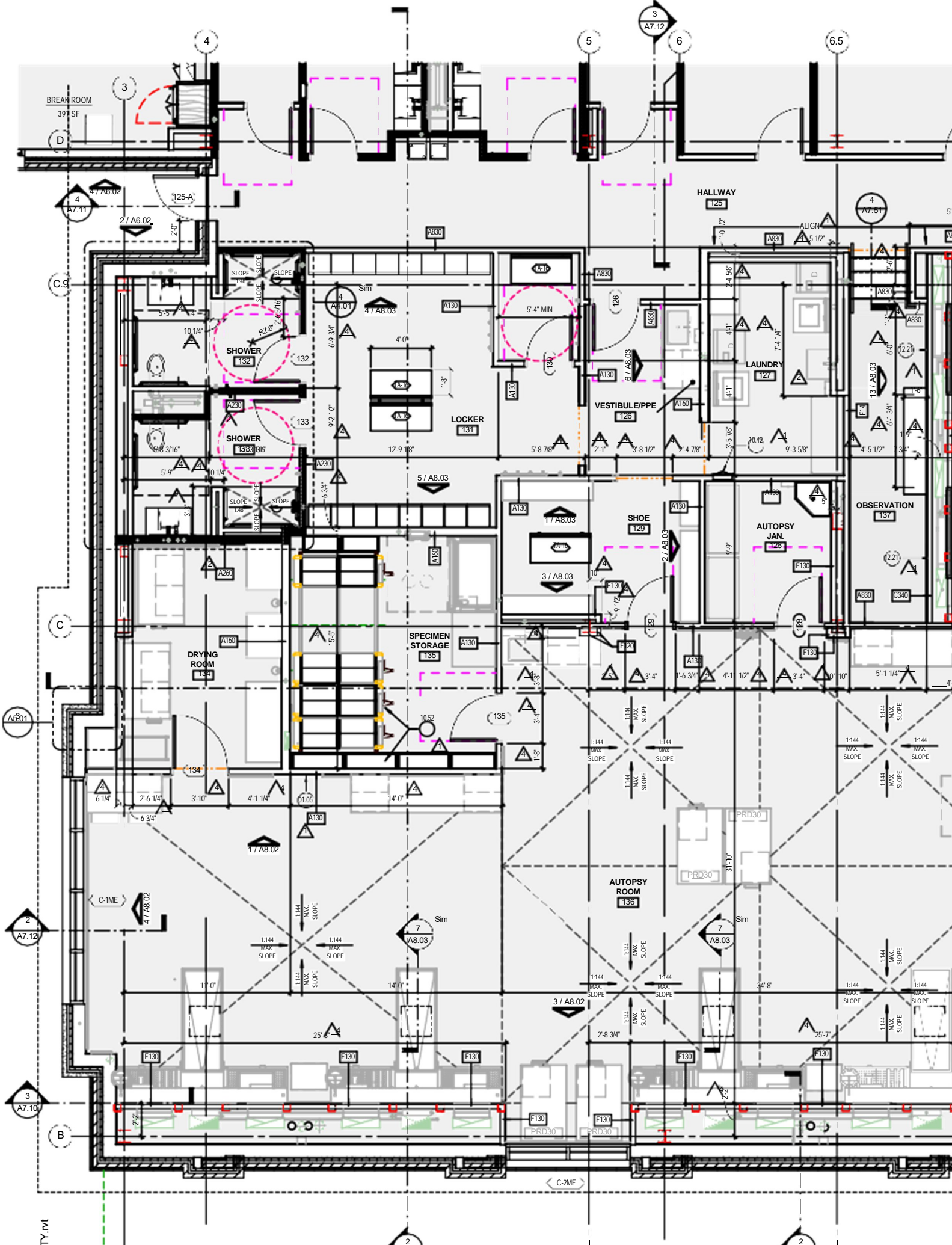
ONE (1) 2" CONDUIT OVERHEAD BETWEEN COMPUTER ON COUNTER AND MONITOR. REFER TO AV AND ARCHITECTURAL PACKAGE

MULTISERVICE WIRED RACEWAY LOCATED ABOVE COUNTER (TYP)

WP LM1A-37

PROV PULLS GENE CONC FINIS













# REVISIONS

SHEET NUMBER	REV	REVISION DESCRIPTION	REP	DATE
	2			
	3			

## SAVE MONEY AND REDUCE CONSTRUCTION TIME ( PRODUCTS LISTED BELOW ARE CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

FOR FACTORY DIRECT PRE NEGOTIATED DEEP DISCOUNTED PRICES ON:

### - LEAD SHIELDING PRODUCTS

CONTACT PITTS LITTLE CORPORATION  
PHONE: 205-833-5911  
EMAIL: sales@pittslittle.com  
WEB SITE: pittslittle.com

### - ELECTRICAL WIRE TROUGH PRODUCTS

FOR WIRE TROUGH, RACEWAY AND CABLE TRAYS CONTACT THE 'ELECTRICAL SALES COMPANY' AT 440-835-3500 FOR PRICING. REFER TO "TROUGH NOTES" ON SHEET E4.

FOR SPECIALTY ITEMS DESCRIBED ON 'E' SHEETS CONTACT 'GEXPRO', AT 800-279-7925 FOR PRICING. REFER TO "BEVCO ENGINEERING PRODUCTS" ON SHEET E4.

FOR ALL THE INDIVIDUALS WHO ARE CONCERNED ABOUT THE HIGH COST OF SINGLE ROOM CONSTRUCTION, GAMMA TECH, INC. HAS NEGOTIATED DEEP DISCOUNTED PRICING FOR THE PRODUCTS MENTIONED ABOVE. WE BELIEVE IN THE VALUE OF THESE PRODUCTS AND ENCOURAGE YOU TO TAKE ADVANTAGE OF THIS UNPARALLELED COST SAVING OPPORTUNITY. TO EXPERIENCE THESE DISCOUNTS, SIMPLY MENTION THE FILE NAME, DATE, PROJECT NAME AND LOCATION (LOCATED IN THE BOTTOM RIGHT CORNER OF EACH SHEET).

# SHEET LEGEND

SHEET NUMBER	SHEET DESCRIPTION
A1	SHEET LEGEND, RECEIPT OF DRAWINGS, DENOTED REVISIONS, AND SUPPLEMENTAL NOTES.
A2	GENERAL NOTES, WIRING NOTES, ARCHITECTURAL NOTES, ADA COMPLIANCE NOTE AND SUPPLEMENTAL NOTES.
A3	AREA MADE AVAILABLE PER ARCHITECT.
A4	PROPOSED ROOM LAYOUT PER LODOX.
B1	PROPOSED ROOM LAYOUT, CONSTRUCTION NOTES, EQUIPMENT DATA, EQUIPMENT SCHEDULE.
D1-3	EQUIPMENT DETAILS.
E1	ELECTRICAL LAYOUT. TERMINAL SCHEDULE. ELECTRICAL TAG DESCRIPTIONS.
E2	RACEWAY & WIRING SCHEDULE. ELECTRICAL DETAILS. COVERPLATE DETAILS. RACEWAY DETAIL.
E3	INCOMING WIRE SIZE NOTES. IMPORTANT POWER NOTES. PATIENT SAFETY GROUNDING. NETWORKING NOTES.
E4	EMERGENCY OFF SWITCHES SAMPLE DETAILS.
E5	"X-RAY IN USE" WARNING LIGHT NOTES AND SAMPLE DETAILS.

EQUIPMENT:  
**eXero-DR**  
Full-body, High-speed  
Digital Radiology  
System

FACILITY:  
**Collin County Texas  
Medical Examiner Office  
McKinney, TX**

SUBMITTED BY:  
**lodox**  
critical imaging technology  
143 Burton Street  
Painesville, OH 44077  
Phone: 440-210-3030

APPROVED BY:

APPROVED BY:

PLANNING BY:



Catie Brannon (Designer)  
Email: catie@gammatech.net

Notice to the Corporation, Person(s) regarding the Computer Aided Design and Drafting (CADD) files enclosed.  
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## RECEIPT OF FINAL DRAWINGS

THIS SIGNATURE REPRESENTS RECEIPT OF THIS SET OF FINAL PLANS. IT IS UNDERSTOOD THAT ANY DEVIATION FROM THESE DRAWINGS, DETAILS, AND SPECIFICATIONS, MAY ENCROACH UPON THE EQUIPMENT OPERATION, SERVICEABILITY, OR SAFETY GUIDELINES. ALSO, I AM AWARE THAT ANY CHANGES MADE AFTER THIS DATE COULD RESULT IN ADDITIONAL EXPENSES BEING INCURRED.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

DRAWN BY:  
C. BRANNON  
DATE:  
11.21.2025  
FILE NAME:  
CCT251121s

SCALE:  
None  
SHEET:

**A-1**

## ARCHITECTURAL NOTES

AT THEIR EXPENSE, THE CUSTOMER AND/OR THE CONTRACTOR WILL BE EXPECTED TO PROVIDE THE FOLLOWING (IF REQUIRED) PRIOR TO X-RAY EQUIPMENT DELIVERY AND INSTALLATION:

1. ANY ROOM REMODELING AND CONSTRUCTION - FLOOR CEILING AND WALLS MUST BE FINISHED BEFORE EQUIPMENT INSTALLATION CAN BEGIN.
2. INSTALLATION OF PROPER SPECIFIED POWER.
3. INSTALLATION OF LOAD CENTERS, BRANCH PANELS, CIRCUIT BREAKERS, JUNCTION BOXES, CONDUIT AND CABLE TRAYS AS SPECIFIED.
4. INTERCONNECTING WIRE AND CABLE AS SPECIFIED.
5. INSTALLATION OF WALL AND CEILING SUPPORT AND SUSPENSION FRAME WORK AS SPECIFIED.
6. FOR THE MOST PART CONVENIENCE OUTLETS ARE TO BE SPECIFIED BY OTHERS. OUTLETS REQUIRED BY EQUIPMENT WILL BE SPECIFIED. FOR EASE IN EQUIPMENT SERVICE, A MINIMUM NUMBER OF OUTLETS WILL BE DEPICTED.
7. ANY CEILING MOUNTED LIGHT FIXTURES, DIFFUSERS, VENTS, SMOKE/FIRE DETECTORS, SPRINKLER HEADS, HALON NOZZLES, ETC. SHALL NOT EXTEND MORE THAN 1/2" BELOW THE FINISHED CEILING.
8. ANY PLUMBING REQUIREMENTS.
9. INSTALLATION OF OPTIONAL WARNING LIGHT AND/OR DOOR INTERLOCK SWITCH AT ENTRANCE DOORS OF X-RAY ROOM TO BE COORDINATED WITH FACILITY, EQUIPMENT INSTALLERS, AND DESIGN TEAM.
10. ANY AIR CONDITIONING REQUIREMENTS. (HVAC - HEATING, VENTILATION, AIR CONDITIONING AND HUMIDIFICATION)
11. ALL ANCILLARY AND ACCESSORY ITEMS.
12. RADIATION PROTECTION REQUIREMENTS: THESE MUST BE SPECIFIED BY A QUALIFIED RADIATION PHYSICIST.
13. SHIELDING TESTING (LEAD OR EQUIVALENT): AFTER X-RAY EQUIPMENT HAS BEEN INSTALLED AND PLACED IN OPERATING CONDITION, THE SHIELDING SHALL BE TESTED, AT THE OWNER'S EXPENSE, BY A CERTIFIED HEALTH PHYSICIST.
14. THE DECISION OF ACCEPTABILITY BY A HEALTH PHYSICIST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THEREFORE, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OR REPLACEMENT OF ALL DEFECTIVE WORK (INCLUDING WORK SUBSEQUENTLY AFFECTED) AND ADDITIONAL TESTS REQUIRED TO MEET THE SATISFACTION OF THE HEALTH PHYSICIST.
15. PRE INSPECTION RESPONSIBILITY:
  - A. CONTRACTORS ARE RESPONSIBLE FOR INSPECTIONS ABOVE FINISHED CEILINGS AND BELOW CONCRETE FLOORS. RESPECTIVE CONTRACTORS SHALL BE RESPONSIBLE FOR SUPPLYING TENTING APPARATUS AND EQUIPMENT, IF APPLICABLE, AND RETROACTIVE CLEAN-UP.
  - B. G.C. AND E.C. MUST VERIFY LOCATION OF SUPPORT BEAMS AND JOISTS TO ENSURE THAT ALL FLOOR PENETRATIONS, BOTH ANCHORAGE AND ELECTRICAL, CAN BE LOCATED WHERE REQUIRED. GAMMA TECH RECOMMENDS SONAR IMAGING THE FLOOR TO DETERMINE PRESENCE OF OBSTRUCTIONS IN AREAS AROUND PENETRATIONS.
  - C. RESPECTIVE CONTRACTORS SHALL NOTIFY EQUIPMENT INSTALLERS IF THROUGH BOLT OR ELECTRICAL PENETRATIONS CAN NOT BE ACCOMPLISHED.
  - D. IF THROUGH BOLT ANCHORAGE CAN NOT BE ACCOMPLISHED, GC SHALL CONSULT WITH EQUIPMENT INSTALLERS REGARDING ALTERNATIVE ANCHORING METHODS.
16. LIABILITY: THE EQUIPMENT REPRESENTATIVES OR THEIR PLANNER ASSUME NO RESPONSIBILITY FOR ANY CONSTRUCTION COSTS, WHETHER OR NOT RELATED TO THE INSTALLATION OF X-RAY EQUIPMENT OR SITE PLANNING DOCUMENTS. NO WORK MAY BE PERFORMED OR MATERIALS FURNISHED AT THEIR EXPENSE UNLESS AUTHORIZED BY A SIGNED, FORMAL PURCHASE ORDER. ADDITIONALLY, A SITE INSPECTION SHALL BE CONDUCTED BY THE EQUIPMENT REPRESENTATIVES TO CONFIRM THE SITE'S READINESS PRIOR TO X-RAY EQUIPMENT DELIVERY. THIS INSPECTION SHALL BE PERFORMED WHEN NOTIFIED OF THE CONSTRUCTION'S COMPLETION.

## GENERAL NOTES

AT THEIR EXPENSE, THE CUSTOMER AND/OR THE CONTRACTOR WILL BE EXPECTED TO PROVIDE THE FOLLOWING (IF REQUIRED) PRIOR TO X-RAY EQUIPMENT DELIVERY AND INSTALLATION:

1. ANY ROOM REMODELING AND CONSTRUCTION - FLOOR CEILING AND WALLS MUST BE FINISHED BEFORE EQUIPMENT INSTALLATION CAN BEGIN.
2. INSTALLATION OF PROPER SPECIFIED POWER.
3. INSTALLATION OF LOAD CENTERS, BRANCH PANELS, CIRCUIT BREAKERS, JUNCTION BOXES, CONDUIT AND CABLE TRAYS AS SPECIFIED.
4. INTERCONNECTING WIRE AND CABLE AS SPECIFIED.
5. INSTALLATION OF WALL AND CEILING SUPPORT AND SUSPENSION FRAME WORK AS SPECIFIED.
6. FOR THE MOST PART CONVENIENCE OUTLETS ARE TO BE SPECIFIED BY OTHERS. OUTLETS REQUIRED BY EQUIPMENT WILL BE SPECIFIED. FOR EASE IN EQUIPMENT SERVICE, A MINIMUM NUMBER OF OUTLETS WILL BE DEPICTED.
7. ANY CEILING MOUNTED LIGHT FIXTURES, DIFFUSERS, VENTS, SMOKE/FIRE DETECTORS, SPRINKLER HEADS, HALON NOZZLES, ETC. SHALL NOT EXTEND MORE THAN 1/2" BELOW THE FINISHED CEILING.
8. ANY PLUMBING REQUIREMENTS.
9. INSTALLATION OF OPTIONAL WARNING LIGHT AND/OR DOOR INTERLOCK SWITCH AT ENTRANCE DOORS OF X-RAY ROOM TO BE COORDINATED WITH FACILITY, EQUIPMENT INSTALLERS, AND DESIGN TEAM.
10. ANY AIR CONDITIONING REQUIREMENTS. (HVAC - HEATING, VENTILATION, AIR CONDITIONING AND HUMIDIFICATION)
11. ALL ANCILLARY AND ACCESSORY ITEMS.
12. RADIATION PROTECTION REQUIREMENTS: MUST BE SPECIFIED BY A QUALIFIED RADIATION PHYSICIST AT THE CUSTOMERS EXPENSE.  
(REFERRAL) USA - Jason Tavel, PhD Medical Physicist, Astarita Associates, (631) 265-2950.  
(REFERRAL) USA/CANADA - David Jordan, PhD Medical Physicist, JF Medical Physics Inc. (216) 904-0091.
13. SHIELDING TESTING (LEAD OR EQUIVALENT): AFTER X-RAY EQUIPMENT HAS BEEN INSTALLED AND PLACED IN OPERATING CONDITION, THE SHIELDING SHALL BE TESTED, AT THE OWNER'S EXPENSE, BY A CERTIFIED HEALTH PHYSICIST.
14. THE DECISION OF ACCEPTABILITY BY A HEALTH PHYSICIST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THEREFORE, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OR REPLACEMENT OF ALL DEFECTIVE WORK (INCLUDING WORK SUBSEQUENTLY AFFECTED) AND ADDITIONAL TESTS REQUIRED TO MEET THE SATISFACTION OF THE HEALTH PHYSICIST.
15. LIABILITY: THE EQUIPMENT REPRESENTATIVES OR THEIR PLANNER ASSUME NO RESPONSIBILITY FOR ANY CONSTRUCTION COSTS, WHETHER OR NOT RELATED TO THE INSTALLATION OF X-RAY EQUIPMENT OR SITE PLANNING DOCUMENTS. NO WORK MAY BE PERFORMED OR MATERIALS FURNISHED AT THEIR EXPENSE UNLESS AUTHORIZED BY A SIGNED, FORMAL PURCHASE ORDER. ADDITIONALLY, A SITE INSPECTION SHALL BE CONDUCTED BY THE EQUIPMENT REPRESENTATIVES TO CONFIRM THE SITE'S READINESS PRIOR TO X-RAY EQUIPMENT DELIVERY. THIS INSPECTION SHALL BE PERFORMED WHEN NOTIFIED OF THE CONSTRUCTION'S COMPLETION.

## A.D.A. COMPLIANCE NOTE

ANY ITEMS DISCOVERED IN THE FIELD DURING CONSTRUCTION THAT DO NOT COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (A.D.A.) AND STATE ACCESSIBILITY CODE AND ALL I.B.C. REQUIREMENTS, THOSE ITEMS SHALL BE MODIFIED TO COMPLY OR REMOVED ENTIRELY. IT IS ULTIMATELY THE OWNERS RESPONSIBILITY FOR COMPLIANCE WITH THE A.D.A CIVIL RIGHTS LAW AND PROVIDE ACCESSIBILITY TO PERSONS WITH DISABILITIES. ALL AREAS OUTSIDE OF THE BUILDING WHICH MAY NEED COMPLIANCE WITH THIS SECTION OF THE CODE SHALL BE THE RESPONSIBILITY OF THE LANDLORD.

## SUPPORT NOTES

( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

THE DIAGNOSTIC IMAGING EQUIPMENT REPRESENTATIVE OR THEIR DESIGNER IS IN NO WAY RESPONSIBLE FOR ANY EXISTING OR DESIGNED SUPPORT STRUCTURE FOR ANY OVERHEAD CEILING MOUNTED EQUIPMENT / DEVICES OR WALL MOUNTED EQUIPMENT / DEVICES OR FLOOR MOUNTED EQUIPMENT / DEVICES. THIS IS THE RESPONSIBILITY OF THE CONSTRUCTION PARTICIPANTS.

1. THE GENERAL CONTRACTOR AND/OR THE ELECTRICAL CONTRACTOR IN CONJUNCTION WITH THE PROJECT STRUCTURAL ENGINEER ARE RESPONSIBLE FOR THE INTEGRITY OF THE CONCRETE FLOOR. THIS IS ESPECIALLY PARAMOUNT IN THE AREAS OF FLOOR PENETRATION. CONSIDER ELECTRICAL DEVICE FLOOR PENETRATIONS AND FLUSH FLOOR TRENCH LOCATIONS, AS WELL AS ANCHORAGE FLOOR PENETRATIONS.
2. POTENTIAL FOR FLOOR ANCHOR DAMAGE: FLOOR ANCHORS MUST BE A MINIMUM OF 150 MM (6") FROM ANY CONCRETE EDGE INCLUDING WALLS, DUCTS AND CRACKS. IN ADDITION, THE GENERAL CONDITION OF THE CONCRETE IN THE IMMEDIATE MOUNTING AREA SHOULD BE INSPECTED TO ENSURE THAT ANCHORS WILL BE SET IN GOOD QUALITY CONCRETE. 2500 PSI CONCRETE RECOMMENDED.
3. THE FLOOR BEARING THE RAD ROOM MUST BE CONCRETE AND THE THICKNESS TO BE DETERMINED BY A STRUCTURAL ENGINEER TO PROPERLY SUPPORT THE EQUIPMENT LOADS. THE ANCHORS REQUIRE A MINIMUM OF 57.2 MM (2 1/4") EMBEDMENT INTO THE CONCRETE. IF THE FLOOR THICKNESS IS LESS THAN 101.6 MM (4"), IT IS RECOMMENDED THAT THE UNITS BE SECURED USING A THRU-BOLT METHOD WITH A 3" x 3" x 3/8" REINFORCEMENT PLATE BENEATH THE CONCRETE FLOOR.
4. ANCHORING HARDWARE SHOULD BE SPECIFIED BY THE PROJECT STRUCTURAL ENGINEER AND SUPPLIED BY THE GENERAL CONTRACTOR. FOR SEISMIC AREAS ALL COMPONENTS MUST BE ANCHORED. COMPLY WITH PREVAILING CODE INCLUDING LOCAL STANDARDS..

## SUSPENDED SUPPORT NOTES:

1. ALL UNITS THAT ARE WALL MOUNTED OR CEILING SUSPENDED ARE TO BE PROVIDED WITH SUPPORTS STRUCTURES WHERE NECESSARY.
2. ALL SUPPORTS STRUCTURES ARE TO BE PROVIDED BY THE FACILITY OR THEIR CONTRACTOR.
3. WALL SUPPORTS ARE TO BE HIDDEN WITHIN WALLS WHENEVER POSSIBLE.
4. WALL SUPPORTS MAY NOT BE REQUIRED IF WALL MATERIAL IS ADEQUATE FOR THE LOADS GIVEN (i.e.,BLOCK). CONSULTATION WITH A STRUCTURAL ENGINEER IS STRONGLY RECOMMENDED.
5. ALL SURFACE MOUNTED SUPPORTS ARE TO BE PAINTED THE SAME COLOR AS THE ADJACENT SURFACE OR CONSULT WITH FACILITY REGARDING ACCENT COLORS.

## SUPPLEMENTAL NOTES

ALL ITEMS LISTED BELOW ARE TO BE PROVIDED/DESIGNED BY THE ARCHITECT. THE ARCHITECT SHALL CONSULT WITH THE CUSTOMER FOR ANY ADDITIONAL INFORMATION.

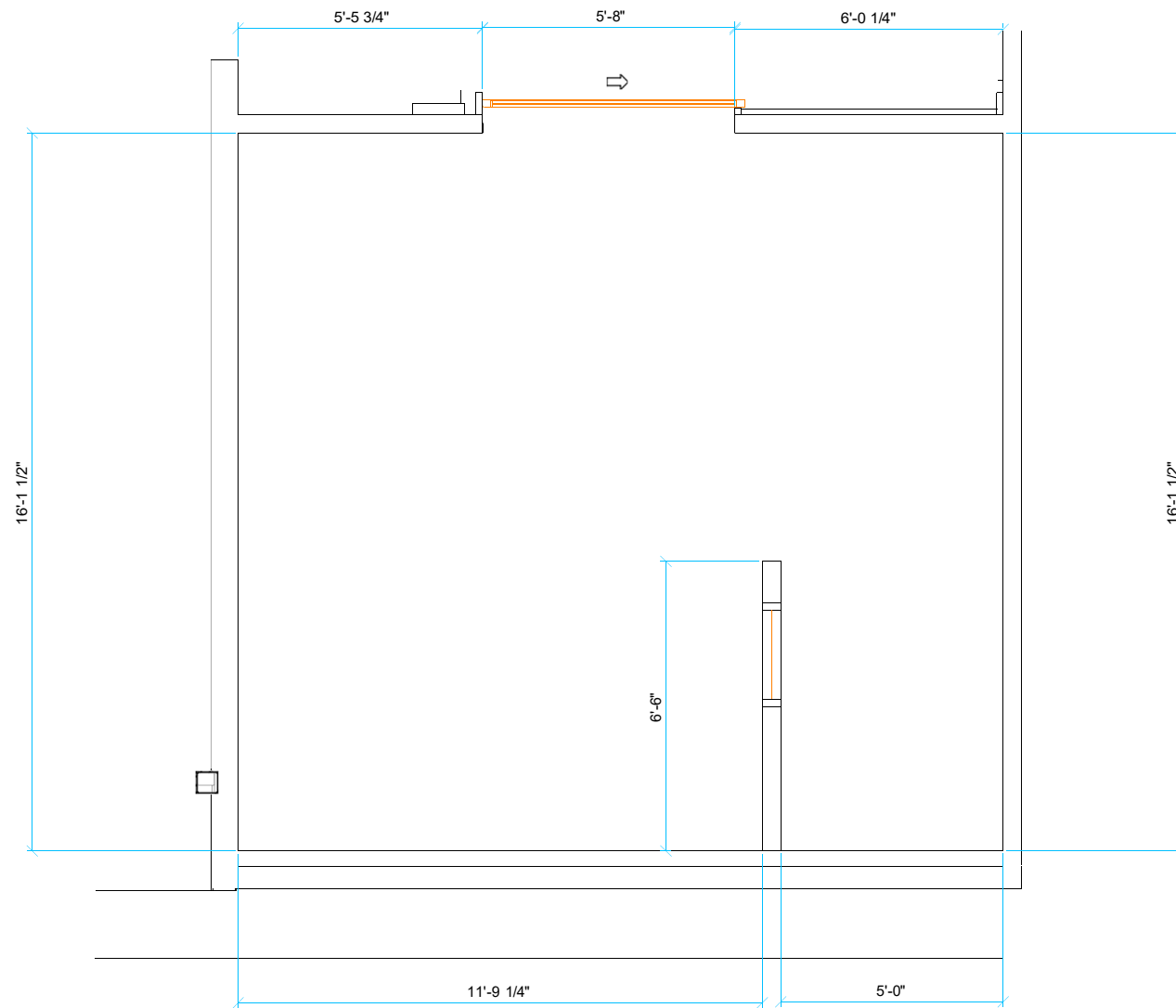
1. ALL DIAGNOSTIC ROOMS INCLUDING X-RAY, MAMMO, R/F ETC... SHALL HAVE CANNED LIGHT FIXTURES AS WELL AS LARGE LED FIXTURES. THE CANNED FIXTURES ARE TO BE DISTRIBUTED AROUND THE ROOM. CANNED FIXTURES SHOULD BE PROVIDED WITH DIMMER CONTROLS. THE DIMMER CONTROLS SHOULD BE LOCATED NEAR THE ROOM ENTRANCES AND IN THE CONTROL AREAS.
2. IT IS RECOMMENDED THAT ALL DIAGNOSTIC ROOMS SHOULD HAVE TILE OR VINYL FLOORING.
3. THE FLOOR IN THE X-RAY AND DARKROOM MUST BE ESSENTIALLY LEVEL. TOLERANCE IS 1/8" OVER A 10'-0" SPAN.
4. TYPICALLY THE MINIMUM RECOMMENDED FINISHED CEILING HEIGHT IS 9'-0" A.F.F. UNLESS STATED OTHERWISE IN THIS DRAWING SET.

