RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

VA CENTRAL CALIFORNIA HEALTH CARE SYSTEM - FRESNO, CA

PROJECT #: 570-21-220

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APPLICABLE VA STANDARDS

DESIGN AND CONSTRUCTION PROCEDURES (PG 18-3), TOPIC 1 - CODES, STANDARDS & EXECUTIVE ORDERS SEPTEMBER 2013

EQUIPMENT GUIDE LISTS (PG 18-5)

ARCHITECTURAL BARRIER ACT ACCESSIBILITY STANDARDS (ABAAS), INCLUDING VA SUPPLEMENT BARRIER FREE DESIGN GUIDE (PG 18-13)

SURGICAL AND ENDOVASCULAR SERVICES DESIGN GUIDE

IMAGING SERVICES DESIGN GUIDE

APPLICABLE PUBLICATIONS

AS AN AGENCY OF THE FEDERAL GOVERNMENT, THE VA IS NOT SUBJECT TO LOCAL IMPOSITIONS OF CODE ENFOREMENT PROCEDURES (DRAWING REVIEWS, BUILDING PERMITS, INSPECTIONS, FEES, ETC). THE VA SHALL FUNCTION AS THE AUTHORITY HAVING JURISTICTION (AHJ).

VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE AND OTHER GUIDEANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL). SEE ABOVE.

INTERNATIONAL BUILDING CODE (IBC) 2018.

INTERNATIONAL EXISTING BUILDING CODE (IEBC) 2018.

NATIONAL FIRE PROTECTION AGENCY (NFPA) 101 LIFE SAFETY CODE. NFPA 101 TAKES PRECEDENCE OVER IBC.

NFPA NATIONAL FIRE CODES, WITH THE EXCEPTION OF NFPA 5000 AND NFPA 900.

OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.

VA SEISMIC DESIGN REQUIREMENTS, H-18-8.

NATIONAL ELECTRICAL CODE (NEC).

INTERNATIONAL PLUMBING CODE (IPC).

SAFETY CODE FOR ELEVATORS AND ESCALATORS, AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) A 17.1.

ASME BOILER AND PRESSURE VESSEL CODE

ASME CODE FOR PRESSURE PIPING

BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUE AND COMMENTARY (ACI 318)

MANUAL OF STEEL CONSTRUCTION , LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

ENERGY POLICY ACT OF 2005 (EPACT)

DOE INTERIM FINAL RULE: ENERGY CONSERVATION STANDARDS FOR NEW FEDERAL, COMMERCIAL AND MULTI-FAMILY HIGH-RISE RESIDENTIAL BUILDINGS AND NEW LOW-RESE RESIDENTIAL BUILDINGS, 10 CFR PARTS 433,434 AND 435.

FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE BUILDINGS: MEMORANDUM OF UNDERSTANDING (MOU)

EXECTUIVE ORDER 13423: STRENGTHEING FEDERAL ENVIRONMENTAL, ENERGY AND TRANSPORTATON MANAGEMENT.

THE PROVISIONS FOR CONSTRUCTION AND SAFETY SIGNS. STATED IN THE GENERAL REQUIREMENTS SECTION 01 01 0 OF THE VA MASTER CONSTRUCTION SPECIFICATION.

VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY - ASHRAE STANDARD 62.1 - 2004.

SAFETY STANDARD FOR REFRIDERATION SYSTEMS - ASHRAE STANDARD 15 - 2007.

VAMC APPROVED HARDWARE LOCKING STANDARDS

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

FEDERAL COMMUNICATIONS COMMISSION (FCC), ALL REGULATIONS, PROCEDURES AND STANDARDS FOR TWO-WAY RADIO EQUIPMENT, SYSTEMS AND OPERATION

ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA)

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO), STANDARDS FOR PROTOCOLS AND INTERFACES THAT INCLUDE OPEN SYSTEM INTERCONNECTIONS (OSI)

JOINT COMMISSION ON ACCREDITATION OF HEALTHCARE ORGANIZATIONS (JACHO), ENVIRONMENT OF CARE GUIDELINES AND STANDARDS

FACILITIES GUIDELINES INSTITUTE (FGI): 2010 , OR MOST CURRENT ISSUE, GUIDELINES FOR THE DESIGN AND CONSTRUCTION OF HEALTH CARE FACILITIES

THE AMERICAN INSTITUTE OF ARCHITECTS (AIA) AND NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS(NSPE) RECENT ADDITIONS TO THEIR PROFESSIONAL CODES OF ETHICS ENCOURAGING "ENVIRONMENTALLY RESPONSIBLE DESIGN"

PROJECT INFORMATION

CODE ANALYSIS

STATE: CALIFORNIA
COUNTY: FRESNO
JURISTICTION: FRESNO

OWNER: GOV, VETERANS AFFAIRS

SITE ZONING: -
CONST TYPE: 1A
OCCUPANCY: B

ICRA CLASS REQUIREMENTS

CONST TYPE: TYPE C
CLINIC RISK: HIGHEST
CLASS REQS: CLASS IV

APPROX SQUARE FEET IN SCOPE

8,400 SF

APPLICABLE BUILDING

BUILDING 001

APPLICABLE FLOOR

FLOOR 2

APPLICABLE CLINIC

CARDIOLOGY/IMAGING

PROJECT DESCRIPTION

THE PROPOSED DESIGN SHALL RENOVATE THE EXISTING IMAGING DEPARTMENT WITH NEW EQUIPMENT AND LAYOUTS. NEW, STATE-OF-THE-ART, CATH LAB IS THE CENTRAL FOCUS FOR THIS PROJECT. THIS INCLUDES ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL RENOVATIONS REQ'D TO ACCOMODATE NEW, VA-PURCHASED, IMAGING EQUIPMENT.

DESIGN TEAM

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MECHANICAL

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STRUCTURAL

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EVERETT, WA 98204
PHONE: (425) 741-3800

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GENERAL NOTES

1. COORDINATE WORK WITH ALL CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO DRAWINGS & SPECIFICATIONS.
2. SPECIFICATIONS SHALL SUPERSEDE DRAWINGS IN THE CASE OF ANY CONFLICTING INFORMATION. BRING TO THE AWARENESS OF AND VERIFY WITH VA COR PRIOR TO PROCEEDING.
3. THE CONTRACTOR AND ANY SUB CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND PROJECT REQUIREMENTS PRIOR TO SUBMITTING A BID OR BEGINNING WORK. NO ALLOWANCES WILL BE MADE ON BEHALF OF THE CONTRACTOR OR SUB-CONTRACTORS FOR FAILURE TO VISIT THE SITE.
4. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING WORK. ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE COR.
5. THE CONTRACTOR SHALL VERIFY ALL PRODUCT TYPES AND QUANTITIES DURING SITE WALK THROUGH, PRIOR TO PURCHASING ANY MATERIALS, EQUIPMENT, PRODUCTS OR LABOR.
6. THE CONTRACTOR SHALL VERIFY AND COORDINATE WITH ALL INSTALLERS TO ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS.

RESOURCE DOCUMENTS

APPENDIX A: LEAD SHIELDING REPORT	PROVIDED BY CORWIN
APPENDIX B: SITE-SPECIFIC, EQUIPMENT, MFR DRAWINGS	PROVIDED BY MULTIPLE
APPENDIX C: PATIENT LIFTS	PROVIDED BY ARJO

Revisions:	Date:

CONSULTANT

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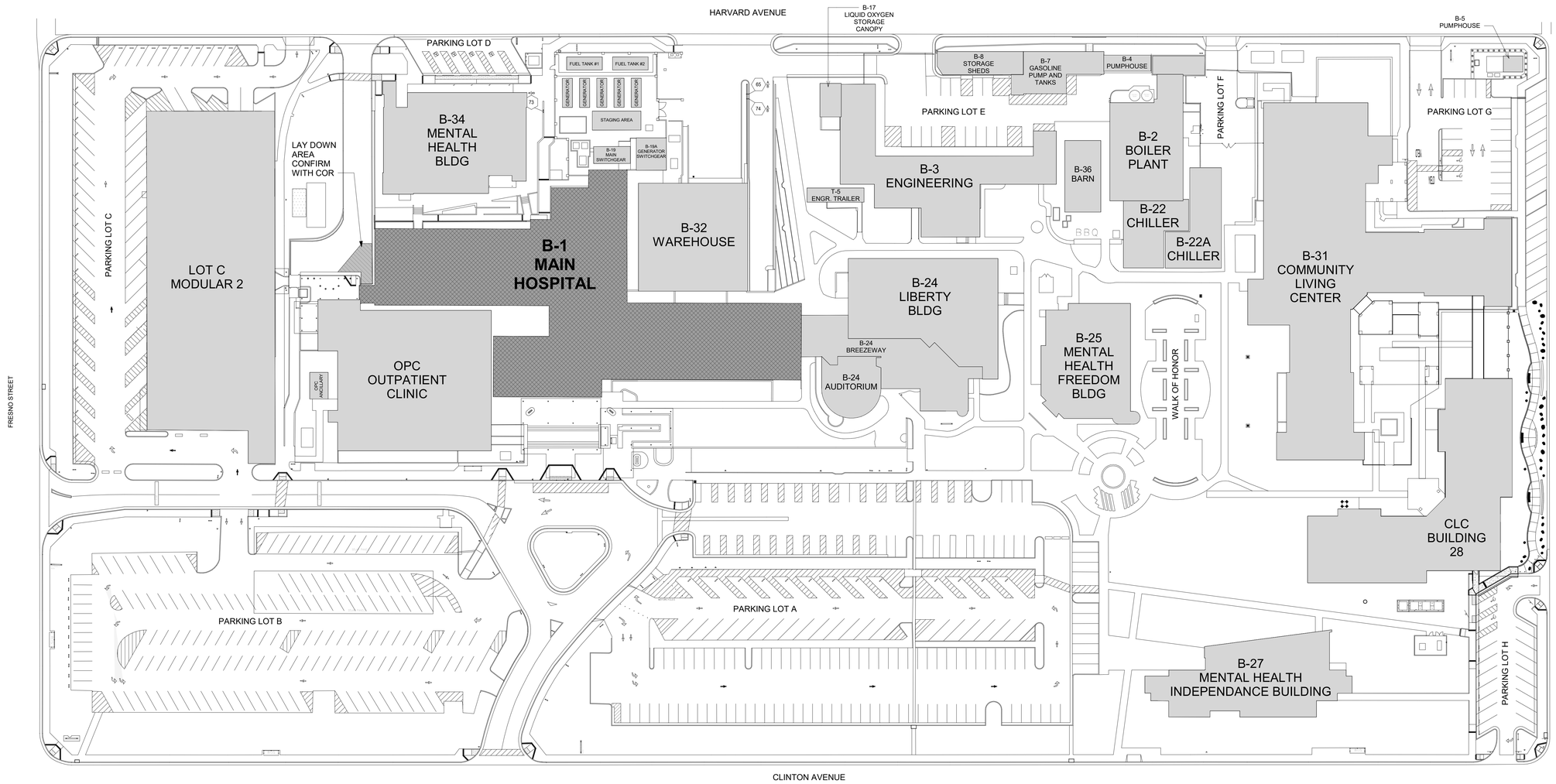
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: COVER & DRAWING INDEX	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	Project Number: 570-21-220
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Drawing Number: G-001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MC	

VA FORM 08 - 6231



1 FACILITY SITE PLAN

1" = 40'-0"

LEGEND

KEY NOTES (THIS SHEET ONLY)

GENERAL NOTES

1. COORDINATE CONTRACTOR STAGING AREA WITH VA COR AT THE PRE-CONSTRUCTION MEETING. THIS INCLUDES, BUT IS NOT LIMITED TO, AREAS TO BE USED FOR MATERIAL STORAGE, ACCESS FOR MATERIAL DELIVERIES AND TRANSPORTATION ROUTES TO THE PROJECT AREA.
2. DO NOT STORE PRODUCTS, MATERIALS, TOOLS, EQUIPMENT, VEHICLES, OR ANY OTHER NON-PERMITTED ITEMS ON MEDICAL CENTER PROPERTY UNLESS GIVEN PRIOR APPROVAL BY THE VA COR.
3. A LIMITED AMOUNT OF SUPPLIES MAY BE STORED IN THE CONSTRUCTION AREA AS LONG AS SAFETY AND CLEANLINESS ARE NOT COMPROMISED. VA COR HAS AUTHORITY TO REQUEST RELOCATION OF ANY AND ALL STORED ITEMS TO A DIFFERENT LOCATION.
4. VERIFY CONTRACTOR STAGING AREA AND MATERIAL / PRODUCT DELIVERY LOCATION WITH VA COR, PRIOR TO BRINGING OR DELIVERING ITEMS TO THE MEDICAL CENTER.

KEY PLAN

Revisions:	Date:

CONSULTANT

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REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FACILITY SITE PLAN	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: GS101

VA FORM 08 - 6231

ROOM PHASING - EXIST

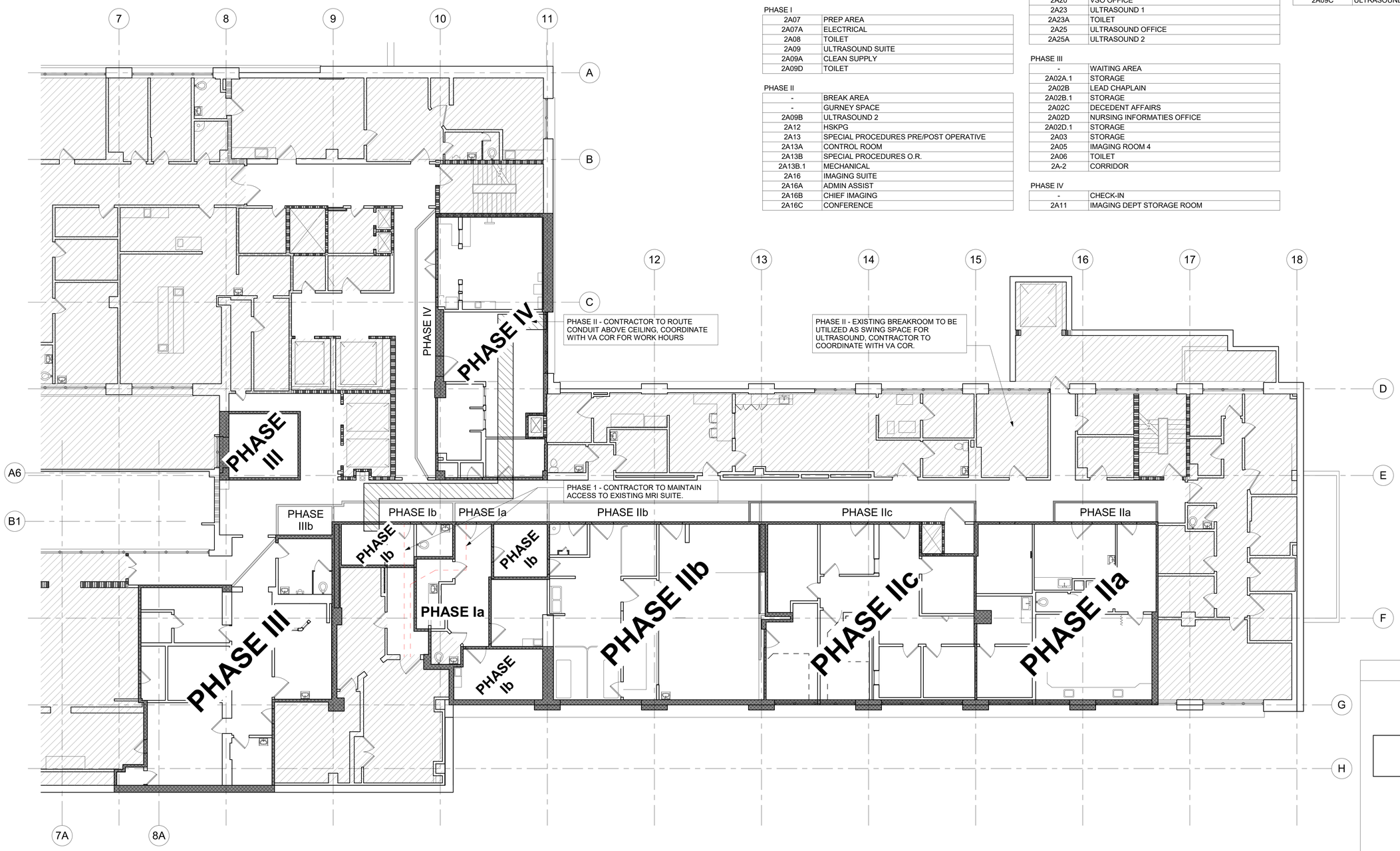
ROOM #	ROOM NAME
CORRIDOR - PARTIALLY USED IN MULTIPLE PHASES	
2A02	CORRIDOR
2A-1	CORRIDOR
2B-1	CORRIDOR
PHASE I	
2A07	PREP AREA
2A07A	ELECTRICAL
2A08	TOILET
2A09	ULTRASOUND SUITE
2A09A	CLEAN SUPPLY
2A09D	TOILET
PHASE II	
-	BREAK AREA
-	GURNEY SPACE
2A09B	ULTRASOUND 2
2A12	HSKPG
2A13	SPECIAL PROCEDURES PRE/POST OPERATIVE
2A13A	CONTROL ROOM
2A13B	SPECIAL PROCEDURES O.R.
2A13B.1	MECHANICAL
2A16	IMAGING SUITE
2A16A	ADMIN ASSIST
2A16B	CHIEF IMAGING
2A16C	CONFERENCE

ROOM PHASING - EXIST

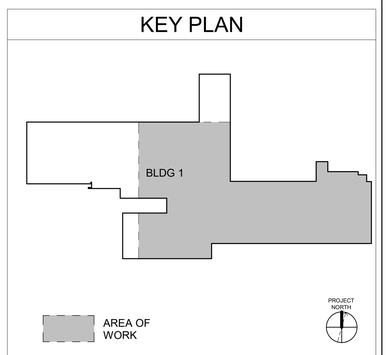
ROOM #	ROOM NAME
2A16D	OFFICE
2A16E	OFFICE
2A16F	OFFICE
2A16G	OFFICE
2A20	VSO OFFICE
2A23	ULTRASOUND 1
2A23A	TOILET
2A25	ULTRASOUND OFFICE
2A25A	ULTRASOUND 2
PHASE III	
-	WAITING AREA
2A02A.1	STORAGE
2A02B	LEAD CHAPLAIN
2A02B.1	STORAGE
2A02C	DECEDENT AFFAIRS
2A02D	NURSING INFORMATIES OFFICE
2A02D.1	STORAGE
2A03	STORAGE
2A05	IMAGING ROOM 4
2A06	TOILET
2A-2	CORRIDOR
PHASE IV	
-	CHECK-IN
2A11	IMAGING DEPT STORAGE ROOM

ROOM PHASING - EXIST

ROOM #	ROOM NAME
2B01	IMAGING WAITING AREA
2B04	FLUORO
PHASES I & II	
2A09C	ULTRASOUND 1



1 PHASING PLAN - EXISTING
1/8" = 1'-0"



Revisions:	Date:

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3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: PHASING PLAN - EXISTING
Phase: 100% CD
Approved:
FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Project Number: 570-21-220
Building Number: 001
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Drawing Number: GS201
Issue Date: 3/27/2026
Checked: MK
Drawn: MA

VA FORM 08 - 6231

ROOM PHASING - NEW

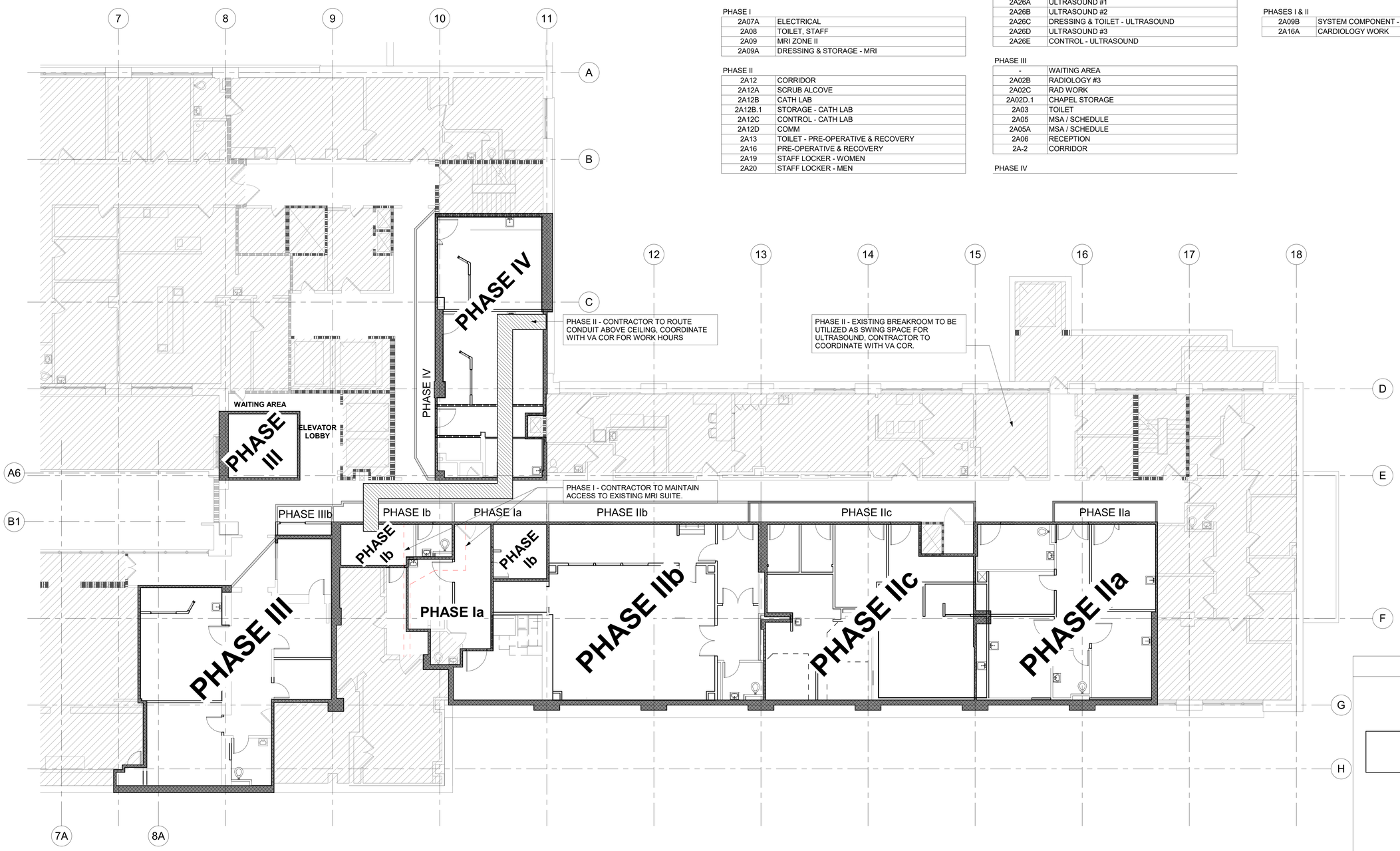
ROOM #	ROOM NAME
CORRIDOR - PARTIALLY USED IN MULTIPLE PHASES	
2A02	CORRIDOR
2A-1	CORRIDOR
2B1	CORRIDOR
2B-1	CORRIDOR
PHASE I	
2A07A	ELECTRICAL
2A08	TOILET, STAFF
2A09	MRI ZONE II
2A09A	DRESSING & STORAGE - MRI
PHASE II	
2A12	CORRIDOR
2A12A	SCRUB ALCOVE
2A12B	CATH LAB
2A12B.1	STORAGE - CATH LAB
2A12C	CONTROL - CATH LAB
2A12D	COMM
2A13	TOILET - PRE-OPERATIVE & RECOVERY
2A16	PRE-OPERATIVE & RECOVERY
2A19	STAFF LOCKER - WOMEN
2A20	STAFF LOCKER - MEN