FACILITY:  
Collin County Texas  
Medical Examiner's Office

DRAWN BY:  
C. BRANNON  
DATE:  
11.21.2025  
FILE NAME:  
CCT251121s

SCALE:  
None  
SHEET:

A-2



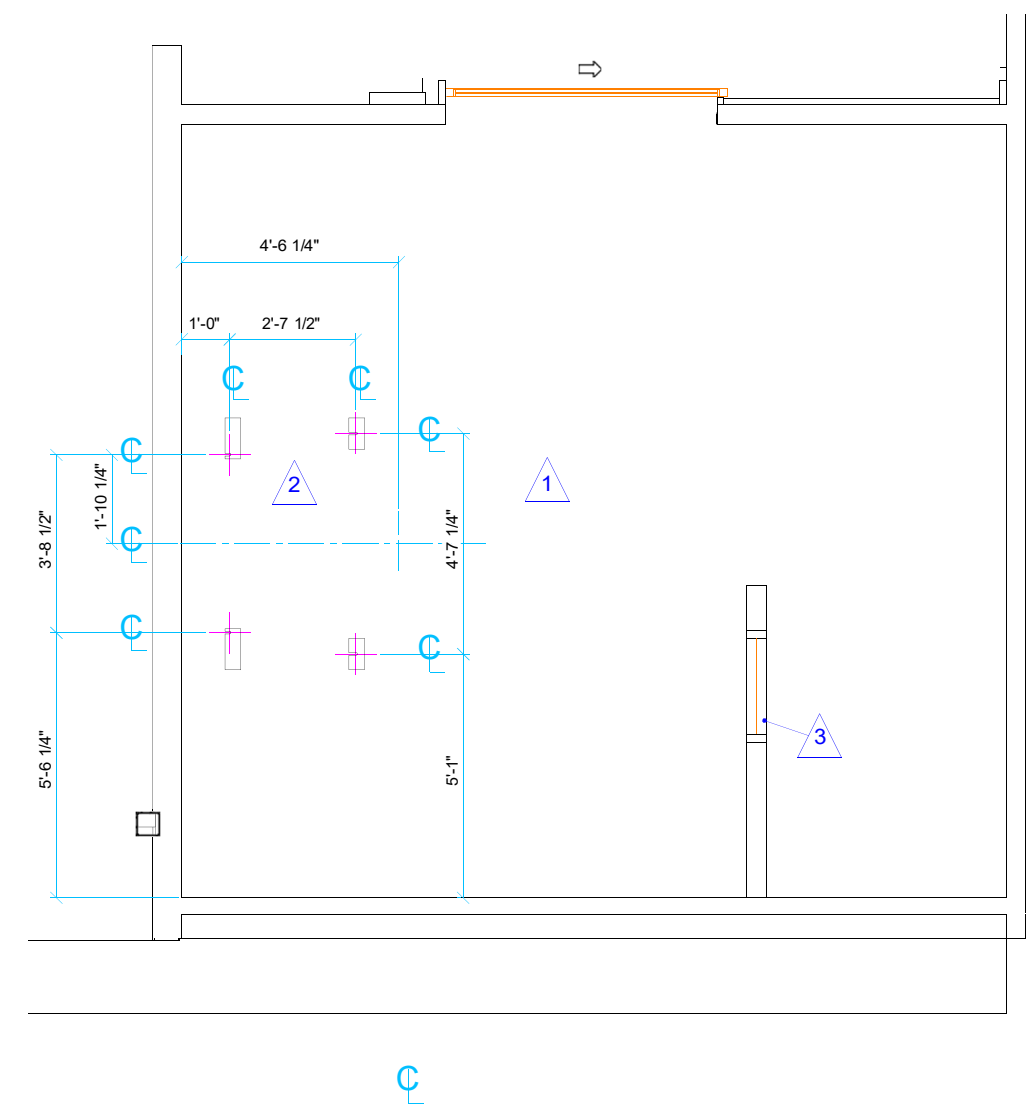
**AREA MADE AVAILABLE**  
 (EXISTING FINISHED CEILING HEIGHT: 9'-0")  
 (ROOM DIMENSIONS SHALL BE FIELD VERIFIED)

FACILITY:  <b>Collin County Texas          Medical Examiner's Office</b>	DRAWN BY: C. BRANNON	SCALE: 1/4" = 1'-0"
	DATE: 11.21.2025	SHEET: <b>A-3</b>
	FILE NAME: CCT251121s	

### CONSTRUCTION NOTES

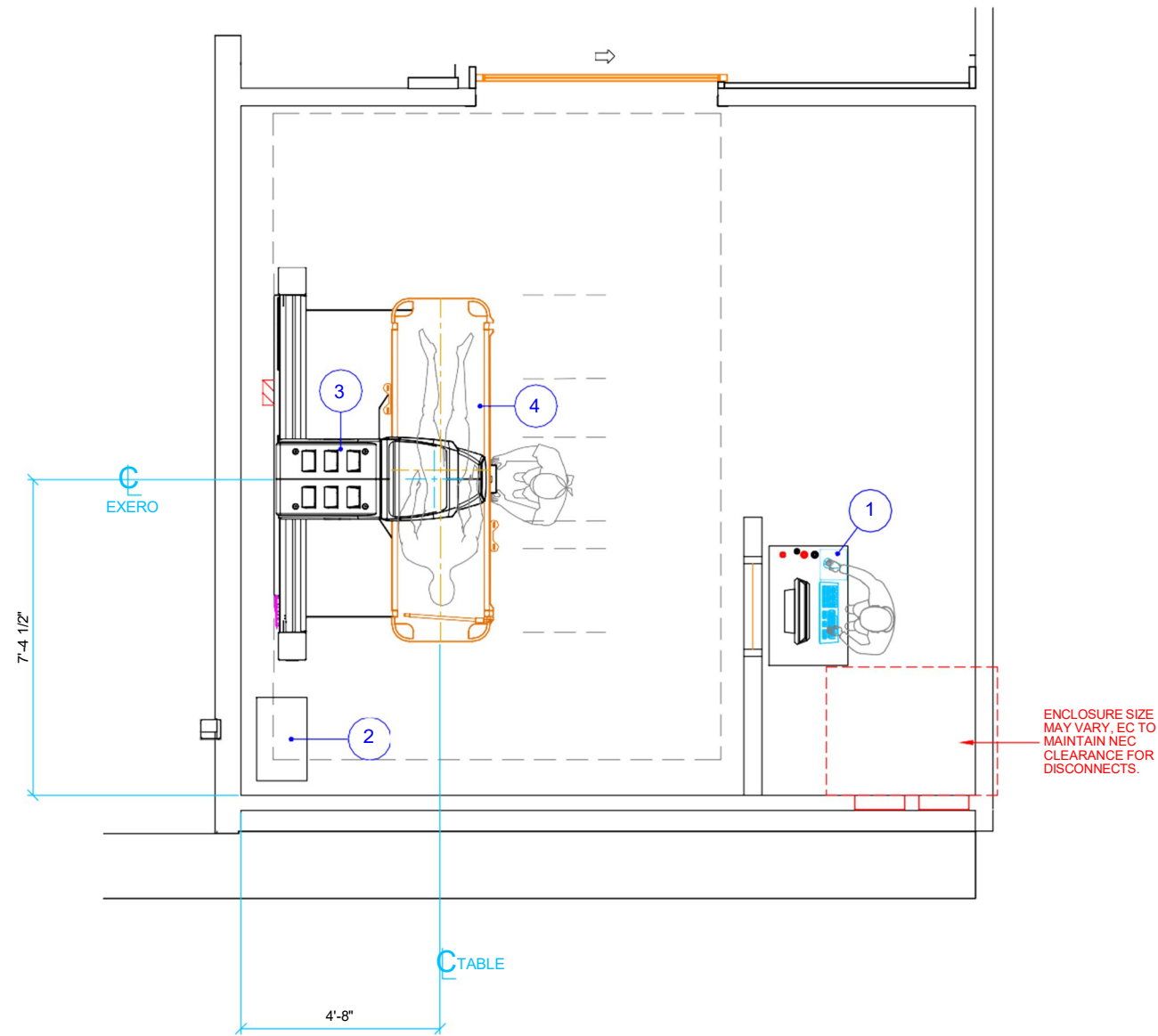
(CONTRACTOR FURNISHED - CONTRACTOR INSTALLED)

- 1 THE FLOOR IN THE PROCEDURE ROOM MUST BE LEVEL TO WITHIN  $\pm 1/8"$  OVER A 10'-0" SPAN.
- 2 CONTRACTOR IS RESPONSIBLE FOR FLOOR INTEGRITY AND LODOX EQUIPMENT ANCHORING. CONTRACTOR SHALL DRILL ALL EXERO-DR DEVICES ANCHORING HOLES. CONTRACTOR SHALL VERIFY LOCATION OF SUPPORT BEAMS AND JOISTS TO ENSURE NON INTERFERENCE WITH ANCHORS. IF ANCHOR HOLES ARE DIRECTLY ABOVE NON REMOVABLE OBSTRUCTION, CONTRACTOR SHALL NOTIFY LODOX EQUIPMENT INSTALLERS TO DISCUSS ALTERNATIVES.
- 3 CONSTRUCT CONTROL BOOTH PARTITION FROM FLOOR TO CEILING WHERE SHOWN. PROVIDE ONE LEADED WINDOW. LOCATE WINDOW CENTER LINE 5'-0" A.F.F. CONSULT WITH A CERTIFIED RADIOLOGICAL PHYSICIST REGARDING SHIELDING REQUIREMENTS. CONSULT CUSTOMER FOR WINDOW SIZE AND EXACT LOCATION. WORKING DRAWINGS BY ARCHITECT.



**PROPOSED ROOM AND SUPPORT LAYOUT**  
(DASHED LINES DEPICT NEC AND DOOR CLEARANCES)

FACILITY:		DRAWN BY:	SCALE:
Collin County Texas		C. BRANNON	1/4" = 1'-0"
Medical Examiner's Office		DATE:	SHEET:
		11.21.2025	A-4
		FILE NAME:	
		CCT251121s	



**PROPOSED EQUIPMENT LAYOUT**

(LODOX EQUIPMENT IDENTIFICATION)  
 (DASHED LINES DEPICT REQUIRED CLEARANCES AND EQUIPMENT TRAVEL)  
 (THE MINIMUM RECOMMENDED FINISHED CEILING HEIGHT IS 9'-0" A.F.F.)  
 (ROOM DIMENSIONS ARE FROM FINISHED SURFACES)

**EQUIPMENT SCHEDULE**

NOTES	EQUIPMENT IDENTIFICATION NUMBER					
		BTU / HOUR	WEIGHT (LBS.)			
			DESCRIPTION	DIMENSIONS (IN.) W x D x H		
1	132	LODOX DIGITAL X-RAY GENERATOR CONTROL STATION PC (ON PEDESTAL)	33.46	22.13	55.12	88
2	1707	LODOX DIGITAL X-RAY GENERATOR COMPACT RACK CABINET	23.38	14.17	26.61	209
3	2668	LODOX DIGITAL X-RAY EXERO-DR FULL BODY SCANNER	110.39	62.44	89.41	3306
4	N/A	LODOX MOBILE TROLLEY	29.13	86.61	31.89	177

**ENVIRONMENTAL DATA**

TEMPERATURE \_\_\_\_\_ +50° TO -79° FAHRENHEIT  
 THE LODOX<sup>®</sup> XMPLAR-DR SHOULD IDEALLY BE PLACED IN A POSITION WHERE  
 LARGE FLUCTUATIONS IN TEMPERATURE ARE AVOIDED (I.E., IF POSSIBLE, NOT  
 TOO CLOSE TO AN OUTSIDE DOOR, OPEN WINDOW, ETC.).

HUMIDITY \_\_\_\_\_ 40% TO 75% NON-CONDENSING

ATMOSPHERIC PRESSURE \_\_\_\_\_ 700 hPa MINIMUM - 1060 hPa MAXIMUM

AMBIENT CONDITIONS: \_\_\_\_\_ DUST FREE NON-CORROSIVE ATMOSPHERE

ESTIMATED HEAT LOAD: \_\_\_\_\_ 10,000 BTU/HR  
 RECOMMENDED COOLING CAPACITY: 10 TON AIR COOLING UNIT

MINIMUM DOOR WIDTH: 36"  
 MINIMUM DOOR HEIGHT: 80"  
 MINIMUM ELEVATOR DEPTH: 55"

CEILING HEIGHT \_\_\_\_\_ MINIMUM: 8'-6" / RECOMMENDED: 9'-0" A.F.F.

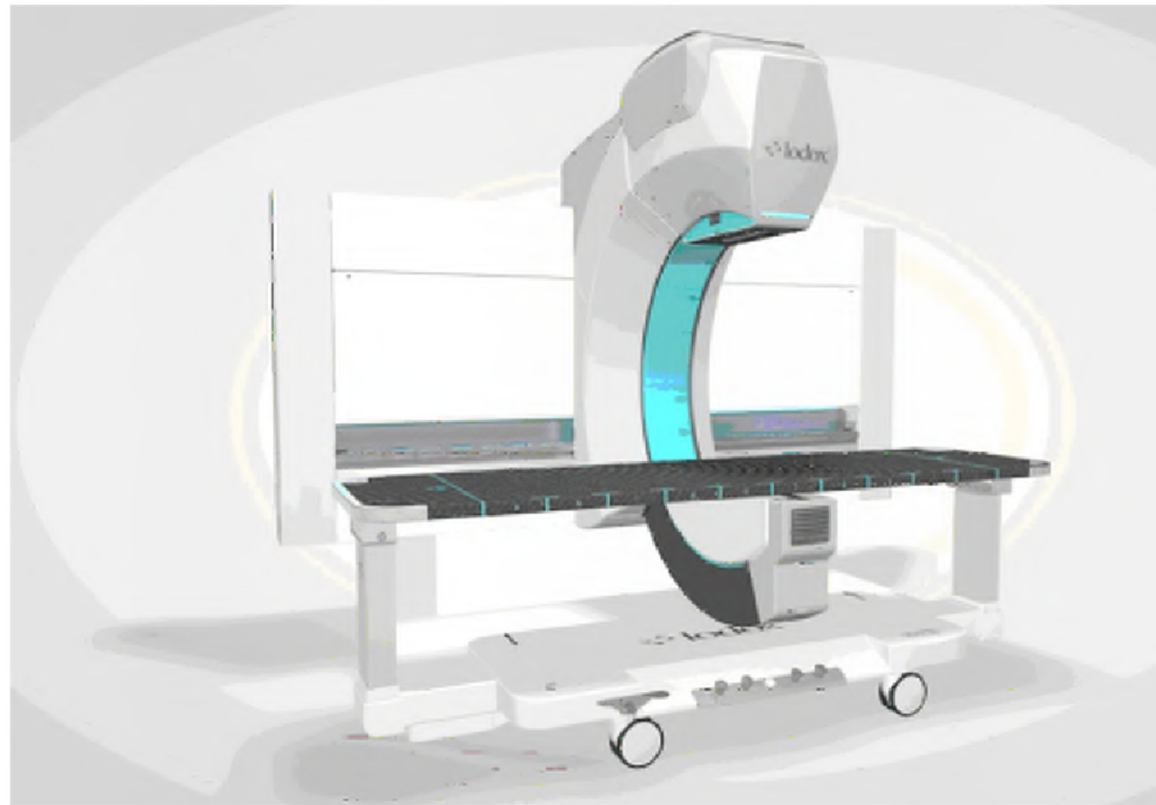
FINISHED FLOOR \_\_\_\_\_ MUST BE LEVEL TO WITHIN ±1/8" OVER A  
 10'-0" SPAN.

FACILITY:  
**Collin County Texas  
 Medical Examiner's Office**

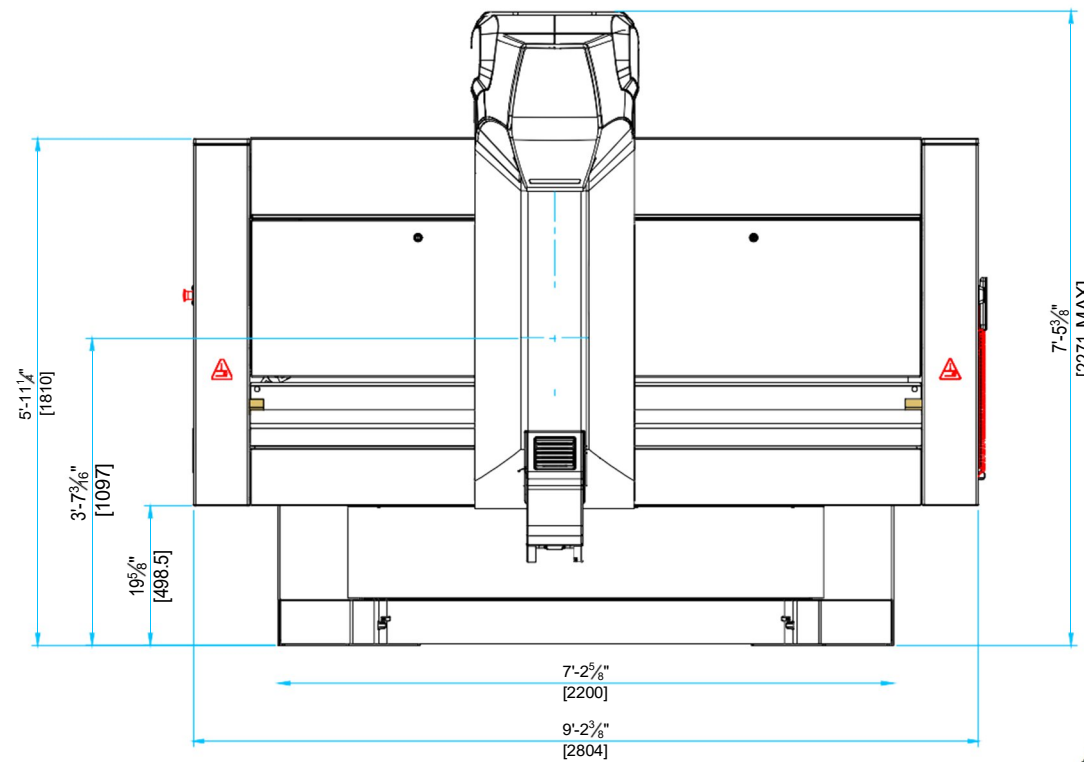
DRAWN BY:  
 C. BRANNON  
 DATE:  
 11.21.2025  
 FILE NAME:  
 CCT251121s

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

**B-1**



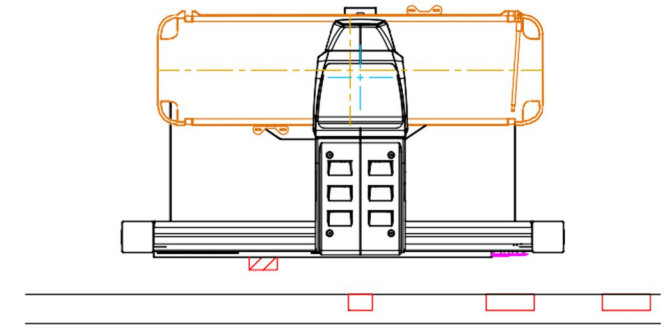
AP Position (0°)



Physical Dimensions of Lodox eXero-dr

Weight: 3306 lbs.  
 Dimensions: 110.63"w x 62.44"d x 88.60"h  
 89.6d Travel (across table lateral)

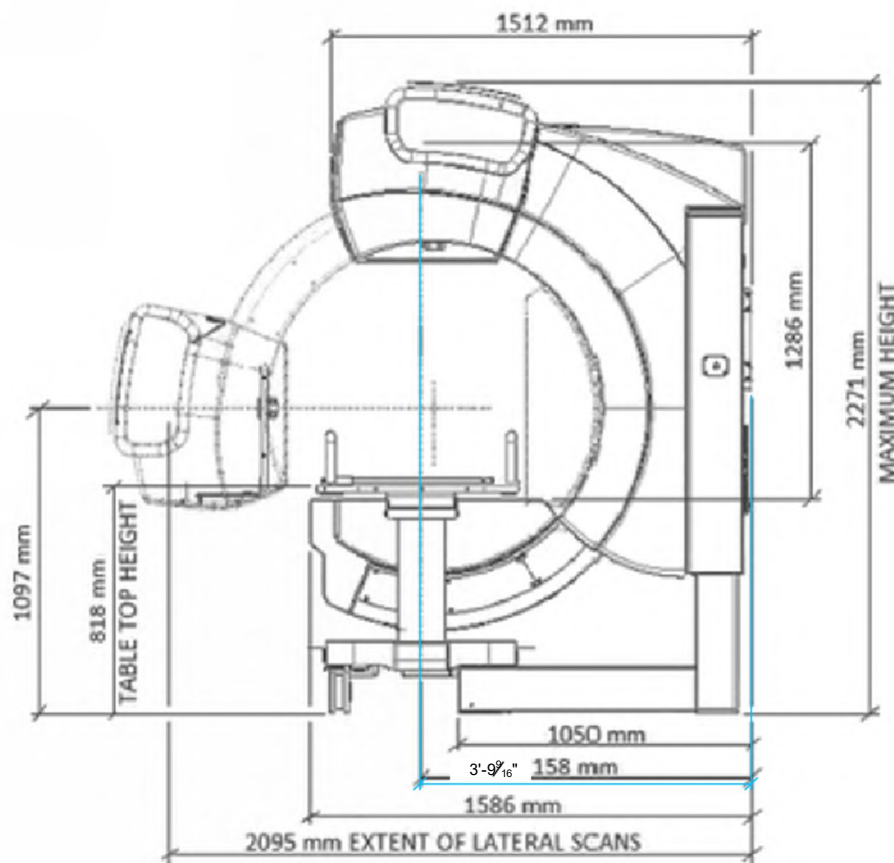
Iso-Center: 43.19"h  
 Minimum Room Height: 96.5"  
 Minimum Room-Size: 112" x 91.4" x 96.5" h



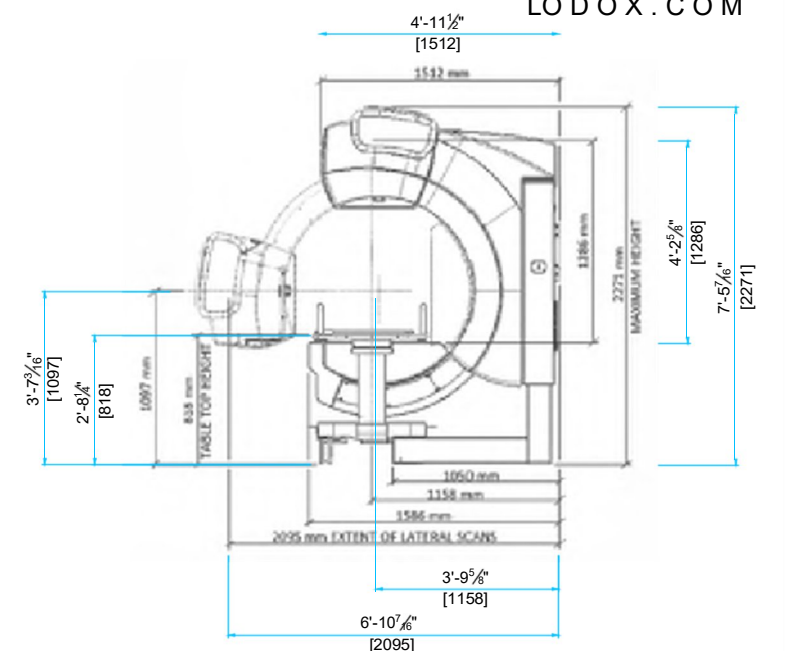
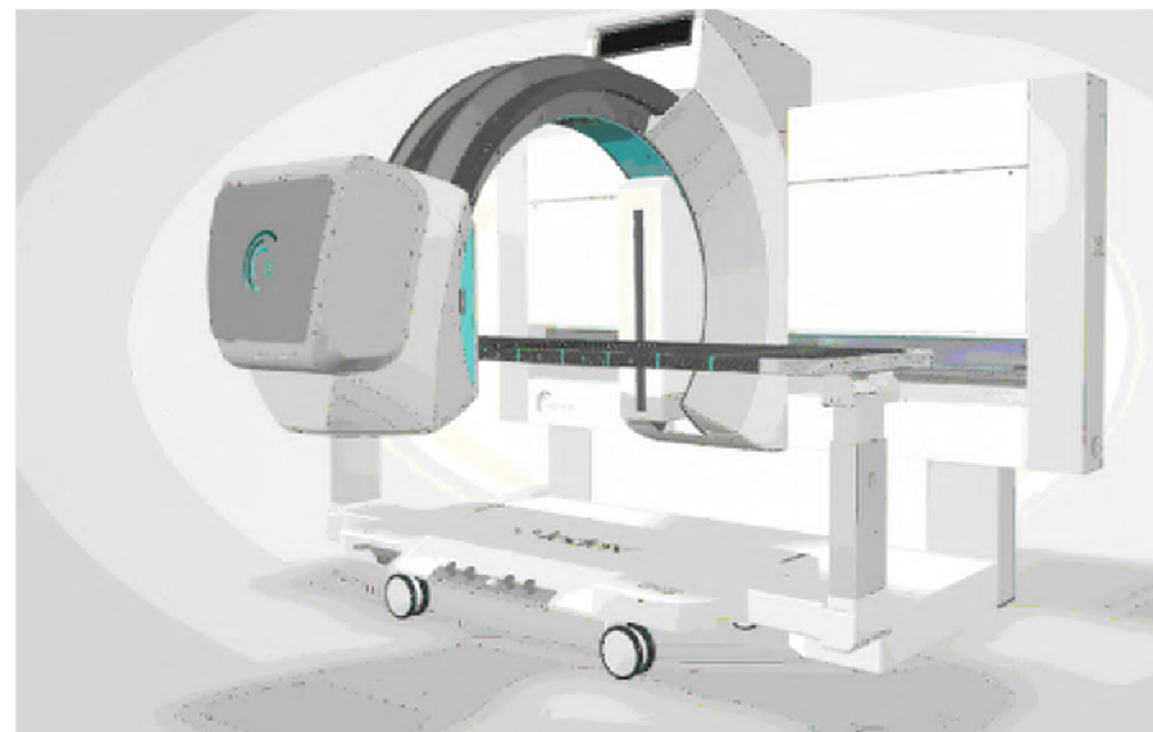
SCALE: 1/4" = 1'-0"



LODOX.COM



AP Position (90°)



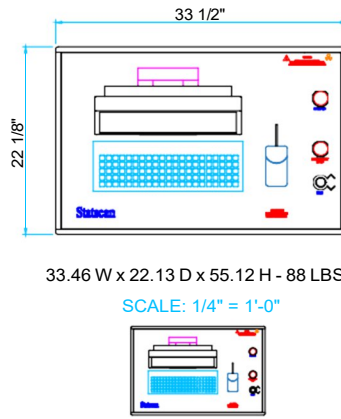
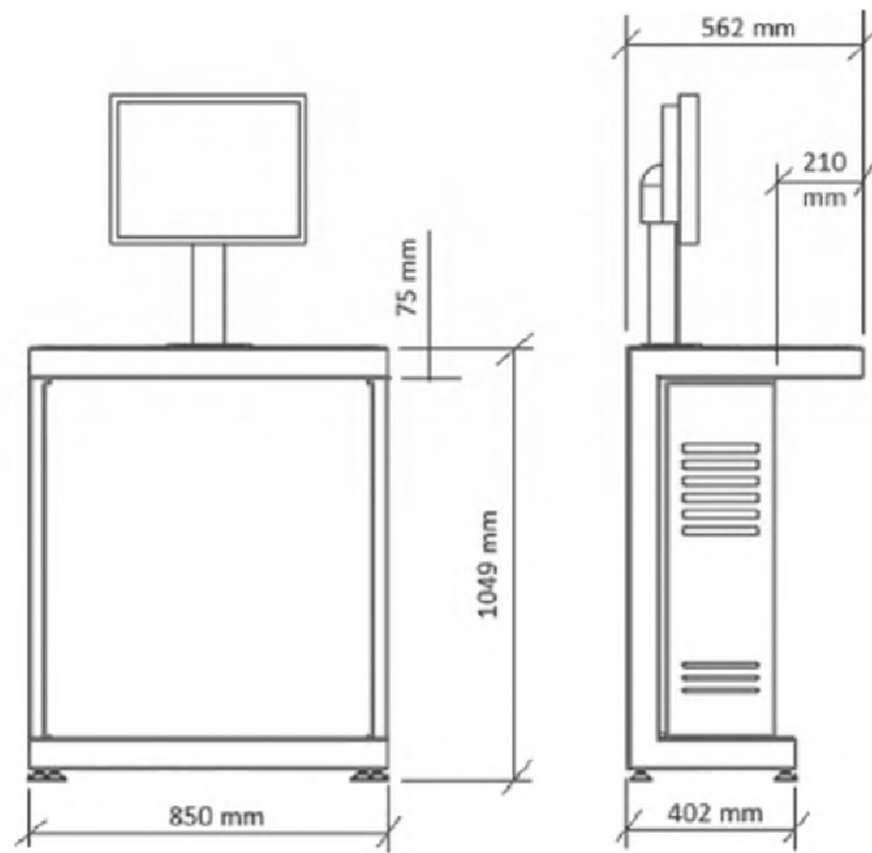
SCALE: 1/4" = 1'-0"