ROOM PHASING - NEW

ROOM #	ROOM NAME
2A23	OFFICE - SHARED
2A25	RAD FLOURO - WAITING
2A25A	DRESSING & TOILET - RAD FLOURO
2A25B	RAD FLUORO
2A26	CORRIDOR
2A26A	ULTRASOUND #1
2A26B	ULTRASOUND #2
2A26C	DRESSING & TOILET - ULTRASOUND
2A26D	ULTRASOUND #3
2A26E	CONTROL - ULTRASOUND
PHASE III	
-	WAITING AREA
2A02B	RADIOLOGY #3
2A02C	RAD WORK
2A02D.1	CHAPEL STORAGE
2A03	TOILET
2A05	MSA / SCHEDULE
2A05A	MSA / SCHEDULE
2A06	RECEPTION
2A-2	CORRIDOR
PHASE IV	

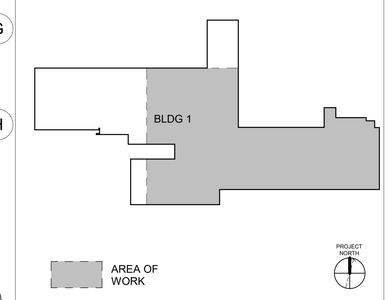
ROOM PHASING - NEW

ROOM #	ROOM NAME
2A11	OMNICELL MEDS
2A-1A	CHARGING ALCOVE
2B01	STORAGE - RADIOLOGY
2B02	RADIOLOGY #2
2B04	RADIOLOGY #1
PHASES I & II	
2A09B	SYSTEM COMPONENT - CATH LAB
2A16A	CARDIOLOGY WORK



1 PHASING PLAN - NEW
1/8" = 1'-0"

KEY PLAN



Revisions:	Date:

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10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: PHASING PLAN - NEW
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: MC
Project Number: 570-21-220
Building Number: 001
Drawing Number: GS202

VA FORM 08 - 6231

CODES AND STANDARDS

1. 2018 INTERNATIONAL BUILDING CODE W/ VETERANS AFFAIRS AMENDMENTS
2. VA SEISMIC DESIGN REQUIREMENTS, H-18-8 NOVEMBER 1, 2019 REVISED MAY 1ST 2020
3. ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
4. ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
5. AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
6. AWS D1.1 2015 STRUCTURAL WELDING CODE - STEEL
7. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS

GENERAL

1. CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES REQUIRED TO PERFORM THE WORK.
2. CONTRACTOR-INITIATED CHANGES REQUIRE BOTH DESIGNER OF RECORD AND GOVERNMENT APPROVAL AND MUST BE SUBMITTED IN WRITING TO THE CONTRACTING OFFICER'S REPRESENTATIVE FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.
3. CONTRACTOR MUST VERIFY DIMENSIONS AND DETAILS PRIOR TO FABRICATION AND CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, COORDINATING WITH THE CONTRACT DRAWINGS ON THE SIZE AND LOCATION OF OPENINGS THROUGH CONCRETE, VERIFYING SIZE AND LOCATION OF MECHANICAL AND ELECTRICAL OPENINGS WITH THE RESPECTIVE SUBCONTRACTOR, AS WELL AS COORDINATING INSERTS AND ATTACHMENTS FOR THE USE OF OTHER TRADES.
4. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS APPLY UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. CONTRACTOR IS RESPONSIBLE FOR CHOOSING THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED. THE CONTRACTOR MUST SUBMIT PROPOSED ALTERNATE DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO DETAILING OR USE.
5. SHOP DRAWING REVIEW: BY SUBMITTING THE SHOP DRAWINGS, THE CONTRACTOR REPRESENTS THAT THEY HAVE DETERMINED AND VERIFIED MATERIALS, FIELD MEASUREMENTS, AND RELATED FIELD CONSTRUCTION CRITERIA (MEANS, METHODS, TECHNIQUES, SEQUENCES, OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO), AND THAT THE CONTRACTOR HAS CHECKED AND COORDINATED THE INFORMATION CONTAINED WITHIN THE SUBMITTAL WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS. REVIEW BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY FOR THE ACCURACY OF DIMENSIONS AND DETAILS. SUCH REVIEW DOES NOT CONSTITUTE ACCEPTANCE BY THE ENGINEER OF THE CORRECTNESS OR ADEQUACY OF SUCH SUBMITTALS, NOR A WARRANTY THAT THE SUBMITTALS SATISFY THE REQUIREMENTS OF THE CONTRACT.

DEMOLITION AND SHORING

1. THE CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. THE CONTRACTOR MUST VERIFY THE EXTENT AND LOCATIONS OF SITE UTILITIES. LOCATIONS OF EXISTING FOUNDATIONS AND UTILITIES KNOWN TO THE ENGINEER ARE INDICATED ON THE DRAWINGS. REPORT ANY DISCREPANCIES OR ENCOUNTERED OBSTRUCTIONS TO THE CONTRACTING OFFICER REPRESENTATIVE IMMEDIATELY.
2. THE CONTRACTOR MUST DESIGN AND INSTALL SHORING TO SUPPORT EXISTING CONSTRUCTION (VERTICALLY AND LATERALLY) AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES COORDINATED WITH THE OTHER DISCIPLINES. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST PREPARE A PLAN TO MONITOR DAILY THE SHORING SYSTEMS FOR MOVEMENT AND SUBMIT IT FOR REVIEW TO THE CONTRACTING OFFICER REPRESENTATIVE.
3. EXISTING STRUCTURAL MEMBERS MUST REMAIN UNLESS NOTED OTHERWISE ON THE PLANS. SAWCUTTING, IF AND WHERE USED, MUST NOT CUT EXISTING REINFORCING THAT IS TO REMAIN. DEMOLITION DEBRIS MUST NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE.
4. OPENINGS THROUGH EXISTING WALLS, SLABS, AND BEAMS MUST BE ACCOMPLISHED BY SAWCUTTING OR CORING WHEREVER POSSIBLE AND AS SHOWN. WHEN SAWCUTTING, CORNERS MUST INITIALLY BE CORED TO PREVENT OVERCUTTING. SMALL ROUND OPENINGS MUST BE ACCOMPLISHED BY DRILLING, IF POSSIBLE.
5. THE CONTRACTOR MUST DESIGN AND INSTALL SHORING TO SUPPORT NEW CONSTRUCTION (VERTICALLY AND LATERALLY) UNTIL STRUCTURAL COMPONENTS HAVE BEEN CONNECTED AS SHOWN ON THE STRUCTURAL DRAWINGS.
6. THE CONTRACTOR MUST SUBMIT SHORING DRAWINGS AND CALCULATIONS STAMPED AND SIGNED BY A REGISTERED STRUCTURAL ENGINEER. DRAWINGS MUST SHOW SIZE, LAYOUT, CONNECTIONS, MATERIAL DESIGNATION, METHOD OF INSTALLATION, AND ACCESSORIES OF SHORING MEMBERS.

DEFERRED SUBMITTALS

1. DEFERRED COMPONENT SUBMITTALS ARE INTENDED TO BE VENDOR DESIGNED AND HAVE NOT BEEN DESIGNED BY THE ARCHITECT/ENGINEER OF RECORD. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND NECESSARY CONNECTIONS NOT CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS.
2. DEFERRED SUBMITTALS INCLUDING CALCULATIONS MUST BE STAMPED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER. DEFERRED SUBMITTALS MUST FIRST BE SUBMITTED TO THE ENGINEER OF RECORD FOR A CURSORY REVIEW FOR LOADS IMPOSED ON THE BASIC STRUCTURE.
3. A SUBMITTAL MAY THEN BE MADE BY THE CONTRACTOR TO THE CONTRACTING OFFICER'S REPRESENTATIVE TO SUBMIT TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL.
4. THE LIST OF ITEMS FOR DEFERRED SUBMITTALS INCLUDES THE FOLLOWING ITEMS:
   A. SEISMIC RESTRAINT FOR NON-STRUCTURAL COMPONENTS
5. SUBMITTAL MUST INCLUDE:
   A. CALCULATIONS
   B. A DIAGRAM SHOWING LOAD MAGNITUDES AND LOCATIONS, SEPARATED INTO DEAD, AND SEISMIC COMPONENTS - THAT ARE APPLIED TO THE PRIMARY STRUCTURE.

DESIGN LOADS

DEAD LOADS:
WEIGHT OF MATERIALS OF CONSTRUCTION AND PERMANENT EQUIPMENT.

LIVE LOADS	
CATH LAB	***50 PSF***
PARTITION	***10 PSF***
CORRIDOR AND EGRESS	***100 PSF***
RISK CATEGORY	***IV***
SNOW LOAD	
SNOW LOAD IMPORTANCE FACTOR, I_s	***0 PSF***
WIND LOADS	
BASIC WIND SPEED (3-SECOND GUST), V_{ult}	***105 MPH***
SEISMIC LOADS	
SEISMIC IMPORTANCE FACTOR, I_e	***1.5***
SITE LATITUDE AND LONGITUDE	***36.7725795° N, 119.779341° W***
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS	
SHORT PERIOD, S_S	***0.584g***
1 SECOND PERIOD, S_1	***0.227g***
SITE CLASS	***D***
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS	
SHORT PERIOD, S_{DS}	***0.519g***
1 SECOND PERIOD, S_{D1}	***0.7***
SEISMIC DESIGN CATEGORY	***D***

STRUCTURAL STEEL WELDING

1. WELDING MUST BE DONE BY CERTIFIED WELDERS AND IN ACCORDANCE WITH AWS D1.1 AND D1.8.
2. WELD SIZES SHOWN ON THE DRAWINGS ARE MINIMUM AND EFFECTIVE SIZES. INCREASE WELD SIZE TO AWS/AISC MINIMUM SIZES AS REQUIRED FOR CONNECTION MATERIAL. THE MINIMUM WELD SIZE MUST BE 3/16 INCHES (EFFECTIVE).
3. FIELD WELDING SYMBOLS HAVE NOT NECESSARILY BEEN INDICATED ON THE DRAWINGS. WHERE NO FIELD WELDING IS DETAILED ON THE DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS.
4. PARTIAL JOINT PENETRATION (PJP) GROOVE WELDS SHOWN ON THE DRAWINGS REFER TO EFFECTIVE THROAT THICKNESS. COMPLETE JOINT PENETRATION (CJP) WELDS MUST BE ULTRASONICALLY TESTED (UT) UPON COMPLETION OF THE CONNECTION, EXCEPT PLATE LESS THAN OR EQUAL TO 5/16 INCH THICK MUST BE MAGNETIC PARTICLE TESTED (MT).
5. WELDS MUST BE MADE USING LOW HYDROGEN ELECTRODES WITH TENSILE STRENGTH PER AWS D1.1 AND D1.8 (MINIMUM 70 KSI).
6. WELDING MUST BE PERFORMED IN STRICT ADHERENCE TO A WRITTEN WELDING PROCEDURE SPECIFICATION (WPS) PER AWS D1.1. WELDING PROCEDURES MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW BEFORE STARTING FABRICATION OR ERECTION. COPIES OF THE WPS MUST BE ON SITE AND AVAILABLE TO WELDERS AND THE SPECIAL INSPECTOR.

NON-SHRINK GROUT

NON-SHRINK GROUT MUST BE CEMENTITIOUS HIGH PRECISION, NATURAL AGGREGATE, NON-METALLIC, NON-STAINING, NON-SHRINKABLE GROUT CONFORMING TO ASTM C1107 AND CRD-C 621, CORPS OF ENGINEERS "SPECIFICATIONS FOR NON-SHRINK GROUT." GROUT MUST HAVE A SPECIFIED MINIMUM COMPRESSIVE STRENGTH OF 8,000 PSI AT 5 DAYS. PRE-GROUTING OF BASE PLATES IS NOT PERMITTED.

ANCHORAGE TO CONCRETE AND MASONRY

1. EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS CONSIST OF THE FOLLOWING ANCHOR TYPES.
2. ANCHOR CAPACITY USED IN DESIGN MUST BE BASED ON THE TECHNICAL DATA PUBLISHED IN THE ICC APPROVAL REPORT. SUBSTITUTION REQUESTS MUST INCLUDE ICC ESR REPORT SHOWING COMPLIANCE WITH RELEVANT BUILDING CODE AND INSTALLATION CATEGORY AND BE APPROVED IN WRITING BY THE CONTRACTING OFFICER'S REPRESENTATIVE/ENGINEER OF RECORD PRIOR TO USE.
3. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
4. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND EDGE DISTANCE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
5. EXISTING CONSTRUCTION: EXISTING REINFORCING BARS IN THE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE CONTRACTOR MUST LOCATE THE POSITION OF THE EXISTING REINFORCING BARS AND AVOID CUTTING.

6 ANY ABANDONED HOLES SHALL BE FILLED IN WITH DRY PACK GROUT.

DRILLED-IN SCREW ANCHORS INTO CONCRETE
1. HILTI KWIK HUS-EZ SCREW ANCHORS PER ICC ESR-3027
2. SIMPSON TITEN HD SCREW ANCHOR PER ICC ESR-2713
3. DEWALT WEDGE-BOLT+ PER ICC ESR-2526

DRILLED-IN EXPANSION ANCHORS INTO CONCRETE
1. HILTI KWIK-BOLT TZ EXPANSION ANCHOR PER ICC ESR-1917
2. SIMPSON STRONG BOLT 2 WEDGE ANCHOR PER ICC ESR-3037
3. DEWALT POWER-STUD+ SD1 MECHANICAL ANCHOR PER ICC ESR-2818

ADHESIVE ANCHORS AND REBAR DOWELING INTO CONCRETE
1. HILTI HIT-HY 200 ADHESIVE ANCHOR SYSTEM PER ICC ESR-3187
2. SIMPSON SET-XP ADHESIVE ANCHOR SYSTEM PER ICC ESR-2508
3. DEWALT PE1000+ ADHESIVE ANCHOR SYSTEM PER ICC ESR-2583

DRILLED-IN SCREW ANCHORS INTO SOLID-GROUTED MASONRY
1. HILTI KWIK HUS-EZ SCREW ANCHORS PER ICC ESR-3056
2. SIMPSON TITEN HD SCREW ANCHOR PER ICC ESR-2713
3. DEWALT SCREW-BOLT+ PER ICC ESR-4042

DRILLED-IN EXPANSION ANCHORS INTO SOLID-GROUTED MASONRY
1. HILTI KWIK-BOLT 3 EXPANSION ANCHOR PER ICC ESR-1385
2. SIMPSON STRONG BOLT 2 WEDGE ANCHOR PER UES ER-240
3. DEWALT POWER-STUD+ SD1 MECHANICAL ANCHOR PER ICC ESR-2966

ADHESIVE ANCHORS AND REBAR DOWELING INTO SOLID-GROUTED MASONRY
1. HILTI HIT-HY 270 ADHESIVE ANCHOR SYSTEM PER ICC ESR-4143
2. SIMPSON SET-XP ADHESIVE ANCHOR SYSTEM PER IAPMO UES ER-265
3. DEWALT AC100+GOLD ADHESIVE ANCHOR SYSTEM PER ICC ESR-3200
4. STEEL ANCHOR ELEMENT MUST BE ASTM F1554 GRADE 55 THREADED ROD OR STEEL REINFORCEMENT PER DRAWINGS

STRUCTURAL STEEL

1. STEEL CONSTRUCTION MUST CONFORM TO AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND AISC 341-16 SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS.
2. STEEL MUST CONFORM TO THE FOLLOWING:

SHAPE	ASTM SPECIFICATION	YIELD STRENGTH, Fy (KSI)
WIDE FLANGES	A992	50
ANGLE & CHANNEL UNO	A36	36
PLATE & BAR STOCK	A572 GARDE 50	50
PIPE	A53 GRADE B	35
SQUARE OR RECTANGULAR TUBE (HSS)	A500 GRADE C	50
ROUND TUBE (HSS)	A500 GRADE C	46
OTHER STEEL (UNO)	A572	50

3. WORK MUST BE IN ACCORDANCE WITH AISC 303, AS MODIFIED PER THE PROJECT SPECIFICATIONS.
4. HOLES IN STEEL CUT IN THE FIELD MUST BE DRILLED, NOT BURNED.
5. CAMBER BEAMS AS NOTED ON THE FRAMING PLANS. WHERE NO CAMBER IS NOTED, FABRICATE BEAMS SO THAT THE CAMBER AS ROLLED (WITHIN ALLOWABLE TOLERANCES) IS POSITIVE. WIND GIRTS WITH INCIDENTAL CAMBER MUST BE INSTALLED WITH CAMBER POSITIVE TO THE BUILDING EXTERIOR.
6. STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS UNO.
7. MINIMUM CONNECTION MUST BE A TWO-BOLT CONNECTION USING 7/8-INCH DIAMETER GRADE A325 BOLTS (TYPE N) IN SINGLE SHEAR.
8. ANCHOR RODS SHALL BE F1554 GR36 UNO.
9. BOLTS IN BEAM-TO-BEAM/GIRDER MAY BE SNUG TIGHT, UNLESS SPECIFICALLY CALLED OUT AS SLIP CRITICAL. CONTRACTOR MUST SUBMIT TIGHTENING PROCEDURES TO THE ENGINEER FOR REVIEW AND APPROVAL.
10. THE CONTRACTOR IS RESPONSIBLE FOR ERECTION AIDS THAT INCLUDE, BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES, AND OTHER AIDS. REMOVE ERECTION AIDS, INCLUDING ERECTION BOLTS. PLUG WELD HOLES AND GRIND SMOOTH.
11. MEANS AND METHODS OF ERECTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND CONNECTIONS AND DETAILS DO NOT NECESSARILY SHOW ERECTION AIDS REQUIRED.

Revisions: Date:

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ARCHITECT/ENGINEER OF RECORD
A/E:
SPEESDESIGNBUILD

STAMP
REGISTERED PROFESSIONAL ENGINEER DANTE VALDEZ No. 5752 STRUCTURAL STATE OF CALIFORNIA

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: STRUCTURAL GENERAL NOTES
Phase: 100% CD
Project Title: RENOVATE IMAGING AND CATH LAB IN BUILDING 1
Project Number: 570-21-701
Building Number: 001
Approved:
FULLY SPRINKLERED
Location: 2615 E CLINTON AVE, FRESNO, CA 93703
Issue Date: 03/27/2026
Checked: DDV
Drawn: JKM
Drawing Number: S-001

VA FORM 08 - 6231

&	AND
@	AT
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
AR	ANCHOR RODS
ARCH	ARCHITECT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATFP	ANTI-TERRORISM FORCE PROTECTION
BAL	BALANCE
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
CFS	COLD-FORMED STEEL
CG	CENTER OF GRAVITY
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CJ	CONSTRUCTION JOINT
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CTR	CENTER
DBL	DOUBLE
DEMO	DEMOLISH
DET	DETAIL
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DL	DEAD LOAD
DWG	DRAWING
(E)	EXISTING
E	EAST
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRIC
EMBED	EMBEDMENT
ENGR	ENGINEER
EQ	EQUAL
EQUIV	EQUIVALENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FDTN	FOUNDATION
FIN	FINISH(ED)
FIN FLR	FINISHED FLOOR
FLG	FLANGE
FLR	FLOOR
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD, FACE OF STEEL
FRMG	FRAMING
FS	FAR SIDE
FT	FOOT, FEET
FTG	FOOTING
FV	FIELD VERIFY
GA	GAGE
GALV	GALVANIZED
HDG	HOT-DIP GALVANIZED
HORIZ	HORIZONTAL
HS	HIGH STRENGTH
HSA	HEADED STUD ANCHOR
HT	HEIGHT
ID	INSIDE DIAMETER
IJ	ISOLATION JOINT
IN	INCH
INFO	INFORMATION
INT	INTERIOR
JBE	JOIST BEARING ELEVATION
JT	JOINT
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
LF	LINEAR FEET
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGINTUDINAL
LSL	LONG SLOTTED HOLE
LSLP	LONG SLOTTED HOLE PARALLEL
LSLT	LONG SLOTTED HOLE TRANSVERSE
LT GA	LIGHT GAGE
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
#	NUMBER
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OWJ	OPEN WEB JOIST
PAF	POWDER ACTUATED FASTENERS
PCF	POUNDS PER CUBIC FOOT
PEMB	PRE-ENGINEERED METAL BUILDING
PERP	PERPENDICULAR
PH	PHASE
PL	PLATE
PLWD	PLYWOOD
PNL	PANEL
PREFAB	PREFABRICATED
PROJ	PROJECT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST TENSIONED
QTY	QUANTITY
R	RADIUS
REF	REFERENCE
REINF	REINFORCE, REINFORCEMENT
REQD	REQUIRED
REV	REVISION
RO	ROUGH OPENING
S	SOUTH
SC	SLIP-CRITICAL
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SOG	SLAB ON GRADE
SPA	SPACE, SPACING
SPEC	SPECIFICATION
SQ	SQUARE
SSL	SHORT SLOTTED HOLE
SSLP	SHORT SLOTTED HOLE PARALLEL
SSLT	SHORT SLOTTED HOLE TRANSVERSE
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SW	SHEAR WALL
SYMM	SYMMETRICAL
T&B	TOP AND BOTTOM
TEMP	TEMPORARY
THK	THICK
THRU	THROUGH
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANSV	TRANSVERSE
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VOL	VOLUME
W	WEST
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORKING POINT
WT	WEIGHT
WTS	WELDED THREADED STUDS
WWR	WELDED WIRE REINFORCEMENT

STRUCTURAL SPECIAL INSPECTION & TESTING

1. SPECIAL INSPECTION SHALL CONFORM TO SPECIFICATION SECTION 01 45 35 AND CHAPTER 17 OF THE IBC
2. SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN INSPECTION AND TESTING AGENCY MEETING THE REQUIREMENTS OF SPECIFICATION SECTION 01 45 35.
3. STRUCTURAL OBSERVATION FOR SEISMIC RESISTANCE IS NOT REQUIRED PER IBC SECTION 1704.6.1.
4. STRUCTURAL OBSERVATION FOR WIND RESISTANCE IS NOT REQUIRED PER IBC SECTION 1704.6.2.
5. SPECIAL INSPECTION FOR WIND RESISTANCE IS NOT REQUIRED PER IBC SECTION 1705.11.

Revisions: Date:

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ARCHITECT/ENGINEER OF RECORD

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SPEESDESIGNBUILD

STAMP

REGISTERED PROFESSIONAL ENGINEER DANTE VALDEZ No. 5752 Exp. 6/30/27 STRUCTURAL STATE OF CALIFORNIA

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: STRUCTURAL ABBREVIATIONS

Phase: 100% CD

Project Title: RENOVATE IMAGING AND CATH LAB IN BUILDING 1

Project Number: 570-21-701

Building Number: 001

Approved:

FULLY SPRINKLERED

Location: 2615 E CLINTON AVE, FRESNO, CA 93703

Issue Date: 03/27/2026

Checked: DDV

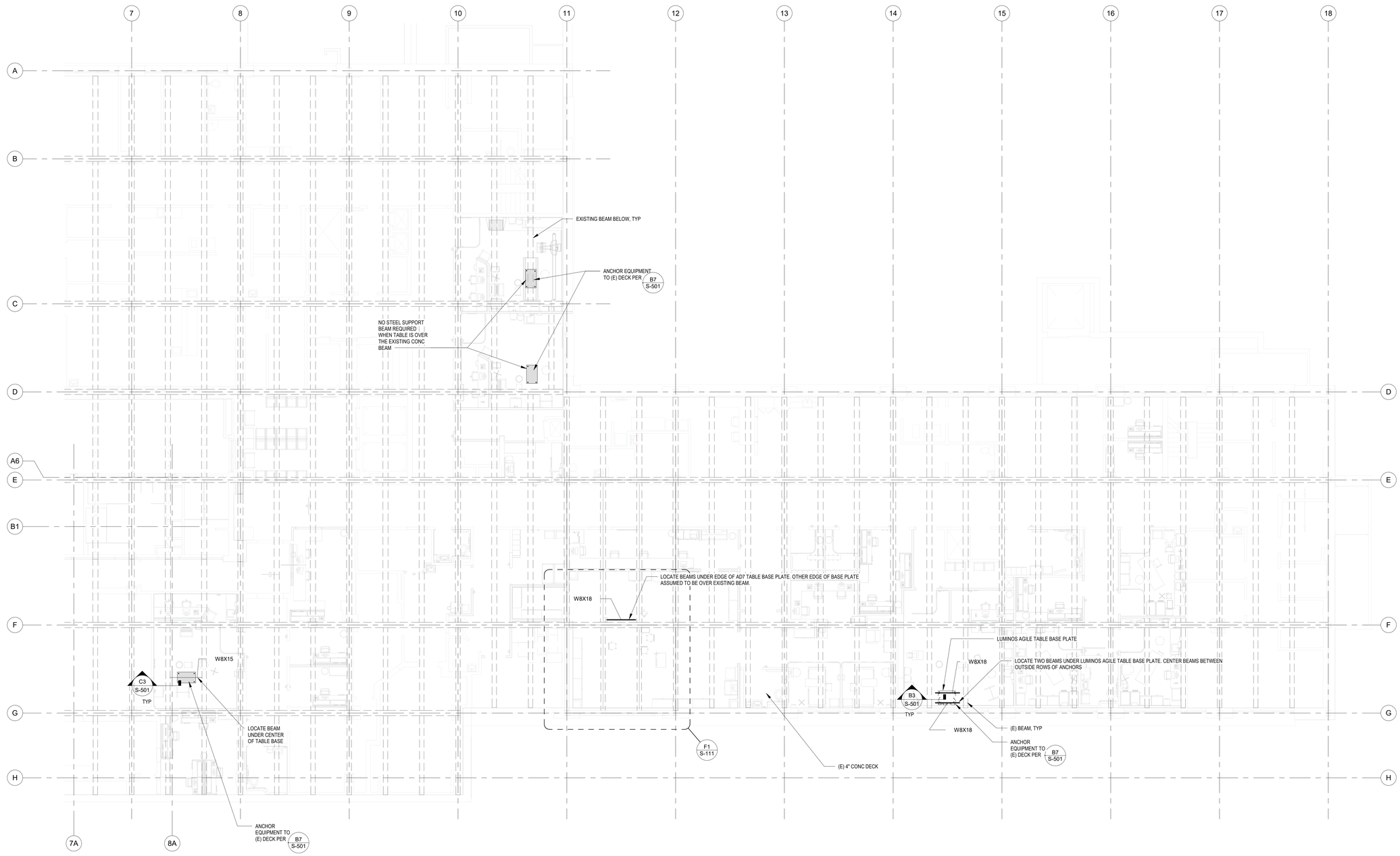
Drawn: JKM

Drawing Number: S-002

VA FORM 08 - 6231

NOTES:

1. HOLES DRILLED INTO FLOOR DECK SHALL NOT EXCEED 3 1/2" IN DEPTH, UNLESS NOTED AS A THRU BOLT ON DRAWINGS.
2. CONTRACTOR SHALL LOCATE EXISTING SLAB REINF PRIOR TO DRILLING. DO NOT DAMAGE EXISTING SLAB REINF.



LEVEL 2 STRUCTURAL PLAN

1/8" = 1'-0"

Revisions:	Date:

CONSULTANT

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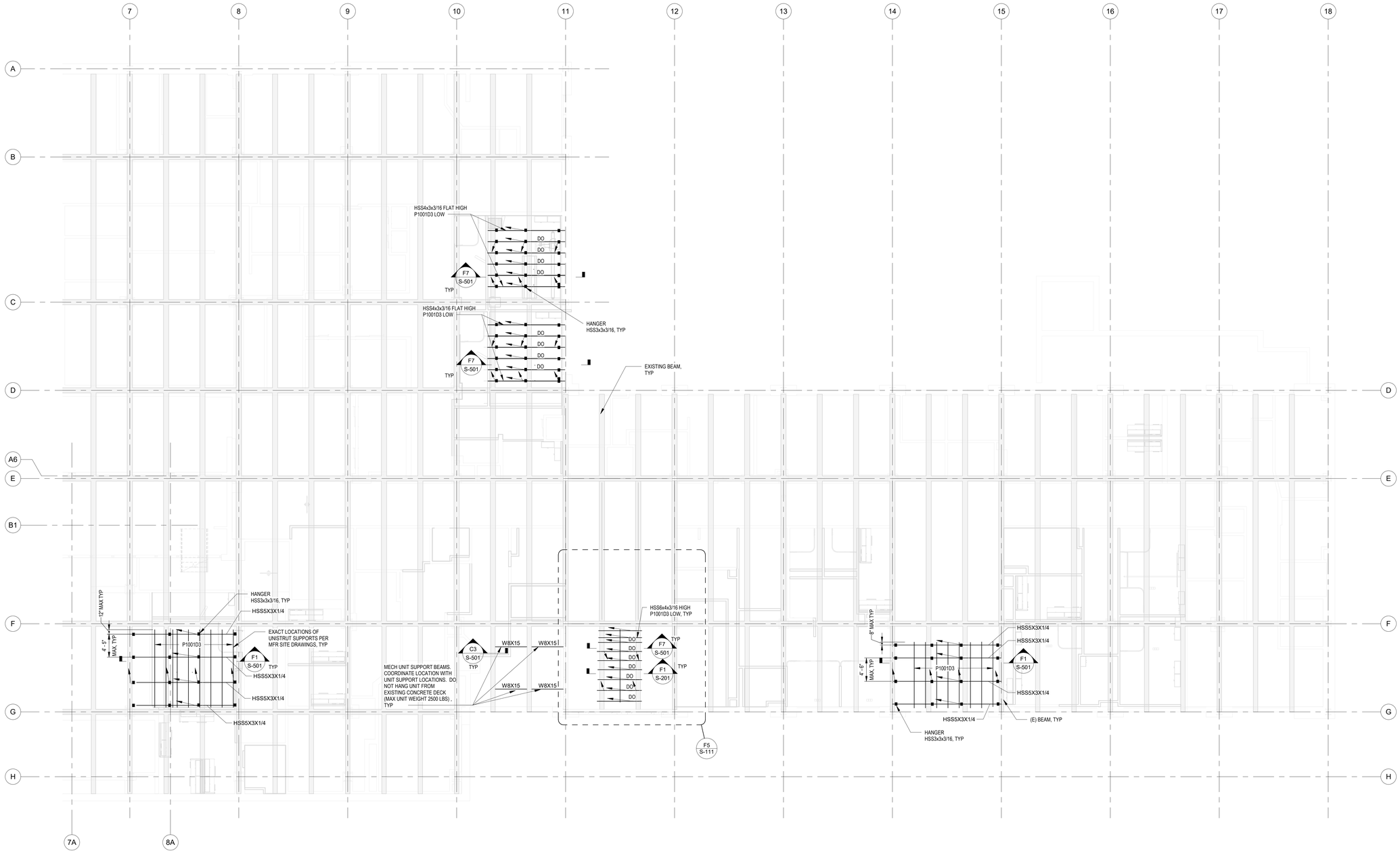
REGISTERED PROFESSIONAL ENGINEER DANTE VALDEZ No. 5752 STRUCTURAL STATE OF CALIFORNIA

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 STRUCTURAL PLAN	100% CD	RENOVATE IMAGING AND CATH LAB IN BUILDING 1	570-21-701
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: 2615 E CLINTON AVE, FRESNO, CA 93703	Drawing Number: S-101
		Issue Date: 03/27/2026 · Checked: Checker · Drawn: Author	

VA FORM 08 - 6231



NOTE:

EXACT UNISTRUT LOCATIONS PER ARCH AND MANUF DRAWINGS..

LEGEND

HSS HANGER

BRACE

LEVEL 2 CEILING FRAMING PLAN

1/8" = 1'-0"

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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Federal Way, WA 98003-2600
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FAX: (206) 431-2250

ARCHITECT/ENGINEER OF RECORD

A/E:

SDB SPEESDESIGNBUILD

STAMP

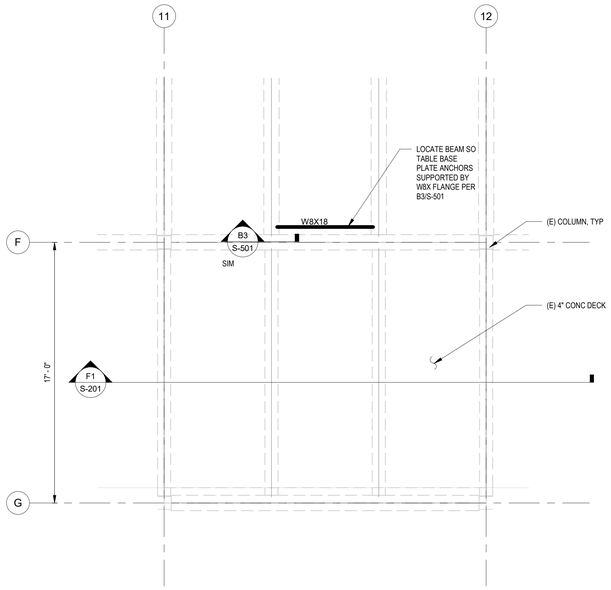
REGISTERED PROFESSIONAL ENGINEER
DANTE VALDEZ
No. 5752
Exp. 12/31/27
STRUCTURAL
STATE OF CALIFORNIA

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

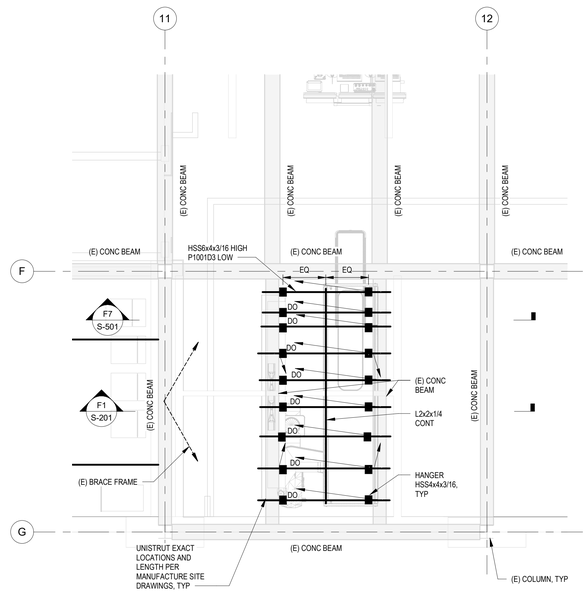
Drawing Title	Phase	Project Title	Project Number
REFLECTED CEILING PLAN	100% CD	RENOVATE IMAGING AND CATH LAB IN BUILDING 1	570-21-701
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: 2615 E CLINTON AVE, FRESNO, CA 93703	Drawing Number: S-101A
		Issue Date: 03/27/2026 · Checked: Checker · Drawn: Author	

VA FORM 08 - 6231



F1 ENLARGED LEVEL 2 FLOOR PLAN

1/4" = 1'-0"



F5 LEVEL 2 REFLECTED CEILING PLAN

1/4" = 1'-0"

LEGEND

- HSS HANGER
- BRACE

NOTE:

HOLES DRILLED INTO FLOOR DECK SHALL NOT EXCEED 3 1/2" IN DEPTH, UNLESS NOTED AS A THRU BOLT ON DRAWINGS.

Revisions:	Date:

CONSULTANT

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ARCHITECT/ENGINEER OF RECORD

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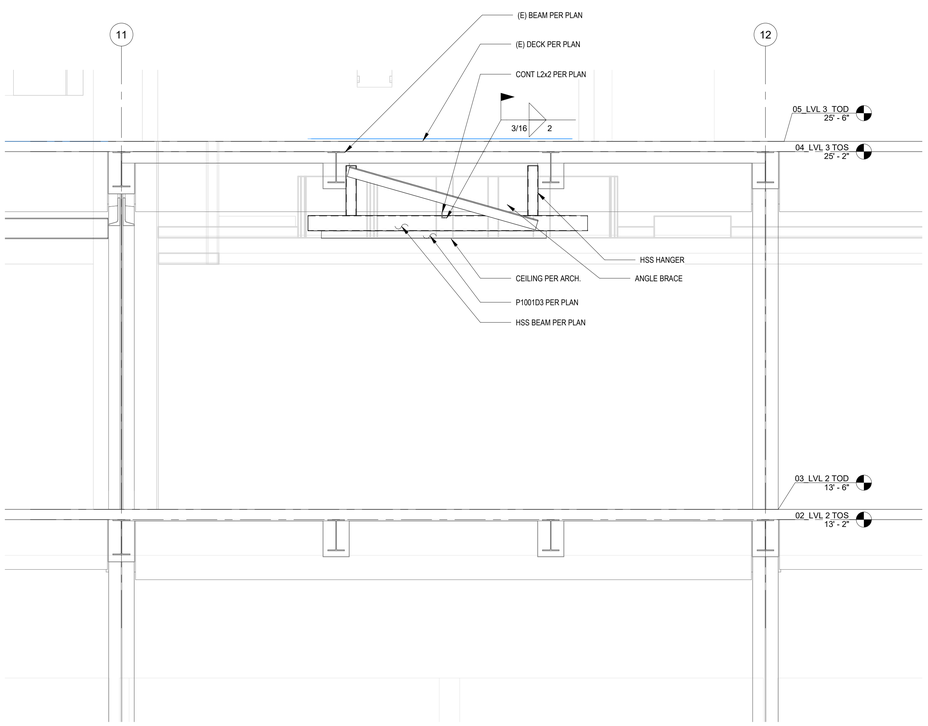
STATE OF CALIFORNIA

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ENLARGED LEVEL 2 DETAILED STRUCTURAL PLANS	100% CD	RENOVATE IMAGING AND CATH LAB IN BUILDING 1	570-21-701
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: 2615 E CLINTON AVE, FRESNO, CA 93703	Drawing Number: S-111
		Issue Date: 03/27/2026 · Checked: DDV · Drawn: JKM	

VA FORM 08 - 6231



F1 SECTION
1/2" = 1'-0"

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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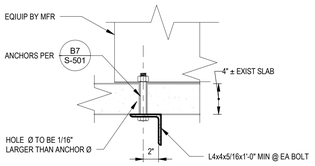
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECTIONS	100% CD	RENOVATE IMAGING AND CATH LAB IN BUILDING 1	570-21-701
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: 2615 E CLINTON AVE, FRESNO, CA 93703	Drawing Number: S-201
		Issue Date: 03/27/2026 · Checked: Checker · Drawn: Author	

VA FORM 08 - 6231

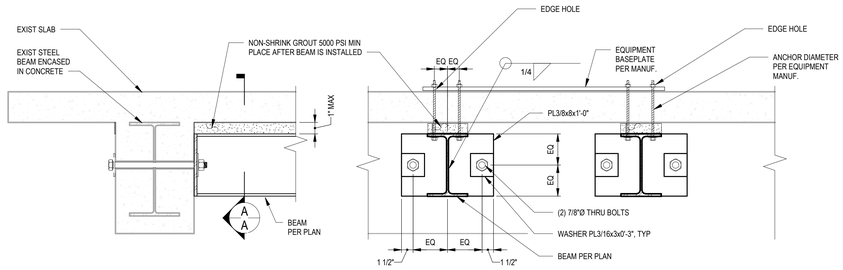


NOTE:

IF EXISTING BEAM IS CONFLICTING WITH L4X THE ANCHOR SHALL BE SWITCHED WITH F1554 GR 36 THREADED ROD, EMBED 31/2" WITH HILTI HIT-HY 200 V3 EPOXY. WHERE STEEL BEAM IS BELOW EQUIPMENT USE DETAIL B3/S-501

B1 EQUIP ANCHORAGE TO (E) SLAB

1 1/2" = 1'-0"



SECTION A-A

B3 EQUIPMENT ANCHORAGE TO (E) BEAM

1 1/2" = 1'-0"

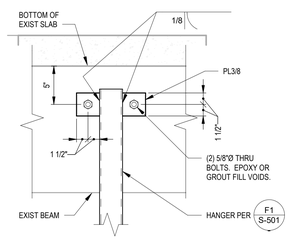
EQUIPMENT ANCHOR SCHEDULE							
ROOM	EQUIPMENT	FLOOR ANCHOR TYPE / DIAMETER / EMBED	No OF FLOOR ANCHORS	FLOOR NOTE	WALL ANCHOR TYPE / DIAMETER / EMBED	No OF WALL ANCHORS	WALL NOTE
RADIOLOGY	VX3733 TABLE	5/8"	4	VX3733 TABLE			
RADFLUORO (2A23B)	TABLE BASE	1/2" / HILTI KB-TZ / 2"	8	GC85 TABLE			
RADFLUORO (2A23B)	WALL STAND	1/2" / HILTI KB-TZ / 2"	4				
CATH LAB	AD7	3/4" / A193-B8 SS	4	PER B1/S-501			
CATH LAB	RACK CABINET	3/8" / HILTI KB-TZ / 2"	10	(5) L3"x3"x1/8"x0'-10" ATTACHED TO CABINET WITH (4) #12 SMS EA PER MFR			SEE DETAIL B4/S-501 FOR BACKING PLATES REQUIRED. 1 ROW
CATH LAB	CONTROL ROOM CONNECTION BOX	3/4" / A193-B8 SS	4		#12 SMS	6	SEE DETAIL B4/S-501 FOR BACKING PLATES REQUIRED. 2 ROWS

NOTE:

FOR EQUIPMENT NOT SHOWN IN SCHEDULE USE CONCRETE SCREWS INSTALLED PER MANUFACTURER'S REQUIREMENTS WHEN INSTALLING TO CONCRETE.