DRAWN BY:  
 C. BRANNON  
 DATE:  
 11.21.2025  
 FILE NAME:  
 CCT251121s

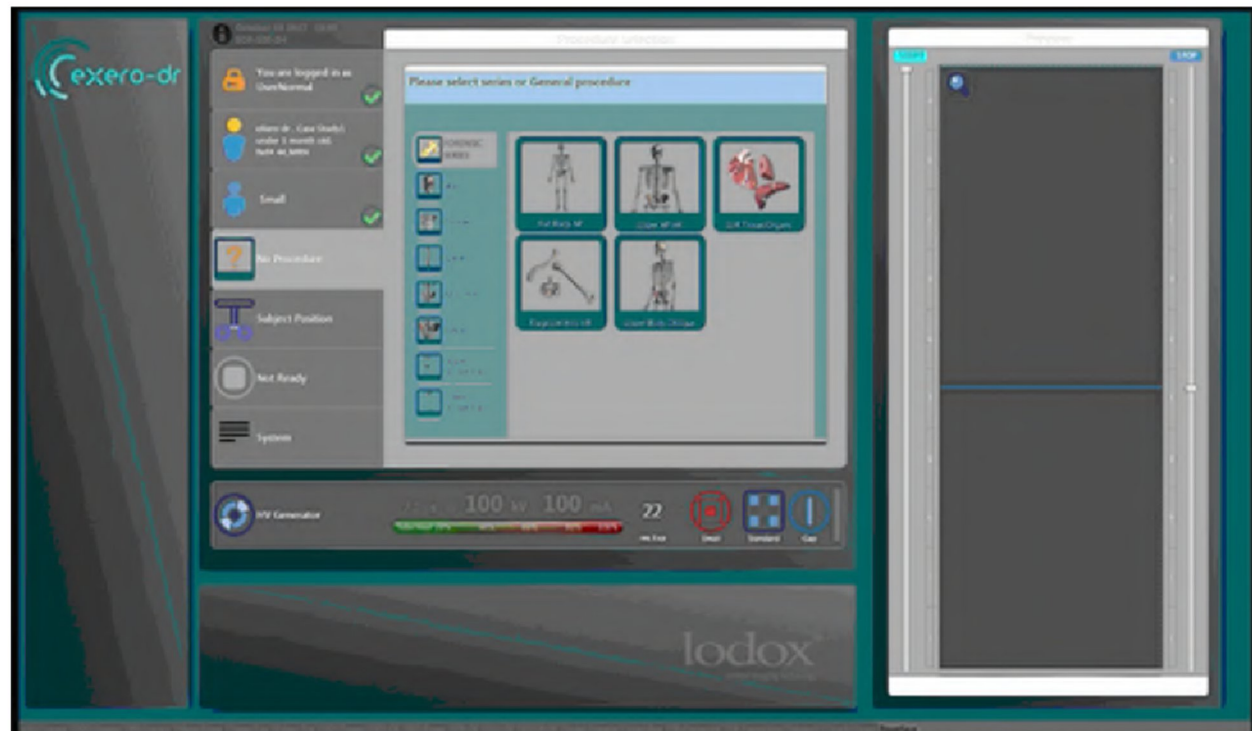
SCALE:  
 None  
 SHEET:

D-1

# X-RAY GENERATOR CONTROL STATION



NOT TO SCALE



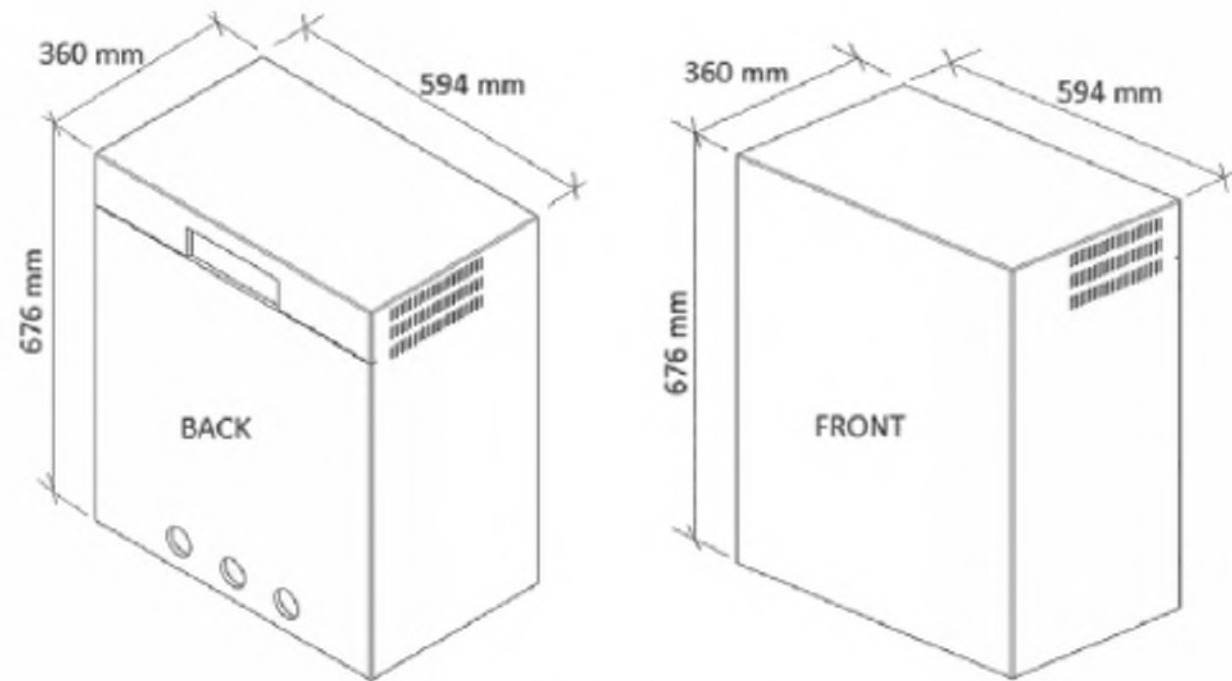
Lodox eXero-dr Operating Console and User Interface

DRAWN BY:  
C. BRANNON  
DATE:  
11.21.2025  
FILE NAME:  
CCT251121s

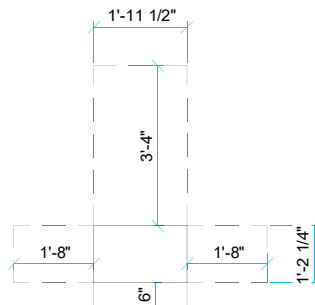
SCALE:  
Noted  
SHEET:

D-2

STANDARD CABINET:  
23.38 W x 14.17 D x 26.61 H / 209 LBS.



## High Voltage Generator



X-RAY GENERATOR CABINET  
SERVICE CLEARANCES

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

## STANDARD X-RAY GENERATOR RACK CABINET

NOT TO SCALE

### Power Requirements

Arm Scanning and Positioning System:  
Lodox® Xmplar-DR ASP: 1-Phase/N/PE  
208-240Vac±5%, 25amp, 60Hz±1Hz  
Permanent hard-wired connection.

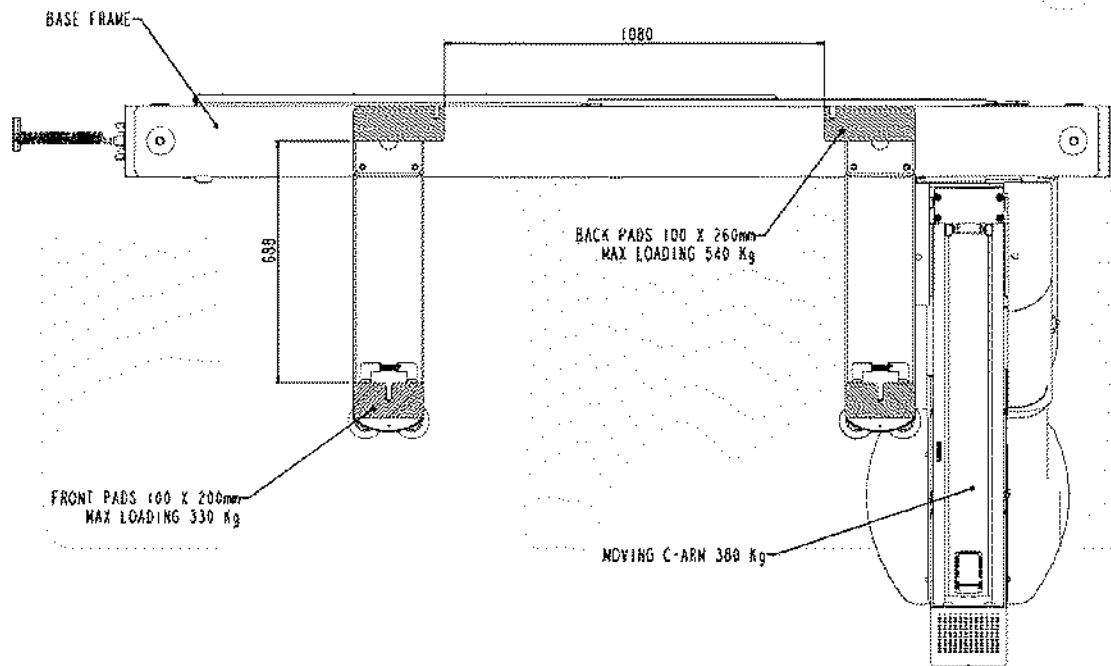
Operator's Console and Diagnostic Viewing Station:  
Lodox® Xmplar-DR DVS: 1-Phase/N/PE  
120Vac±5%, 20A, 60Hz±1Hz  
Individual 15amp plugs connected to one NEMA 5-20R  
duplex receptacle.

Lodox® Xmplar-DR Gurney: 1-Phase/N/PE  
120Vac±5%, 15amp, 60Hz±1Hz

High Voltage Generator  
Lodox® Xmplar-DR HVG:  
480Vac±5%, 3-Phase, 60Hz±1Hz.

HVG maximum power:	64kW
Minimum KVA required	80kVA
RMS line current during exposure	96A
Three phase circuit breaker rating	50A
Maximum power line impedance	0.065Ω
HVG standby consumption	500W / 1707 BTU

If it is required that the entire Lodox® Xmplar-DR be operational during a power failure, then provision should be made for the full three phase to be available from a backUp system (UPS or Hospital Generators). In addition a UPS should be provided for the Lodox® Xmplar-DR Operators Console and Diagnostic Viewing Station.



The maximum mass of a Lodox® eXero-dr Scanner is 1150 kg.  
This is made up of:  
the Scanner Frame assembly (static portion) being 770 kg and  
the mass of the Moving Assembly being 380 kg.

There are four different scenarios that the machine can result in loads on the pads  
(depending on the relative position of the moving support housing and rotation of the Arm).  
The worst case loading on each pad is being shown on the sketch to the left:

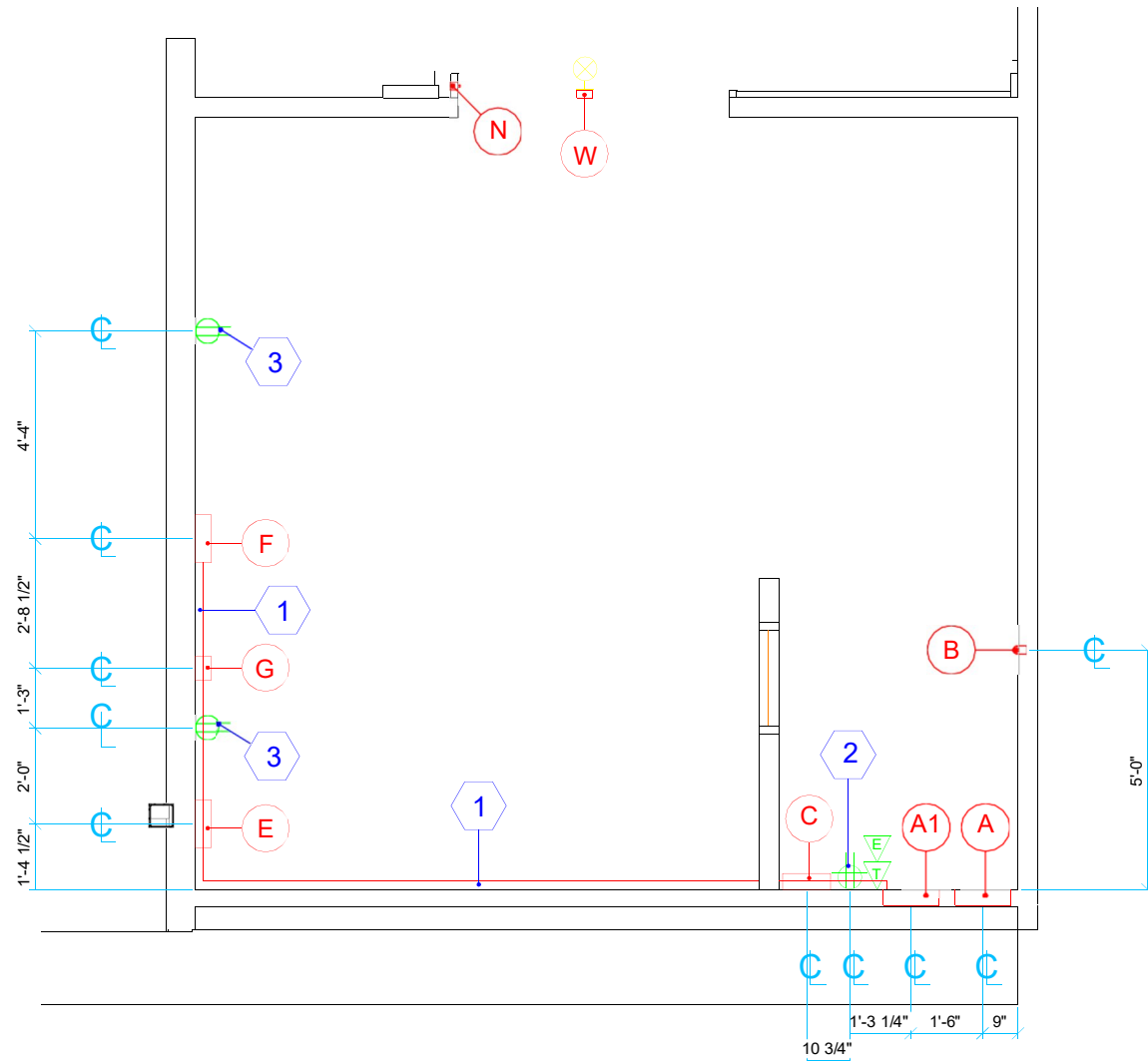
NOT TO SCALE

FLOOR LOADING DIAGRAM

DRAWN BY:  
C. BRANNON  
DATE:  
11.21.2025  
FILE NAME:  
CCT251121s

SCALE:  
Noted  
SHEET

D-3



ELECTRICAL LAYOUT PLAN

THE MAIN CIRCUIT BREAKER PANEL (A) SHOULD BE LOCATED AS CLOSE TO THE X-RAY GENERATOR (ITEM #2) AS POSSIBLE. THE LOADCENTER (A1) CAN BE LOCATED INSIDE OR OUTSIDE OF THE PROCEDURE ROOM. THE EMERGENCY OFF SWITCH (B) SHOULD BE LOCATED WITHIN OPERATOR'S REACH. I.E., 12" FROM EITHER SIDE OF OPERATOR WORKSTATION COUNTERTOP.

TERMINAL SCHEDULE

( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

ITEM	DESCRIPTION
	FACILITY TO DETERMINE POWER SOURCE LOCATION. POWER SOURCE SHALL BE 480VAC, 80KVA, DELTA OR WYE PREFERRED.
A	NEMA 1, 480VAC, THREE PHASE, FRONT OPERATED, CIRCUIT BREAKER ENCLOSURE WITH GROUND ACCESSORIES. ENCLOSURE SHALL CONTAIN ONE 80AMP, 3-POLE THERMOMAGNETIC CIRCUIT BREAKER WITH SHUNT TRIP DEVICE. SURFACE MOUNT ON WALL. LOCATE TOP OF ENCLOSURE 6'-0" A.F.F. REUSE EXISTING WHEN PRACTICAL. EC SHALL ENSURE THAT LUGS ARE LARGE ENOUGH TO FACILITATE OVERSIZED INCOMING CABLES REQUIRED BY X-RAY EQUIPMENT. REFER TO "INCOMING WIRE SIZE" NOTES. EXACT LOCATION TO BE DETERMINED BY FACILITY. IF NEW, MAY CONTACT 'GEXPRO' FOR PRICE & PART NUMBERS.
A1	NEMA 1, LOADCENTER WITH NEUTRAL AND GROUND ACCESSORIES. SURFACE MOUNT ON WALL NEAR WHERE SHOWN. SUGGESTED LOCATION DEPICTED. DIMENSIONS ARE NOT CRITICAL. LOCATE TOP OF ENCLOSURE 6'-0" A.F.F. EXACT LOCATION TO BE DETERMINED BY FACILITY. IF NEW, MAY CONTACT 'GEXPRO' FOR PRICE & PART NUMBERS. MAIN CIRCUIT BREAKER SIZE AND TYPE TO BE SPECIFIED BY THE PROJECT ELECTRICAL ENGINEER. LOADCENTER SHALL CONTAIN FRONT OPERATED, THERMAL MAGNETIC, DEDICATED, BRANCH CIRCUIT BREAKERS WITH THE FOLLOWING RATINGS: ONE 20AMP, 2-POLE, CIRCUIT BREAKER. EC SHALL LABEL CB AS "EXERO-DR SCANNER" POWER. ONE 20AMP, 1-POLE, CIRCUIT BREAKER. EC SHALL LABEL CB AND QUADPLEX RECEPTACLE <#2> AS "OC/DVS" PWR. ONE 15AMP, 1-POLE, CIRCUIT BREAKER. EC SHALL LABEL CB AND DUPLEX RECEPTACLE <#3> AS "GURNEY" POWER.
B	4" x 2" x 2" DEEP SWITCH BOX. SURFACE MOUNT ON WALL NEAR WHERE SHOWN. LOCATE BOX CENTER LINE AT 5'-6" A.F.F. SWITCH WILL BE USED FOR SHUNT TRIP OF CIRCUIT BREAKER LOCATED IN PANEL (A). PROVIDE NORMALLY OPEN SWITCH AND "EMERGENCY OFF" NAME PLATE. REFER TO DETAILS ON SHEET E-4, EXACT VOLTAGE, NUMBER AND LOCATIONS TO BE DETERMINED BY FACILITY. 24VAC PREFERRED. INSTALLED AS A CONVENIENCE TO OPERATOR NOT TO COMPLY WITH CODE. MAY CONTACT 'GEXPRO' FOR PRICE AND PART NUMBERS.
C	12" x 12" x 4" DEEP JUNCTION BOX. SURFACE MOUNT ON WALL WHERE SHOWN. LOCATE JUNCTION BOX CENTER LINE 14" A.F.F.
E	12" x 12" x 4" DEEP JUNCTION BOX. SURFACE MOUNT ON WALL WHERE SHOWN. LOCATE JUNCTION BOX CENTER LINE 11" A.F.F. PROVIDES ACCESS TO THE EXERO-DR X-RAY GENERATOR CABINET. PROVIDE TWO 3"Ø BUSHINGS IN REMOVABLE OVERSIZED COVERPLATE. REFER TO COVERPLATE DETAILS.
F	12" x 12" x 4" DEEP JUNCTION BOX. SURFACE MOUNT ON WALL WHERE SHOWN. LOCATE JUNCTION BOX CENTER LINE 11" A.F.F. PROVIDES ACCESS TO THE EXERO-DR FULL BODY SCANNER. PROVIDE TWO 3"Ø BUSHINGS IN REMOVABLE OVERSIZED COVERPLATE. REFER TO COVERPLATE DETAILS.
G	6" x 6" x 4" DEEP JUNCTION BOX. SURFACE MOUNT ON WALL WHERE SHOWN. LOCATE JUNCTION BOX CENTER LINE 20" A.F.F. BOX FOR 240VAC, SINGLE PHASE POWER TO THE EXERO-DR FULL BODY SCANNER. PROVIDE ONE 3/4"Ø SEALTITE CONNECTOR IN REMOVABLE COVERPLATE.
N	OPTIONAL DOOR ACTIVATED SWITCH LOCATED ON HINGE SIDE OF DOOR. (TO BE INSTALLED ONLY IF REQUIRED BY PREVAILING CODE OR IF REQUESTED BY CUSTOMER). CONTACT 'GEXPRO' FOR PRICE AND PART NUMBERS.
W	GAMMA TECH IS NOT RESPONSIBLE FOR ANY ASPECT OF THE ILLUMINATING "X-RAY IN USE" WARNING SIGN. NEITHER ITS EXACT LOCATION, TYPE, WIRING SCHEMATIC, INSTALLATION OR PROCUREMENT. IF YOU BELIEVE IT TO BE HELPFUL, USE THE FOLLOWING INFORMATION AT YOUR ON RISK. USE A 4" x 4" x 2" DEEP JUNCTION BOX FOR THE "X-RAY IN USE" WARNING SIGN. NOT SHOWN! REFER TO SHEET E-5. SURFACE MOUNT ON / FLUSH MOUNT IN WALL OR CEILING ON ENTRY SIDE OF WALL (OPPOSITE SIDE OF PROCEDURE ROOM). REQUIRES HOUSE POWER OBSERVING OSHA 1910.147. MAY USE LOADCENTER (A1) IF PRACTICAL. CONSULT WITH FACILITY REGARDING EXACT STYLE, TYPE AND LOCATION(S). CONTACT 'GEXPRO' FOR PRICE AND PART NUMBERS. THE POWER SOURCE AND THE X-RAY WARNING LAMP ON/OFF CIRCUIT SHALL BE COORDINATED BETWEEN THE FACILITY; THE PROJECT ELECTRICAL ENGINEER; THE CONSTRUCTION PARTICIPANTS; AND THE EQUIPMENT INSTALLERS. (INSTALL ONLY IF REQUIRED BY PREVAILING CODE OR REQUESTED BY CUSTOMER).

ELECTRICAL TAG DESCRIPTIONS

( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

ITEM	DESCRIPTION
1	1-3/4"h x 4-3/4"w WIREMOLD G4000 SERIES RACEWAY, OR EQUIVALENT. ORDER COVER AND DIVIDER. HORIZONTAL SURFACE MOUNTED DUAL SERVICE STEEL, OR EQUIVALENT, RACEWAY. CONNECT TO ALL SURFACE MOUNTED JUNCTION BOXES. PROVIDE GROMMETED HOLE IN SIDES OF JUNCTION BOXES FOR CABLE ACCESS.
2	EC SHALL PROVIDE ONE NEMA 5-20R, 120VAC, 20AMP DEDICATED QUADPLEX RECEPTACLE. FLUSH MOUNT IN WALL. PROVIDES POWER FOR THE OPERATOR CONSOLE AND DIGITAL VIEWING STATION IDENTIFY RECEPTACLE AS 'OC/DVS' POWER.
3	EC SHALL PROVIDE ONE NEMA 5-15R, 120VAC, 15AMP DUPLEX RECEPTACLE. FLUSH MOUNT IN WALL NEAR SHOWN. PROVIDES POWER FOR THE MOBILE GURNEY. CONSULT WITH INSTALLATION MANAGER FOR MORE INFORMATION.
T	PROVIDE A SINGLE TELEPHONE LINE WHERE SHOWN FOR CERTAIN SERVICE AND MAINTENANCE ACTIVITIES TO BE PERFORMED FROM A REMOTE LOCATION. THE RJ11 LINE MUST BE A DEDICATED DIRECT IN DIAL (DID) VOICE-GRADE (TELEPHONE LINE WHICH DOES NOT RUN THROUGH ANY FACILITY PBX, SWITCHBOARD OR A SHARED ACCESS LINE. THE TELEPHONE NUMBER MUST BE PROVIDED TO THE TECHNICIAN WHO INSTALLS THE SYSTEM. DIMENSIONS ARE NOT CRITICAL.
E	PROVIDE FOUR ETHERNET CONNECTIONS PER BOX WHERE SHOWN. EC SHALL CONSULT WITH END USER REGARDING TYPE OF CONNECTOR (e.g., RJ-45/CAT-5, FIBER OPTICS, BNC/COAX, ETC.). REFER TO DICOM NOTES. PROVIDE ALL HARDWARE NECESSARY INCLUDING COVER PLATES, CONNECTORS AND INTERCONNECTING CABLES. NOTE: ETHERNET CONNECTION SHOULD HAVE INTERNET ACCESS WITH VPN CAPABILITY. DIMENSIONS ARE NOT CRITICAL.

FACILITY:

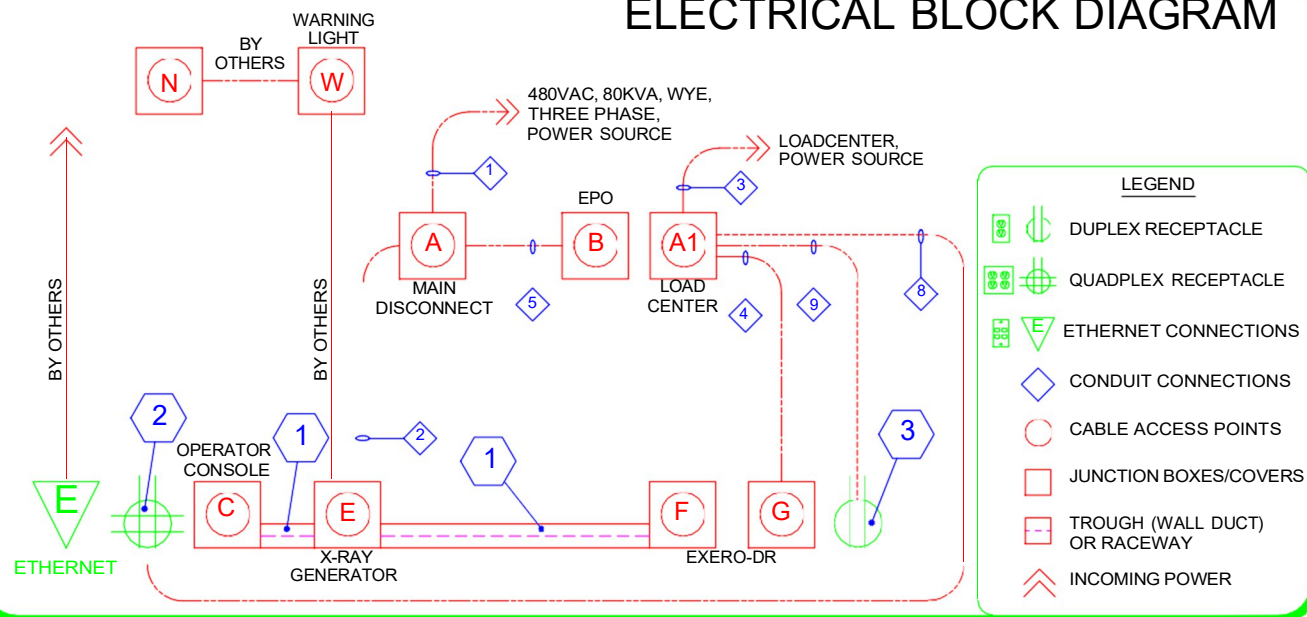
Collin County Texas  
Medical Examiner's Office

DRAWN BY:  
C. BRANNON  
DATE:  
11.21.2025  
FILE NAME:  
CCT251121s

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

E-1

# ELECTRICAL BLOCK DIAGRAM



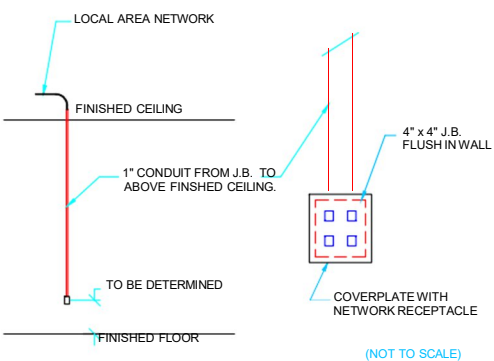
- NOTES:
1. 480 VAC, 3-PHASE, POWER FOR THE X-RAY GENERATOR. (50 AMP MINIMUM).
  2. 208-240 VAC, SINGLE PHASE, 25 AMP, FOR THE EXERO-DR SCANNER. (CLEAN POWER).
  3. 120 VAC, SINGLE PHASE, 20 AMP, FOR EXERO-DR OPERATOR CONSOLE AND DIGITAL VIEWING STATION.
  4. 120 VAC, SINGLE PHASE, 15 AMP, FOR EXERO-DR MOBILE GURNEY.
  3. NETWORK DROP NEAR OPERATOR CONSOLE.