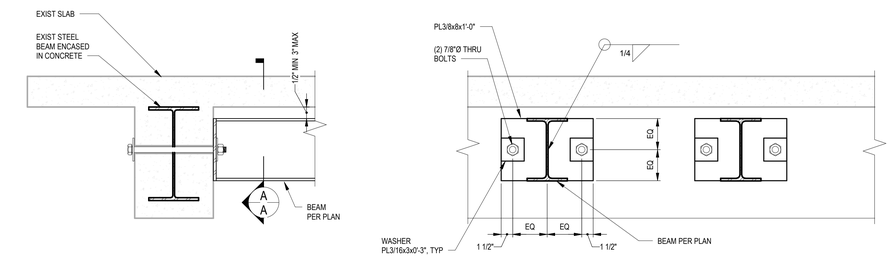
B7 EQUIPMENT ANCHOR SCHEDULE

1" = 1'-0"



C1 HANGER TO (E) BEAM

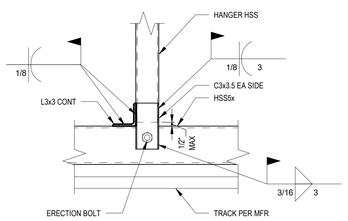
1 1/2" = 1'-0"



SECTION A-A

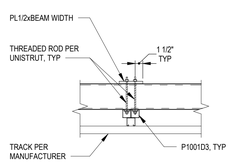
C3 MECH UNIT BEAM SUPPORT

1 1/2" = 1'-0"



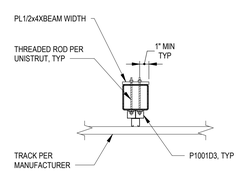
E1 HANGER CONNECTION

1 1/2" = 1'-0"



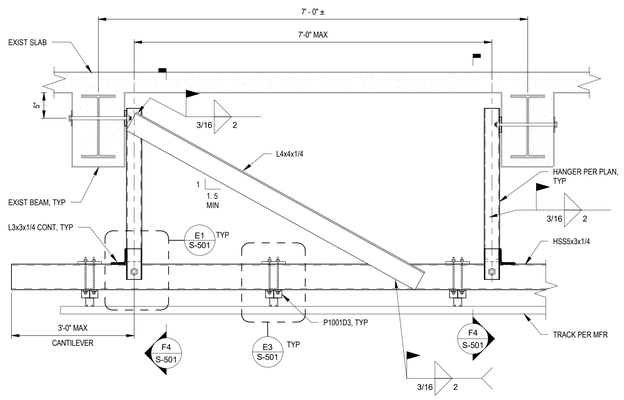
E3 UNISTRUT CONNECTION

1" = 1'-0"



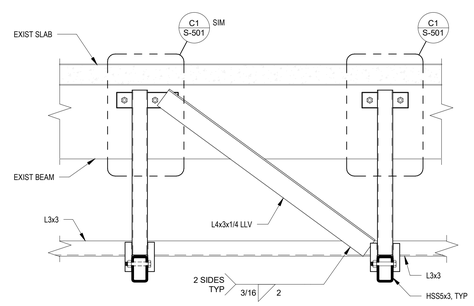
E4 UNISTRUT CONNECTION

1" = 1'-0"



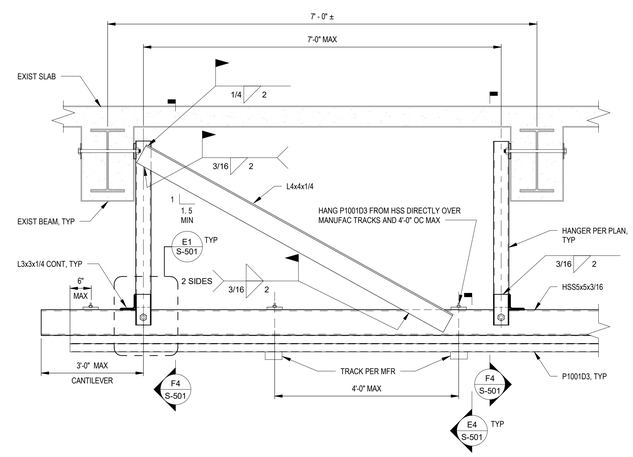
F1 SECTION

1" = 1'-0"



F4 BRACING SECTION

1" = 1'-0"



F7 SECTION

1" = 1'-0"

Revisions:	Date:

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ARCHITECT/ENGINEER OF RECORD

A/E:

SDB SPEESDESIGNBUILD

STAMP

REGISTERED PROFESSIONAL ENGINEER
DANTE VALDEZ
No. 5752
EXP. 6/30/27
STRUCTURAL
STATE OF CALIFORNIA

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title DETAILS AND SECTIONS	**Phase** 100% CD	**Project Title** RENOVATE IMAGING AND CATH LAB IN BUILDING 1	**Project Number** 570-21-701
			Building Number 001
Approved:	FULLY SPRINKLERED	**Location** 2615 E CLINTON AVE, FRESNO, CA 93703	**Drawing Number** S-501
		Issue Date 03/27/2026 · **Checked** LH · **Drawn** DDV	

VA FORM 08 - 6231

SYMBOLS

- EXTERIOR ELEVATION (1 / A-101)
- INTERIOR ELEVATION (1 / A-101)
- BUILDING SECTION FLAG (1 SIM / A-101)
- WALL SECTION FLAG (1 SIM / A-101)
- CALLOUT FLAG (1 TYP / A101)
- VERTICAL GRID LINE (1)
- HORIZONTAL GRID LINE (A)
- TRUE NORTH ARROW (TRUE NORTH)
- PROJECT NORTH ARROW (TRUE NORTH DASHED) (PROJECT NORTH)
- ELEVATION MARKER
- KEY NOTE (1)
- ROOM TAG (SF OPTIONAL) (ROOM NAME, 101, 150 SF)
- CEILING HEIGHT TAG (GYP ON MTL STUD, 9' - 0" AFF)
- WALL TAG (01A)
- FLOOR TAG (F-1)
- ROOF TAG (R-1)
- DOOR TAG (101.1)
- WINDOW TAG (W1)
- SPECIALTY EQUIPMENT TAG (SOAP DISH A5175)
- SIGNAGE TAG (IN-04.02-01)
- SIGNAGE KEY NOTE (AW SHEETS ONLY) (D88)
- SIGNAGE MATERIAL TAG (AW SHEETS ONLY) (A01)
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- TO DEMOLISH
- HIDDEN ABOVE OR BELOW
- EXISTING DOOR TO REMAIN
- EXISTING DOOR TO DEMOLISH
- NEW DOOR
- SMOKE ZONE
- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- SMOKE RATED WALL
- SMOKE & 1 HR FIRE RATED WALL
- FIRE EXTINGUISHER CABINET (FEC)
- AREA OF WORK / AREA SHOWN
- CONSTRUCTION ZONE, (- -) PRESSURE
- ANTE ROOM, (-) PRESSURE
- TEMPORARY ICRA BARRIER
- TEMPORARY ICRA DOOR
- PATH OF TRAVEL
- EMERGENCY EGRESS PATHWAY
- SEISMIC JOINT
- BATT INSULATION
- RIGID INSULATION
- GYPSUM BOARD, TYPE X
- ACOUSTICAL CEILING TILE, 2' x 2'
- CONCRETE
- STEEL
- PLYWOOD, FIRE RATED
- EARTH
- SUPPLY GRILLE PER MECHANICAL (SIZE & PROPORTIONS MAY VARY)
- RETURN GRILLE PER MECHANICAL (SIZE & PROPORTIONS MAY VARY)
- LIGHTING PER ELECTRICAL (SIZE & PROPORTIONS MAY VARY)

ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
℄	CENTERLINE
°	DEGREES
#	NUMBER
AB	ANCHOR BOLT
ABA	ARCHITECTURAL BARRIERS ACT
AC(T)	ACOUSTICAL CEILING (TILE)
ACM	ASBESTOS CONTAINING MATERIAL
ACW	ACOUSTICAL WALL
ADA	AMERICANS W/ DISABILITIES ACT
ADJ	ADJACENT
A/E	ARCHITECT/ENGINEER
AF	ACCESS FLOOR
AFF	ABOVE FINISH FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATELY
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
A/V	AUDIO / VIDEO
BARR	BARRIER
BATH	BATHROOM
BB	BACKER BOARD
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BMTU	BONE MARROW TRANSPLANT UNIT
BO	BOTTOM OF
BOC	BOTTOM OF CURB
BOS	BOTTOM OF SLAB
BRC	BRACE, BRACING
BRKT	BRACKET
BRNG	BEARING
BTM	BOTTOM
BTWN	BETWEEN
CAB	CABINET
CC	CONTRACTOR FURN, CONTRACTOR INST
CD	CONSTRUCTION/CONTRACT DOCUMENTS
CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
CO	CONTRACTING OFFICER
COL	COLUMN
COMP	COMPOSITION
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
COR	CONTRACTING OFFICER REPRESENTATIVE
CORR	CORRIDOR
CS	CONCRETE SEALER
CT	CERAMIC TILE
CTR	CENTER
CV	CONTRACTOR FURNISHED, VA INSTALLED
DBL	DOUBLE
DC	DIRECT CURRENT
DD	DESIGN DEVELOPMENT
DEMO	DEMOLISH(ION)
DEPT	DEPARTMENT
DG	DESIGN GUIDE
DIA	DIAMETER
DIM	DIMENSION
DWN	DOWN
DR	DOOR
DTL	DETAIL
DWG	DRAWING(S)
E	EAST
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRIC(AL)
ELEV	ELEVATION OR ELEVATOR
ENG	ENGINEER(ING)
EOC	EDGE OF CURB
EOP	EDGE OF PAVEMENT
EPDM	ETHYLENE PROPYLENE DIENE TERPOLYMER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
ETS	EXPOSED TO STRUCTURE
EX(IST)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FE(C)	FIRE EXTINGUISHER (CABINET)
FF	FACTORY FINISH
FFB	FINISH FLOOR BREAK
FFL	FINISH FLOOR LINE
FIN	FINISH(ED)
FLASH	FLASHING
FLR	FLOOR(ING)
FLRSNT	FLORESCENT
FNDN	FOUNDATION
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUDS
FP	FIRE PROOF
FR	FIRE RATED
FRM	FRAME
FT	FOOT, FEET
FTG	FOOTING
FUR	FURRING
FURN	FURNISHED
GA	GAGE, GAUGE
GALV	GALVANIZED
GE	GENERAL ELECTRIC
G(W)B	GYPSUM (WALL) BOARD
GC	GENERAL CONTRACTOR
GL	GRID LINE
GLB	GLUE LAMINATED BEAM
GMU	GLASS MASONRY UNIT
GOV(T)	GOVERNMENT
GYP	GYPSUM BOARD
HDR	HEADER
HDWE	HARDWARE
HM	HOLLOW METAL
HORZ	HORIZONTAL
HPDL	HIGH PRESSURE DECORATIVE LAM
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
ICRA	INFECTIOUS CONTROL RISK ASSESSMENT
ID	INSIDE DIAMETER OR DIM
ILSM	INTERIM LIFE SAFETY MEASURES
INCL	INCLUDE(D,ING)
INST	INSTALL
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
KV	KILOVOLT
LAM	LAMINATE(D)
LAV	LAVATORY
LCM	LEAD CONTAINING MATERIAL(S)
LT	LIGHT
MAT	MATERIAL(S)
MAX	MAXIMUM
MDF	MEDIUM-DENSITY FIBREBOARD
MECH	MECHANIC(AL)
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURE(R)
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODIFIED
MTL	METAL
N	NORTH
N/A	NOT APPLICABLE
NEG	NEGATIVE
NO.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
NIS	NOT IN SCOPE
O.C.	ON CENTER(S)
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTION(AL)
OVHD	OVERHEAD
P	PAINT
PCONC	PRECAST CONCRETE
PCRA	PRE-CONSTRUCTION RISK ASSESSMENT
PL	PLATE
PLAM	PLASTIC LAMINATE
PLY(WD)	PLYWOOD
PNL	PANEL
PR	PAIR
PRFB	PREFABRICATED
PS	PLASTIC
PT	PRESSURE TREATED
PTN(S)	PARTITION(S)
PVMT	PAVEMENT
QTY	QUANTITY
RAD	RADIOACTIVE
RCP	REFLECTED CEILING PLAN
REF	REFERENCE
REINF	REINFORCE(D,ING)
REP	REPRESENTATIVE
REQ(s,(')D)	REQUIRE(D,S,MENT(S))
RESIL	RESILIENT
REV	REVERSE
RF	RADIO FREQUENCY
R/F	RADIOLGY FLUOROSCOPY
RM	ROOM
RMV	REMOVE
RO	ROUGH OPENING
S	SOUTH
SCHED	SCHEDULE
SD	SCHEMATIC DESIGN
SECT	SECTION
SF	SQUARE FEET
SFRM	SPRAY APPLIED FIRE-RESISTIVE MATERIAL
SHG	SHINGLES
SHT(G)	SHEET (SHEATHING)
SIM	SIMILAR
SM	SEAM
SOW	SCOPE OF WORK
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
ST	STAIN
STDG	STANDING
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SV	SHEET VINYL
SYS	SYSTEM
TEMP	TEMPORARY
T&G	TONGUE AND GROOVE
THK	THICK(NESS)
THRESH	THRESHOLD
TOC	TABLE OF CONTENTS
TOS	TOP OF SLAB
TPH	TOILET PAPER HOLDER
TRANS	TRANSIT(ION
TS	TUBE STEEL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VA	VETERANS AFFAIRS
VAR	VARIES
VB	VAPOR BARRIER
VC	VA FURNISHED, CONTRACTOR INSTALLED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VV	VA FURNISHED, VA INSTALLED
W	WEST
W/	WITH
WD	WOOD
WDW	WINDOW
WGHT	WEIGHT
W/O	WITHOUT
WP	WATERPROOF(ING)
WR	WATER RESISTANT

GENERAL NOTES

ARCHITECTURAL NOTES

1. ALL WORK DONE BY THE CONTRACTOR OR SUB-CONTRACTORS MUST CONFORM IN FULL TO QUALITY & TESTING STANDARDS SET FORTH IN THE CONTRACT DOCUMENTS AS WELL AS ALL REQUIREMENTS ESTABLISHED BY THE VA. THE ARCHITECT AND/OR THE VA MAY REJECT NON CONFORMING WORK FOR ANY REASON AND IT SHALL BE THE RESPONSIBILITY OF THE CONRACTOR TO REMEDY ANY DEFICIENCIES PER CONTRACT TERMS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SAFETY AND CLEANLINESS OF THE JOB SITE. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTINO PERSONNEL AND AUTHORIZED VISITORS.
3. DO NOT SCALE DRAWINGS.
4. DIMENSIONS ARE NOT ADJUSTABLE UNLESS NOTED WITH A +/- SYMBOL. ONLY NORMAL INDUSTRY STANDARD TOLERANCES ARE ACCEPTABLE DEVIATIONS FROM DIMENSIONS INDICATED.
5. ALL DIMENSIONS NOTED AS CLEAR SHALL MAINTAIN THE FULL SPACE INDICATED WITHOUT ENCROACHMENTS.
6. FURNISH ALL MATERIALS & PRODUCTS TO COMPLY WITH THE CONTRACT DOCUMENTS.
7. ALL VERTICAL HEIGHTS INDICATED ARE FROM THE FINISH FLOOR ELEVATION, UON.
8. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT EXIST WITHIN THE DRAWINGS.
9. ALL METHODS, MATERIALS, AND WORKMANSHIP SHALL CONFORM WITH CODE AS ADOPTED AND AMENDED BY THE VA.
10. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
11. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO THE BUILDING GRID LINES OR THE FINISH SURFACES.
12. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT PROVIDED IN THIS CONTRACT OR BY OTHERS.
13. VERIFY SIZE AND LOCATION OF ALL OPENINGS THROUGH FLOORS AND WALLS, AND PROVIDE APPROPRIATE FIRE PROTECTION.
14. REPETITIVE FEATURES ARE OFTEN DRAWN OR REFERENCED ONLY ONCE AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
15. ALL DOORS NOT LOCATED BY DIMENSIONS ON PLANS, INTERIOR ELEVATIONS, OR DETAILS SHALL BE 4" FROM FACE OF ADJACENT WALL TO EDGE OF DOOR OPENING.

ARCHITECTURAL NOTES

16. ANY AND ALL WALL MOUNTED EQUIPMENT SHALL HAVE BLOCKING IN WALL BEHIND, THIS INCLUDES BACKING FOR WALL MOUNTED DOOR STOPS. ENSURE THAT ALL REQUIRED BACKING IS INSTALLED IN WALLS PRIOR TO INSTALLING DRYWALL.
17. IN TOILET ROOMS PROVIDE STAINLESS STEEL FILLER BEHIND ANY MIRRORS AND OTHER WALL MOUNTED ACCESSORIES WHEN ITEM IS INSTALLED PARTIALLY OVER CERAMIC TILE.

Revisions:	Date:

CONSULTANT

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(206) 590-2118
RAY SPEES

SPEESDESIGNBUILD

STAMP

10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ARCHITECTURAL SYMBOLS & ABBREVIATIONS

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026 | Checked: MK | Drawn: AK

Project Number: 570-21-220

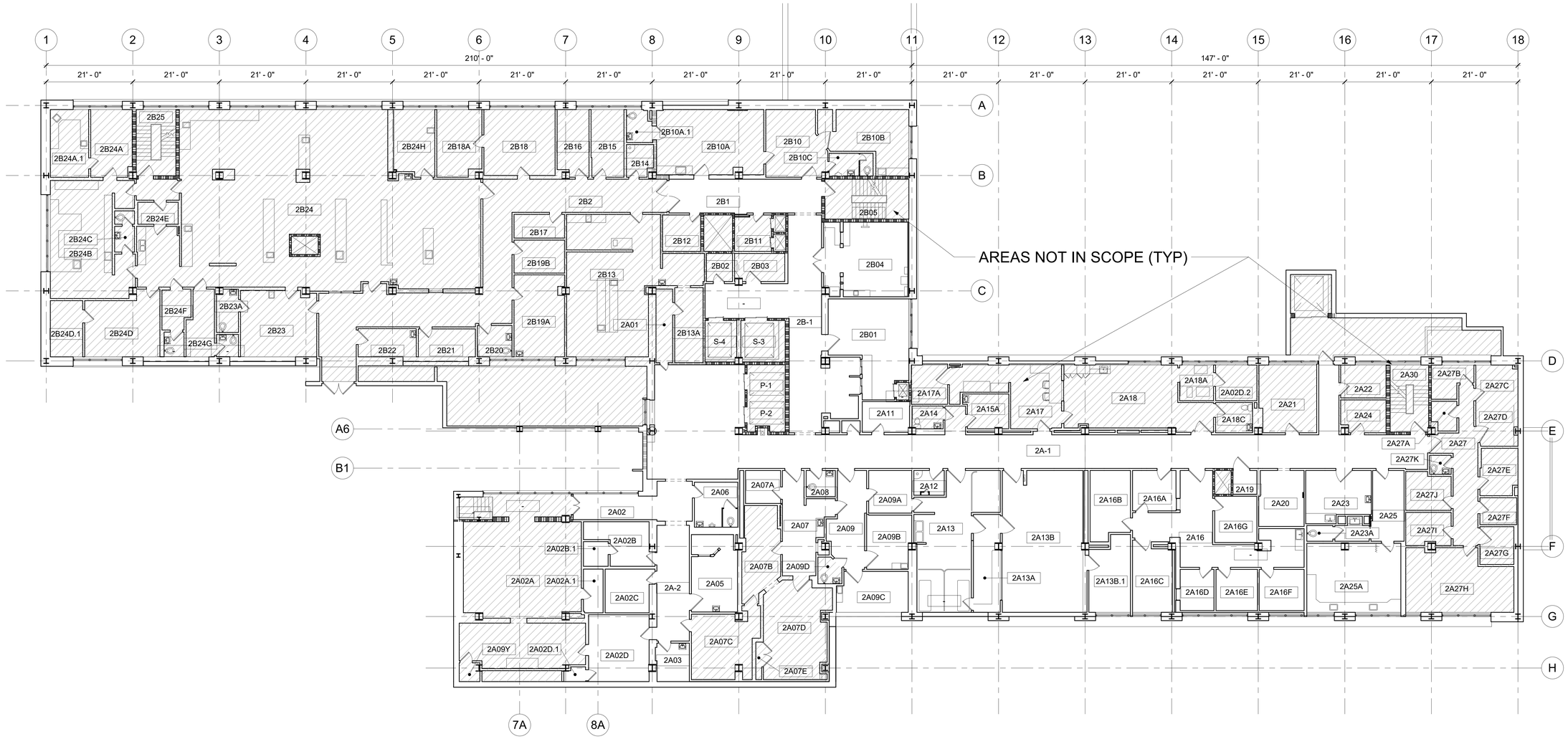
Building Number: 001

Drawing Number: A-001

VA FORM 08 - 6231

LEGEND

- EXISTING DOOR
- EXISTING WALL
- EXISTING 1 HR SMOKE RATED WALL
- EXISTING 2 HR FIRE RATED WALL
- EXISTING 2 HR SMOKE RATED WALL
- NIS



1 LEVEL 2 - EXISTING - OVERALL FLOOR PLAN

3/32" = 1'-0"

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES

SPEESDESIGNBUILD

STAMP: REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: EXISTING OVERALL FLOOR PLAN

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

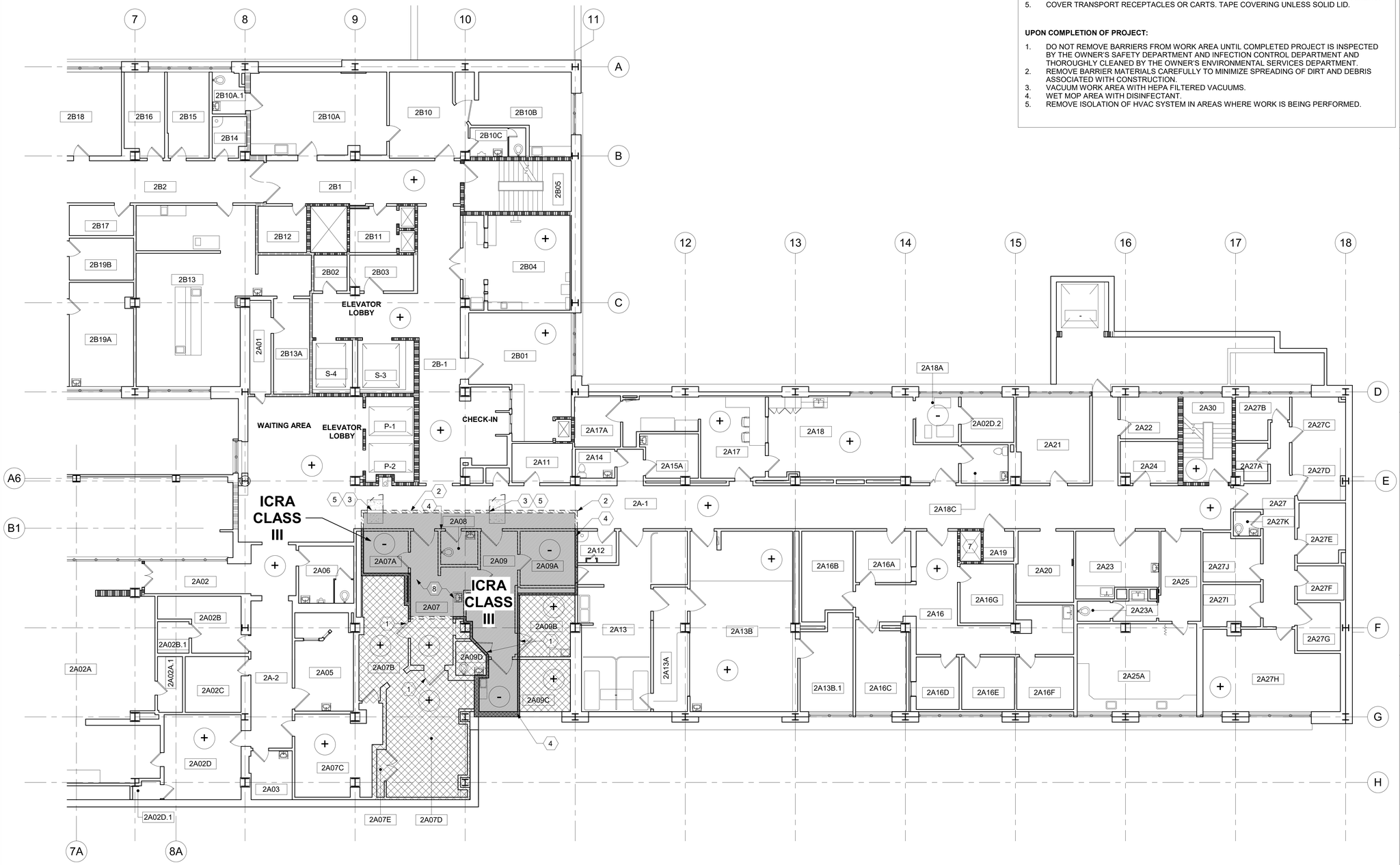
Issue Date: 3/27/2026 | Checked: MK | Drawn: MC

Project Number: 570-21-220

Building Number: 001

Drawing Number: A-101

VA FORM 08 - 6231



1 LEVEL 2 - ICRA PLAN - PHASE I

1/8" = 1'-0"

ICRA NOTES

CLASS III

DURING CONSTRUCTION PROJECT:

1. REMOVE OR ISOLATE HVAC SYSTEM IN AREA WHERE WORK IS BEING DONE TO PREVENT CONTAMINATION OF DUCT SYSTEM.
2. COMPLETE ALL CRITICAL BARRIERS I.E. SHEETROCK, PLYWOOD, PLASTIC, TO SEAL AREA FROM NON WORK AREA OR IMPLEMENT CONTROL CUBE METHOD (CART WITH PLASTIC COVERING AND SEALED CONNECTION TO WORK SITE WITH HEPA VACUUM FOR VACUUMING PRIOR TO EXIT) BEFORE CONSTRUCTION BEGINS.
3. MAINTAIN NEGATIVE AIR PRESSURE WITHIN WORK SITE UTILIZING HEPA EQUIPPED AIR FILTRATION UNITS
4. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS.
5. COVER TRANSPORT RECEPTACLES OR CARTS. TAPE COVERING UNLESS SOLID LID.