# RACEWAY & WIRING SCHEDULE

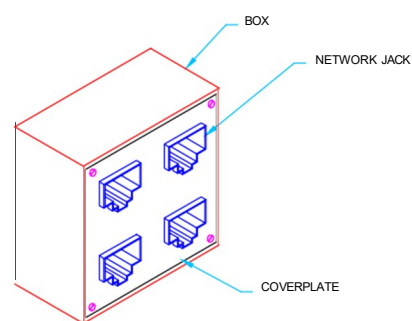
( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

RUN #	FROM	TO	SIZE	REMARKS
1	480VAC, 3-PHASE SOURCE	(A)	VARIES PER ENGINEER	CONDUIT SIZE DEPENDS ON INCOMING WIRE SIZE. REFER TO "INCOMING WIRE SIZE" NOTES ON SHEET E-3. EC TO CONNECT AT BOTH ENDS.
2	(A)	(E)	FMC SIZE PER ENGINEER	WIRE SIZE TO BE DETERMINED BY "INCOMING WIRE SIZE" NOTES; 50' LENGTH. EC TO CONNECT AT <A> AND TERMINATE CABLES AT <E> WITH ILSCO CLEAR SPLICE CONNECTORS. EC SHALL ENSURE NO LIVE WIRES IN (E).
3	LOAD CENTER POWER	(A1)	VARIES PER ENGINEER	VOLTAGE AND PHASE; WIRE NUMBER AND SIZE; AND CONDUIT SIZE TO THE LOADCENTER; & SIZE AND TYPE OF MAIN CIRCUIT BREAKER; TO BE SPECIFIED BY THE PROJECT ELECTRICAL ENGINEER.
4	(A1)	(G)	3/4" CONDUIT	2-#12AWG PLUS 1-#12AWG NEUTRAL AND GROUND. EC SHALL CONNECT TO 25AMP, 2P, CB IN (A1) "EXERO-DR SCANNER" AND LEAVE 15'-0" TAILS AT (G). EC SHALL IDENTIFY WIRES AS "EXERO-DR SCANNER" POWER.
5	(A)	(B)	1/2" CONDUIT	2-#14AWG PLUS GROUND. EC SHALL CONNECT TO SHUNT TRIP DEVICE IN (A) AND CONNECT "EMERGENCY OFF" SWITCH IN BOX (B). 24VAC PREFERRED. EXACT NUMBER AND LOCATIONS PER CODE AND FACILITY PREFERENCE.
6	(C)	(F)	G4000 RACEWAY	LODOX SUPPLIED CONTROL CABLES. INSTALLED BY FULL BODY SCANNER EQUIPMENT INSTALLERS.
7	(E)	(F)	G4000 RACEWAY	LODOX SUPPLIED HVC AND CONTROL CABLES. INSTALLED BY FULL BODY SCANNER EQUIPMENT INSTALLERS.
8	(A1)	(2)	1/2" CONDUIT	2-#12AWG PLUS GROUND. EC SHALL CONNECT TO 20AMP, 1P, CB IN (A1) AND TO QUADPLEX RECEPTACLE <#2>. EC SHALL LABEL CB AND QUADPLEX RECEPTACLE <#2> AS "OC/DVS" POWER.
9	(A1)	(3)	1/2" CONDUIT	2-#14AWG PLUS GROUND. EC SHALL CONNECT TO 15AMP, 1P, CB IN (A1) AND TO DUPLEX RECEPTACLE <#3>. EC SHALL LABEL CB AND DUPLEX RECEPTACLE <#3> AS "GURNEY" POWER.
THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ONE #8AWG GREEN EQUIPMENT GROUND WIRE BETWEEN ALL X-RAY EQUIPMENT. CONSULT WITH THE LOCAL X-RAY EQUIPMENT REPRESENTATIVE REGARDING CENTRAL GROUND POINT LOCATION.(THE MAIN DISCONNECT PANEL (A) AND LOADCENTER (A1) MUST HAVE THE SAME GROUND).				
THE FOLLOWING IS BY OTHERS THAN LODOX OR GAMMA TECH, INC. WHAT IS WRITTEN BELOW ARE SUGGESTIONS ONLY! THEY MAY BE FOLLOWED OR ALTERED BY THE DESIGN / BUILD PARTICIPANTS.				
	(W)	(E)	1/2" CONDUIT	2-#14AWG PLUS GROUND. EC SHALL CONNECT TO "X-RAY IN USE" WARNING SIGN AT BOX (W) AND LEAVE TAILS AT (F). EC SHALL ENSURE NO LIVE WIRES IN (F). (INSTALL ONLY IF REQUIRED BY PREVAILING CODES).
THE WARNING LIGHT MENTIONED ABOVE, OR EQUIVALENT, IS REQUIRED BY FEDERAL LAW. PROJECT ENGINEER SHALL CONSULT WITH INSTALLER MANAGER, END USER, AND CONTRACTOR REGARDING LOCATION, TYPE AND ENERGIZE TIME. THE DOOR INTERLOCK SWITCH, MENTIONED BELOW, IS REQUIRED BY FEDERAL LAW IF STAFF CAN'T SEE AN ENTRANCE DOOR FROM THE CONTROL BOOTH WHILE STANDING AT THE OPERATOR'S CONTROL.				
	(N)	(E)	1/2" CONDUIT	2-#14AWG PLUS GROUND. EC SHALL CONNECT TO DOOR INTERLOCK SWITCH AND LEAVE TAILS AT (E) PASS THROUGH BOX (W) . INSTALL ONLY IF REQUIRED BY PREVAILING CODES OR REQUESTED BY CUSTOMER.

## NETWORK CONNECTION - TYPICAL DETAIL



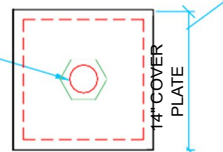
## NETWORK JACK - TYPICAL DETAIL



## COVERPLATE DETAILS

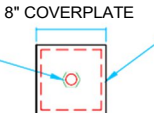
### REMOVABLE COVERPLATE

2 1/2" Ø BUSHING WITH LOCKNUTS



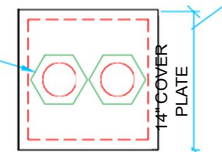
### REMOVABLE COVERPLATE

3/4" Ø SEALTITE CONNECTION



### REMOVABLE COVERPLATE

TWO 3" Ø BUSHINGS



## DICOM, PACS, LANS/WANS, Ethernet, Modems

**Networking Notes:** Supplying and installing network connections between diagnostic imaging equipment and other node connections shall be the customer's responsibility. Customer must specify, supply and install proper receptacles, AUI transceivers, cabling, repeaters, routers, modems, etc. which are consistent with the site needs and sound network implementation practices. Also included, but not limited to, the customer's responsibility is the purchase and installation of conduits and / or raceways for containment and routing of networking cables, as determined by site conditions or required by prevailing codes.

FACILITY:  
Collin County Texas  
Medical Examiner's Office

DRAWN BY:  
C. BRANNON  
DATE:  
11.21.2025  
FILE NAME:  
CCT251121s

SCALE:  
None  
SHEET

E-2

## IMPORTANT POWER NOTES

(CONTRACTOR FURNISHED - CONTRACTOR INSTALLED)

POWER LINES FOR EQUIPMENT LISTED SHALL BE DEDICATED LINES RUN DIRECTLY FROM NEAREST FACILITY POWER SOURCE. UNDER NO CIRCUMSTANCES SHALL ANY OTHER ELECTRICAL EQUIPMENT BE CONNECTED TO THESE POWER LINES NOW OR IN THE FUTURE.

### LINE REQUIREMENTS:

1. TRANSIENTS: NO TRANSIENTS SHALL OCCUR THAT EXCEED 30% OF NOMINAL PEAK LINE VOLTAGE.

A. TRANSIENTS, FOR DISCUSSION PURPOSES, SHALL BE DEFINED AS IMPULSES FROM 0.5 TO 800 MICROSECONDS.

B. POWER LINES SHALL BE MEASURED FOR TRANSIENTS WITH THE SYSTEM IN STANDBY. THE ELECTRICAL CONTRACTOR SHALL USE A DRANETZ POWER LINE ANALYZER OR EQUIVALENT.

2. VOLTAGE REGULATION: 80KVA, 480VAC, THREE PHASE, 60HZ ±0.10% INCOMING LINE TO MAIN DISCONNECT WITH 10% VOLTAGE REGULATION UNDER INTERMITTENT NO LOAD TO FULL LOAD CONDITIONS REQUIRED.

IF ANY OF THE ABOVE POWER SPECIFICATIONS REGARDING VOLTAGE REGULATION OR TRANSIENTS CANNOT BE MET THE FOLLOWING CORRECTIVE ACTION CAN BE TAKEN.

A 112.5KVA, REGULATION TRANSFORMER OR LINE CONDITIONER DEPENDING ON THE SEVERITY OF THE PROBLEM MAY BE EMPLOYED TO MAINTAIN LINE VOLTAGE WITHIN 10% OF NOMINAL UNDER INTERMITTENT, NO LOAD TO FULL LOAD CONDITIONS.

## NEC ARTICLE 354.24 CONSIDERATIONS

THE NEC DOES NOT ADDRESS CONDUIT BEND RADII FOR HT CABLE CANDLESTICK TERMINALS BUT THERE IS A TABLE THAT WILL WORK EVEN THOUGH IT IS FOR AN ENTIRELY DIFFERENT SET OF PARAMETERS. WHEN BENDING OR PURCHASING LARGE FACTORY SWEEPS FOR RMC OR EMT REFER TO TABLE 354.24. MATCH 'TRADE SIZE' AND 'BENDING RADIUS'. E.G., 2 1/2" CONDUIT HAS A 36" BENDING RADIUS. FOR OUR PURPOSES TABLE 354.24 PROVIDES A GOOD GUIDELINE. BE SURE THERE IS ADEQUATE CLEARANCE FOR A BEND PLUS STRAIGHT SECTION AND COUPLING. E.G., 36" + 11" = 47" CLEARANCE REQUIRED.

### Underground Conduit with Conductors (NUCC)

Table 354.24 Minimum Bending Radius for Nonmetallic Underground Conduit with Conductors (NUCC)

CONDUIT TRADE SIZE	MINIMUM BENDING RADIUS
1/2"	10"
3/4"	12"
1"	14"
1-1/4"	18"
1-1/2"	20"
2"	26"
2-1/2"	36"
3"	48"
4"	60"

Please keep in mind that the maximum number of conduit bends between termination points, e.g., CB Panels, junction boxes, vertical risers, wall trough, etc., is the sum total of 360°. E.g., Four 90° bends.

THE MAIN CONSIDERATION WHEN LEAVING WIRES IN JUNCTION BOXES IS TO ENSURE THEY ARE NOT LIVE AND THAT THEIR ASSOCIATED SWITCHING MEANS ARE LOCKED OUT (OR EQUIVALENT).

THIS STANDARD SHALL BE APPLIED TO ALL OPEN ENDED WIRE AND CABLE MENTIONED IN THIS DRAWING SET. OBVIOUSLY, GROUND WIRE OR CABLE BEING THE EXCEPTION.

IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT WIRES ARE NOT ENERGIZED UNTIL THE EQUIPMENT INSTALLERS ARE READY FOR TESTING.

THE ELECTRICAL CONTRACTOR SHALL INFORM THE EQUIPMENT INSTALLER(S) AS TO THE LOCATION AND MEANS OF ACTIVATING ALL SWITCHING DEVICES ASSOCIATED WITH THE OPEN ENDED WIRE AND CABLE MENTIONED IN THIS DRAWING SET.

## WIRING NOTES

### ELECTRICAL CONTRACTOR RESPONSIBILITY

ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS, WIRE, WIREWAYS, DISTRIBUTION TRANSFORMERS, JUNCTION BOXES, ENCLOSURES, CIRCUIT BREAKERS, ETC.

WORK SHALL COMPLY WITH REGULATORY AGENCIES OF JURISDICTION. ALL SUCH AGENCIES SUPERSEDE THESE DRAWINGS AND MUST BE ADHERED TO. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SCRUTINIZING THESE DRAWINGS AND SHALL MAKE CORRECTIONS ACCORDING TO PREVAILING CODES.

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PATIENT GROUNDING NETWORK PER NATIONAL ELECTRIC CODE ARTICLE 517 / NFPA 70. THE ELECTRICAL CONTRACTOR SHALL INSTALL, PROVIDE POWER TO AND CONNECT THE FOLLOWING IF REQUIRED: THE "X-RAY IN USE" WARNING SIGN; THE 120VAC, 15AMP RECEPTACLES AND IMAGING CABLE CONNECTORS FOR MONITORS; THE DOOR INTERLOCK SWITCH; THE EMERGENCY OFF SWITCH; AND THE 120VAC, DUPLEX OUTLETS FOR SERVICE AND HOUSEKEEPING DESCRIBED IN THE GENERAL NOTES ITEM #6.

### WIRES AND CABLES

ALL WIRES TO BE THHN TYPE, STRANDED COPPER UNLESS OTHERWISE SPECIFIED. THE ELECTRICAL CONTRACTOR SHALL SUPPLY LUGS FOR ALL CABLES LISTED WITHIN THE SCOPE OF THIS WORK.

ELECTRICAL CONTRACTOR TO PROVIDE 10'-0" TAILS FOR ALL WIRES UNLESS OTHERWISE SPECIFIED AND IDENTIFY BOTH ENDS OF ALL WIRES.

### CONDUITS

ELECTRICAL CONTRACTOR SHALL MAKE EVERY EFFORT TO ENSURE THAT POINT TO POINT CONDUIT RUNS ARE AS SHORT AS FIELD CONDITIONS ALLOW. CONDUIT AND DUCT RUNS ARE SHOWN DIAGRAMMATICALLY. ACTUAL BUILDING CONDITIONS AND PREVAILING CODE WILL DETERMINE CONDUIT AND DUCT ROUTES.

LEAVE PULL WIRE IN EMPTY CONDUITS.

CONDUITS MAY BE INCREASED IN SIZE BUT NEVER DECREASED WITHOUT CONSENT FROM THE EQUIPMENT REPRESENTATIVES.

ALL CONDUIT SHALL BE RIGID TYPE UNLESS SPECIFIED OTHERWISE IN THIS DRAWING SET. ALL CONDUIT RUNS EXPOSED TO WET ENVIRONMENTS SHALL BE MADE LIQUID TIGHT. (e.g. UNDERGROUND, ETC.)

### JUNCTION BOXES AND ELECTRICAL WIRE TROUGH

ALL FLUSH MOUNTED ELECTRICAL BOXES AND WIRE TROUGHS SHALL HAVE OVERSIZED COVER PLATES.

ALL FLUSH MOUNTED ELECTRICAL BOXES AND WIRE TROUGHS EXPOSED TO A WET ENVIRONMENT SHALL BE MADE LIQUID TIGHT. (e.g. IN FLOOR, ETC.)

## Special Note to all Ancillary Equipment Suppliers:

The electrical specifications in these plans are dedicated to the equipment provided by Lodox.

All additional Equipment Suppliers SHALL NOT USE any electrical devices called out in these plans as a part of their electrical requirements or schematic.

All additional Equipment Suppliers SHALL ISSUE a separate detailed specifications package to the architect or to the customer. The architect SHALL EXTRAPOLATE this information and incorporate it into their working drawings.

Lodox IS NOT RESPONSIBLE for furnishing information on equipment they do not provide.

Additional equipment, other than Lodox, depicted in these plans have been shown as a courtesy to our customers.

## INCOMING WIRE SIZE NOTES

10/05/2018

(CONTRACTOR FURNISHED - CONTRACTOR INSTALLED)

LISTED BELOW IS THE RELATIONSHIP BETWEEN THE LENGTH AND SIZE OF EACH INCOMING WIRE, WITH THE ASSUMPTION THAT THE POWER SOURCE HAS THE REQUIRED CAPACITY. THE VOLTAGE REGULATION UNDER LOAD VARIATION IS CALCULATED TO BE WITHIN ±5%. BE SURE TO USE WIRE SIZES INDICATED OR LARGER SIZE.

X-RAY GENERATOR:	SEDECAL SHF-635 64KW
RECOMMENDED POWER TO THE MAIN DISCONNECT:	480VAC, THREE PHASE, 60Hz, 80KVA, WYE (3 WIRE + GROUND ***)
OPTIONAL SUPPLY TRANSFORMER SIZE:	112.5KVA
MAIN CIRCUIT BREAKER:	80AMP, 3-POLE, THERMOMAGNETIC, WITH SHUNT TRIP CAPABILITY
MAXIMUM MOMENTARY:	96 AMPS / 79.8 KVA
STANDBY:	7 AMPS / 5.82 KVA
MAXIMUM LINE IMPEDANCE:	0.065 OHMS

\* PROVIDE THE APPROPRIATE WIRE SIZE FROM POWER SOURCE TO MAIN DISCONNECT:

WIRE LENGTH LESS THAN	50'	100'	150'	200'	250'	** 300'
FEEDER WIRE SIZE						
LINE:	#4AWG	#4AWG	#4AWG	#4AWG	#3AWG	#3AWG
*** NEUTRAL:	#4AWG	#4AWG	#4AWG	#4AWG	#3AWG	#3AWG
GROUND:	#4AWG	#4AWG	#4AWG	#4AWG	#3AWG	#3AWG

\* VOLTAGE DROP CALCULATED FOR EQUAL TO OR LESS THAN 1%.

\*\* IF RUN IS LONGER THAN 300', EC SHALL NOTIFY EQUIPMENT INSTALLER.

\*\*\* THE GENERATOR DOES NOT NEED A NEUTRAL WIRE TO FUNCTION PROPERLY, HOWEVER, A WYE SOURCE IS PREFERRED FOR GOOD VOLTAGE REGULATION AND BALANCE. *REVISED: MARTY KULIS 11/16/22*

## NEC ARTICLE 517 CONSIDERATIONS

(CONTRACTOR FURNISHED - CONTRACTOR INSTALLED)

THE PROJECT ENGINEER OF RECORD IS RESPONSIBLE FOR SHOWING COMPLIANCE WITH NEC 517.

SECTION II - WIRING AND PROTECTION  
 - HOSPITAL GRADE RECEPTACLES IN PATIENT CARE AREAS.  
 - ISOLATED GROUND (IG) RECEPTACLES, IF APPLICABLE.  
 - EQUIPMENT GROUNDING.  
 - REDUNDANT GROUND ADHERENCE.

IF APPLICABLE, USE AN INSULATED COPPER EQUIPMENT GROUNDING (BONDING) CONDUCTOR TO GROUND THE GROUNDING TERMINALS OF ALL RECEPTACLES AND ALL NONCURRENT CARRYING CONDUCTIVE SURFACES OF FIXED ELECTRIC EQUIPMENT OPERATING AT OVER 100V, IF THEY ARE LIKELY TO BECOME ENERGIZED AND ARE SUBJECT TO PERSONAL CONTACT.

IF APPLICABLE, INSTALL THE EQUIPMENT GROUNDING (BONDING) CONDUCTOR (SIZED PER TABLE 250.122) IN A METAL RACEWAY SYSTEM OR A CABLE ARMOR OR SHEATH ASSEMBLY, EACH OF WHICH MUST QUALIFY AS AN EFFECTIVE GROUND-FAULT CURRENT PATH PER 250.118 [517.13(A)].

FACILITY:

Collin County Texas  
 Medical Examiner's Office

DRAWN BY:

C. BRANNON

DATE:

11.21.2025

FILE NAME:

CCT251121s

SCALE:

None

SHEET

E-3

# BEVCO ENGINEERING PRODUCTS

( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

FOR PRE NEGOTIATED DEEPLY DISCOUNTED QUOTES ON SPECIALTY ITEMS LISTED BELOW CONTACT GEXPRO, MILWAUKEE: JAY LAVINE OR MIKE SOWLES OR SCOTT KOZLIK, BRANCH MANAGER. 800-279-7925, 414-527-6600, CENTRAL TIME ZONE, 7AM TO 5PM. [HEALTHCARESERVICES@GEXPRO.COM](mailto:HEALTHCARESERVICES@GEXPRO.COM)

NEC 517.72, UL-CUL LABELED CIRCUIT BREAKER MAIN DISCONNECT PANELS

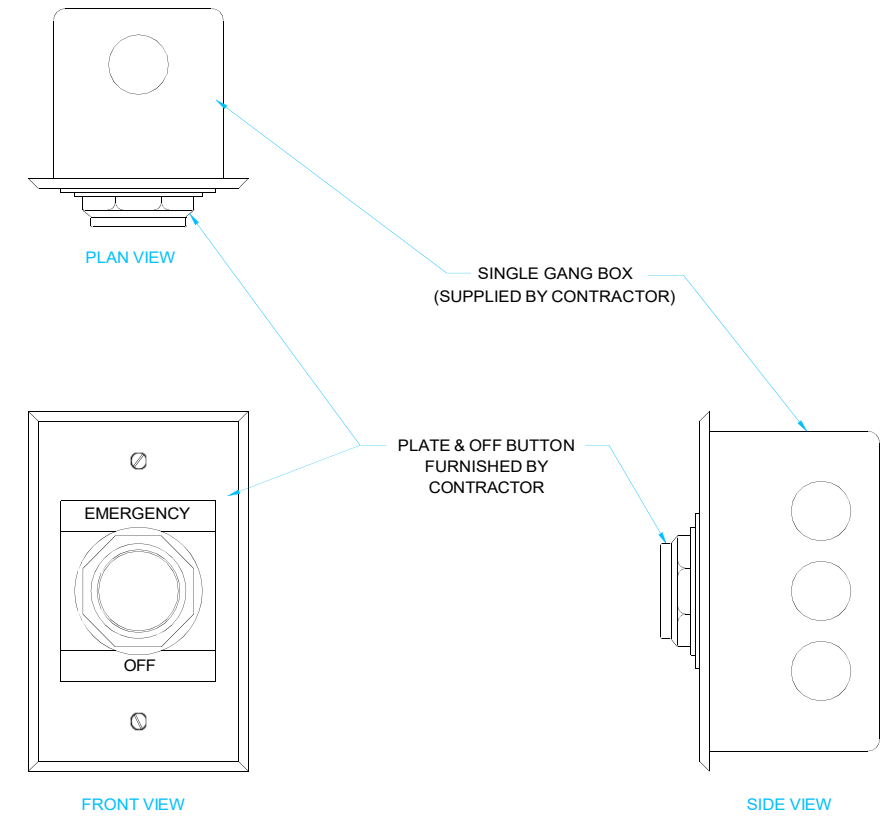
- THREE PHASE. REFER TO 'E' SHEETS; 'TERMINAL SCHEDULE; ITEM (A).
- SINGLE PHASE. REFER TO 'E' SHEETS; 'TERMINAL SCHEDULE; ITEM (A1).
- 'EMERGENCY OFF' WALL PUSHBUTTONS. REFER TO 'E' SHEETS; 'TERMINAL SCHEDULE; ITEM (B) AND DETAIL.
- DOOR ACTIVATED X-RAY KILL SWITCH. REFER TO 'E' SHEETS; 'TERMINAL SCHEDULE; ITEM (N) AND DETAIL.
- "X-RAY IN USE" WARNING LIGHT. REFER TO 'E' SHEETS; 'TERMINAL SCHEDULE; ITEM (W) AND DETAILS.
- "X-RAY IN USE" WARNING LIGHT CONTROL PANEL. EC SHALL CONSULT WITH FACILITY AND EQUIPMENT PROVIDER REGARDING INSTALLATION OF A "X-RAY IN USE" WARNING LIGHT CONTROL PANEL. THE CONTROL PANEL IS HELPFUL IN INTERFACING THE EQUIPMENT WITH WARNING LIGHTS.
- COPPER GROUND BUS BAR. REFER TO 'E' SHEETS; 'TERMINAL SCHEDULE; ITEM (MGB) AND DETAIL.

OPTIONS:

- TRANSFORMERS.
- COMBINATION CONTROLLERS. E.G., X-RAY IN USE WARNING LIGHT CONTROLLER AND ROOM LIGHT CONTROLLER.
- FOOT SWITCHES.
- ROOM LIGHT CONTROLLER.
- DC LIGHTING CONTROLLERS FOR STANDARD INCANDESCENT OR HALOGEN LAMPS.

## EXAMPLE EMERGENCY OFF SWITCHES

DETAIL NOT TO SCALE

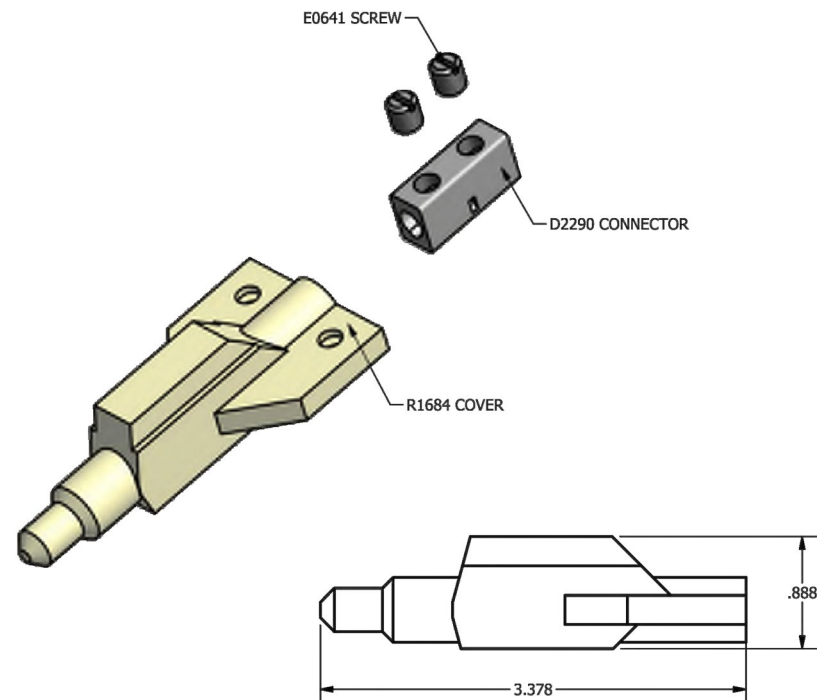


FLUSH PUSH BUTTON  
MOMENTARY TYPE



MUSHROOM HEAD PUSH BUTTON - GUARDED  
PUSH TO LATCH, TWIST TO RELEASE TYPE

SCREW: E0641	MATERIAL: NONE	REV: C		
CAT. NO.: SPAR-4	PLATING: NONE	DRAWN BY: NN	SCALE: 1:1	800-776-9775 www.ilSCO.com
INFORMATION SHEET: FORM 12	MARKING: NONE	DATE: 4/23/2008	SIZE: A	DWG. NO. M2813-01
				SHEET: 1 OF 1



THE INFORMATION CONTAINED WITHIN THIS DOCUMENT IS PROPRIETARY TO ILSICO AND MAY NOT BE DISCLOSED WITHOUT PRIOR WRITTEN CONSENT

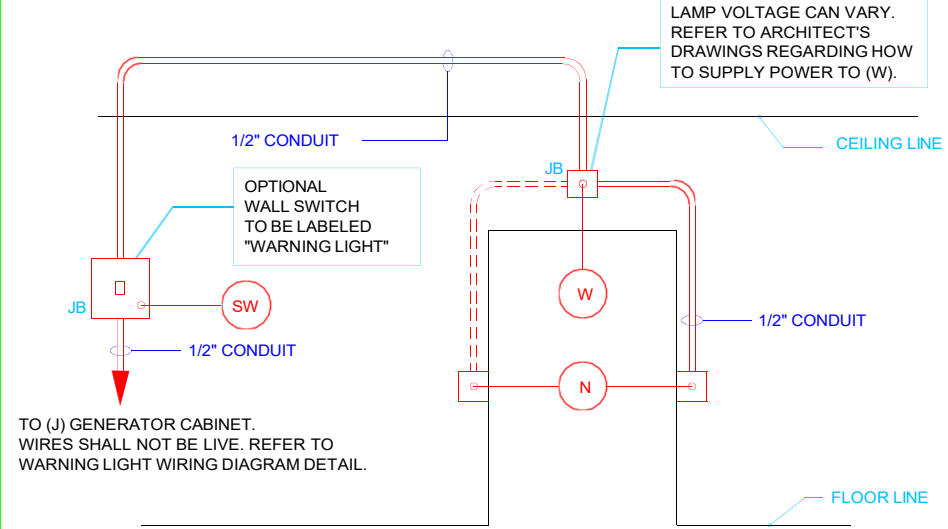
FACILITY:  
**Collin County Texas  
Medical Examiner's Office**

DRAWN BY:  
C. BRANNON  
DATE:  
11.21.2025  
FILE NAME:  
CCT251121s

SCALE:  
None  
SHEET  
**E-4**

### DOORSWITCH/WARNINGLIGHTDETAIL

(CONTRACTOR FURNISHED - CONTRACTOR INSTALLED)  
(NOT TO SCALE)



**'X-RAY IN USE' WARNING SIGN NOTES:**  
THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH FACILITY REGARDING EXACT WORDING, STYLE, NUMBER AND LOCATION OF THE X-RAY WARNING LIGHT(S).  
THE X-RAY WARNING LIGHT INSTALLATION SHALL BE COORDINATED BETWEEN THE PROJECT ELECTRICAL ENGINEER, PROJECT ELECTRICAL CONTRACTOR, FACILITY STAFF AND DIAGNOSTIC IMAGING EQUIPMENT INSTALLERS.  
THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SERVICE PERSONNEL SAFETY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE PROOF OF COMPLIANCE WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 1910.147, 'THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)'.  
OPTIONAL WALL SWITCH (SW) MAY BE CONTRACTOR INSTALLED AT THE REQUEST OF THE FACILITY OR EQUIPMENT SUPPLIER. THE PURPOSE OF WALL SWITCH IS TO REMOVE ALL X-RAY WARNING LIGHT SUPPLY VOLTAGE FROM THE X-RAY GENERATOR CABINET OR ASSOCIATED CABINET OR GANTRY DURING SERVICE. EC SHALL CONSULT WITH CUSTOMER AND EQUIPMENT SUPPLIER REGARDING WALL SWITCH INSTALLATION, TYPE AND EXACT LOCATION.