UPON COMPLETION OF PROJECT:

1. DO NOT REMOVE BARRIERS FROM WORK AREA UNTIL COMPLETED PROJECT IS INSPECTED BY THE OWNER'S SAFETY DEPARTMENT AND INFECTION CONTROL DEPARTMENT AND THOROUGHLY CLEANED BY THE OWNER'S ENVIRONMENTAL SERVICES DEPARTMENT.
2. REMOVE BARRIER MATERIALS CAREFULLY TO MINIMIZE SPREADING OF DIRT AND DEBRIS ASSOCIATED WITH CONSTRUCTION.
3. VACUUM WORK AREA WITH HEPA FILTERED VACUUMS.
4. WET MOP AREA WITH DISINFECTANT.
5. REMOVE ISOLATION OF HVAC SYSTEM IN AREAS WHERE WORK IS BEING PERFORMED.

LEGEND

- -- - + TEMPORARY ICRA AIR PRESSURE
- CONTRACTOR PATH OF TRAVEL
- TEMPORARY EMERGENCY EGRESS ROUTE
- TEMPORARY ICRA BARRIER
- TEMPORARY ICRA DOOR
- 1 (3A) KEYNOTE (WITH SUBPHASE) WHERE NOTED
- INACCESABLE DURING CONSTRUCTION
- ICRA BOUNDARY

KEY NOTES (THIS SHEET ONLY)

1. TEMPORARILY SEAL EXISTING DOOR FOR DURATION OF CONSTRUCTION.
2. TEMPORARY ICRA BARRIER FRAMED TO THE CEILING ABOVE. CONSTRUCT WITH MTL STUDS AND 5/8" TYPE X GYP EACH SIDE.
3. TEMPORARY ICRA DOOR AND FRAME.
4. EXISTING WALL ACTING AS AN ICRA BOUNDRY. SEAL OPENINGS / PENETRATIONS / HVAC DUCTS AS REQUIRED.
5. WORK AREA ACCESS POINT WITH STICKY WALK OFF MATS
6. ANTE ROOM AS SHOWN (WHERE APPLICABLE). ANTE ROOM TO HAVE NEGATIVE AIR PRESSURE, BUT LESS NEGATIVE THAN THE MAIN CONSTRUCTION AREA.
7. AREA TO BE INACCESSIBLE DURING PHASE OF CONSTRUCTION OR PORTION OF PHASE.
8. AREA OF WORK TO BE DONE IN THE BRIEFEST PERIOD POSSIBLE. COORDINATE DURATION OF THIS WORK WITH THE COR. SOME PARTS WILL NEED TO REMAIN LONGER THAN OTHERS.

GENERAL NOTES

1. COMPLY WITH ALL REQS LISTED IN THE INFECTION CONTROL SECTION OF SPECIFICATION 01 35 26 - SAFETY REQUIREMENTS.
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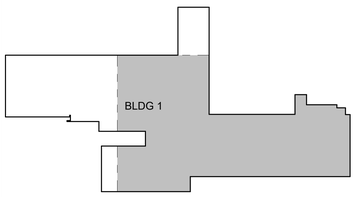
3. ADHESIVE WALK OFF CONSTRUCTION MATS TO BE USED AT ALL CONSTRUCTION ZONE AND ANTE ROOM ENTRANCES AND EXITS.
4. TEMP BARRIERS AND DOORS MAY ONLY BE DEMOLISHED ONCE GIVEN FINAL APPROVAL BY THE VA COR.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
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(206) 590-2118
RAY SPEES

SPEESDESIGNBUILD

STAMP

REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA PLAN - PHASE I

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

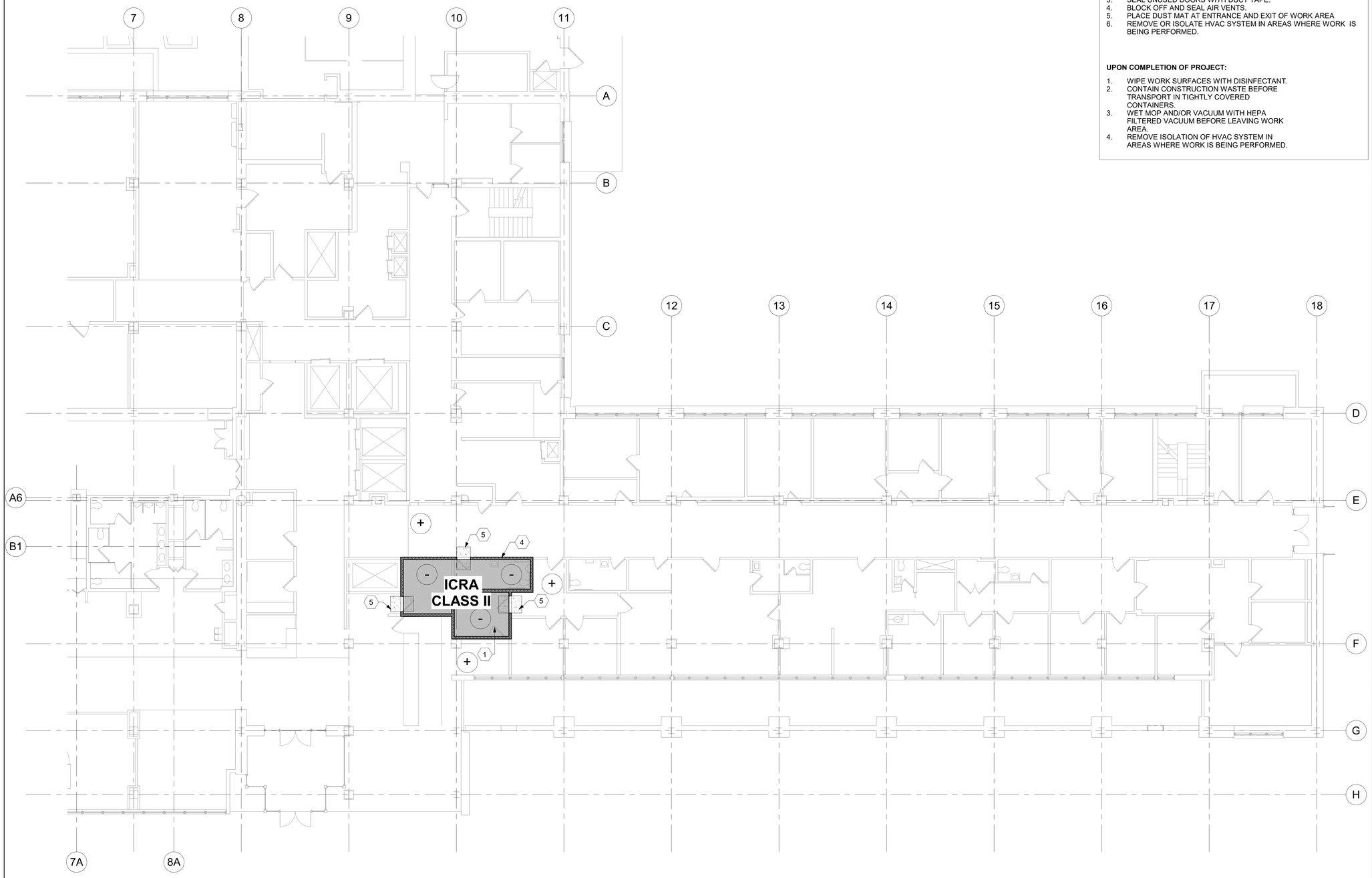
Issue Date: 3/27/2026

Checked: MK

Drawn: MC

Drawing Number: AS101

VA FORM 08 - 6231



1 LEVEL 1 - ICRA PLAN - PHASE I
1/8" = 1'-0"

ICRA NOTES

CLASS II

DURING CONSTRUCTION PROJECT:

1. PROVIDE ACTIVE MEANS TO PREVENT AIRBORNE DUST FROM DISPERSING INTO ATMOSPHERE.
2. WATER MIST WORK SURFACES TO CONTROL DUST WHILE CUTTING.
3. SEAL UNUSED DOORS WITH DUCT TAPE.
4. BLOCK OFF AND SEAL AIR VENTS.
5. PLACE DUST MAT AT ENTRANCE AND EXIT OF WORK AREA
6. REMOVE OR ISOLATE HVAC SYSTEM IN AREAS WHERE WORK IS BEING PERFORMED.

UPON COMPLETION OF PROJECT:

1. WIPE WORK SURFACES WITH DISINFECTANT.
2. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS.
3. WET MOP AND/OR VACUUM WITH HEPA FILTERED VACUUM BEFORE LEAVING WORK AREA.
4. REMOVE ISOLATION OF HVAC SYSTEM IN AREAS WHERE WORK IS BEING PERFORMED.

LEGEND

- -- - + TEMPORARY ICRA AIR PRESSURE
- CONTRACTOR PATH OF TRAVEL
- TEMPORARY EMERGENCY EGRESS ROUTE
- TEMPORARY ICRA BARRIER
- TEMPORARY ICRA DOOR
- 1 (3A) KEYNOTE (WITH SUBPHASE) WHERE NOTED
- INACCESABLE DURING CONSTRUCTION
- ICRA BOUNDARY

KEY NOTES (THIS SHEET ONLY)

1. TEMPORARILY SEAL EXISTING DOOR FOR DURATION OF CONSTRUCTION.
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GENERAL NOTES

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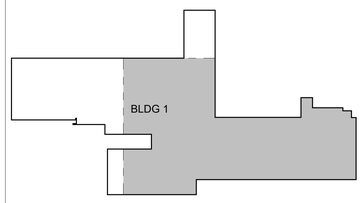
KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES
SDB SPEESDESIGNBUILD

STAMP

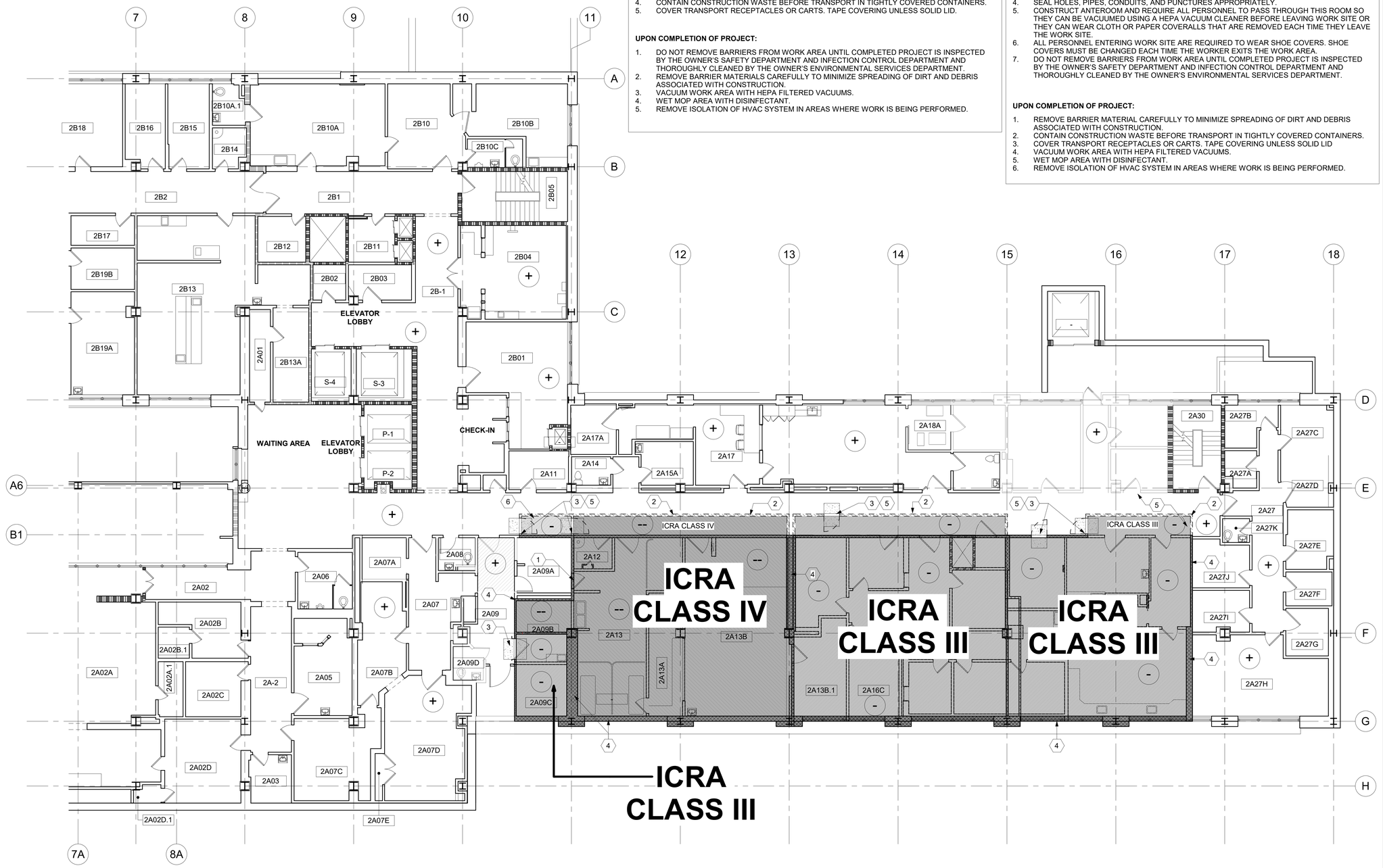
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ICRA PLAN - PHASE I (BELOW)
Phase	100% CD
Approved:	
	FULLY SPRINKLERED
Project Title	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Project Number	570-21-220
Building Number	001
Location	VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Drawing Number	AS102
Issue Date	3/27/2026
Checked	Checker
Drawn	Author

VA FORM 08 - 6231



1 LEVEL 2 - ICRA PLAN - PHASE II

1/8" = 1'-0"

ICRA NOTES

CLASS III

DURING CONSTRUCTION PROJECT:

1. REMOVE OR ISOLATE HVAC SYSTEM IN AREA WHERE WORK IS BEING DONE TO PREVENT CONTAMINATION OF DUCT SYSTEM.
2. COMPLETE ALL CRITICAL BARRIERS I.E. SHEETROCK, PLYWOOD, PLASTIC, TO SEAL AREA FROM NON WORK AREA OR IMPLEMENT CONTROL CUBE METHOD (CART WITH PLASTIC COVERING AND SEALED CONNECTION TO WORK SITE WITH HEPA VACUUM FOR VACUUMING PRIOR TO EXIT) BEFORE CONSTRUCTION BEGINS.
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UPON COMPLETION OF PROJECT:

1. DO NOT REMOVE BARRIERS FROM WORK AREA UNTIL COMPLETED PROJECT IS INSPECTED BY THE OWNER'S SAFETY DEPARTMENT AND INFECTION CONTROL DEPARTMENT AND THOROUGHLY CLEANED BY THE OWNER'S ENVIRONMENTAL SERVICES DEPARTMENT.
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3. VACUUM WORK AREA WITH HEPA FILTERED VACUUMS.
4. WET MOP AREA WITH DISINFECTANT.
5. REMOVE ISOLATION OF HVAC SYSTEM IN AREAS WHERE WORK IS BEING PERFORMED.

ICRA NOTES

CLASS IV

DURING CONSTRUCTION PROJECT:

1. ISOLATE HVAC SYSTEM IN AREA WHERE WORK IS BEING DONE TO PREVENT CONTAMINATION OF DUCT SYSTEM.
2. COMPLETE ALL CRITICAL BARRIERS I.E. SHEETROCK, PLYWOOD, PLASTIC, TO SEAL AREA FROM NON WORK AREA OR IMPLEMENT CONTROL CUBE METHOD (CART WITH PLASTIC COVERING AND SEALED CONNECTION TO WORK SITE WITH HEPA VACUUM FOR VACUUMING PRIOR TO EXIT) BEFORE CONSTRUCTION BEGINS.
3. MAINTAIN NEGATIVE AIR PRESSURE WITHIN WORK SITE UTILIZING HEPA EQUIPPED AIR FILTRATION UNITS.
4. SEAL HOLES, PIPES, CONDUITS, AND PUNCTURES APPROPRIATELY.
5. CONSTRUCT ANTEROOM AND REQUIRE ALL PERSONNEL TO PASS THROUGH THIS ROOM SO THEY CAN BE VACUUMED USING A HEPA VACUUM CLEANER BEFORE LEAVING WORK SITE OR THEY CAN WEAR CLOTH OR PAPER COVERALLS THAT ARE REMOVED EACH TIME THEY LEAVE THE WORK SITE.
6. ALL PERSONNEL ENTERING WORK SITE ARE REQUIRED TO WEAR SHOE COVERS. SHOE COVERS MUST BE CHANGED EACH TIME THE WORKER EXITS THE WORK AREA.
7. DO NOT REMOVE BARRIERS FROM WORK AREA UNTIL COMPLETED PROJECT IS INSPECTED BY THE OWNER'S SAFETY DEPARTMENT AND INFECTION CONTROL DEPARTMENT AND THOROUGHLY CLEANED BY THE OWNER'S ENVIRONMENTAL SERVICES DEPARTMENT.

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3. COVER TRANSPORT RECEPTACLES OR CARTS. TAPE COVERING UNLESS SOLID LID
4. VACUUM WORK AREA WITH HEPA FILTERED VACUUMS.
5. WET MOP AREA WITH DISINFECTANT.
6. REMOVE ISOLATION OF HVAC SYSTEM IN AREAS WHERE WORK IS BEING PERFORMED.

LEGEND

- -- - + TEMPORARY ICRA AIR PRESSURE
- CONTRACTOR PATH OF TRAVEL
- TEMPORARY EMERGENCY EGRESS ROUTE
- TEMPORARY ICRA BARRIER
- TEMPORARY ICRA DOOR
- 1 (3A) KEYNOTE (WITH SUBPHASE) WHERE NOTED
- INACCESABLE DURING CONSTRUCTION
- ICRA BOUNDARY

KEY NOTES (THIS SHEET ONLY)

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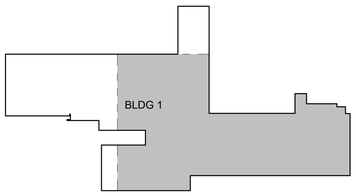
KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES
SDB SPEESDESIGNBUILD

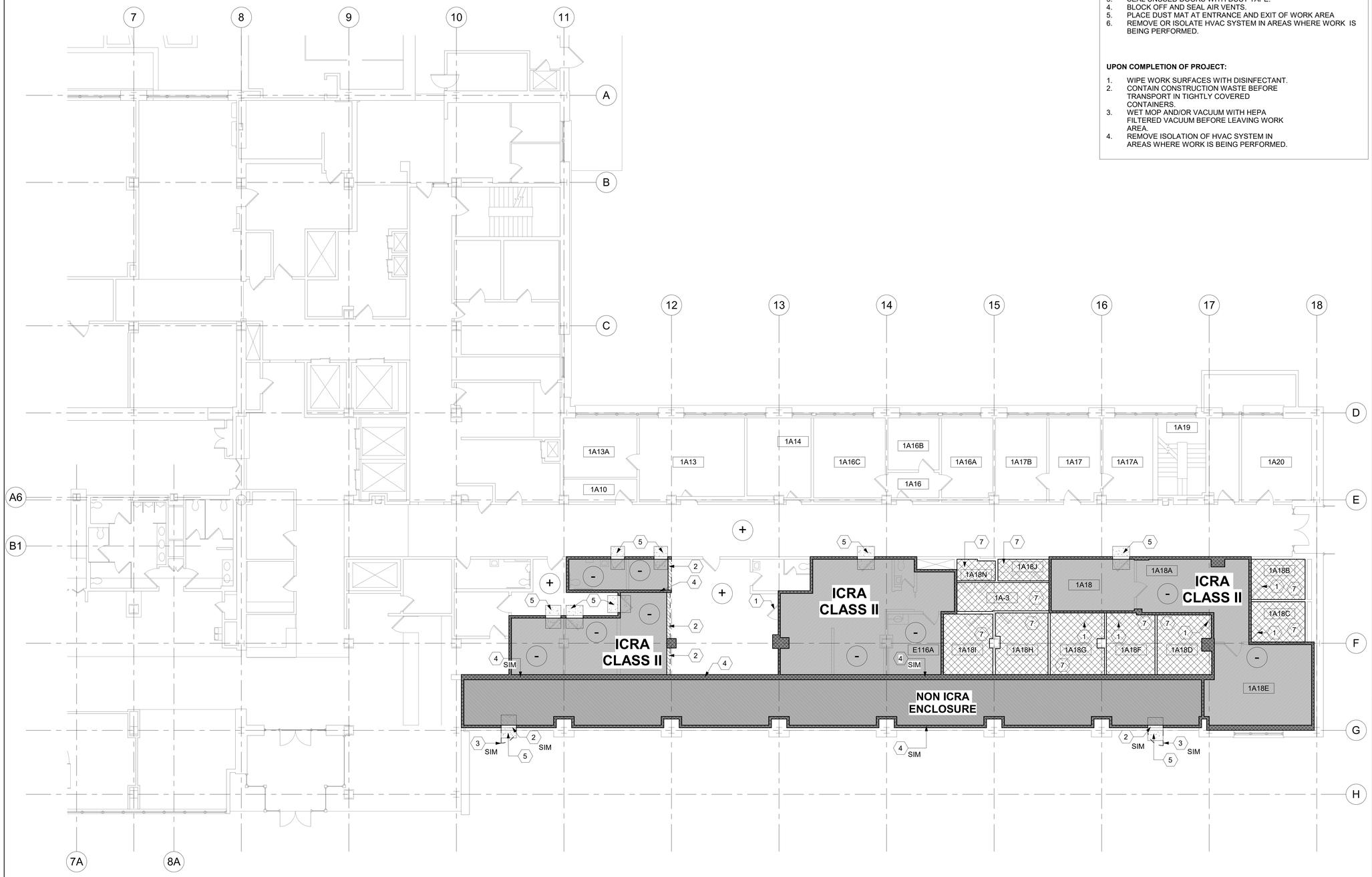
STAMP: 10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA PLAN - PHASE II	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED		Building Number: 001
		Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Drawing Number: AS201
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	

VA FORM 08 - 6231



1 LEVEL 1 - ICRA PLAN - PHASE II
1/8" = 1'-0"

ICRA NOTES

CLASS II

DURING CONSTRUCTION PROJECT:

1. PROVIDE ACTIVE MEANS TO PREVENT AIRBORNE DUST FROM DISPERSING INTO ATMOSPHERE.
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LEGEND

- -- - + TEMPORARY ICRA AIR PRESSURE
- CONTRACTOR PATH OF TRAVEL
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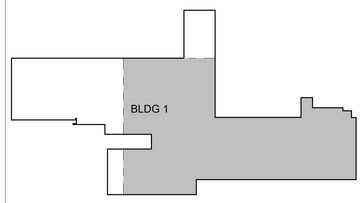


AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES

SPEESDESIGNBUILD

STAMP
REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA PLAN - PHASE II (BELOW)

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

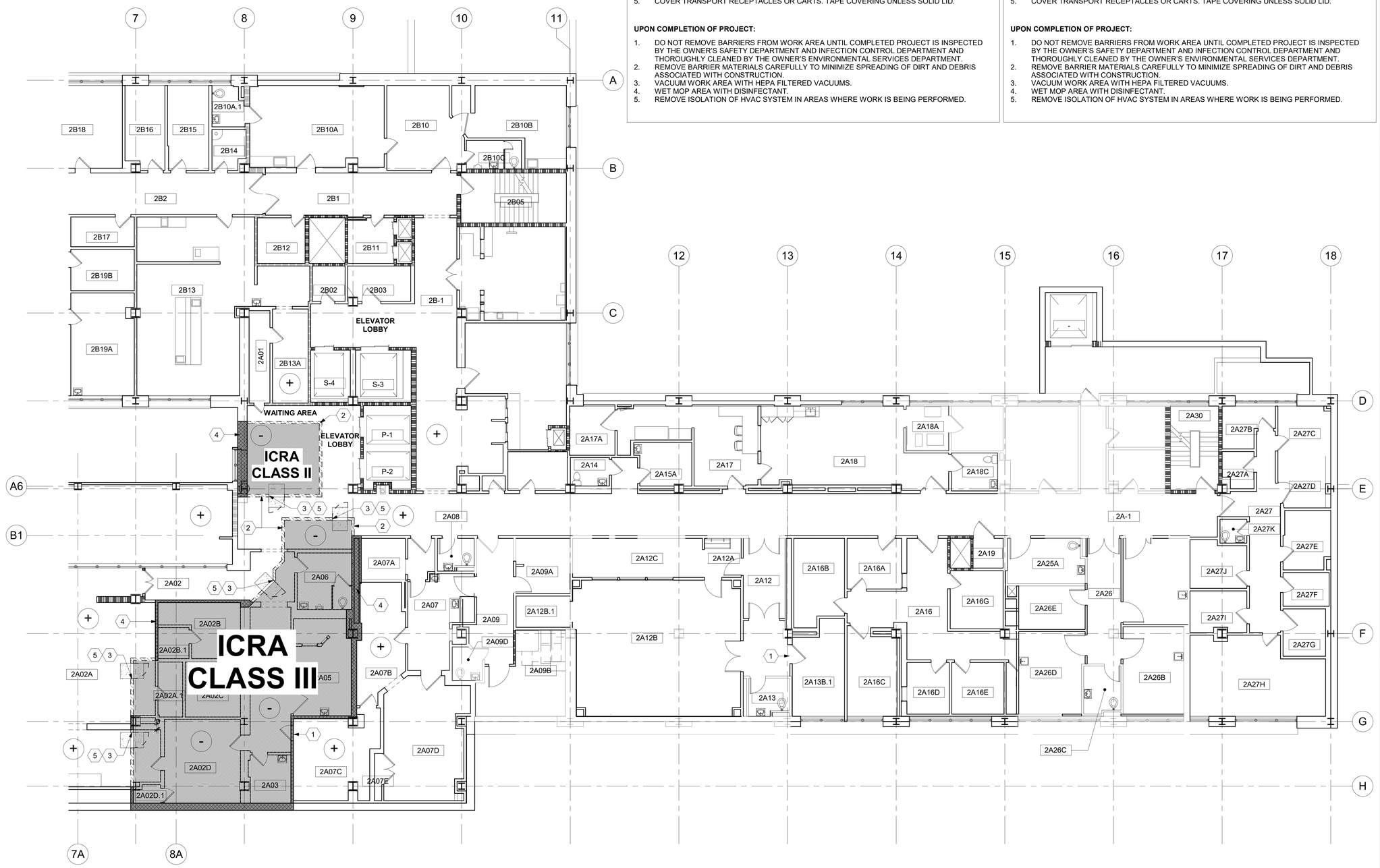
Issue Date: 3/27/2026

Checked: MK

Drawn: MC

Drawing Number: AS202

VA FORM 08 - 6231



1 LEVEL 2 - ICRA PLAN - PHASE III

1/8" = 1'-0"

ICRA NOTES

CLASS II

DURING CONSTRUCTION PROJECT:

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ICRA NOTES

CLASS III

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2. REMOVE BARRIER MATERIALS CAREFULLY TO MINIMIZE SPREADING OF DIRT AND DEBRIS ASSOCIATED WITH CONSTRUCTION.
3. VACUUM WORK AREA WITH HEPA FILTERED VACUUMS.
4. WET MOP AREA WITH DISINFECTANT.
5. REMOVE ISOLATION OF HVAC SYSTEM IN AREAS WHERE WORK IS BEING PERFORMED.

LEGEND

- -- - + TEMPORARY ICRA AIR PRESSURE
- CONTRACTOR PATH OF TRAVEL
- TEMPORARY EMERGENCY EGRESS ROUTE
- TEMPORARY ICRA BARRIER
- TEMPORARY ICRA DOOR
- 1 (3A) KEYNOTE (WITH SUBPHASE) WHERE NOTED
- INACCESABLE DURING CONSTRUCTION
- ICRA BOUNDARY

KEY NOTES (THIS SHEET ONLY)

1. TEMPORARILY SEAL EXISTING DOOR FOR DURATION OF CONSTRUCTION.
2. TEMPORARY ICRA BARRIER FRAMED TO THE CEILING ABOVE. CONSTRUCT WITH MTL STUDS AND 5/8" TYPE X GYP EACH SIDE.
3. TEMPORARY ICRA DOOR AND FRAME.
4. EXISTING WALL ACTING AS AN ICRA BOUNDRY. SEAL OPENINGS / PENETRATIONS / HVAC DUCTS AS REQUIRED.
5. WORK AREA ACCESS POINT WITH STICKY WALK OFF MATS
6. ANTE ROOM AS SHOWN (WHERE APPLICABLE). ANTE ROOM TO HAVE NEGATIVE AIR PRESSURE, BUT LESS NEGATIVE THAN THE MAIN CONSTRUCTION AREA.
7. AREA TO BE INACCESSIBLE DURING PHASE OF CONSTRUCTION OR PORTION OF PHASE.
8. AREA OF WORK TO BE DONE IN THE BRIEFEST PERIOD POSSIBLE. COORDINATE DURATION OF THIS WORK WITH THE COR. SOME PARTS WILL NEED TO REMAIN LONGER THAN OTHERS.

GENERAL NOTES

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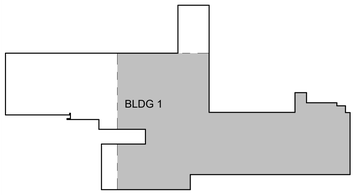
2. CONSTRUCTION ZONE ENTRANCES AND EXITS SHALL BE LOCKED AT ALL TIMES UNLESS IN USE BY THE CONTRACTOR. WHEN IN USE, ACCESS WILL BE CONTROLLED AND MONITORED BY THE CONTRACTOR.
3. ADHESIVE WALK OFF CONSTRUCTION MATS TO BE USED AT ALL CONSTRUCTION ZONE AND ANTE ROOM ENTRANCES AND EXITS.
4. TEMP BARRIERS AND DOORS MAY ONLY BE DEMOLISHED ONCE GIVEN FINAL APPROVAL BY THE VA COR.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES

SPEESDESIGNBUILD

STAMP

REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA PLAN - PHASE III

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

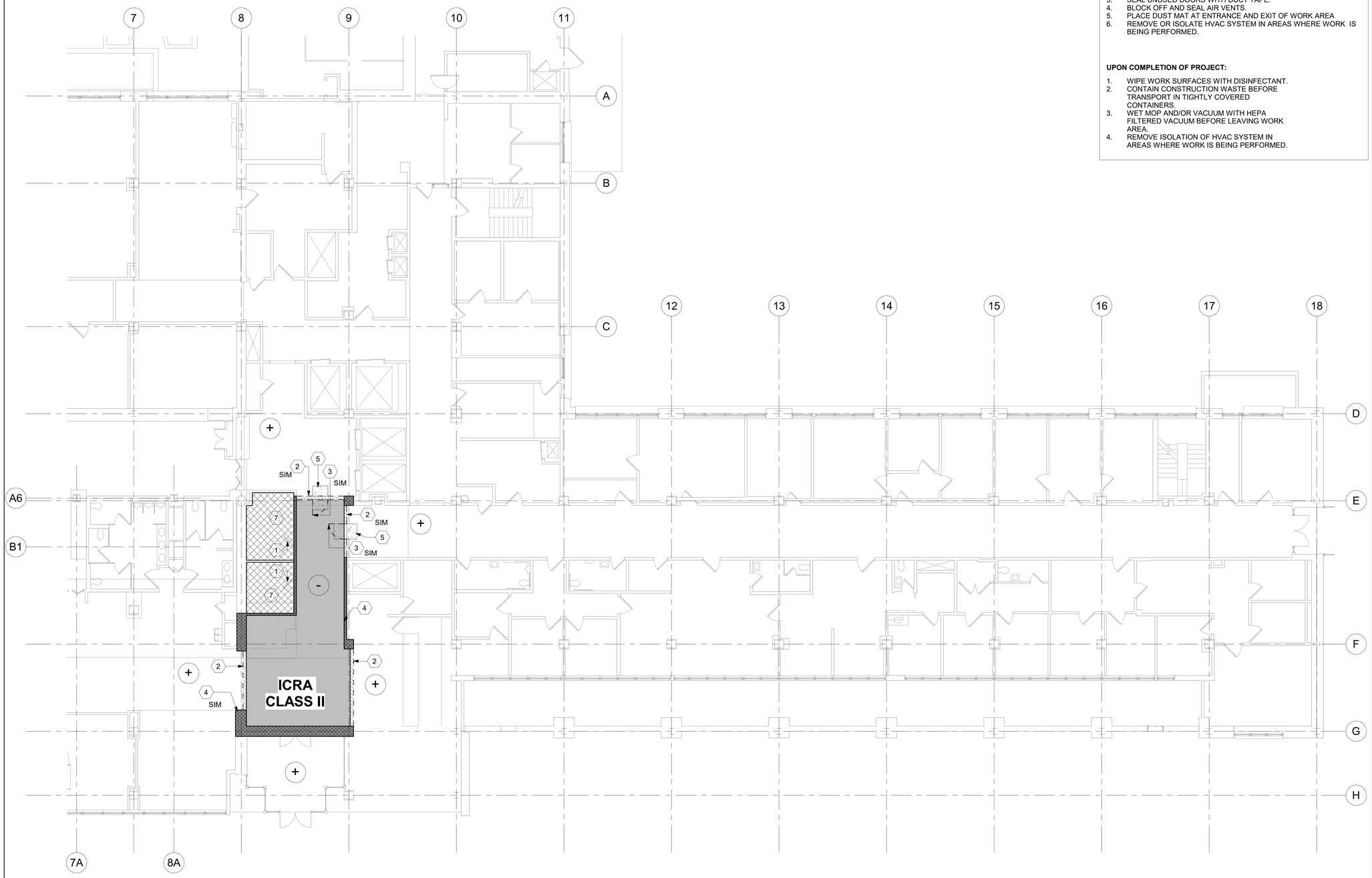
Issue Date: 3/27/2026

Checked: MK

Drawn: MC

Drawing Number: AS301

VA FORM 08 - 6231



1 LEVEL 1 - ICRA PLAN - PHASE III
1/8" = 1'-0"

ICRA NOTES

CLASS II

DURING CONSTRUCTION PROJECT:

1. PROVIDE ACTIVE MEANS TO PREVENT AIRBORNE DUST FROM DISPERSING INTO ATMOSPHERE.
2. WATER MIST WORK SURFACES TO CONTROL DUST WHILE CUTTING.
3. SEAL UNUSED DOORS WITH DUCT TAPE.
4. BLOCK OFF AND SEAL AIR VENTS.
5. PLACE DUST MAT AT ENTRANCE AND EXIT OF WORK AREA
6. REMOVE OR ISOLATE HVAC SYSTEM IN AREAS WHERE WORK IS BEING PERFORMED.

UPON COMPLETION OF PROJECT:

1. WIPE WORK SURFACES WITH DISINFECTANT.
2. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS.
3. WET MOP AND/OR VACUUM WITH HEPA FILTERED VACUUM BEFORE LEAVING WORK AREA.
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LEGEND

- -- - + TEMPORARY ICRA AIR PRESSURE
- CONTRACTOR PATH OF TRAVEL
- TEMPORARY EMERGENCY EGRESS ROUTE
- TEMPORARY ICRA BARRIER
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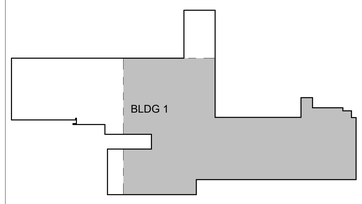


AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES

SPEESDESIGNBUILD

STAMP: REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA PLAN - PHASE III (BELOW)

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

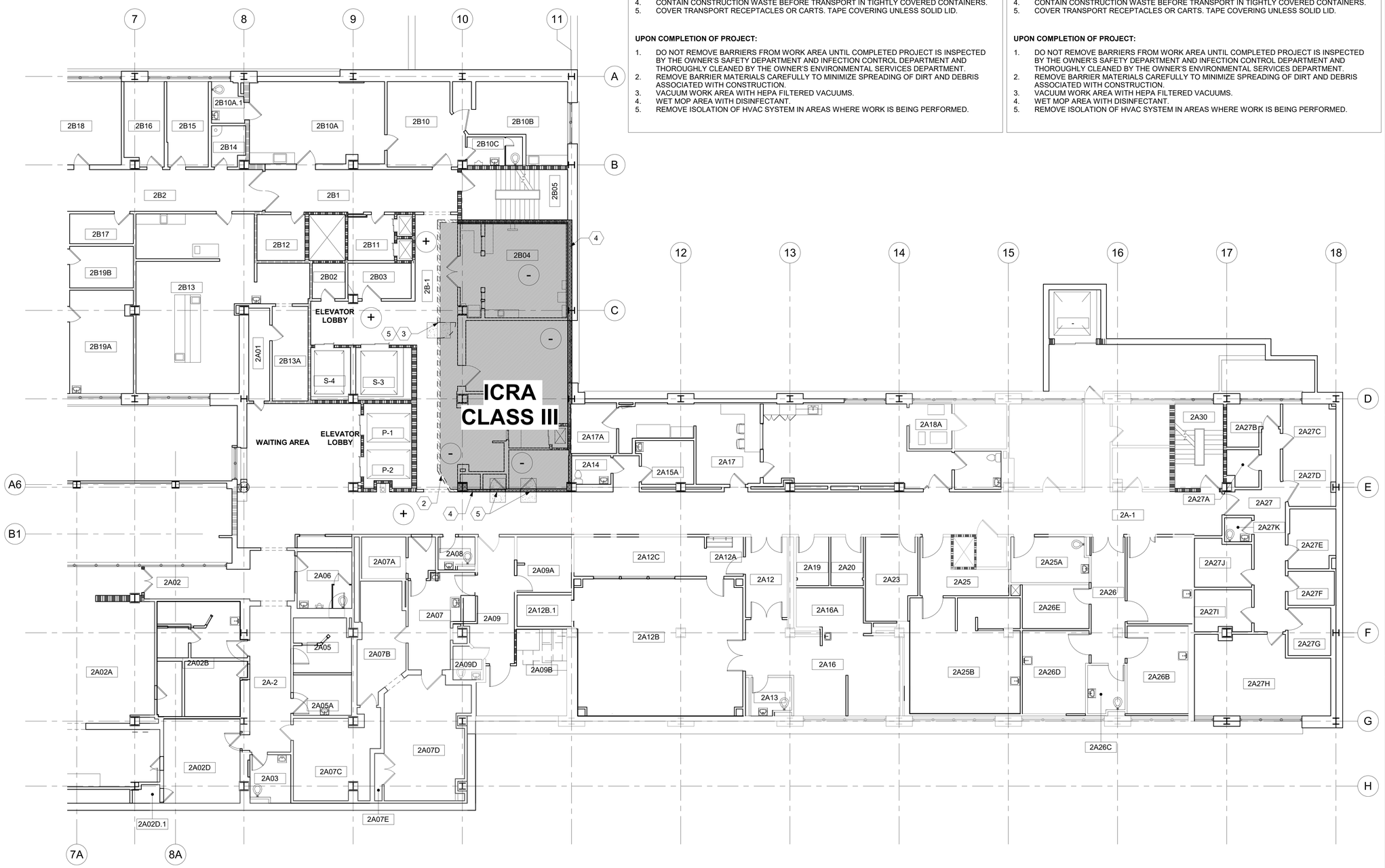
Issue Date: 3/27/2026

Checked: Checker

Drawn: Author

Drawing Number: AS302

VA FORM 08 - 6231



1 LEVEL 2 - ICRA PLAN - PHASE IV

1/8" = 1'-0"

ICRA NOTES

CLASS II

DURING CONSTRUCTION PROJECT:

1. REMOVE OR ISOLATE HVAC SYSTEM IN AREA WHERE WORK IS BEING DONE TO PREVENT CONTAMINATION OF DUCT SYSTEM.
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- CONTRACTOR PATH OF TRAVEL
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- TEMPORARY ICRA DOOR
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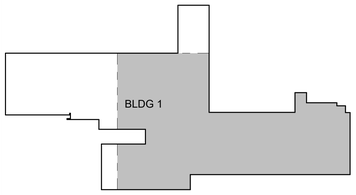
KEY PLAN



AREA OF WORK

PROJECT NORTH

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES

SDB SPEESDESIGNBUILD

STAMP

10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA PLAN - PHASE IV

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

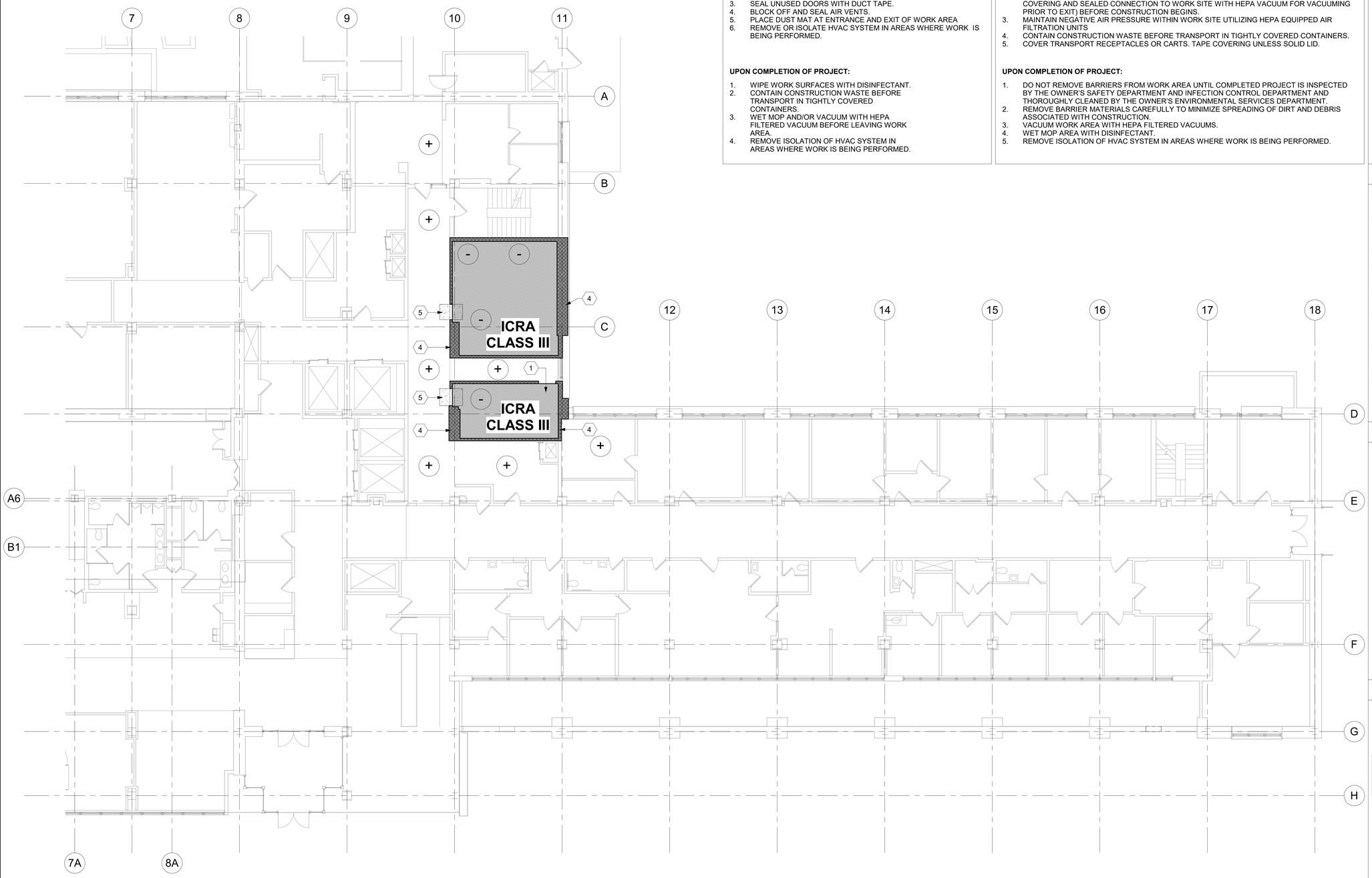
Issue Date: 3/27/2026

Checked: MK

Drawn: MA

Drawing Number: AS401

VA FORM 08 - 6231



1 LEVEL 1 - ICRA PLAN - PHASE IV
1/8" = 1'-0"

ICRA NOTES

CLASS II

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ICRA NOTES

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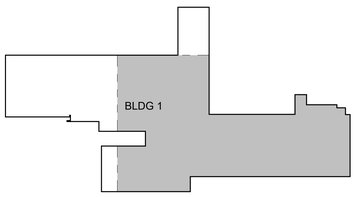


AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES

SDB SPEESDESIGNBUILD

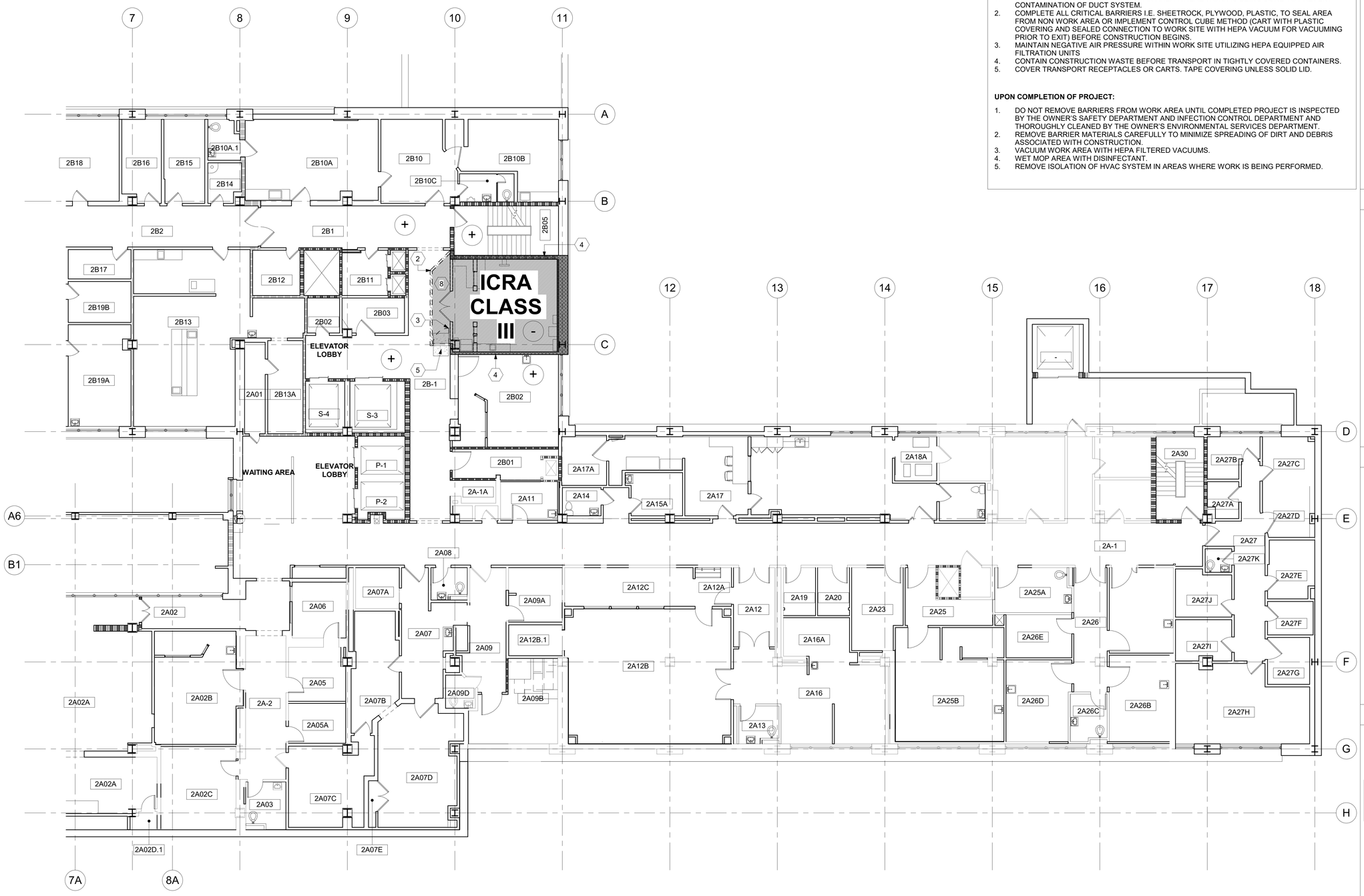
STAMP: 10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA PLAN - PHASE IV (BELOW)	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 / Checked: MK / Drawn: MA	Drawing Number: AS402

VA FORM 08 - 6231



2 LEVEL 2 - ICRA PLAN - PHASE V

1/8" = 1'-0"

ICRA NOTES

CLASS III

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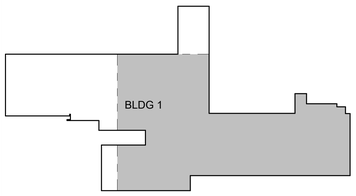

AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
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SDB SPEESDESIGNBUILD

STAMP

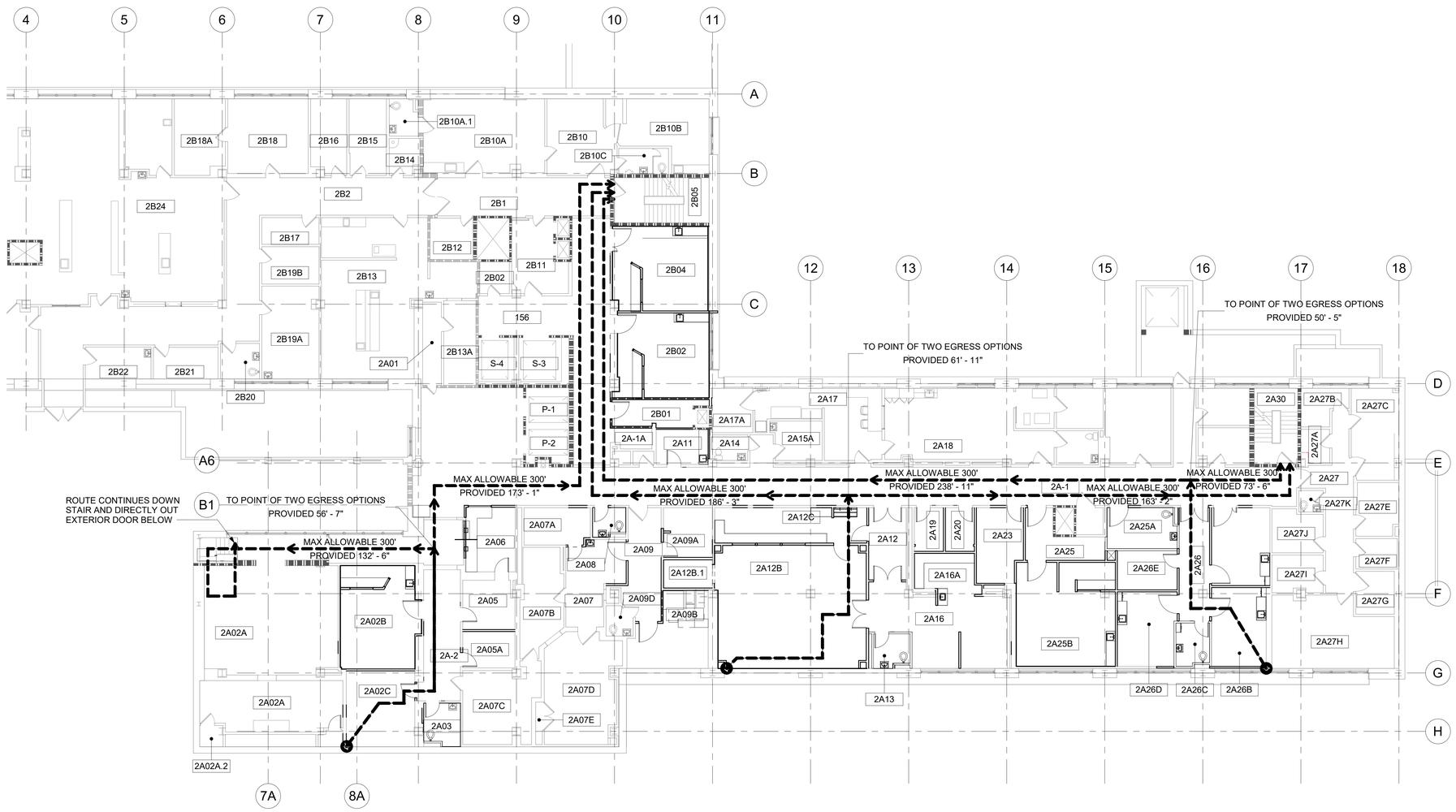
REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ICRA PLAN - PHASE V	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AS501

VA FORM 08 - 6231



1 FIRE & LIFE SAFETY PLAN

3/32" = 1'-0"

PROJECT NORTH

LEGEND

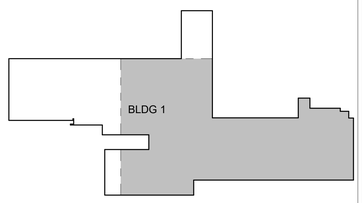
EMERGENCY EGRESS ROUTE

KEY NOTES (THIS SHEET ONLY)

GENERAL NOTES

1. NFPA BUILDING CONSTRUCTION: TYPE II.
2. NFPA OCCUPANCY CLASSIFICATION: INSTITUTIONAL GROUP I-2
3. AREA OF WORK OCCUPANCY LOADS: 10,200 SF.
4. # OF REQ'D EGRESS OPENINGS: 2.
5. 10,200 SF BUSINESS AT 100 SF / OCCUPANT = 102 OCCUPANTS
6. LENGTH OF COMMON PATH OF EGRESS TRAVEL BEFORE TWO PATHS OF EGRESS, LESS THAN 75', ARE PROVIDED: 50'-5", 62'-8", AND 64'-1"
7. MAX TRAVEL DISTANCE: 300' - 0" (BUSINESS OCCUPANCY)
8. SEE ELECTRICAL FOR EXIT SIGNAGE LOCATIONS & REQUIREMENTS.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
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RAY SPEES

SDB SPEESDESIGNBUILD

STAMP

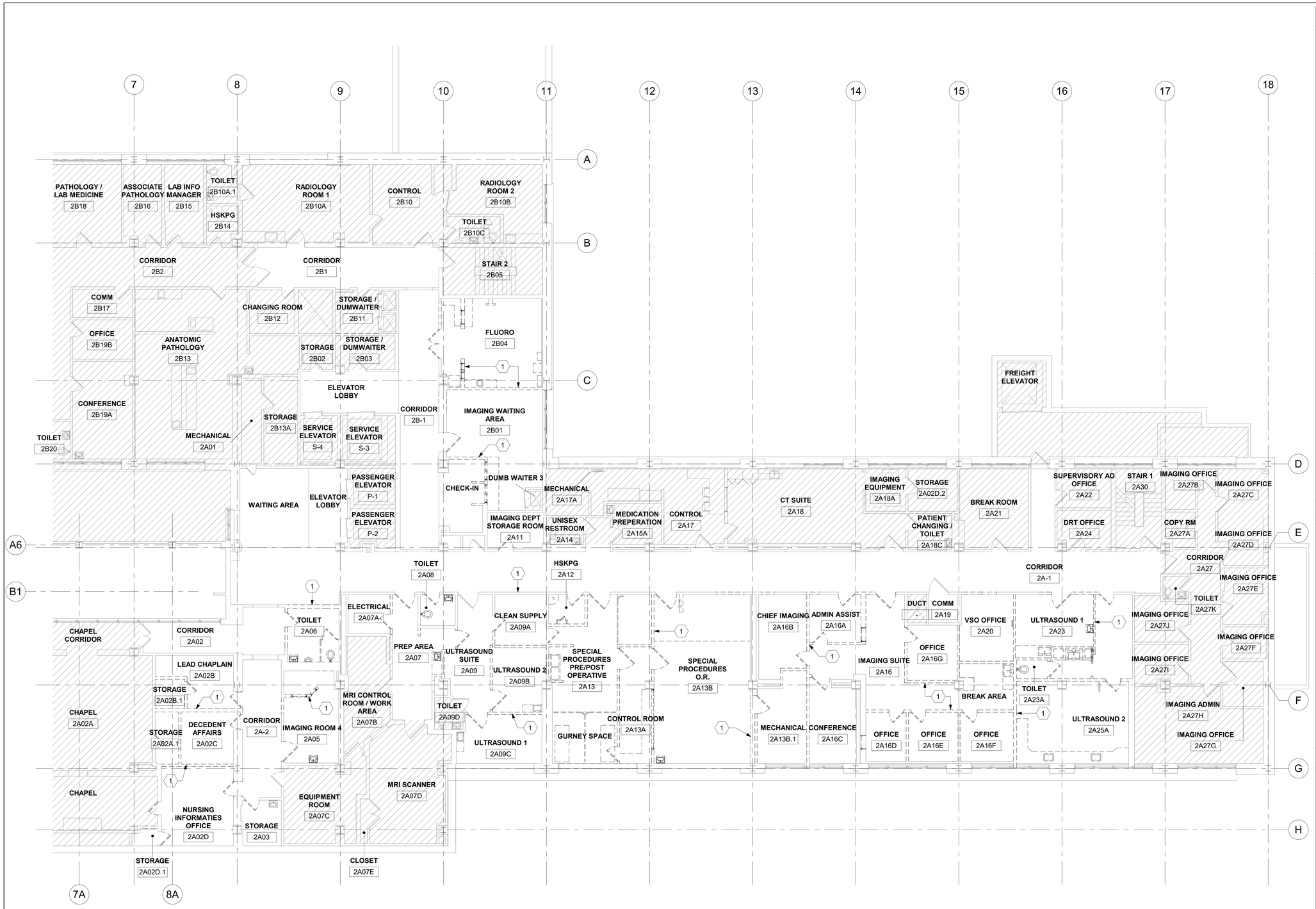
REGISTERED ARCHITECT
10000
JAMES M. KING
STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FIRE AND LIFE SAFETY	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AS601

VA FORM 08 - 6231



1 LEVEL 2 - DEMO - FLOOR PLAN

1/8" = 1'-0"

PROJECT NORTH

LEGEND

- TO DEMOLISH
- EXISTING DOOR TO REMAIN
- EXISTING DOOR TO DEMOLISH
- EXISTING TO REMAIN
- EXISTING TO DEMOLISH
- NIS

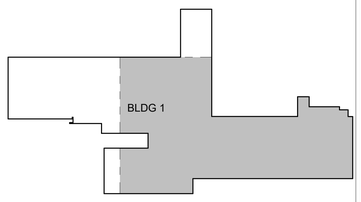
KEY NOTES (THIS SHEET ONLY)

1. DEMO EXSTING WALLS AS SHOWN ON PLAN
2. DEMO EXISTING FLOOR THROUGHOUT EXISTING ROOM

GENERAL NOTES

1. SCHEDULE SYSTEM AND FUNCTIONAL SHUTDOWNS TWO WEEKS PRIOTR TO BEGINNING ANY CONSTRUCTION ACTIVITY.
2. REMOVE WALL ACCESSORIES MOUNTED ACCESSORIES REQUIRED TO COMPLETE ANY CONSTRUCTION TASK.
3. ENSURE CONSTRUCTION ZONE IS FULLY ENCLOSED PRIOR TO BEGINNING WORK. NO WORK SHALL BE DONE WITHOUT PROPERLY MEETING ICRA REQUIREMENTS. SEE SHEETS AS101, AS102, AS103, AND SPECIFICATION SECTION 01 35 25 'SAFETY REQUIREMENTS' FOR SPECIFIC ICRA CLASS INFORMATION.
4. DEMO EXISTING FLOOR FINISH THROUGHOUT WORK AREA.
5. COORDINATE WITH VA COR PRIOR TO THE DEMOLITION OF ANY EXISTING EQUIPMENT.
6. DEMO EXISTING FINISHES AS REQ'D TO INSTALL NEW PER FINISH SCHEDULE.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
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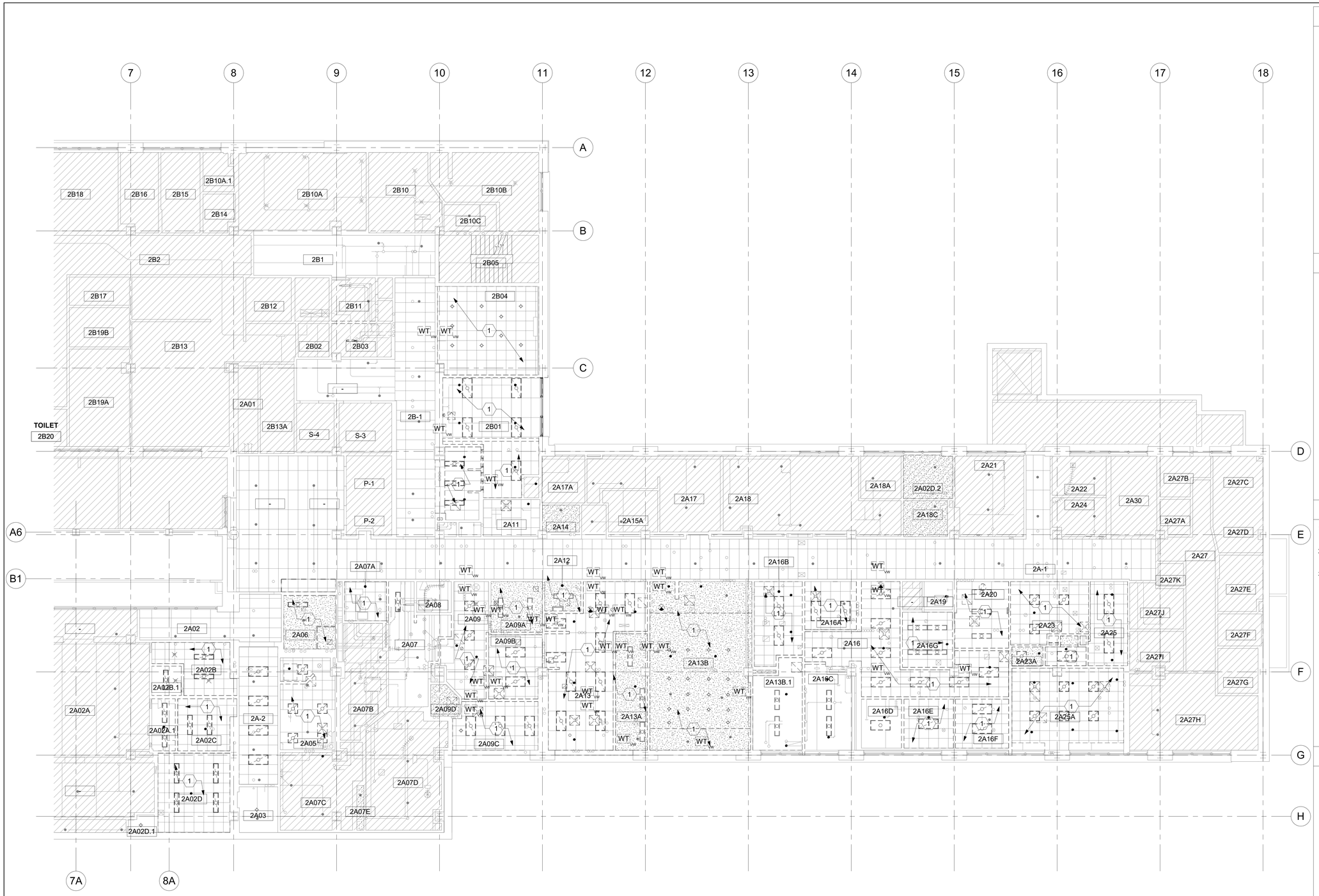
REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
DEMO FLOOR PLAN	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AD101

VA FORM 08 - 6231



1 LEVEL 2 - DEMO - REFLECTED CEILING PLAN

1/8" = 1'-0"

LEGEND

- TO DEMOLISH
- EXISTING TO REMAIN
- EXISTING TO DEMOLISH
- OUT OF SCOPE

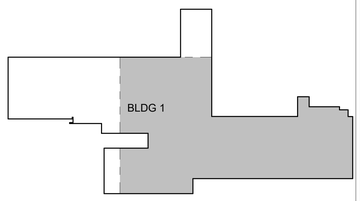
KEY NOTES (THIS SHEET ONLY)

1 DEMO EXISTING CEILING THROUGHOUT EXISTING ROOM

GENERAL NOTES

1. MAINTAIN EXISTING SPRINKLER HEADS AND SYSYEM WHILE COMPLETING DEMO WORK.
2. REMOVE ANY CEILING MOUNTED ACCESSORIES REQUIRED TO COMPLETE ANY CONSTRUCTION TASK.
3. DEMO EXISTING FINISHES AS REQ'D TO INSTALL NEW PER FINISH SCHEDULE TO BE PROVIDED AT 65%.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: DEMO CEILING PLAN

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

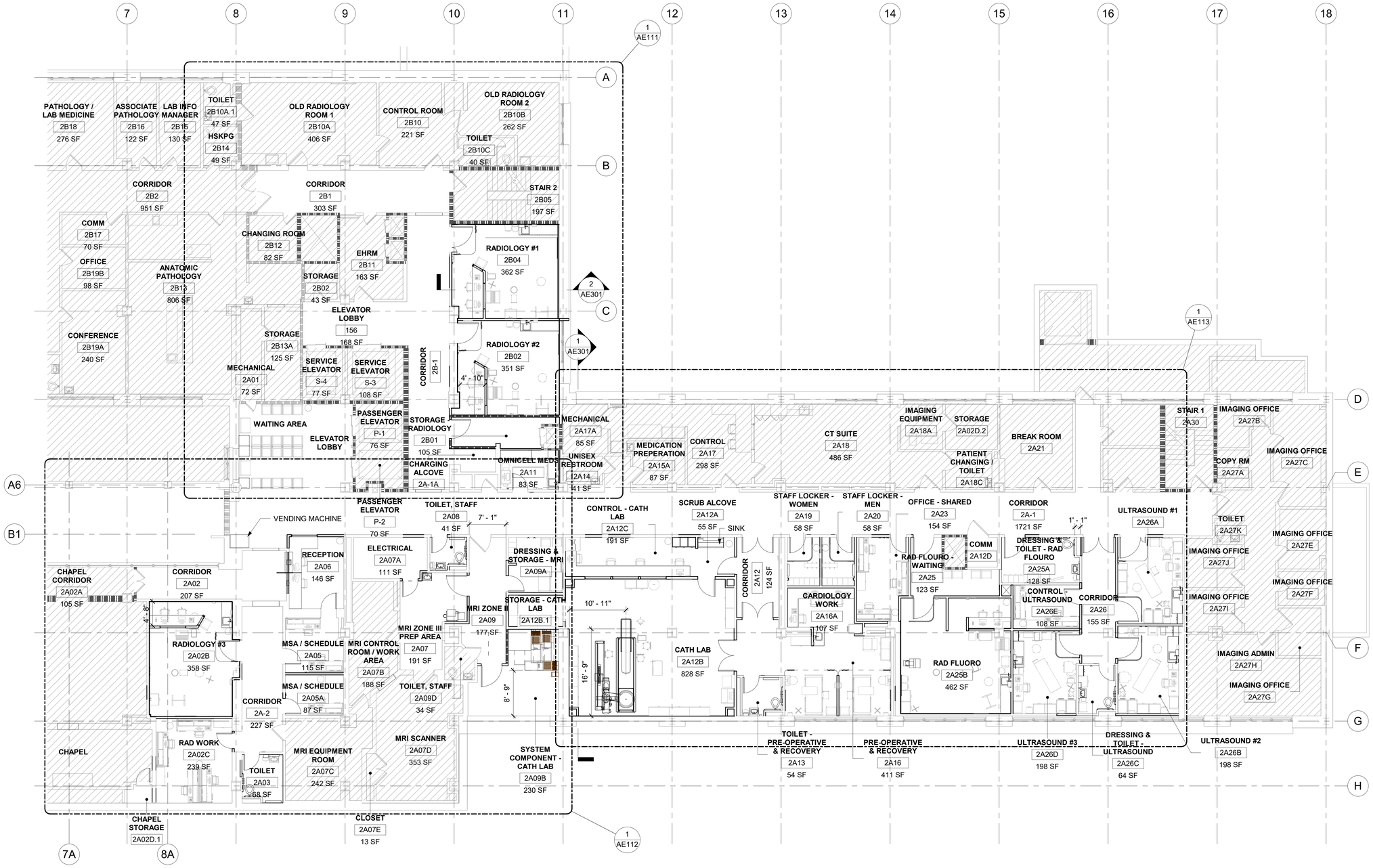
Issue Date: 3/27/2026

Checked: MK

Drawn: MA

Drawing Number: AD102

VA FORM 08 - 6231



1 LEVEL 2 - FLOOR PLAN

1/8" = 1'-0"

LEGEND

- EXISTING DOOR TO REMAIN
- NEW DOOR
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- 2 HR FIRE RATED WALL
- 2 HR & SMOKE RATED WALL
- 1 HR FIRE RATED WALL
- NIS

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING WORK. ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE COR.
2. DIMENSIONS SHOWN ARE FROM GRID LINES TO FACE OF STUD, CENTERLINE OF STRUCTURAL COLUMNS, CENTERLINE OF OPENINGS, UON
3. ANY DOORS NOT DIMENSIONED SHALL BE INSTALLED 6" FROM THE INTERSECTING WALL OR CENTERED ON THE WALL, UON.
4. ENSURE THAT ALL REQUIRED BACKING IS INSTALLED IN WALLS PRIOR TO INTALLING DRYWALL.