**DOOR SWITCH NOTES:**  
OPTIONAL DOOR SWITCH TO BE LOCATED ON HINGE SIDE OF DOOR JAMB.  
OPTIONAL DOOR SWITCH TO BE INSTALLED ONLY IF REQUIRED BY PREVAILING CODE OR REQUESTED BY CUSTOMER.  
IN CASE OF A DOUBLE JAMB, ONE DOOR SWITCH SHOULD BE LOCATED ON EACH SIDE. REFER TO ELECTRICAL ROOM LAYOUTS FOR MINIMUM DOOR SWITCH / WARNING LIGHT LOCATIONS IN ROOM.  
SEE POINT TO POINT WIRING DESCRIPTION FOR WIRE SIZES TO BE USED IN CONDUITS.  
USING BOX (W) AS A JUNCTION BOX FOR THE DOOR INTERLOCK SWITCH WIRES ELIMINATES AN ADDITIONAL CONDUIT RUN TO THE SYSTEM CABINET. ALTHOUGH THIS DECREASES CONSTRUCTION COSTS, IT IS NOT MANDATORY.

DETAIL #WLD02.0614

THE MAIN CONSIDERATION WHEN LEAVING WIRES IN JUNCTION BOXES IS TO ENSURE THEY ARE NOT LIVE AND THAT THEIR ASSOCIATED SWITCHING MEANS ARE LOCKED OUT (OR EQUIVALENT).

THIS STANDARD SHALL BE APPLIED TO ALL OPEN ENDED WIRE AND CABLE MENTIONED IN THIS DRAWING SET. OBVIOUSLY, GROUND WIRE OR CABLE BEING THE EXCEPTION.

IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT WIRES ARE NOT ENERGIZED UNTIL THE EQUIPMENT INSTALLERS ARE READY FOR TESTING.

THE ELECTRICAL CONTRACTOR SHALL INFORM THE EQUIPMENT INSTALLER(S) AS TO THE LOCATION AND MEANS OF ACTIVATING ALL SWITCHING DEVICES ASSOCIATED WITH THE OPEN ENDED WIRE AND CABLE MENTIONED IN THIS DRAWING SET.

FOR DISCOUNTED QUOTES ON "X-RAY IN USE" WARNING LIGHTS CONTACT GEXPRO, MILWAUKEE: 800-279-7925, CENTRAL TIME ZONE, 7AM TO 5PM. [HEALTHCARESERVICES@GEXPRO.COM](mailto:HEALTHCARESERVICES@GEXPRO.COM)

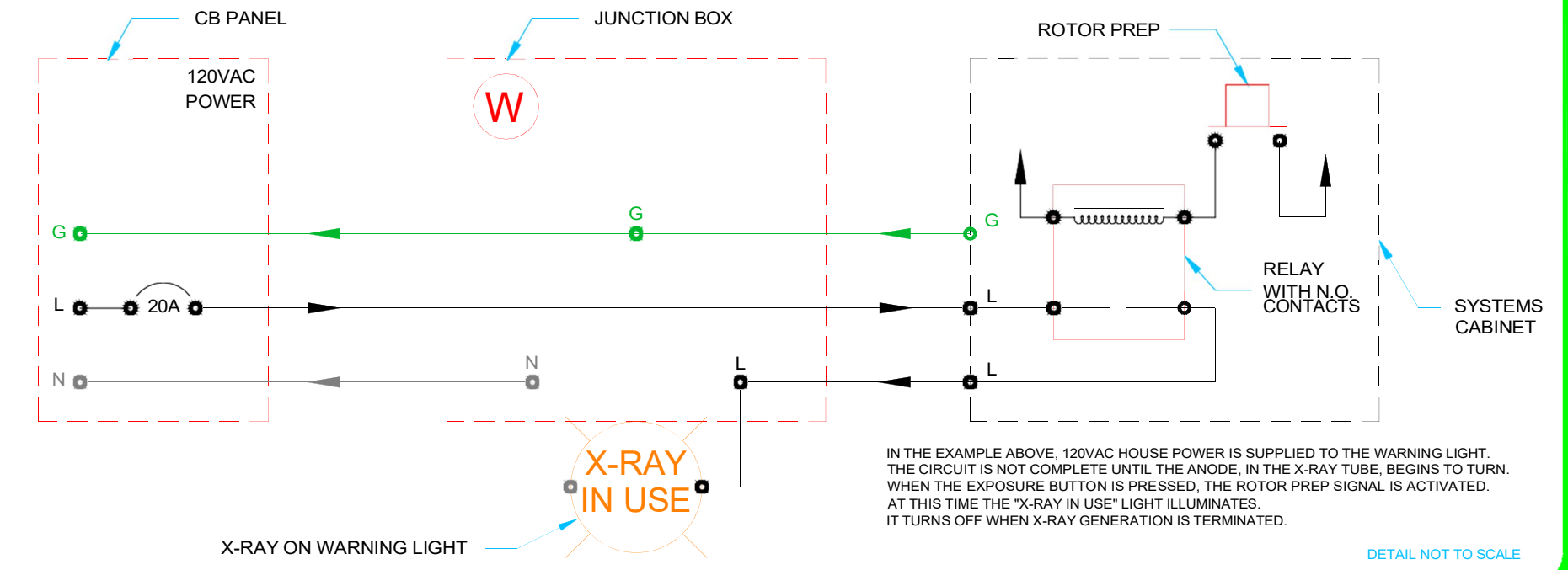
- "X-RAY IN USE" WARNING LIGHT.
- "X-RAY IN USE" WARNING LIGHT CONTROL PANEL.
- COMBINATION X-RAY IN USE WARNING LIGHT CONTROLLER AND ROOM LIGHT CONTROLLER.
- DOOR ACTIVATED X-RAY KILL SWITCH.

### TYPICAL WARNING LIGHT CIRCUIT

DETAIL #WLD02.0214

A TYPICAL 'X-RAY IN USE' WARNING SIGN CIRCUIT IS DEPICTED BELOW. DUE TO MANY VARIABLES, THE "X-RAY IN USE" WARNING SIGN CIRCUIT MUST BE COORDINATED BETWEEN THE EQUIPMENT SUPPLIER, ELECTRICAL ENGINEER AND THE FACILITY. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE FACILITY AND THE EQUIPMENT SUPPLIER PRIOR TO INSTALLING THE "X-RAY IN USE" WARNING SIGN.

**EXAMPLE WARNING SIGN / LAMP OPTIONS -**  
HOUSING: ALUMINUM, BLACK, WHITE, ETC.  
FACE: SINGLE SIDE (TYPICAL), WALL SURFACE MOUNT (TYPICAL) OR RECESSED. DOUBLE SIDED, SURFACE MOUNT ON CEILING OR WALL.  
WORDING: "IN USE", "X-RAY IN USE" (TYPICAL), ETC.  
COLORS: RED LETTERS, WHITE BACKGROUND (TYPICAL), MANY VARIATIONS.  
LAMP TYPE: LED (TYPICAL).  
VOLTAGE: 27 AC, 120 AC (TYPICAL), 277 AC, 120/277VAC, DC BATTERY.  
WATTAGE: VARIES. (20 WATTS OR LESS IS TYPICAL).



IN THE EXAMPLE ABOVE, 120VAC HOUSE POWER IS SUPPLIED TO THE WARNING LIGHT. THE CIRCUIT IS NOT COMPLETE UNTIL THE ANODE, IN THE X-RAY TUBE, BEGINS TO TURN. WHEN THE EXPOSURE BUTTON IS PRESSED, THE ROTOR PREP SIGNAL IS ACTIVATED. AT THIS TIME THE "X-RAY IN USE" LIGHT ILLUMINATES. IT TURNS OFF WHEN X-RAY GENERATION IS TERMINATED.

DETAIL NOT TO SCALE

#### Example "X-RAY IN USE" Warning Sign Circuit Options

NOTE #WLN01.0310

Many potential factors influence choice of x-ray on warning sign. E.g. Matching existing; efficiency; aesthetics; price; quality; number of options; etc.

Gamma Tech never knows the exact warning sign type, style, lamp voltage, power source, method or means of control prior to drawing set issuance. For this reason more than one detail may be depicted in this drawing set.

It is our hope and intent to encourage the construction participants and the equipment suppliers / installers to coordinate efforts. For this reason we have listed some potential options and their caveats below. (not to be construed as all inclusive). Important decisions to be shared are numbered. Sample options are listed alphabetically. For your convenience, the majority pick is designated by the word 'typical' in parentheses.

- The facility or their designee selects an x-ray on warning sign.
- 1) Lamp voltage? - usually one of four options.
    - a. 120vac (typical)
    - b. 120/277vac
    - c. 277vac
    - d. Low voltage ac
    - e. Low voltage dc (battery)
- Note: The system installer should be informed of the lamp voltage as soon as possible.

- The facility determines at which point in time the warning sign will illuminate.
- 2) When to illuminate? - Engineer to coordinate with the facility and equipment supplier.
    - a. Warning lamp turns on upon rotor prep / turns off upon x-ray termination. (typical)
    - b. Warning lamp illuminates / extinguishes when equipment is switched on / off.
    - c. Warning lamp illuminates 24/7.
- Note: the equipment being installed may or may not be capable of interfacing with a warning light or may have just one option. The equipment supplier shall coordinate with the facility and the construction participants regarding interface options.

#### X-ray On Warning Sign Circuit Options

NOTE #WLN02.0510

The engineer of record shall consult with the facility and equipment supplier to coordinate the x-ray on warning sign circuit combinations. Majority picks marked by an asterisk.

Housing	Lamp	Faces	Surface	Mounting	Wording
a. White *	Incandescent *	Single *	Wall *	Surface *	X-RAY IN USE *
b. Black	LED	Double	Ceiling	Flush	X-RAY ON, etc.
c. Aluminum, etc. Fluorescent					
Note: NEVER use fluorescent lamps					
Note: Recommend 20 watts or less					
Voltage	Panel color	Power source	ON / OFF		
a. 120vac *	a. red on white *	Facility panel *	Rotor prep *		
b. 277vac	b. white on red	Systems supply	System ON		
c. 120/277vac	c. black on white		Always ON		
d. 26vac	d. white on black				
e. DC	e. red on black, etc.				

Refer to detail number WLD01.0310 for typical x-ray on warning light circuit.  
Refer to detail number WLD02.0696 for typical 120VAC TO 24VAC warning light circuit.

FACILITY:  <b>Collin County Texas</b> <b>Medical Examiner's Office</b>	DRAWN BY:	C. BRANNON	SCALE:	None
	DATE:	11.21.2025	SHEET:	E-5
	FILE NAME:	CCT251121s		



Owner provided Lodox equipment drawings with Summit Consultants comments.

# SHEET LEGEND

SHEET NUMBER	SHEET DESCRIPTION
A1	SHEET LEGEND, RECEIPT OF DRAWINGS, DENOTED REVISIONS, AND SUPPLEMENTAL NOTES.
A2	GENERAL NOTES, WIRING NOTES AND ARCHITECTURAL NOTES.
A3	EXISTING ROOM LAYOUT AND CONSTRUCTION NOTES.
B1	PROPOSED ROOM LAYOUT, CONSTRUCTION NOTES, EQUIPMENT DATA, EQUIPMENT SCHEDULE.
D1	EQUIPMENT DETAILS.
D2	EQUIPMENT DETAILS.
E1	ELECTRICAL LAYOUT AND SPECIFICATIONS.
E2	ELECTRICAL LAYOUT AND SPECIFICATIONS.
E3	IMPORTANT POWER NOTES, PATIENT SAFETY GROUNDING, NETWORKING NOTES.
E4	WARNING LIGHT NOTES AND SAMPLE DETAILS.

# REVISIONS

SHEET NUMBER	REV	REVISION DESCRIPTION	REP	DATE
	1			
	2			

## SUPPLEMENTAL NOTES

ALL ITEMS LISTED BELOW ARE TO BE PROVIDED/DESIGNED BY THE ARCHITECT. THE ARCHITECT SHALL CONSULT WITH THE CUSTOMER FOR ANY ADDITIONAL INFORMATION.

- ALL DIAGNOSTIC ROOMS INCLUDING X-RAY, MAMMO, R/F ETC... SHALL HAVE INCANDESCENT AS WELL AS FLORESCENT LIGHT FIXTURES. THE INCANDESCENT FIXTURES ARE TO BE DISTRIBUTED AROUND THE ROOM. INCANDESCENT FIXTURES SHOULD BE PROVIDED WITH DIMMER CONTROLS. THE DIMMER CONTROLS SHOULD BE LOCATED NEAR THE ROOM ENTRANCES AND IN THE CONTROL AREAS.
- IT IS RECOMMENDED THAT ALL DIAGNOSTIC ROOMS SHOULD HAVE TILE OR VINYL FLOORING.
- THE FLOOR IN THE X-RAY AND DARKROOM MUST BE ESSENTIALLY LEVEL. TOLERANCE IS 1/8" OVER A 10'-0" SPAN.
- TYPICALLY THE MINIMUM RECOMMENDED FINISHED CEILING HEIGHT IS 8'-0" A.F.F. UNLESS STATED OTHERWISE IN THIS DRAWING SET.

## RECEIPT OF FINAL DRAWINGS

THIS SIGNATURE REPRESENTS RECEIPT OF THIS SET OF FINAL PLANS. IT IS UNDERSTOOD THAT ANY DEVIATION FROM THESE DRAWINGS, DETAILS, AND SPECIFICATIONS, MAY ENCROACH UPON THE EQUIPMENT OPERATION, SERVICEABILITY, OR SAFETY GUIDELINES. ALSO, I AM AWARE THAT ANY CHANGES MADE AFTER THIS DATE COULD RESULT IN ADDITIONAL EXPENSES BEING INCURRED.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

EQUIPMENT:

**Lodox**  
STATSCAN  
VE1  
CRITICAL IMAGING SYSTEM

FACILITY:

UNIFIED STATE  
LABORATORY MODULE #2

SUBMITTED BY:

**Lodox**  
critical imaging technology

PLANNING BY:



David J. Henry (Designer)  
Phone: (407) 556-3889

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DRAWN BY:  
DAVE HENRY

SCALE:  
NONE

DATE:  
06/14/2016

SHEET:

FILE NAME:  
USL160613

A-1

## GENERAL NOTES

AT THEIR EXPENSE, THE CUSTOMER AND/OR THE CONTRACTOR WILL BE EXPECTED TO PROVIDE THE FOLLOWING (IF REQUIRED) PRIOR TO X-RAY EQUIPMENT DELIVERY AND INSTALLATION:

1. ANY ROOM REMODELING AND CONSTRUCTION - FLOOR CEILING AND WALLS MUST BE FINISHED BEFORE EQUIPMENT INSTALLATION CAN BEGIN.
2. INSTALLATION OF PROPER SPECIFIED POWER.
3. INSTALLATION OF LOAD CENTERS, BRANCH PANELS, WIRE TROUGH, CIRCUIT BREAKERS, JUNCTION BOXES AND CONDUIT AS SPECIFIED.
4. INTERCONNECTING WIRE AND CABLE AS SPECIFIED.
5. INSTALLATION OF WALL AND CEILING SUPPORT AND SUSPENSION FRAME WORK AS SPECIFIED.

6. FOR THE MOST PART CONVENIENCE OUTLETS ARE TO BE SPECIFIED BY OTHERS. REQUIRED OUTLETS WILL BE DEPICTED. FOR EASE IN SERVICE, LOCATE AT LEAST ONE OUTLET ON EACH WALL WITHIN CLOSE PROXIMITY TO THE CONTROL CONSOLE AND X-RAY CONTROL CABINET

7. ANY CEILING MOUNTED LIGHT FIXTURES, DIFFUSERS, VENTS, SMOKE/FIRE DETECTORS, SPRINKLER HEADS, HALON NOZZLES, ETC. SHALL NOT EXTEND MORE THAN 1/2" BELOW THE FINISHED CEILING. IF REQUESTED, A SUGGESTED REFLECTED CEILING PLAN IS SUPPLIED. THIS CEILING PLAN IS BASED ON UNISTRUT LOCATIONS AND EQUIPMENT LAYOUT.
8. ANY PLUMBING REQUIREMENTS.
9. INSTALLATION OF WARNING LIGHTS AND/OR INTERLOCK SWITCHES AT MAIN DOOR OF EXAM ROOM TO BE COORDINATED WITH EQUIPMENT REPRESENTATIVES.
10. ANY AIR CONDITIONING REQUIREMENTS. (HEATING, VENTILATION, AIR CONDITIONING AND HUMIDIFICATION)
11. ALL ANCILLARY AND ACCESSORY ITEMS SUCH AS: FILM PROCESSORS, TANKS, DRYERS, SILVER COLLECTION SYSTEMS, FILM LOADING BINS, CASSETTE TRANSFER CABINETS, SAFE-LIGHTS, ILLUMINATORS, ETC.
12. RADIATION PROTECTION REQUIREMENTS - THESE MUST BE SPECIFIED BY A QUALIFIED RADIATION PHYSICIST

### QUALITY ASSURANCE:

NATIONAL BUREAU OF STANDARDS: COMPLY WITH REQUIREMENTS OF THE NATIONAL COUNCIL ON RADIATION AND MEASUREMENT (NCRP) REPORT NO. 49, "STRUCTURAL SHIELDING DESIGN AND EVALUATION FOR MEDICAL USE OF X-RAYS AND GAMMA RAYS OF ENERGIES UP TO 10 MEV," AS APPLICABLE TO THIS WORK. COMPLY WITH REQUIREMENTS OF LOCAL REGULATORY AGENCIES WHERE STANDARDS AND CRITERIA EXCEED NCRP SPECIFICATIONS BY THE RADIATION PHYSICIST SUPERSEDES THESE DRAWINGS. REPORT NO. 49.

### TESTING:

AFTER X-RAY EQUIPMENT HAS BEEN INSTALLED AND PLACED IN OPERATING CONDITION, THE SHIELDING SHALL BE TESTED, AT THE OWNER'S EXPENSE, BY A NATIONALLY CERTIFIED HEALTH PHYSICIST. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NBS HANDBOOK H-76 "MEDICAL X-RAY PROTECTION UP TO THREE MILLION VOLTS." THE DECISION OF ACCEPTABILITY BY HEALTH PHYSICIST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THEREFORE, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OR REPLACEMENT OF ALL DEFECTIVE WORK (INCLUDING WORK SUBSEQUENTLY AFFECTED) AND ADDITIONAL TESTS REQUIRED TO MEET THE SATISFACTION OF THE HEALTH PHYSICIST.

### LIABILITY:

THE EQUIPMENT REPRESENTATIVES ASSUME NO RESPONSIBILITY FOR ANY CONSTRUCTION COSTS, WHETHER OR NOT RELATED TO THE INSTALLATION OF OUR EQUIPMENT. NO WORK MAY BE PERFORMED OR MATERIALS FURNISHED AT OUR EXPENSE UNLESS AUTHORIZED BY A SIGNED, FORMAL PURCHASE ORDER. ADDITIONALLY, A SITE INSPECTION SHALL BE CONDUCTED BY THE EQUIPMENT REPRESENTATIVES TO CONFIRM THE SITE'S READINESS PRIOR TO X-RAY EQUIPMENT DELIVERY. THIS INSPECTION SHALL BE PERFORMED WHEN NOTIFIED OF THE CONSTRUCTION'S COMPLETION.

## ARCHITECTURAL NOTES

1. THIS SET OF DRAWINGS ARE FOR THE PURPOSE OF A LAYOUT PLAN ONLY - NOT FOR CONSTRUCTION. THESE DRAWINGS ARE FOR THE BENEFIT OF PURCHASER'S ARCHITECT OF CHOICE. THE ARCHITECT AND BUILDING CONTRACTORS SHALL CONVERT THIS LAYOUT INTO WORKING AND CONSTRUCTION DRAWINGS OBSERVING ALL PREVAILING CODES. THESE DRAWINGS ARE INTENDED TO PROVIDE THE CONSTRUCTION PARTICIPANTS WITH SPECIFICATION AND CONCEPTUAL INFORMATION ONLY. EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO THE ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. THIS FLOOR PLAN WAS SCALED FROM PRINTS DRAWN BY OTHERS. ALL CONSTRUCTION PARTICIPANTS SHALL VERIFY AND ADJUST DIMENSIONS. CRITICAL DIMENSIONAL RELATIONSHIPS HAVE BEEN SUPPLIED. IT IS THE RESPONSIBILITY OF ALL CONSTRUCTION PARTICIPANTS TO ADHERE TO THESE DISTANCES. ALL DIMENSIONS ARE FROM FINISHED SURFACES UNLESS OTHERWISE NOTED. ARCHITECT SHALL VERIFY THAT ALL DOOR AND PASSAGEWAY SIZES ARE ADEQUATE FOR TRANSPORTING EQUIPMENT FROM EXTERIOR OF BUILDING INTO RESPECTIVE ROOMS. RECOMMEND COVERING OR REMOVING THRESHOLDS. THE EQUIPMENT REPRESENTATIVES OR THEIR DESIGNER ARE NOT RESPONSIBLE OR LIABLE FOR ANY ERRORS OR OMISSIONS. THOSE MAKING USE OF OR RELYING ON THIS MATERIAL ASSUMES ALL RISKS AND LIABILITY ARISING FROM SUCH USE OR RELIANCE. ALL CONSTRUCTION SHALL COMPLY WITH BUILDING CODES AND REGULATIONS THAT HAVE JURISDICTION.

2. ALL SUPPLY DIFFUSERS SHALL NOT CAUSE DIRECT AIR CURRENTS ON PATIENTS OR OPERATORS. RECOMMEND 2' x 4' LAY-IN CEILING PANELS OF MATERIAL ACCEPTABLE TO CUSTOMER AND APPROVED BY PREVAILING CODES. LIGHTING FIXTURES, VENTS, ETC. TO BE FLUSH WITH FINISHED CEILING.

3. ARCHITECT AND ENGINEERS SHALL USE EXISTING ELECTRICAL AND STRUCTURAL ITEMS WHEN FEASIBLE.

4. ALL WORK, EXCEPT INSTALLATION OF DIAGNOSTIC IMAGING EQUIPMENT, IS TO BE DONE BY THOSE OTHER THAN THE EQUIPMENT REPRESENTATIVES.

5. SOME CONVENIENCES MAY BE REQUIRED BY CODE OR DESIRED BY CUSTOMER IN EACH RESPECTIVE ROOM (i.e., CASSETTE STORAGE, ILLUMINATORS, CABINETS, SINKS AND COUNTER SPACE). PLEASE CONSULT WITH CUSTOMER WITH REGARDS TO DESIRED CONVENIENCES.

6. THE SUPPLY VOLTAGE MUST REMAIN RELATIVELY STABLE. ELECTRICAL POWER FOR X-RAY EQUIPMENT REQUIRES VERY LARGE CURRENTS FOR EXTREMELY SHORT TIMES. REFER TO ELECTRICAL NOTES. GROUNDING MUST CONFORM TO THE CURRENT REQUIREMENTS FOR ELECTRICALLY SUSCEPTIBLE PATIENT AREAS.

7. VIEWING WINDOW TO BE 1/16" LEAD EQUIVALENT. RECOMMEND LARGE VIEWING WINDOWS TO BE TILTED 7° TO HELP ELIMINATE GLARE. IF TILTED 7° VIEWING WINDOW IS ACRYLIC, PROVIDE A SINGLE SHEET OF PLATE GLASS ON BOTH SIDES TO HELP PREVENT SCRATCHING.

8. NO ATTENTION HAS BEEN GIVEN TO SPECIFIC PLUMBING OR HVAC CONSIDERATIONS AFFECTED BY THE SCOPE OF THIS WORK. ENGINEERING DRAWINGS TO BE DONE BY OTHERS. ELECTRICAL AND MECHANICAL DESIGNERS SHALL BE REQUIRED TO REVIEW THESE DRAWINGS TO HELP THEM GAIN AN UNDERSTANDING OF THE CONCEPT OF THIS WORK AND TO HELP MINIMIZE CONFLICTING CONSTRUCTION EFFORTS. NO ATTENTION HAS BEEN GIVEN TO SPECIFIC BUILDING STRUCTURAL INTEGRITY. A PROFESSIONAL STRUCTURAL ENGINEER SHALL INSPECT FIELD CONDITIONS TO ENSURE THAT THE FACILITY SUPPORT STRUCTURE (e.g. WALLS, FLOORS, CEILINGS) CAN PROVIDE ADEQUATE SUPPORT FOR THE DIAGNOSTIC IMAGING EQUIPMENT DESCRIBED IN THE EQUIPMENT SCHEDULE. NO ATTENTION HAS BEEN GIVEN TO SPECIFIC SEISMIC ANCHORAGE CONSIDERATIONS AFFECTED BY THE SCOPE OF THIS WORK. ALL EXPENSES ASSOCIATED WITH SEISMIC TESTING AND COMPLIANCE SHALL BE THE RESPONSIBILITY OF THE CUSTOMER (END USER) OR THEIR RESPECTIVE CONTRACTORS OF CHOICE. IT IS STRONGLY RECOMMENDED THAT THE CUSTOMER CONSULTS WITH A PROFESSIONAL STRUCTURAL ENGINEER FAMILIAR WITH ALL PREVAILING SEISMIC REQUIREMENTS. ENGINEERING DRAWINGS BY OTHERS.

9. THE EQUIPMENT REPRESENTATIVES MUST APPROVE DEVIATION FROM THESE PLANS IN WRITING PRIOR TO ANY CHANGES.

## WIRING NOTES

ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS, WIRE, WIREWAYS, DISTRIBUTION TRANSFORMERS, JUNCTION BOXES, ENCLOSURES, CIRCUIT BREAKERS, ETC.

ALL WIRES TO BE THHN TYPE, STRANDED COPPER UNLESS OTHERWISE SPECIFIED. THE ELECTRICAL CONTRACTOR SHALL SUPPLY LUG PAIRS OF #8 OR GREATER FOR ALL CABLES LISTED WITHIN THE SCOPE OF THIS WORK.

CONDUIT AND DUCT RUNS ARE SHOWN SCHEMATICALLY. ACTUAL BUILDING CONDITIONS WILL DETERMINE CONDUIT AND DUCT ROUTES. CONDUIT TURNS TO HAVE LARGE SWEEPING BENDS WITH MINIMUM RADIUS AS SPECIFIED IN NEC ART. 346-10. IF LARGE BENDS IN CONDUIT ARE NOT POSSIBLE, USE SERVICE ENTRANCE ELBOW CONNECTORS TO AVOID DAMAGE TO CABLE.

ELECTRICAL CONTRACTOR TO PROVIDE 10'-0" TAILS FOR ALL WIRES UNLESS OTHERWISE SPECIFIED AND IDENTIFY BOTH ENDS OF ALL WIRES. ELECTRICAL CONTRACTOR SHALL MAKE EVERY EFFORT TO ENSURE THAT POINT TO POINT CONDUIT RUNS ARE AS SHORT AS FIELD CONDITIONS ALLOW.

LEAVE PULL WIRE IN EMPTY CONDUITS.

WORK SHALL COMPLY WITH REGULATORY AGENCIES OF JURISDICTION. ALL SUCH AGENCIES SUPERSEDE THESE DRAWINGS AND MUST BE ADHERED TO. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SCRUTINIZING THESE DRAWINGS AND SHALL MAKE CORRECTIONS ACCORDING TO PREVAILING CODES.

NOTE: CONDUITS MAY BE INCREASED IN SIZE BUT NEVER DECREASED WITHOUT CONSENT FROM THE EQUIPMENT REPRESENTATIVES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE PATIENT GROUNDING NETWORK PER NATIONAL ELECTRIC CODE ARTICLE 517 AND NFPA 70.

ALL CONDUIT SHALL BE RIGID TYPE UNLESS SPECIFIED OTHERWISE IN THIS DRAWING SET. ALL CONDUIT RUNS EXPOSED TO WET ENVIRONMENTS SHALL BE MADE LIQUID TIGHT. (e.g. UNDERGROUND, ETC.)

ALL FLUSH MOUNTED ELECTRICAL BOXES AND WIRE TROUGHS SHALL HAVE OVERSIZED COVER PLATES. ALL FLUSH MOUNTED ELECTRICAL BOXES AND WIRE TROUGHS EXPOSED TO A WET ENVIRONMENT SHALL BE MADE LIQUID TIGHT. (e.g. IN FLOOR, ETC.)

THE ELECTRICAL CONTRACTOR SHALL INSTALL, PROVIDE POWER TO AND CONNECT THE FOLLOWING IF REQUIRED:

THE "X-RAY IN USE" WARNING SIGN; THE 120VAC, 15AMP RECEPTACLE AND BNC CONNECTORS; THE DOOR INTERLOCK SWITCH; THE EMERGENCY OFF SWITCH; AND THE 120VAC, DUPLEX OUTLETS FOR SERVICE AND HOUSEKEEPING DESCRIBED IN THE GENERAL NOTES ITEM #6.

FACILITY:

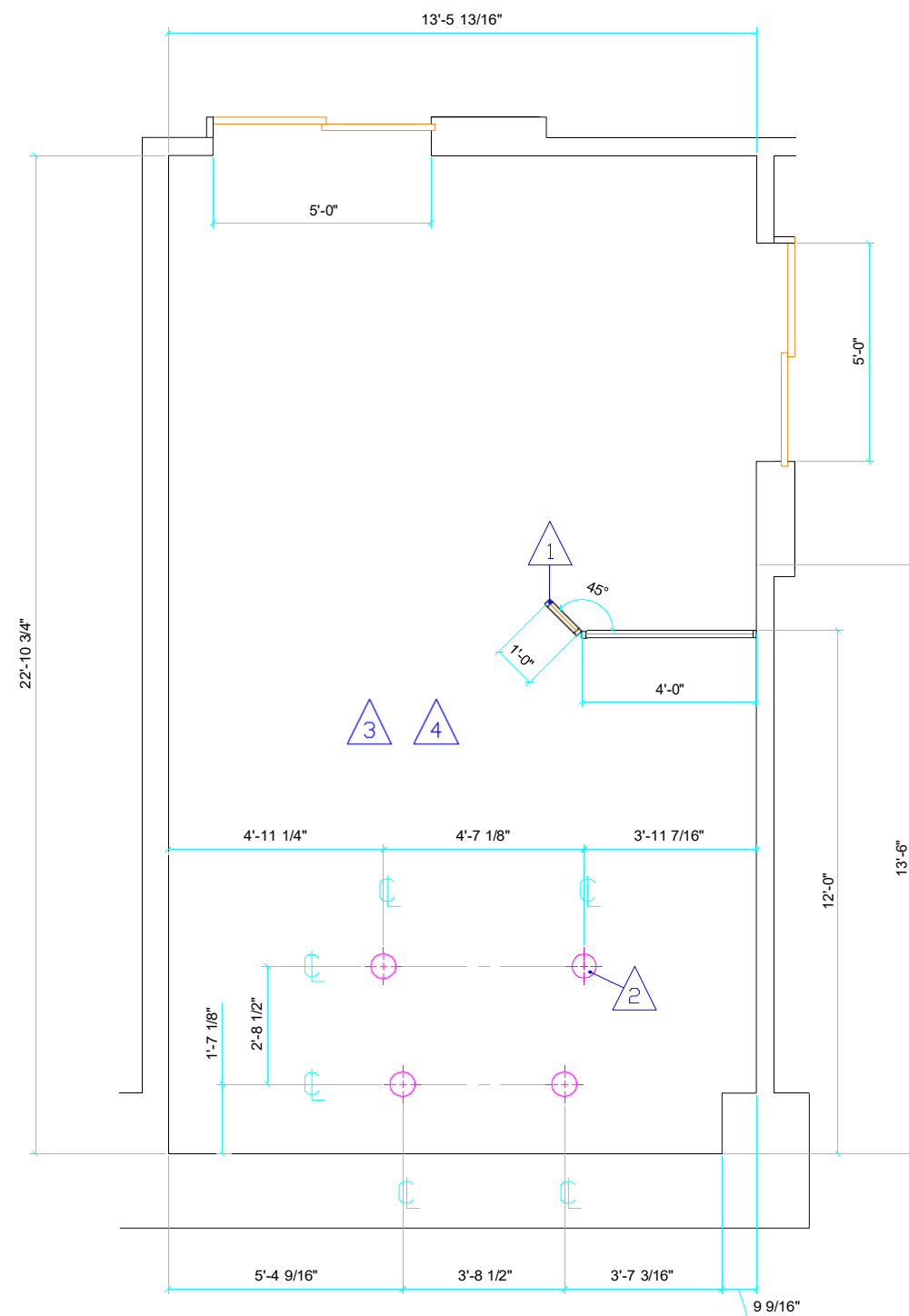
UNIFIED STATE  
LABORATORY MODULE #2

DRAWN BY:  
DAVE HENRY  
DATE:  
06/14/2016  
FILE NAME:  
USL160613

SCALE:  
NONE  
SHEET:

A-2

Owner provided Lodox equipment drawings with Summit Consultants comments.



**PROPOSED ROOM LAYOUT**  
 DEVIATION FROM THESE PLANS MUST BE APPROVED  
 IN WRITING BY X-RAY EQUIPMENT DEALER PRIOR TO CHANGES.

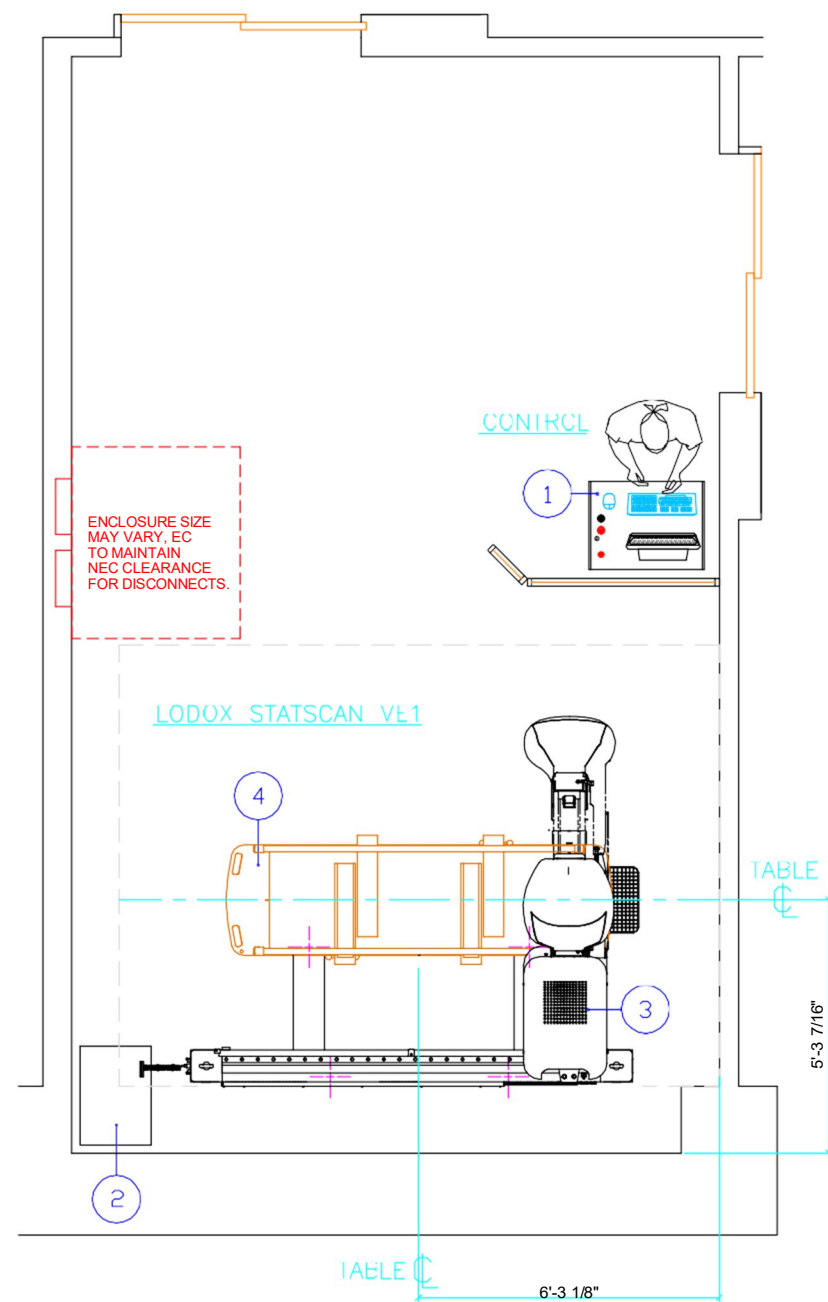
### CONSTRUCTION NOTES

(CONTRACTOR FURNISHED - CONTRACTOR INSTALLED)

- 1 MODULAR X-RAY BARRIER SHOWN. BARRIER SUPPLIED AND INSTALL BY CUSTOMER. WORKING DRAWINGS BY ARCHITECT. CONSULT WITH A CERTIFIED STATE PHYSICIST REGARDING SHIELDING REQUIREMENTS.
- 2 CONTRACTOR IS RESPONSIBLE FOR FLOOR INTEGRITY AND LODOX EQUIPMENT ANCHORING. CONTRACTOR SHALL PRE-DRILL ALL STATSCAN VE1 ANCHORING HOLES. CONTRACTOR SHALL VERIFY LOCATION OF THE SUPPORT BEAMS AND JOISTS TO ENSURE NON INTERFERENCE WITH ANCHORS. IF THE ANCHOR HOLES ARE DIRECTLY ABOVE NON REMOVABLE OBSTRUCTION THE CONTRACTOR SHALL NOTIFY LODOX EQUIPMENT INSTALLERS TO DISCUSS ALTERNATIVES.
- 3 THE FLOOR IN THE X-RAY ROOM MUST BE LEVEL TO WITHIN  $\pm 1/8"$  OVER A 10'-0" SPAN. THE MINIMUM RECOMMENDED FINISHED CEILING HEIGHT IS 8'-0" A.F.F.
- 4 PROVIDE WALL AND FLOOR PROTECTION FOR INSTALLATION AND DELIVERY OF THE X-RAY EQUIPMENT. THE EQUIPMENT VENDOR IS NOT RESPONSIBLE FOR DAMAGES. CONSULT WITH EQUIPMENT VENDOR FOR FURTHER INFORMATION.

FACILITY: <b>UNIFIED STATE</b> LABORATORY MODULE #2	DRAWN BY: <b>DAVE HENRY</b> DATE: <b>06/14/2016</b> FILE NAME: <b>USL160613</b>	SCALE: NONE SHEET: <div style="font-size: 2em; font-weight: bold; text-align: center;">A-3</div>
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Owner provided Lodox equipment drawings with Summit Consultants comments.



PROPOSED EQUIPMENT LAYOUT

## EQUIPMENT SCHEDULE

NOTES	EQUIPMENT IDENTIFICATION NUMBER						
		BTU / HOUR	DESCRIPTION	WEIGHT (LBS.)			
				W	D		H
OFOI	1	132	LODOX STATSCAN DIGITAL X-RAY CONTROL STATION PC	34.33	32.91	55.12	88
OFOI	2	1200	LODOX STATSCAN DIGITAL X-RAY X-RAY GENERATOR RACK CABINET	23.39	14.17	26.61	133
OFOI	3	2668	LODOX STATSCAN VE1 SCANNER	110.40	71.25	91.00	2645
OFOI	4	N/A	LODOX STATSCAN DIGITAL X-RAY TROLLEY	29.13	86.61	31.89	177

NOTE EXPLANATION:  
 CFCI = CONTRACTOR FURNISHED - CONTRACTOR INSTALLED  
 OFCI = OWNER FURNISHED - CONTRACTOR INSTALLED  
 OFOI = OWNER FURNISHED - OWNER INSTALLED

### EQUIPMENT DATA

TEMPERATURE \_\_\_\_\_ +10 TO +35° CELSIUS  
 HUMIDITY \_\_\_\_\_ 20% TO 80% NON-CONDENSING  
 ATMOSPHERE PRESSURE \_\_\_\_\_ ATMOSPHERE PRESSURE  
 IMAGE SIZE \_\_\_\_\_ 540 hPa TO 1035 hPa  
 DETECTOR SYSTEM \_\_\_\_\_ 680MM x 1800MM, FULL BODY. ADJUSTABLE FROM 100MM x 100MM TO FULL SIZE IN ANY POSITION ON THE PATIENT  
 DETECTOR \_\_\_\_\_ PROPRIETARY DETECTOR TECHNOLOGY (SIMILAR TO A SPIRAL CT DETECTOR TECHNOLOGY)  
 X-RAY TO LIGHT CONVERSION \_\_\_\_\_ RAREX GREEN FAST ("GADOX" (GdOS<sub>2</sub> :TB))  
 CEILING HEIGHT \_\_\_\_\_ 9'-0" A.F.F.  
 FINISHED FLOOR \_\_\_\_\_ MUST BE LEVEL TO WITHIN ±1/8" OVER A 10'-0" SPAN.

FACILITY:

UNIFIED STATE  
 LABORATORY MODULE #2

DRAWN BY:  
 DAVE HENRY

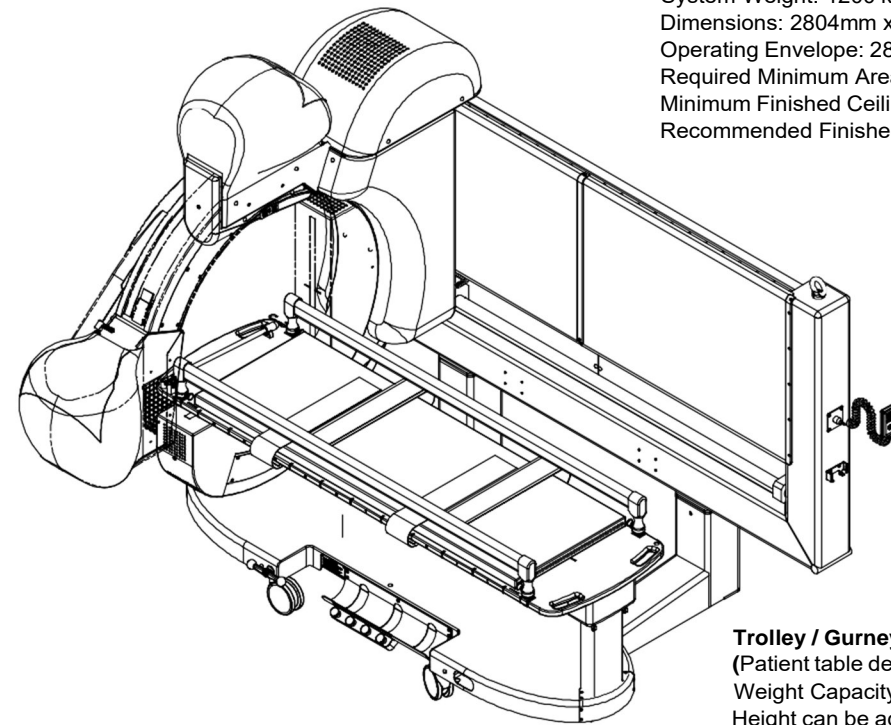
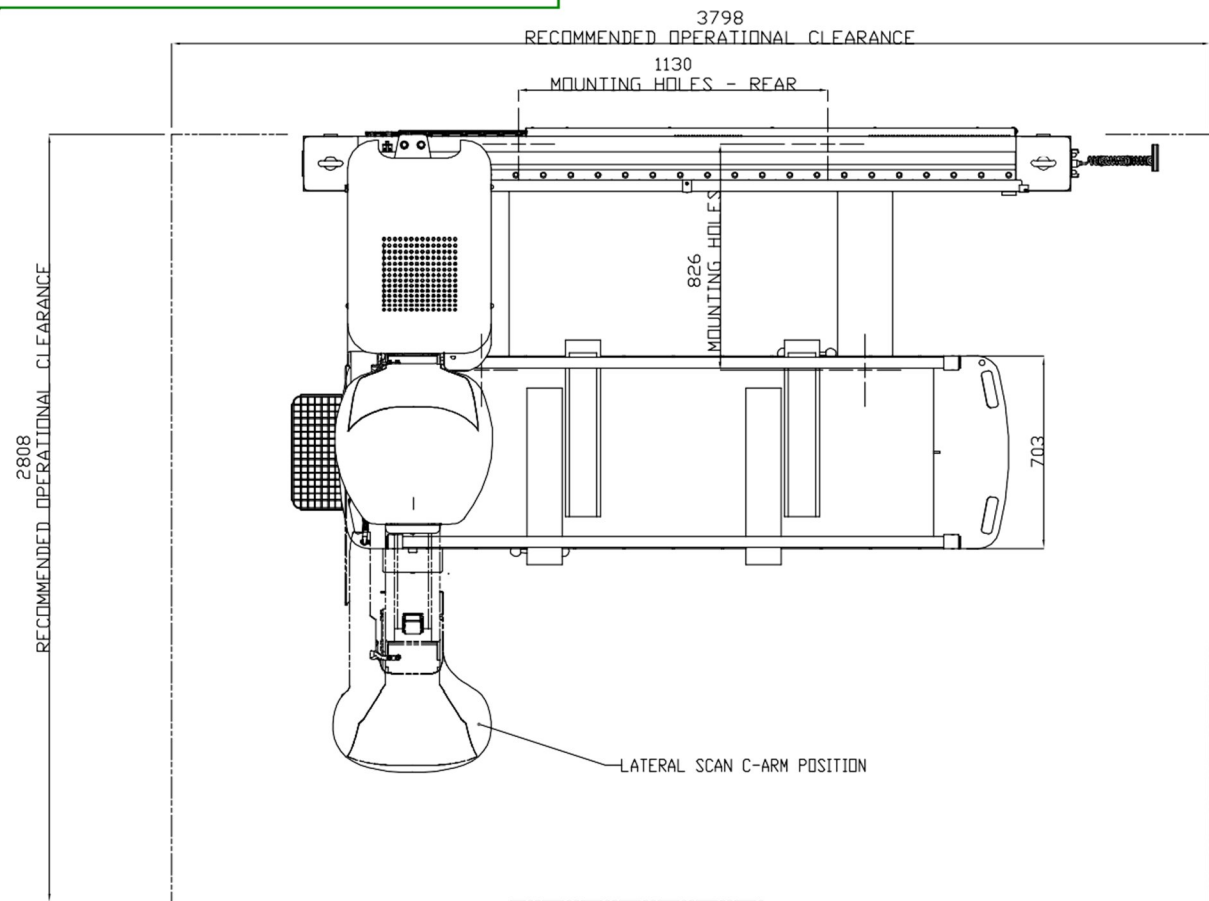
DATE:  
 06/14/2016  
 FILE NAME:  
 USL160613

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

SHEET:

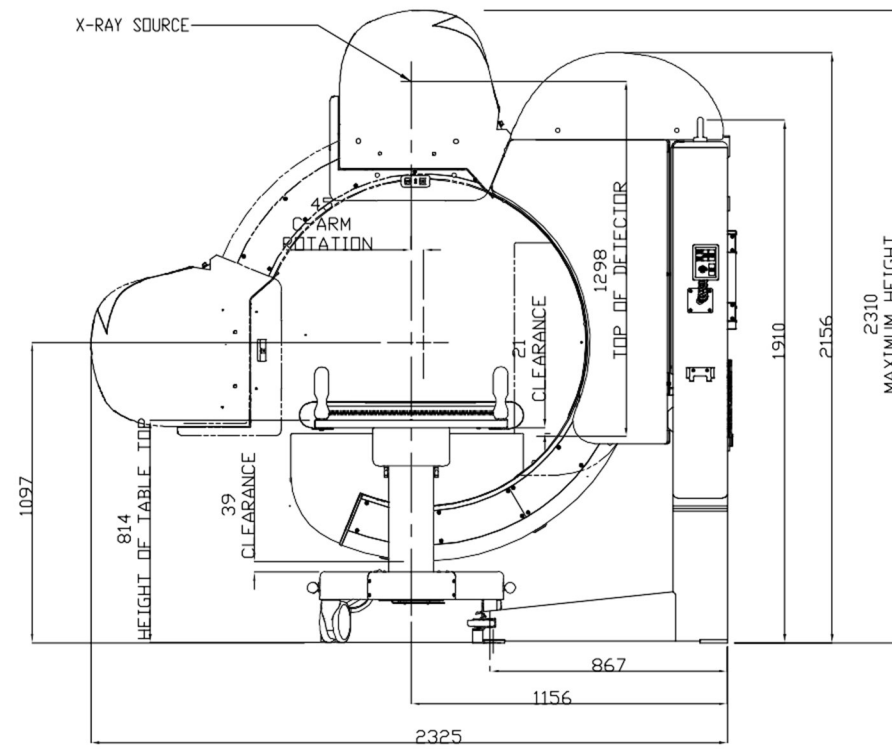
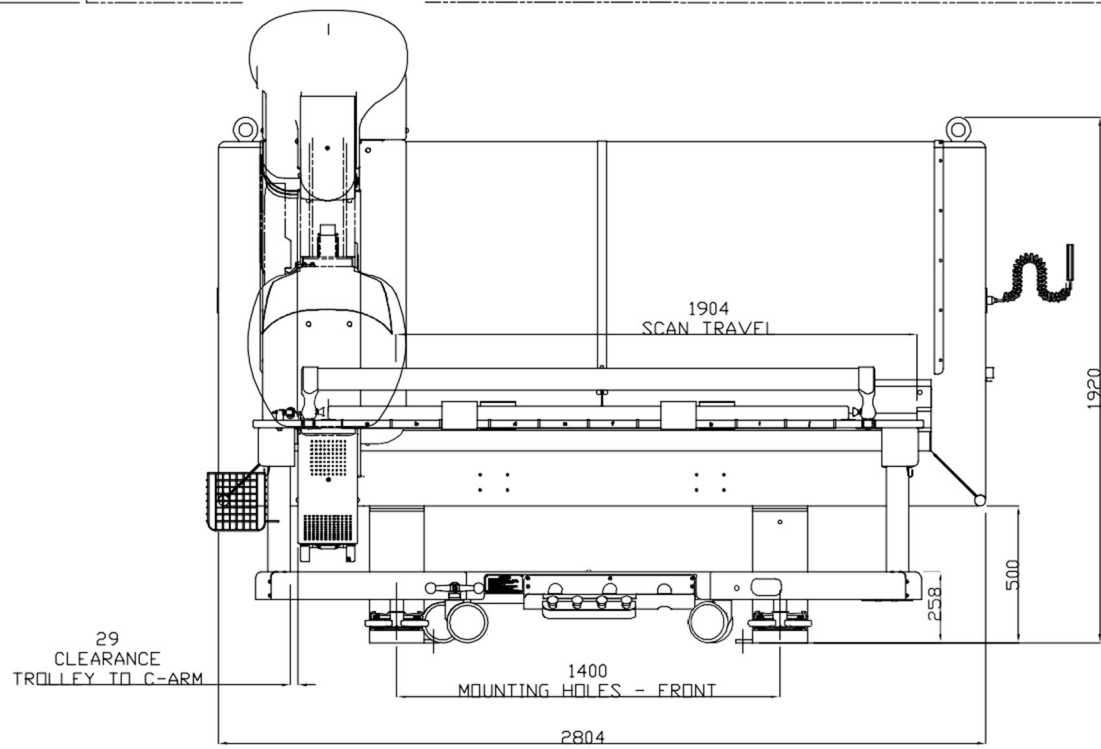
B-1

Owner provided Lodox equipment drawings with Summit Consultants comments.



**Statscan VE1**  
 System Weight: 1200 kg / 2645 Lbs  
 Dimensions: 2804mm x 1617mm x 2310mm / 110.4" x 64" x 91" (L x W x H)  
 Operating Envelope: 2834mm x 2322mm x 2322mm / 112" x 91.4" x 91.4" (L x W x H)  
 Required Minimum Area: 3798 mm x 2808 mm / 150" x 110" (L x W)  
 Minimum Finished Ceiling Height: 96.5 inches (2450mm)  
 Recommended Finished Ceiling Height: 9'-0"

**Trolley / Gurney**  
 (Patient table designed for resuscitation).  
 Weight Capacity: 220kgs / 440Lbs.  
 Height can be adjusted from 0 to 340mm. Maximum Height: 1150 mm / 45".  
 Allows Trendelenburg angles +/- 10 degrees.  
 Radiolucent Carbon Fiber Rails may be left "Upright" during lateral imaging.  
 Dimensions: 2200mm x 740mm x 810mm / 87" x 30" x 32" (L x W x H)



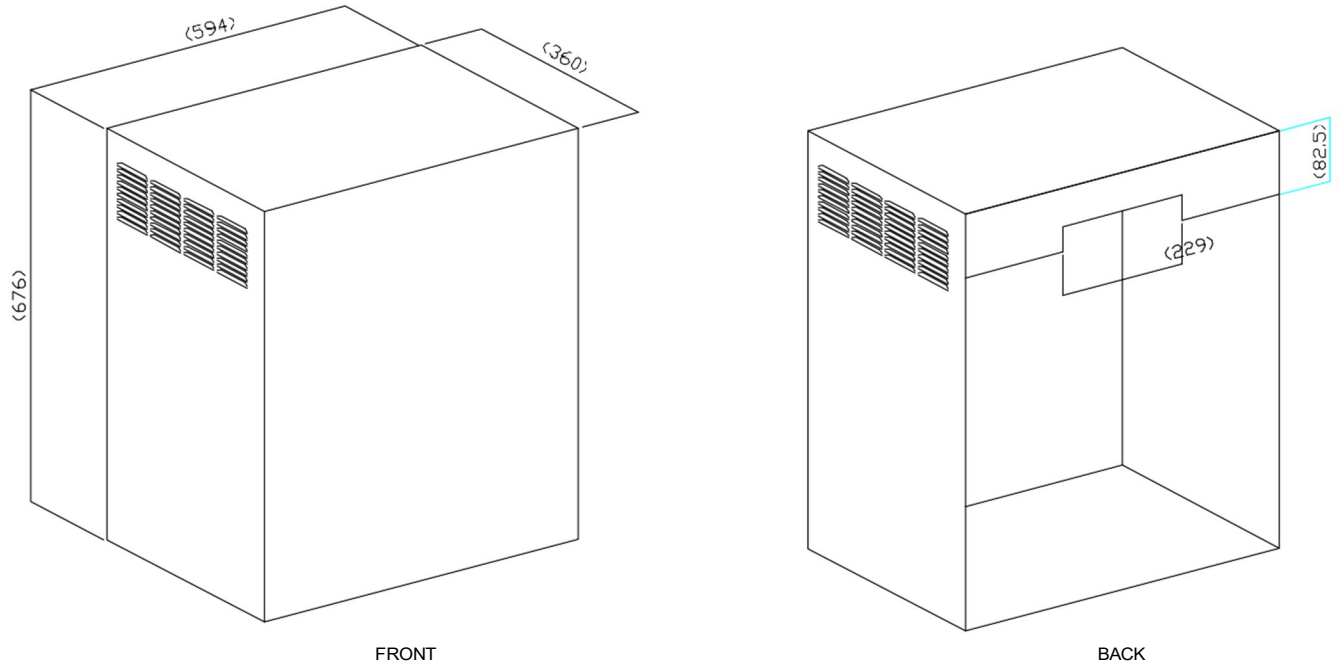
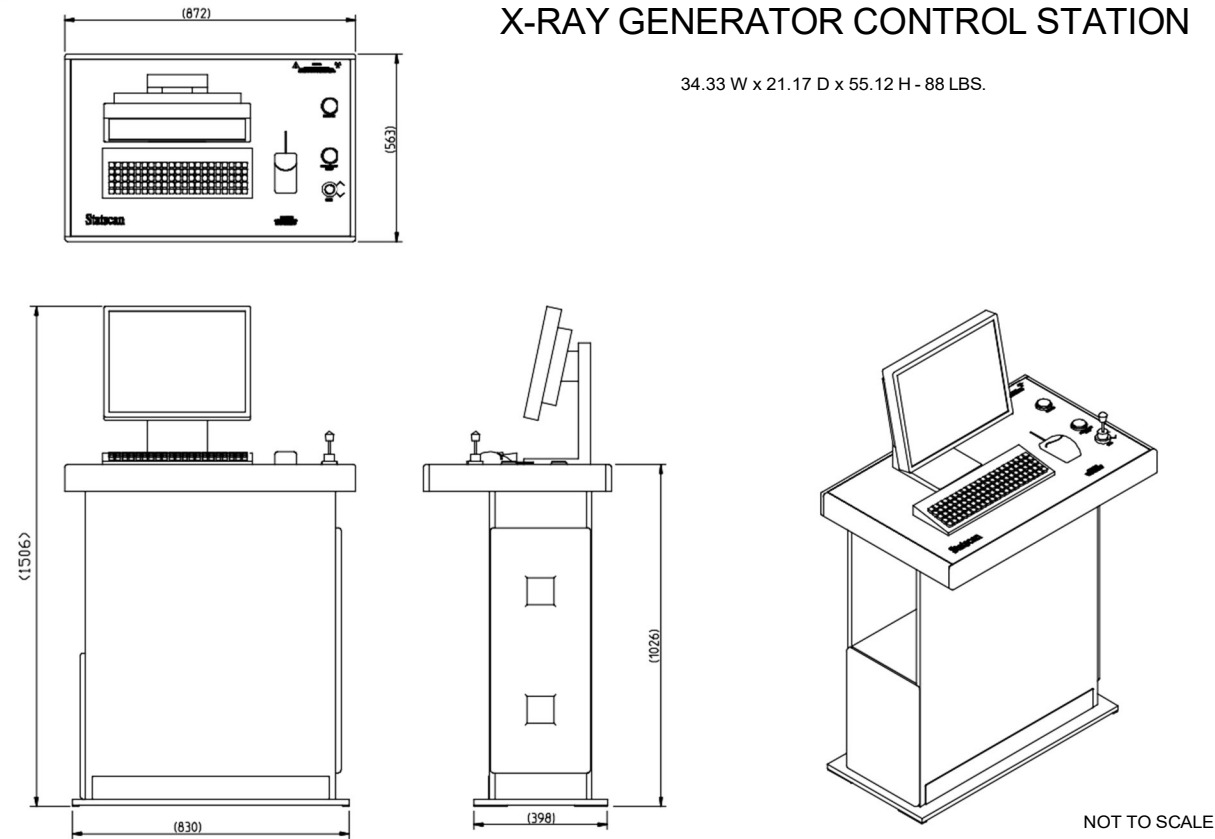
NOT TO SCALE

Statscan VE1

FACILITY:		DRAWN BY:	SCALE:
UNIFIED STATE LABORATORY MODULE #2		None	D-1
		DATE: 06/14/2016	
FILE NAME: USL160613		SHEET:	

### X-RAY GENERATOR CONTROL STATION

34.33 W x 21.17 D x 55.12 H - 88 LBS.



### X-RAY GENERATOR RACK CABINET

23.39 W x 14.17 D x 26.61 H - 133 LBS.

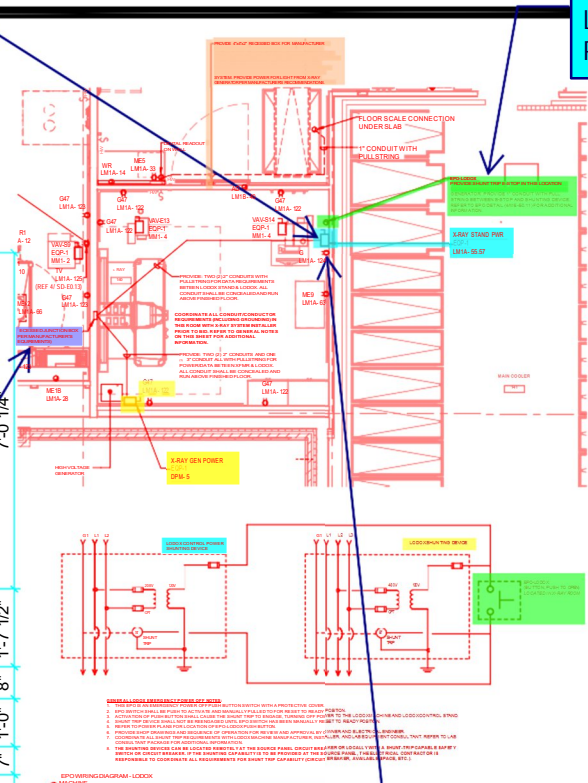
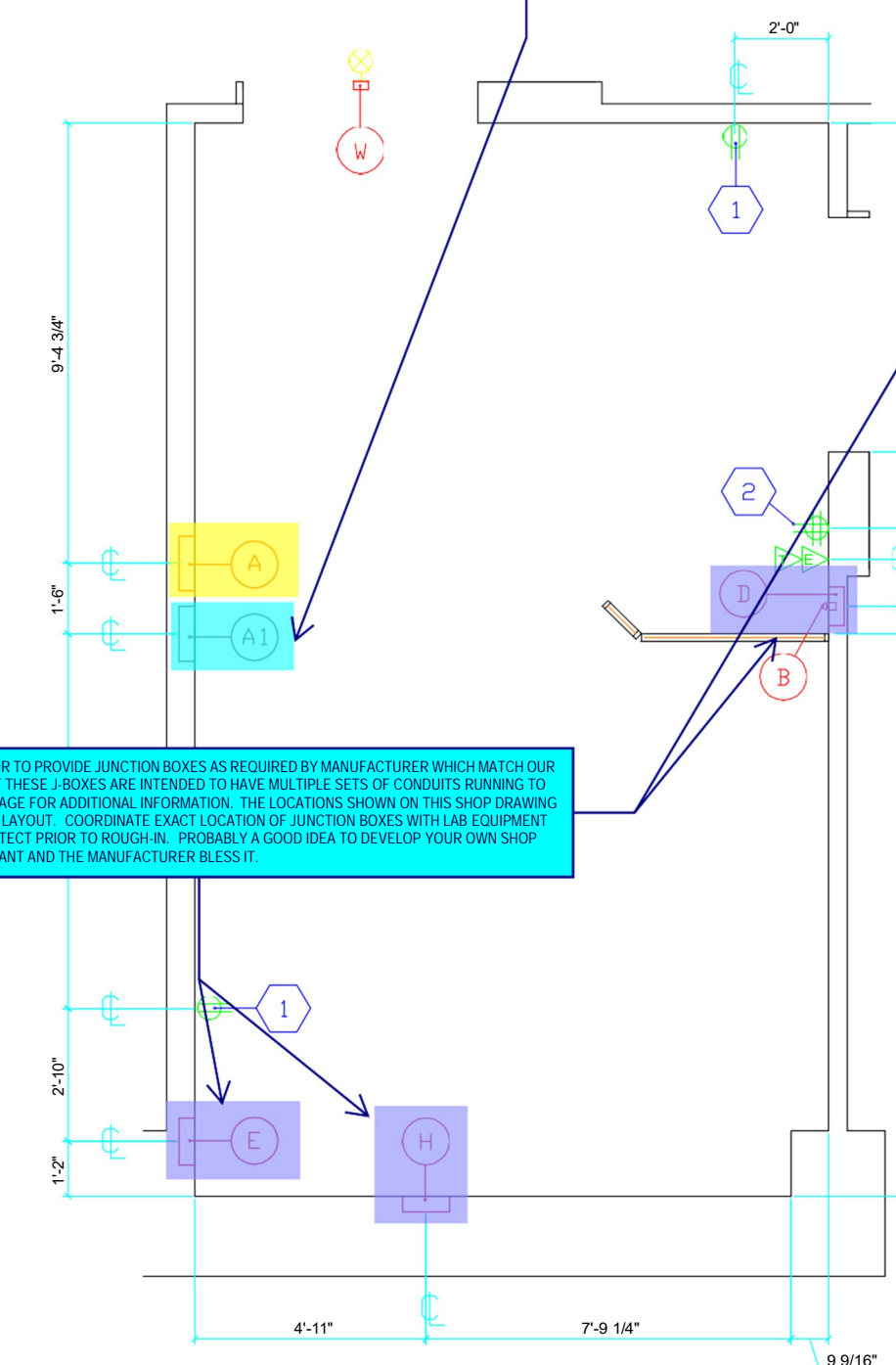
NOT TO SCALE

FACILITY: <b>UNIFIED STATE</b> LABORATORY MODULE #2	DRAWN BY:	SCALE: None
	DATE: 06/14/2016	SHEET: <b>D-2</b>
FILE NAME: USL160613		

Owner provided Lodox equipment drawings with Summit Consultants comments.

CIRCUIT BREAKER GETS INSTALLED BEHIND BRYANT AND I TALKED ABOUT THIS AND LOOKED THROUGH SHOP DRAWINGS FOR ANOTHER LODOX INSTALL. THE CIRCUIT BREAKER IN QUESTION GOES OVER BY THE WORKSTATION.

MANUFACTURER SEEMS TO INDICATE THE NEED TO ONLY SHUNT TRIP POWER TO THE X-RAY GEN POWER. SUMMIT'S DESIGN SHOWS POWER BEING KILLED TO BOTH THIS AND THE X-RAY STAND POWER. THE LATER STILL SEEMS CORRECT TO ME. EC TO COORDINATE THIS WITH THE MANUFACTURER AND INSTALL PER THEIR GUIDELINES.



**Distribution Panel: DPM**

Mounting: SURFACE  
Supply From: MSB  
Enclosure: Type 1

Volts: 480/277 V<sub>LL</sub>  
Phases: 3  
Wires: 4

A.I.C. Rating: 42,000 AC  
Main Type: MCB  
Main Rating: 100 A

CKT	Circuit Description	POLES	TRIP (Amps)	Apparent Current	Load (VA)
1	MHT	400	230 A	18323 VA	
2	MHT	100	230 A	2427 VA	
3	BLMT	100	1 A	441 VA	
4	TRIP	200	141 A	117548 VA	
5	STATSCAN CONTROL STATION PC	100	25 A	20000 VA	
6	REFEEDER TRUCK	100	45 A	33240 VA	
7	PREPARED SPACE	1	0	0 VA	
8	PREPARED SPACE	1	0	0 VA	
9	PREPARED SPACE	1	0	0 VA	
10	PREPARED SPACE	1	0	0 VA	
11	PREPARED SPACE	1	0	0 VA	
12	PREPARED SPACE	1	0	0 VA	
13	PREPARED SPACE	1	0	0 VA	
14	PREPARED SPACE	1	0	0 VA	
15	PREPARED SPACE	1	0	0 VA	
16	PREPARED SPACE	1	0	0 VA	
Total Load					431 kVA 519 A

**Load Classification**

Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Control	3793 VA	100.00%	3793 VA	Total Conn. Load: 331 kVA
Heating	3750 VA	100.00%	3750 VA	Total Conn. Load: 331 kVA
Lighting	2427 VA	100.00%	2427 VA	Total Conn. Load: 331 kVA
Motor	80775 VA	100.00%	80775 VA	Total Conn. Load: 331 kVA
Power	7044 VA	100.00%	7044 VA	Total Est. Demand: 337 A
Receptacle	10896 VA	58.16%	6448 VA	Total Est. Demand: 337 A

Notes:  
REFER TO SHEET S101 FOR LOAD SUMMARY INFORMATION.  
COORDINATE ALL SHUNT TRIP REQUIREMENTS FOR LODOX MACHINE PRIOR TO RELEASE OF PANELBOARDS. SHUNT TRIP CAPABILITY CAN BE REVOKED IF SEPARATE IN-LINE SHUNT TRIP DEVICE IS TO BE PROVIDED.

**TERMINAL SCHEDULE**  
( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

ITEM	DESCRIPTION
	FACILITY TO DETERMINE SOURCE LOCATION. SOURCE SHALL BE 480VAC, 80KVA, DELTA OR WYE PREFERRED.
A	NEMA 1, 480VAC, THREE PHASE, FRONT OPERATED, CIRCUIT BREAKER ENCLOSURE WITH GROUND ACCESSORIES. ENCLOSURE SHALL CONTAIN ONE 75AMP, 3-POLE THERMOMAGNETIC CIRCUIT BREAKER WITH SHUNT TRIP DEVICE. FLUSH MOUNTED ON WALL WHERE SHOWN. LOCATE ENCLOSURE CENTER LINE 5'-8" A.F.F. NOTE: EC SHALL ENSURE THAT LUGS ARE LARGE ENOUGH TO FACILITATE OVERSIZED INCOMING CABLES REQUIRED BY X-RAY EQUIPMENT. REFER TO "INCOMING WIRE SIZE" NOTES.
A1	NEMA 1, 208VAC, SINGLE PHASE, FRONT OPERATED, CIRCUIT BREAKER ENCLOSURE WITH NEUTRAL AND GROUND ACCESSORIES. ENCLOSURE SHALL CONTAIN ONE 20AMP, 2-POLE THERMOMAGNETIC CIRCUIT BREAKER. EC SHALL LABEL CB AS "SCANNER" POWER. FLUSH MOUNTED ON WALL WHERE SHOWN. LOCATE ENCLOSURE CENTER LINE 5'-8" A.F.F.
B	4" x 2" x 2" DEEP SWITCH BOX. FLUSH MOUNT IN WALL WHERE SHOWN. LOCATE BOX CENTER LINE AT 6'-0" A.F.F. EC SHALL PROVIDE ONE NORMALLY OPEN SWITCH WITH RED MUSHROOM HEAD AND AN "EMERGENCY OFF" NAME PLATE SWITCH WILL BE USED FOR SHUNT TRIP DEVICE LOCATED ON CIRCUIT BREAKER <A>.
D	10" x 10" x 4" DEEP JUNCTION BOX. FLUSH MOUNTED IN WALL WHERE SHOWN. LOCATE ENCLOSURE CENTER LINE 12" A.F.F. PROVIDE A COVER PLATE AS SHOWN IN COVER PLATE DETAILS. PROVIDES ACCESS TO THE STATCAN CONTROL STATION PC.
E	12" x 12" x 4" DEEP JUNCTION BOX. FLUSH MOUNTED IN WALL WHERE SHOWN. LOCATE ENCLOSURE CENTER LINE 14" A.F.F. PROVIDE A COVER PLATE AS SHOWN IN COVER PLATE DETAILS. PROVIDES ACCESS TO THE STATSCAN GENERATOR RACK.
H	12" x 12" x 4" DEEP JUNCTION BOX. FLUSH MOUNTED IN WALL WHERE SHOWN. LOCATE ENCLOSURE CENTER LINE 14" A.F.F. PROVIDE A COVER PLATE AS SHOWN IN COVER PLATE DETAILS. PROVIDES ACCESS TO THE STATSCAN SCANNER.
W	4" x 4" x 2" BOX FOR "X-RAY IN USE" WARNING SIGN. EXACT LOCATION TO BE DETERMINED BY ARCHITECT. FLUSH MOUNT IN WALL OR CEILING. USE INCANDESCENT FIXTURE ONLY. (INSTALL ONLY IF REQUIRED BY PREVAILING CODE OR REQUESTED BY CUSTOMER).

**ELECTRICAL TAG DESCRIPTIONS**  
( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

ITEM	DESCRIPTION
1	EC SHALL FURNISH AND INSTALL ONE HOSPITAL GRADE, THREE PRONG, 120VAC, 15AMP, DUPLEX RECEPTACLE. FLUSH MOUNT IN WALL WHERE SHOWN AT NORMAL HEIGHT. PROVIDES POWER FOR SERVICE AND HOUSE KEEPING. REQUIRES HOUSE POWER.
2	EC SHALL FURNISH AND INSTALL ONE HOSPITAL GRADE, THREE PRONG, 120VAC, 20AMP, QUADPLEX RECEPTACLE. FLUSH MOUNT IN WALL WHERE SHOWN 18" A.F.F. PROVIDES POWER FOR STATSCAN CONTROL STATION PC AND PERIPHERALS. REQUIRES HOUSE POWER.
T	PROVIDE A SINGLE TELEPHONE LINE WHERE SHOWN FOR CERTAIN SERVICE AND MAINTENANCE ACTIVITIES TO BE PERFORMED FROM A REMOTE LOCATION. THE RJ11 LINE MUST BE A DEDICATED DIRECT IN DIAL (DID) VOICE-GRADE (TELEPHONE LINE WHICH DOES NOT RUN THROUGH ANY FACILITY PBX, SWITCHBOARD OR A SHARED ACCESS LINE. THE TELEPHONE NUMBER MUST BE PROVIDED TO THE TECHNICIAN WHO INSTALLS THE SYSTEM.
E	4-PORT ETHERNET CONNECTION WHERE SHOWN. EC SHALL CONSULT WITH END USER REGARDING TYPE OF CONNECTOR (e.g., RJ-45/CAT-5, FIBER OPTICS, BNC/COAX, ETC.). REFER TO DICOM NOTES. PROVIDE ALL HARDWARE NECESSARY INCLUDING COVER PLATES, CONNECTORS AND INTERCONNECTING CABLES. NOTE: ETHERNET CONNECTION SHOULD HAVE INTERNET ACCESS WITH VPN CAPABILITY.

**ELECTRICAL LAYOUT**

NOTE: ALL ELECTRICAL IS SHOWN FLUSH MOUNT AS THE STANDARD. ELECTRICAL MAY BE SURFACE MOUNTED IN THE SAME LOCATIONS INDICATED IF REQUIRED. PAINT ALL SURFACE MOUNTED ELECTRICAL THE SAME COLOR AS ADJACENT SURFACES. CONSULT THE EQUIPMENT REPRESENTATIVE FOR FURTHER INFORMATION.

POWER FOR THE PORTABLE X-RAY MACHINE IS NOT SHOWN HERE BUT NEEDS TO BE COORDINATED WITH THE LODOX REQUIREMENTS. THIS IS SHOWN AS ME9 ON THE ELECTRICAL DRAWINGS.

MANUFACTURER CALLS FOR QUAD HERE INSTEAD OF DUPLEX

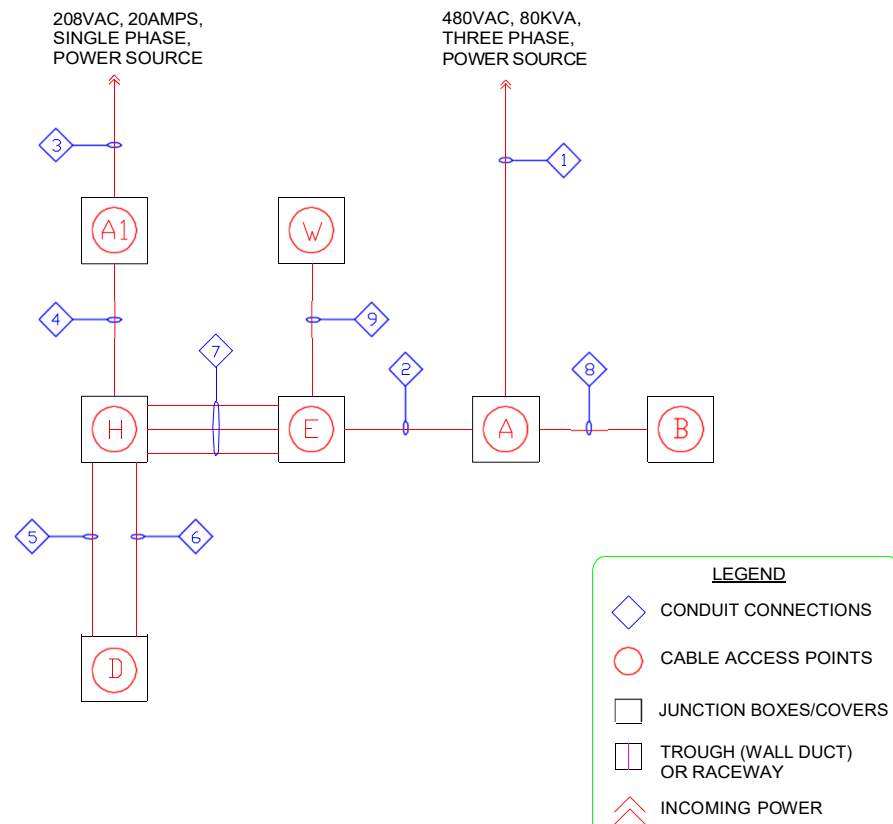
TECHNOLOGY SYSTEMS INSTALLER AND TECHNOLOGY DESIGN NEED TO COORDINATE THEIR REQUIREMENTS, EC TO PROVIDE ALL PATHWAYS FOR LV CABLING.

LABORATORY MODULE #2

DRAWN BY: DAVE HENRY	SCALE: 1/4" = 1'-0"
DATE: 06/14/2016	SHEET: E-1
FILE NAME: USL160613	

Owner provided Lodox equipment drawings with Summit Consultants comments.

### ELECTRICAL BLOCK DIAGRAM



COORDIANTE ALL ELECTRICAL REQUIREMENTS WITH THIS SHEET. ENSURE THAT LOCATIONS OF J-BOXES ARE COORDIANTE AND ENSURE ALL PATHWAYS FOR LOW VOLTAGE CABLING IS PROVIDED WITH PROPER VOLTAGE SEPARATION PER NEC.

### RACEWAY & WIRING SCHEDULE

( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

RUN #	FROM	TO	SIZE	REMARKS
1	480VAC, 3-PHASE SOURCE	A	VARIES	CONDUIT SIZE DEPENDS ON INCOMING WIRE SIZE. REFER TO "INCOMING WIRE SIZE" NOTES. EC TO CONNECT AT BOTH ENDS.
2	A	E	VARIES	WIRE SIZE TO BE DETERMINED BY "INCOMING WIRE SIZE" NOTES; 50' LENGTH. EC TO CONNECT AT <A> AND TERMINATE CABLES AT <E> WITH ILSCO CLEAR SPLICE CONNECTORS (PART NUMBER SPAR-1/0).
3	208VAC, 1-PHASE SOURCE	A1	3/4" CONDUIT	2-#12AWG PLUS 1-#12AWG NEUTRAL AND GROUND. EC SHALL CONNECT TO 20AMP, MAIN IN (A1) AND TO 208/120VAC, 1-PHASE POWER SOURCE.
4	A1	H	3/4" CONDUIT	2-#12AWG PLUS 1-#12AWG NEUTRAL AND GROUND. EC SHALL CONNECT TO 20AMP, 2P, CB IN (A1) (STATSCAN) AND LEAVE 10'-0" TAILS AT <H>. EC SHALL IDENTIFY WIRES AS "STATSCAN" POWER.
5	D	H	2 1/2" CONDUIT	EMPTY CONDUITS. LEAVE PULL STRINGS.
6	D	H	1" CONDUITS	EMPTY CONDUIT. LEAVE PULL STRINGS.
7	E	H	THREE 2" CONDUITS	EMPTY CONDUIT. LEAVE PULL STRINGS.
8	B	A	1/2" CONDUIT	2-#14AWG PLUS GROUND. EC SHALL CONNECT TO (A) AND (B). PROVIDE POWER IF NECESSARY FOR SHUNT TRIP SOLENOID.
9	W	E	1/2" CONDUIT	2-#14AWG PLUS GROUND. EC SHALL CONNECT TO (W) AND LEAVE 10'-0" TAILS AT (E). IDENTIFY WIRES AS WARNING LIGHT.

THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ONE #8AWG GREEN EQUIPMENT GROUND WIRE BETWEEN ALL X-RAY EQUIPMENT. CONSULT WITH THE LOCAL X-RAY EQUIPMENT REPRESENTATIVE REGARDING CENTRAL GROUND POINT LOCATION.

### INCOMING WIRE SIZE NOTES

( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )

LISTED BELOW IS THE RELATIONSHIP BETWEEN THE LENGTH AND SIZE OF EACH INCOMING WIRE, WITH THE ASSUMPTION THAT THE POWER SOURCE HAS THE REQUIRED CAPACITY. THE VOLTAGE REGULATION UNDER LOAD VARIATION IS CALCULATED TO BE WITHIN ±5%. BE SURE TO USE WIRE SIZES INDICATED OR GREATER.

X-RAY GENERATOR: SEDECAL SHF-635 64kW  
 RECOMMENDED POWER TO THE MAIN DISCONNECT: 480VAC, THREE PHASE, 80KVA, WYE OR DELTA  
 MAIN CIRCUIT BREAKER: 75AMP, 3-POLE WITH SHUNT TRIP DEVICE  
 MAXIMUM MOMENTARY: 110 AMPS  
 LINE IMPEDANCE: 0.20 OHMS

PROVIDE THE APPROPRIATE WIRE SIZE FROM POWER SOURCE TO MAIN DISCONNECT:

WIRE LENGTH	<50'	<100'	<150'	<200'
FEEDER SIZE				
LINE:	#2AWG	#2/0AWG	#3/0AWG	#250MCM
NEUTRAL:	NEUTRAL NOT REQUIRED - SEE NOTE BELOW			
GROUND:	#2AWG	#2/0AWG	#3/0AWG	#250MCM

NEUTRAL NOTE:  
 THE GENERATOR DOES NOT NEED A NEUTRAL WIRE TO FUNCTION PROPERLY. A WYE SOURCE IS PREFERRED FOR GOOD VOLTAGE REGULATION.

FACILITY:  
**UNIFIED STATE**  
 LABORATORY MODULE #2

DRAWN BY:  
**DAVE HENRY**  
 DATE:  
 06/14/2016  
 FILE NAME:  
 USL160613

SCALE:  
 NONE  
 SHEET:

**E-2**

### IMPORTANT POWER NOTES

( CONTRACTOR FURNISHED - CONTRACTOR INSTALLED )  
 POWER LINES FOR EQUIPMENT LISTED SHALL BE DEDICATED LINES RUN DIRECTLY FROM NEAREST FACILITY POWER SOURCE. UNDER NO CIRCUMSTANCES SHALL ANY OTHER ELECTRICAL EQUIPMENT BE CONNECTED TO THESE POWER LINES NOW OR IN THE FUTURE.

LINE REQUIREMENTS:

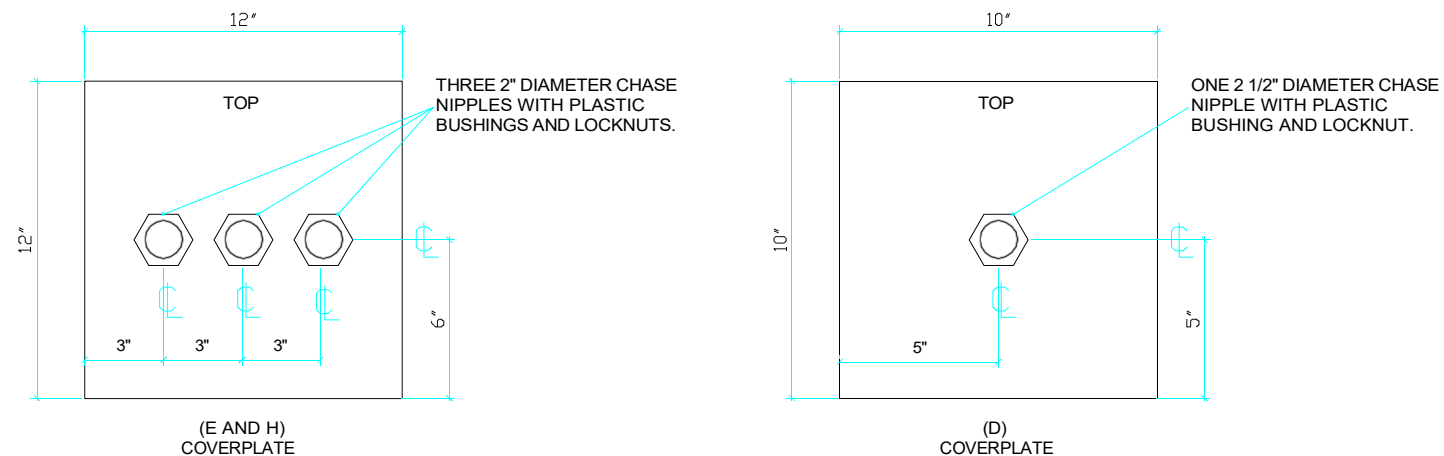
1. TRANSIENTS: NO TRANSIENTS SHALL OCCUR THAT EXCEED 30% OF NOMINAL PEAK LINE VOLTAGE.
  - A. TRANSIENTS, FOR DISCUSSION PURPOSES, SHALL BE DEFINED AS IMPULSES FROM 0.5 TO 800 MICROSECONDS.
  - B. POWER LINES SHALL BE MEASURED FOR TRANSIENTS WITH THE SYSTEM IN STANDBY. THE ELECTRICAL CONTRACTOR SHALL USE A DRANETZ POWER LINE ANALYZER OR EQUIVALENT.
2. VOLTAGE REGULATION: 80KVA, THREE PHASE, 480VAC , 60HZ ±0.5% INCOMING LINE TO MAIN DISCONNECT WITH 5% VOLTAGE REGULATION UNDER INTERMITTENT NO LOAD TO FULL LOAD CONDITIONS REQUIRED.

IF ANY OF THE ABOVE POWER SPECIFICATIONS REGARDING VOLTAGE REGULATION OR TRANSIENTS CANNOT BE MET THE FOLLOWING CORRECTIVE ACTION CAN BE TAKEN.  
 A. A REGULATION TRANSFORMER OR LINE CONDITIONER DEPENDING ON THE SEVERITY OF THE PROBLEM MAY BE EMPLOYED TO MAINTAIN LINE VOLTAGE WITHIN 5% OF NOMINAL UNDER INTERMITTENT NO LOAD TO FULL LOAD CONDITIONS.

THIS MAY WARRANT LINE CONDITIONING OR AN SPD AT DPM. EC TO PERFORM POWER QUALITY ANALYSIS. CONNECT POWER QUALITY ANALYZER TO DPM AND TRACK SPIKES AND DIPS WITH PRECISE TIMESTAMPS.

### COVERPLATE DETAILS

NOTE: COVERPLATES DEPICTED ARE FOR SURFACE MOUNTED DEVICES. ALL FLUSH MOUNTED DEVICES SHALL HAVE OVERSIZED COVERPLATES.



NOT TO SCALE

#### DICOM, PACS, LANS/WANS, Ethernet, Modems

**Networking Notes:** Supplying and installing network connections between diagnostic imaging equipment and other node connections shall be the customer's responsibility. Customer must specify, supply and install proper receptacles, AUI transceivers, cabling, repeaters, routers, modems, etc. which are consistent with the site needs and sound network implementation practices. Also included, but not limited to, the customer's responsibility is the purchase and installation of conduits and / or raceways for containment and routing of networking cables, as determined by site conditions or required by prevailing codes.

HAS THIS BEEN COORDINATED?

### PATIENT SAFETY GROUNDING

**PATIENT SAFETY GROUNDING CONSIDERATIONS:**  
 A SPECIAL GROUNDING SYSTEM IS REQUIRED IN ALL DIAGNOSTIC ROOMS BY SOME STATE AND LOCAL CODES. THIS GROUNDING SYSTEM IS STRONGLY RECOMMENDED IN AREAS WHERE ELECTRICALLY SUSCEPTIBLE PATIENTS MIGHT BE EXAMINED OR TREATED UNDER PRESENT, FUTURE OR EMERGENCY CONDITIONS. CONSULT WITH THE GOVERNING ELECTRICAL CODES AND CONFER WITH APPROPRIATE HOSPITAL ADMINISTRATIVE PERSONNEL AND CONSULTING ENGINEERS TO DETERMINE THE AREAS REQUIRING THIS GROUNDING SYSTEM. IF SUCH A GROUNDING SYSTEM IS REQUIRED, THE RESPONSIBLE CONSTRUCTION PARTICIPANTS SHALL DESIGN AND INSTALL GROUNDING SYSTEM TO INCLUDE ALL METAL OBJECTS AND FIXTURES.

EAN - GROUNDING SHALL BE PROVIDED PER NEC 250.

FACILITY:  
**UNIFIED STATE**  
 LABORATORY MODULE #2

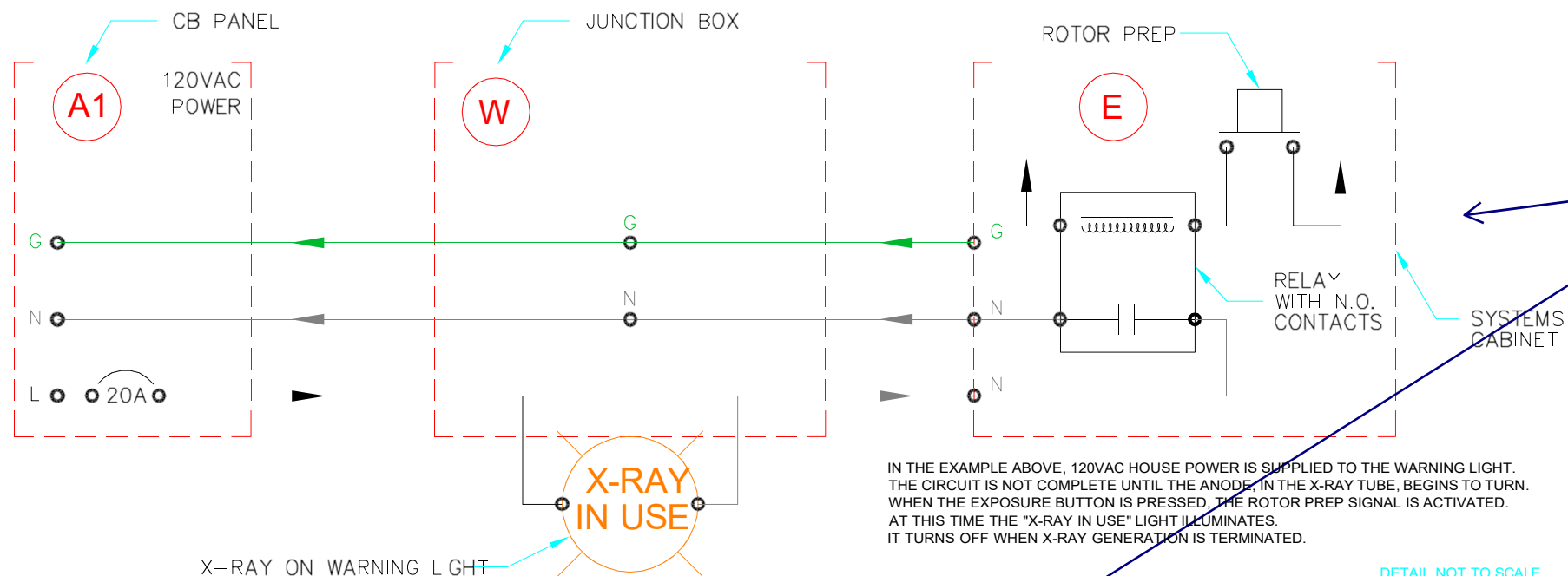
DRAWN BY: DAVE HENRY	SCALE: NONE
DATE: 06/14/2016	SHEET: E-3
FILE NAME: USL160613	

## TYPICAL WARNING LIGHT CIRCUIT

DETAIL #WLD02.0696

A TYPICAL 'X-RAY IN USE' WARNING SIGN CIRCUIT IS DEPICTED BELOW. DUE TO MANY VARIABLES, THE 'X-RAY IN USE' WARNING SIGN CIRCUIT MUST BE COORDINATED BETWEEN THE EQUIPMENT SUPPLIER, ELECTRICAL ENGINEER AND THE FACILITY. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE FACILITY AND THE EQUIPMENT SUPPLIER PRIOR TO INSTALLING THE 'X-RAY IN USE' WARNING SIGN.

EXAMPLE WARNING SIGN / LAMP OPTIONS -  
 HOUSING: ALUMINUM, BLACK, WHITE, ETC.  
 FACE: SINGLE SIDE (TYPICAL), WALL SURFACE MOUNT (TYPICAL) OR RECESSED.  
 DOUBLE SIDED, SURFACE MOUNT ON CEILING OR WALL.  
 WORDING: "IN USE", "X-RAY IN USE" (TYPICAL), ETC.  
 COLORS: RED LETTERS, WHITE BACKGROUND (TYPICAL), MANY VARIATIONS.  
 LAMP TYPE: INCANDESCENT (TYPICAL) OR LED. DO NOT USE FLUORESCENT.  
 VOLTAGE: 27 AC, 120 AC (TYPICAL), 277 AC, 120/277VAC, DC BATTERY.  
 WATTAGE: VARIES. (20 WATTS OR LESS IS TYPICAL).



COORDINATE THESE REQUIREMENTS WITH OUR PROJECT AND LAYOUT. CONFIRM WHO IS ORDERING THE X-RAY IN USE SIGNAGE, AS I DON'T THINK THIS IS TO BE PROVIDED BY THE EC. WE DECIDED IN DESIGN THAT THIS WOULD BE MANUFACTURER FURNISHED, CONTRACTOR INSTALLED.

THE MAIN CONSIDERATION WHEN LEAVING WIRES IN JUNCTION BOXES IS TO ENSURE THEY ARE NOT LIVE AND THAT THEIR ASSOCIATED SWITCHING MEANS ARE LOCKED OUT (OR EQUIVALENT). THIS STANDARD SHALL BE APPLIED TO ALL OPEN ENDED WIRE AND CABLE MENTIONED IN THIS DRAWING SET. OBVIOUSLY, GROUND WIRE OR CABLE BEING THE EXCEPTION. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT WIRES ARE NOT ENERGIZED UNTIL THE EQUIPMENT INSTALLERS ARE READY FOR TESTING. THE ELECTRICAL CONTRACTOR SHALL INFORM THE EQUIPMENT INSTALLER(S) AS TO THE LOCATION AND MEANS OF ACTIVATING ALL SWITCHING DEVICES ASSOCIATED WITH THE OPEN ENDED WIRE AND CABLE MENTIONED IN THIS DRAWING SET.

### Example "X-RAY IN USE" Warning Sign Circuit Options

NOTE #WLN01.0310

Many potential factors influence choice of x-ray on warning sign. E.g. Matching existing; efficiency; aesthetics; price; quality; number of options; etc.

Gamma Tech never knows the exact warning sign type, style, lamp voltage, power source, method or means of control prior to drawing set issuance. For this reason more than one detail may be depicted in this drawing set.

It is our hope and intent to encourage the construction participants and the equipment suppliers / installers to coordinate efforts. For this reason we have listed some potential options and their caveats below. (not to be construed as all inclusive). Important decisions to be shared are numbered. Sample options are listed alphabetically. For your convenience, the majority pick is designated by the word 'typical' in parentheses.

The facility or their designee selects an x-ray on warning sign.

1) Lamp voltage? - usually one of four options.

- a. 120vac (typical)
- b. 120/277vac
- c. 277vac
- d. Low voltage ac
- e. Low voltage dc (battery)

Note: The system installer should be informed of the lamp voltage as soon as possible.

The facility determines at which point in time the warning sign will illuminate.

2) When to illuminate? - Engineer to coordinate with the facility and equipment supplier.

- a. Warning lamp turns on upon rotor prep / turns off upon x-ray termination. (typical)
- b. Warning lamp illuminates / extinguishes when equipment is switched on / off.
- c. Warning lamp illuminates 24/7.

Note: the equipment being installed may or may not be capable of interfacing with a warning light or may have just one option. The equipment supplier shall coordinate with the facility and the construction participants regarding interface options.

### X-ray On Warning Sign Circuit Options

NOTE #WLN02.0510

The engineer of record shall consult with the facility and equipment supplier to coordinate the x-ray on warning sign circuit combinations. Majority picks marked by an asterisk.

Housing	Lamp	Faces	Surface	Mounting	Wording
a. White *	Incandescent *	Single *	Wall *	Surface *	X-RAY IN USE *
b. Black	LED	Double	Ceiling	Flush	X-RAY ON, etc.
c. Aluminum, etc. Fluorescent					

Note: NEVER use fluorescent lamps

Note: Recommend 20 watts or less

Voltage	Panel color	Power source	ON / OFF
a. 120vac *	a. red on white *	Facility panel *	Rotor prep *
b. 277vac	b. white on red	Systems supply	System ON
c. 120/277vac	c. black on white		Always ON
d. 26vac	d. white on black		
e. DC	e. red on black, etc.		

Refer to detail number WLD01.0310 for typical x-ray on warning light circuit.

Refer to detail number WLD02.0696 for typical 120VAC TO 24VAC warning light circuit.

FACILITY:  
**UNIFIED STATE**  
 LABORATORY MODULE #2

DRAWN BY:  
**DAVE HENRY**  
 DATE:  
 06/14/2016  
 FILE NAME:  
 USL160613

SCALE:  
 None  
 SHEET:

**E-4**

**Bolton Glass, LLC**

PO: Box 186, Haslet, TX 76052

817-456-0359

**Change Order Request**

**Request No:** 008 **Date:** 10/22/25

**To:** Christman Company \_\_\_\_\_  
130 E John Carpenter Fwy #200 \_\_\_\_\_  
Irving Tx 75062 \_\_\_\_\_  
Attention: Aaron Capetillo \_\_\_\_\_

**Project No:** \_\_\_\_\_  
**Project Name:** Collin county Medical \_\_\_\_\_  
\_\_\_\_\_

Item	Description	Amount
	<i>We Propose the Following Changes:</i>	
	SUPPLY AND INSTALL RFI # 326	
	PROVIDE	
	1 @ SINGLE RABBET LEAD LINED WINDOW BRUSHED STAINLESS STEEL FINISH	\$7,600.00
	WITH 1/16" 1.6MM (4#) LEAD EQUIVELENT BASED @ 150 KVP	
	GLASS IS NOT TEMPERED OR FIRE RATED	
	Misc sealant fasteners	\$ 150.00
	LABOR \$45 X 30HRS	\$1,350.00
	LOGISTICS , Shop \$45 X 10	\$ 360.00
	Please note there is 30day expiration on the quote that will incur added Tarrif costs	
	<b>Total Amount of Changes</b>	<b>\$ 9,460.00</b>

15% \$ 1,419.00

**Amount of this Change Order** \$ 10,879.00

**Approved By:** \_\_\_\_\_

**Proposed By:** \_\_\_\_\_

**Date:** \_\_\_\_\_

# Confidential Quotation

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A@=(C)31/7861(91702  
(626) 969-1818 \* FAX (626) 969-6510

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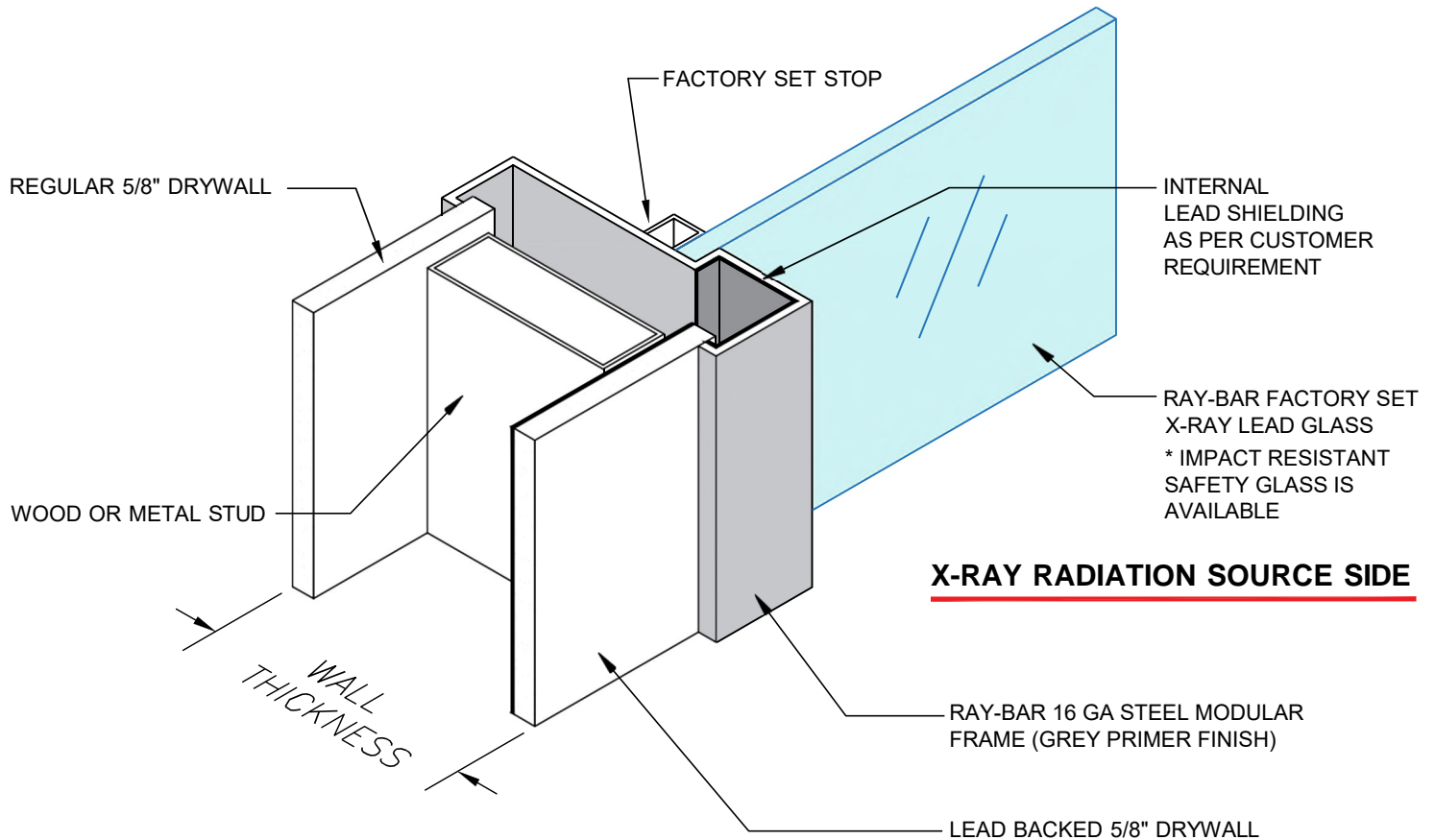
**CONFIDENTIAL**

# RAY-BAR SHIELDED TELESCOPIC VIEW WINDOW ASSEMBLY (ISOMETRIC)

CONFIDENTIAL PROPRIETARY MODULAR DESIGN

(CUSTOMER MUST VERIFY LEAD SHIELDED THICKNESS REQUIREMENT PRIOR TO ORDERING)

## CONTROL ROOM SIDE



## ISOMETRIC VIEW

STANDARD MATERIAL: 16 GAUGE STEEL, PRIMER FINISH (U.O.N.)

N.T.S.

\* MATERIAL OPTIONS: BRUSHED STAINLESS STEEL, SOLID COLOR POWDER COAT OR BRUSHED ALUMINUM.

- WINDOW LEAD SHIELDING MUST BE SAME AS SURROUNDING WALL OR PARTITION WINDOW OCCURS IN.
- LEAD SHIELDING THICKNESS PER RADIATION PHYSICIST SHIELDING REPORT FOR ROOM WINDOW OCCURS IN.

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JOB NAME:  
LOCATION:  
ROOM NUMBER:  
SHEET \_\_\_\_ OF \_\_\_\_:

RAY-BAR SHIELDED TELESCOPIC WINDOW FRAME ASSEMBLY

## RAY-BAR ENGINEERING CORP.

Toll Free: 1(800) 444-XRAY / 1(800) 444-9729  
Telephone: (626) 969-1818  
24 Hour Fax: 1(800) 333-XRAY /  
1(800) 333-9729  
website: www.raybar.com

N.T.S.

RAY-BAR  
SHIELDED  
TELESCOPIC  
WINDOW  
FRAME  
ASSEMBLY  
ISOMETRIC

# RAY-BAR ENGINEERING CORPORATION

## CONFIDENTIAL TECHNICAL DATA FOR X-RAY SAFETY GLASS

**FORMA IO PROVIDED S FOR 4.SNG F IAYER**

Ray-Bar X-Ray Safety Glass meets  
ANSI Z97.1 and CPSC 16 CFR Part 1201 CAT II  
for Impact Resistance Requirements

Thickness (approx.)	: 5/16" (7~8.5mm)
Lbs-Lead Equiv./sq.ft.	: 4#
Lead Equiv. (mm) nominal	1.6mm
Lead Equiv. (in)	: 1/16"
(Based on 150 KVP)	
Wt-Lbs Glass/sq.ft.	8
Thickness Tolerance	+/- .030
Light Transmission	86-88%

Ray-Bar X-Ray Safety Glass meets Federal Specification DD-G-451  
and NCRP Report Numbers 49 & 147

- **Application:** Medical Diagnostic X-Ray Imaging or Radiation Therapy.
- 60% ~ 70% heavy metal oxide content includes 55% ~ 65% PbO.
- This product is permanently labeled as safety glass meeting ANSI Z97.1 and CPSC 16 CFR Part 1201 CAT II as required.
- X-Ray Safety Glass is required in door vision lites and in windows that occur within 24" of a door opening or within 36" of the floor.
- This product meets impact penetration tests and the requirements to "reduce or minimize the likelihood of cutting and piercing injuries when said glazing material is broken by human contact".
- This information is for a single layer of glass: for interior applications only.
- Ray-Bar safety glass is NOT tempered.
- Ray-Bar safety glass is NOT fire-rated.
- Ray-Bar safety glass is NOT impact proof, shatter proof or scratch resistant.
- Standard stock sizes available up to 48" X 96" maximum single pane size in 1.8mm~2mm lead equivalency (also good in stock).
- Higher lead equivalencies are available upon request (2.0mm, 2.4mm, 3.2mm, 3.7mm, etc).
- Customer/ Purchaser must verify and specify lead equivalency requirements prior to ordering.

The data reported here is intended only as a guideline and not as product specifications or product recommendations as requirements vary on each project and should be determined by professional consultants such as architectural, building and radiation physicist.

*KEEP GLASS CLEAN WITH MILD GLASS CLEANER AND A SOFT CLEAN CLOTH.  
LEAD GLASS SURFACE SCRATCHES EASILY, NEVER USE KNIVES OR TAPE ON LEAD GLASS  
MAINTENANCE AND HANDLING INSTRUCTIONS ARE PROVIDED WITH EACH SHIPMENT*

RAY-BAR ENGINEERING CORPORATION

1 -800-444-XRAY

1-800-444-9729

[www.raybar.com](http://www.raybar.com)



[www.xrayglass.com](http://www.xrayglass.com)

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AZUSA CA 91702-0415

ENGINEERS, DESIGNERS AND MANUFACTURERS  
OF X-RAY PROTECTION MATERIALS

"ESTABLISHED 1943"

**RAY-BAR ENGINEERING CORPORATION**

PHONE (800) 444-XRAY  
FAX (800) 333-XRAY

E-MAIL: sales@raybar.com  
WEBSITE: www.raybar.com

**X-RAY PROTECTION  
PRODUCTS**

SHIELDED DOORS  
LEADBACKED DRYWALL  
CONTROL WINDOWS  
X-RAY GLASS

**OFFICE:**  
697 W FOOTHILL BLVD  
AZUSA CA 91702-0415



**NOTIFICATION OF POTENTIAL TARIFFS AND TRADE WAR  
INFLATIONARY PRICE INCREASES 2025**

**ALL RAY-BAR PRODUCTS/MATERIALS PROPOSALS & QUOTATIONS ARE ALWAYS  
RESPECTFULLY HONORED AS VALID FOR 30 CALENDAR DAYS ONLY.**

THE CURRENT DYNAMIC NATIONAL AND GLOBAL ECONOMIC ENVIRONMENT IS POTENTIALLY ENTERING INTO EXTRAORDINARY TARIFF, DUTY AND GLOBAL TRADE WAR. INFLATIONARY PRESSURES DUE TO FEDERAL PROTECTIONARY EXECUTIVE ORDERS, CURRENCY DEVALUATIONS, REVERSALS OF MASSIVE DEFICIT SPENDING, POTENTIALLY CAUSING CERTAIN IMPORTED GLOBAL SUPPLY CHAIN SHORTAGES VS HIGHER DEMANDS IN GOODS, GEOPOLITICAL TENSIONS, VARIOUS LOGISTICS CHALLENGES AND OVERALL WORLD MARKET VOLATILITY, JUST TO NAME A FEW FACTORS IN THE BASIC ELEMENTS OF CAUSE AND EFFECT.

RAY-BAR PRIDES ITSELF AS A 80+ YEARS USA MANUFACTURER, IN ALWAYS MAKING EVERY EFFORT IN UTILIZING ONLY AMERICAN MADE MATERIALS AND COMPONENTS WHENEVER POSSIBLE.

RAY-BAR IS PROACTIVELY TAKING EVERY REASONABLE EFFORT TO AGGRESSIVELY MAINTAIN OUR PRICING FOR OUR VALUED CUSTOMERS TO ALLOW US TO BE SLOWER TO RAISE OUR PRICES RELATIVE TO THESE DRAMATIC TARIFF RAW MATERIAL ESCALATIONS AND POTENTIAL GLOBAL ENERGY/FUEL/COMMODITY COST INCREASES.

IN ANY TARIFF, DUTY, TOLL OR TRADE WAR RELATED INFLATIONARY PERIOD TIME IS OF THE ESSENCE, AND ANY PROJECT DELAYS REDUCE PROFITABILITY BY INCREASED COSTS. WE RECOMMEND ALL OUR CUSTOMERS TO EITHER PRE-PURCHASE PRODUCTS AS EARLY AS YOUR PROJECT ALLOWS, STORE MATERIALS/PRODUCTS IN A BONDED WAREHOUSE, OR TO REASONABLY PROTECT YOUR COSTS FROM POTENTIAL INCREASES BY INCORPORATING LEGALLY BINDING ESCALATION CLAUSES INTO ANY LONG TERM CONTRACTS OR COMMITMENTS. RAY-BAR'S PROFESSIONAL SALES CONSULTANTS CAN ADDITIONALLY ASSIST YOU IN POTENTIAL UNIQUE VALUE ENGINEERING SAVINGS OPTIONS. THESE TACTICS WILL POTENTIALLY HELP TO PROTECT AND INSULATE YOUR PROFITABILITY MARGINS AND ESTIMATED MATERIAL COSTS FROM LOSSES.

WE REMAIN FULLY COMMITTED TO OUR HIGHLY VALUED CUSTOMERS, AND HOPEFUL THAT THESE PROPOSED TARIFFS AND DUTIES ARE TEMPORARY AND ARE UTILIZED BY THE CURRENT ADMINISTRATION SOLELY TO NEGOTIATE A FAIR AND MORE EQUITABLE TRADING ARRANGEMENT WITH ALL OF AMERICAS FRIENDS AND GLOBAL PARTNERS.

**"WHEN PROTECTION IS REQUIRED, THERE IS NO SUBSTITUTE FOR SKILL AND EXPERIENCE"**

**• RADIATION • FIRE • BALLISTICS • LASER •**

# Division 9 Interiors

PO Box 172634  
Arlington, TX 76003  
Phone: 817-516-2007  
E-Mail: dennis@division9interiors.com

# Change Order

Bid To: The Christman

Project: Collin County Healthcare  
ME & PG

Date: 12/11/2025

Attn: Jim Terhune

Item	Description		Total
CO#14	New Wall Type Y430 @ X-Ray Room Due to RFI#326		\$8,622.32
	Equipment	\$747.67 Scissor Lift Rental (1 Week)	
	Material	\$3,550.00 Track 20LF, Studs 200LF, 1/2", Sheetrock 250 SF & Lead Lined Sheetrock 250 SF, Fasteners	
	Labor	\$3,200.00 (80 Hours)	
	Marup 15%	\$1,124.65	

Subtotal:	\$8,622.32
Tax:	Excluded
Total:	\$8,622.32

<b>Extra Work Authorization</b>	
<b>Posada's Painting</b> 2746 Alaska Ave. Dallas, TX 75216 Office (214) 792-9580 Fax (214) 792-9274 E-mail: Alexis@posadas-painting.com	
<b>Submit to:</b>	<b>Project Name:</b>
The Christman Company 5601 Bridge St. 4851 Merlot Ave, Suite 540, Grapevine, TX 76051 Office: 817-345-0678 Fax: 817-203-0203	Collin County Healthcare, Parking, and Medical Examiner Facilities 2330 Bloomdale Road, McKinney, TX 75071 CO#6 – RFI 323
<b>Attn:</b>	<b>Architect:</b> PGAL
<b>E-mail:</b>	<b>Date of plans:</b> 01/22/24
The following will increase/decrease our scope of work: <ol style="list-style-type: none"> <li>1. Tape, bed and paint new gypboard wall.</li> </ol> Labor: 15Hrs X\$42.50 = \$638.00  Material: 5 boxes of mud, 5 gallons of primer and paint = \$200.00   <div style="text-align: center;"><b><u>Add = \$838.00</u></b></div>	
<b>Exclusions:</b> N/A	
Material will be as specified and work to be performed in accordance with the specifications submitted and completed in a workmanlike manner. Any alteration or deviation from above specifications involving extra cost will be executed only upon written order and will become an extra charge over the above estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. All tradesmen painters are covered by workers' compensation and general liability insurance.	
<b>Submitted On 12/19/25 By: Alexis Posada</b>	

4730 Carol Lane  
Dallas, TX 75247



Phone: 214-358-3455  
800-875-5457  
Fax: 214-358-5713

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**TO:** CHRISTMAN COMPANY **RE:** COLLIN COUNTY HEALTHCARE FACILITIES  
MCKINNEY, TX  
**ATTN:** JIM TERHUNE; CAROLINA HAYLOW; AARON  
CAPETILLO

**EMAIL:** [jim.terhune@christmanco.com](mailto:jim.terhune@christmanco.com); **QUOTE #:** 121925.1.2  
[carolina.haylow@christmanco.com](mailto:carolina.haylow@christmanco.com);  
[aaron.capetillo@christmanco.com](mailto:aaron.capetillo@christmanco.com)

**DATE:** JANUARY 12, 2026 **REVISED CHANGE ORDER – RFI #326**

**WE ARE PLEASED TO QUOTE AS FOLLOWS:** **CORNER GUARDS (CG)**

**ADD:**  
2 – CGSS90-3E-84 – 3” X 3” X 84 84” EASED EDGE STAINLESS STEEL #4 CORNER GUARD

\*EXCLUDES ANY AND ALL BLOCKING

TOTAL PRICE DELIVERED TO JOBSITE .....	\$	<b>310.00</b>
EXTRA FOR INSTALLATION .....	\$	<b>200.00</b>
CORNER GUARDS UNIT COST .....	\$	<b>130.00</b>
SHIPPING/FREIGHT & HANDLING (INCLUDED IN MATERIAL COST) .....	\$	<b>50.00</b>

ACKNOWLEDGE   N/A   ADDENDUM(S)

**MANUFACTURER:** INPRO (CG)

**COLOR:**

**DELIVERY:** APPROXIMATELY 4-6 WEEKS (CG)

**NOTE:** PRICES ARE GOOD FOR 30 DAYS DUE TO MATERIAL PRICE INCREASES.

**ACCEPT:** **DATE:**

THIS QUOTATION IS SUBJECT TO FINAL ACCEPTANCE AND APPROVAL.

**F.O.B** SEE ABOVE  
**TERMS:** NET 20 DAYS  
**FINISH:** SEE ABOVE  
**SHIPMENT:** SEE ABOVE

RESPECTFULLY SUBMITTED,  
ROCKY DURON & ASSOCIATES

**BY:** OSCAR BAHENA  
PROJECT MANAGER/ ESTIMATOR  
[OBAHENA@ROCKYDURON.COM](mailto:OBAHENA@ROCKYDURON.COM)