DEPARTMENT SIGN OFF:

COR:

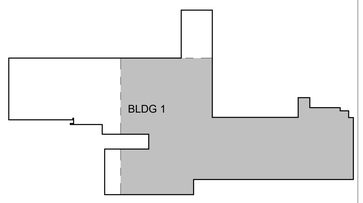
CARDIOLOGIST:

ULTRASOUND:

RADIOLOGY:

BIO MED:

KEY PLAN



AREA OF WORK

PROJECT NORTH

POST-100% REVISION	09/08/2021
Revisions:	Date:

CONSULTANT

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10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON

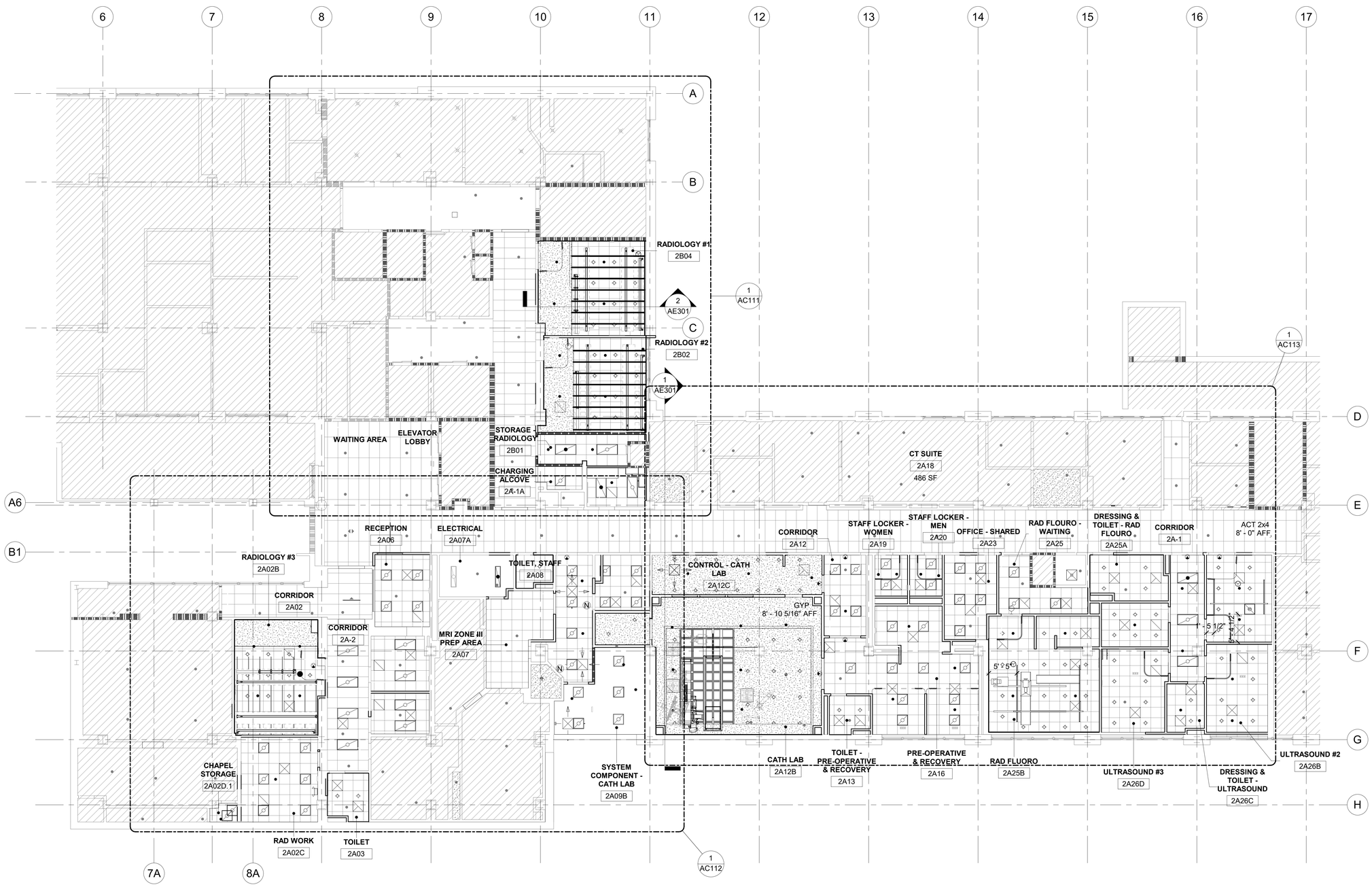
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FLOOR PLAN	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AE101

VA FORM 08 - 6231



1 LEVEL 2 - CEILING PLAN

1/8" = 1'-0"

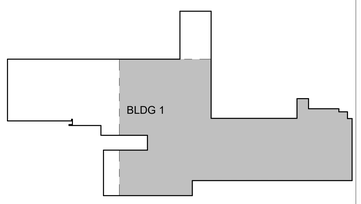
LEGEND

- 2x2 ACOUSTICAL CEILING TILE
- GYPSUM BOARD ON METAL STUDS
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- NIS

GENERAL NOTES

1. CONTRACTOR TO OBTAIN INSPECTION FOR ROUGH IN CONDUITS, FIRE PROOFING PRIOR TO INSTALL CLEANSUITE UNIT.
2. INSTALL CONDUITS AND FIRE PROOFING TO STRUCTURAL ELEMENTS PRIOR TO INSTALLING THE CLEANSUITE UNIT.
3. SEE PARTIAL PLANS FOR CLG MATERIALS, HEIGHTS & TAGGED SPECIALTY EQUIPMENT.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: CEILING PLAN

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: MK

Drawn: MA

Project Number: 570-21-220

Building Number: 001

Drawing Number: AC101

VA FORM 08 - 6231

1 PARTIAL FLOOR PLAN - NORTH

1/4" = 1'-0"

LEGEND

- EXISTING DOOR TO REMAIN
- NEW DOOR
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- 2 HR FIRE RATED WALL
- 2 HR & SMOKE RATED WALL
- 1 HR FIRE RATED WALL
- NIS

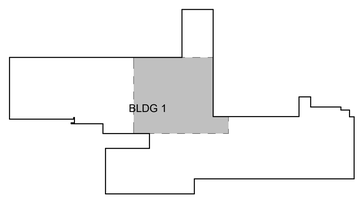
KEY NOTES (THIS SHEET ONLY)

1. INFILL EXISTING WALL OPENING TO MATCH AND ALIGN WITH ADJACENT WALL FINISHES
2. ALIGN FINISHED FACE OF NEW WALL WITH FINISHED FACE OF EXISTING WALL
3. NOT USED
4. IN-FILL WALL WITH 2-1/2" SOUND ACTUATION BLANKET, FRAME EXISTING WALL TO STRUCTURE IF EXISTING CONSTRUCTION REFLECTS A DIFFERENT CONDITION.

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING WORK. ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE COR.
2. DIMENSIONS SHOWN ARE FROM GRID LINES TO FACE OF STUD, CENTERLINE OF STRUCTURAL COLUMNS, CENTERLINE OF OPENINGS, UON
3. ANY DOORS NOT DIMENSIONED SHALL BE INSTALLED 6" FROM THE INTERSECTING WALL OR CENTERED ON THE WALL, UON.
4. ENSURE THAT ALL REQUIRED BACKING IS INSTALLED IN WALLS PRIOR TO INTALLING DRYWALL.

KEY PLAN



AREA SHOWN

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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RAY SPEES

SDB SPEESDESIGNBUILD

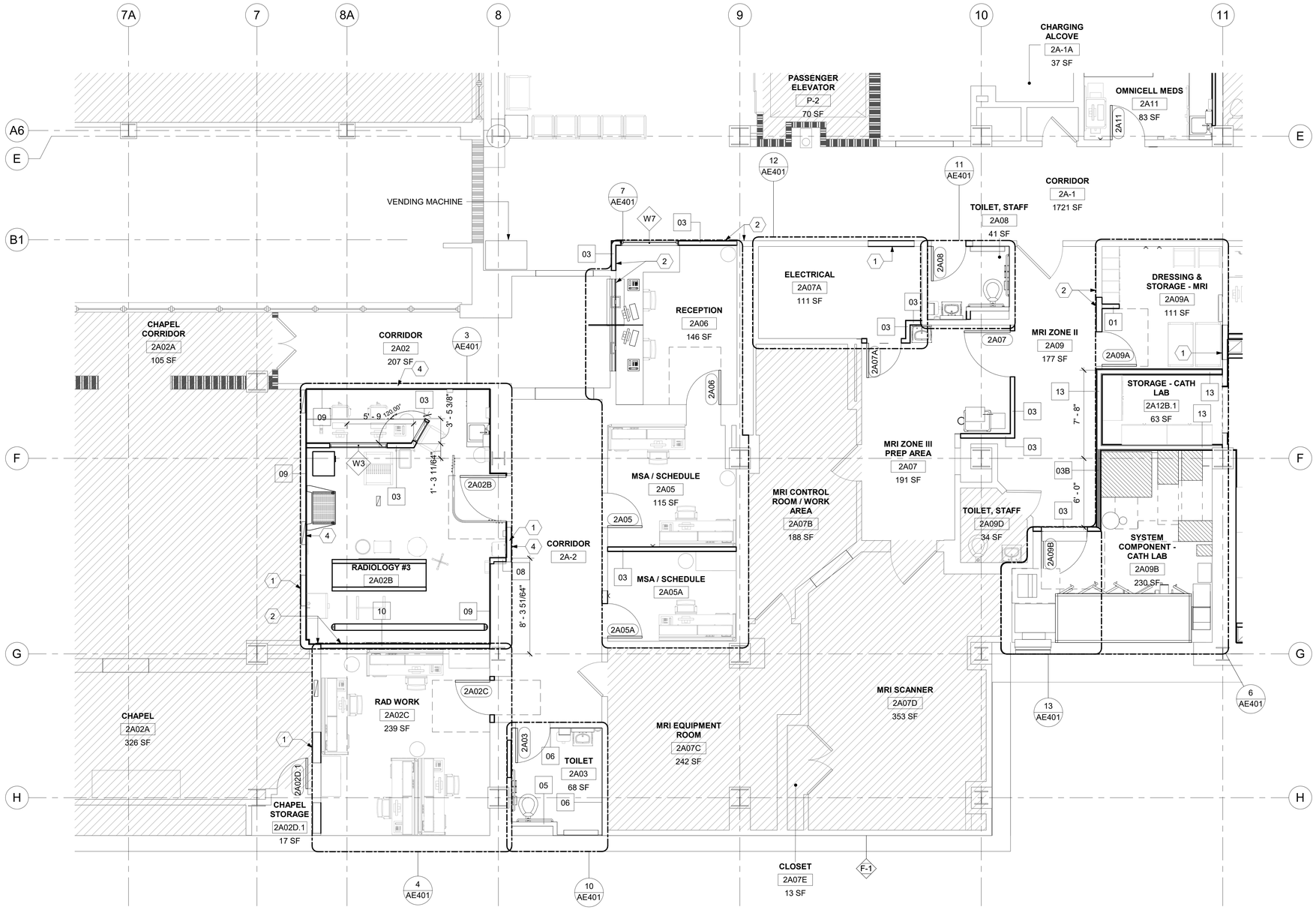
STAMP: REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PARTIAL FLOOR PLAN - NORTH	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AE111

VA FORM 08 - 6231



1 PARTIAL FLOOR PLAN - SOUTH WEST

1/4" = 1'-0"

LEGEND

- EXISTING DOOR TO REMAIN
- NEW DOOR
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- 2 HR FIRE RATED WALL
- 2 HR & SMOKE RATED WALL
- 1 HR FIRE RATED WALL
- NIS

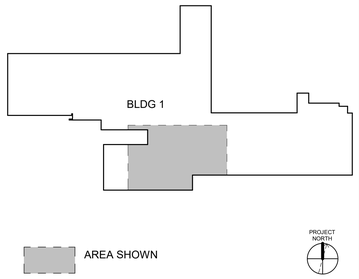
KEY NOTES (THIS SHEET ONLY)

1. INFILL EXISTING WALL OPENING TO MATCH AND ALIGN WITH ADJACENT WALL FINISHES
2. ALIGN FINISHED FACE OF NEW WALL WITH FINISHED FACE OF EXISTING WALL
3. ALIGN CENTERLINE OF NEW WALL WITH BUILDING GRID LINE
4. IN-FILL WALL WITH 2-1/2" SOUND ATTENUATION BLANKET, FRAME EXISTING WALL TO STRUCTURE IF EXISTING CONSTRUCTION REFLECTS A DIFFERENT CONDITION.

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING WORK. ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE COR.
2. DIMENSIONS SHOWN ARE FROM GRID LINES TO FACE OF STUD, CENTERLINE OF STRUCTURAL COLUMNS, CENTERLINE OF OPENINGS, UON
3. ANY DOORS NOT DIMENSIONED SHALL BE INSTALLED 6" FROM THE INTERSECTING WALL OR CENTERED ON THE WALL, UON.
4. ENSURE THAT ALL REQUIRED BACKING IS INSTALLED IN WALLS PRIOR TO INTALLING DRYWALL.

KEY PLAN



Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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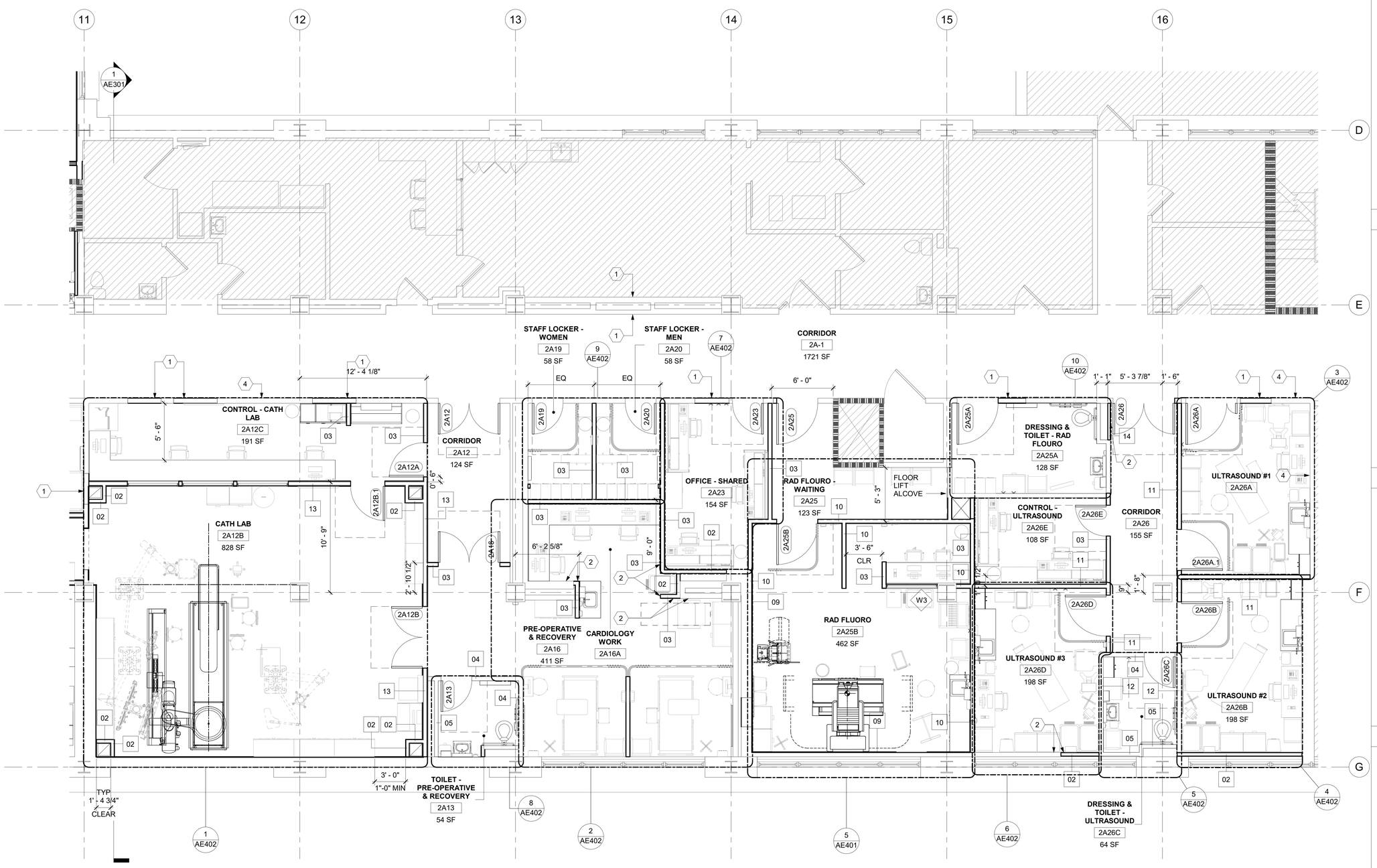
STAMP: REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PARTIAL FLOOR PLAN - SOUTHWEST	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AE112

VA FORM 08 - 6231



1 PARTIAL FLOOR PLAN - SOUTH EAST
1/4" = 1'-0"

LEGEND

- EXISTING DOOR TO REMAIN
- NEW DOOR
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- 2 HR FIRE RATED WALL
- 2 HR & SMOKE RATED WALL
- 1 HR FIRE RATED WALL
- NIS

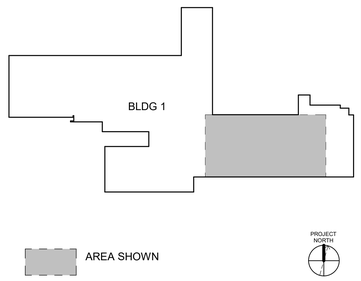
KEY NOTES (THIS SHEET ONLY)

1. INFILL EXISTING WALL OPENING TO MATCH AND ALIGN WITH ADJACENT WALL FINISHES
2. ALIGN FINISHED FACE OF NEW WALL WITH FINISHED FACE OF EXISTING WALL
3. NOT USED
4. IN-FILL WALL WITH 2-1/2" SOUND ATTENUATION BLANKET, FRAME EXISTING WALL TO STRUCTURE IF EXISTING CONSTRUCTION REFLECTS A DIFFERENT CONDITION.

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING WORK. ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE COR.
2. DIMENSIONS SHOWN ARE FROM GRID LINES TO FACE OF STUD, CENTERLINE OF STRUCTURAL COLUMNS, CENTERLINE OF OPENINGS, UON
3. ANY DOORS NOT DIMENSIONED SHALL BE INSTALLED 6" FROM THE INTERSECTING WALL OR CENTERED ON THE WALL, UON.
4. ENSURE THAT ALL REQUIRED BACKING IS INSTALLED IN WALLS PRIOR TO INTALLING DRYWALL.

KEY PLAN



AREA SHOWN

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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RAY SPEES

SPEESDESIGNBUILD

STAMP: REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PARTIAL FLOOR PLAN - SOUTHEAST	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AE113

VA FORM 08 - 6231

1 LEVEL 2 - CEILING PLAN - NORTH

1/4" = 1'-0"

LEGEND

- 2x2 ACOUSTICAL CEILING TILE
- GYPSUM BOARD ON METAL STUDS
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- NIS

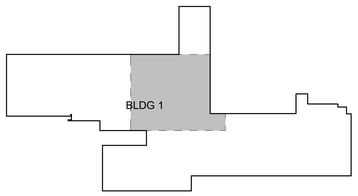
KEY NOTES (THIS SHEET ONLY)

1. CEILING MOUNTED WALL STAND RAIL, PER MFR DRAWINGS.
2. SLOPED TOP WALL CABINET, TYP. SEE INTERIOR ELEVATIONS FOR MATERIAL.
3. SLOPED TOP TALL CABINET, TYP. SEE INTERIOR ELEVATIONS FOR MATERIAL.
4. RADIOLOGY EQUIPMENT - OTC CEILING RAIL, PER MFR DRAWINGS.
5. EXISTING RAD FLUORO EQUIPMENT - RAIL MOUNTED TUBE HEAD UNIT.
6. EXISTING RAD FLUORO EQUIPMENT - RAIL MOUNTED MONITOR BOOM.
7. CEILING OPEN TO STRUCTURE ABOVE
8. RADIOLOGY EQUIPMENT - IGUS CHAIN, PER MFR DRAWINGS.
9. RESTRICTED CEILING AREA FOR RADIOLOGY EQUIPMENT. NO CEILING MOUNTED FIXTURES INCLUDING HVAC, LIGHTING AND SPRINKLERS
10. NEW UNISTRUT: FLUSH MOUNTED WITH FINISHED CEILING. UNISTRUT P1000 SERIES OR EQUIVALENT REQUIRED.

GENERAL NOTES

NOT USED ON THIS SHEET

KEY PLAN



AREA SHOWN

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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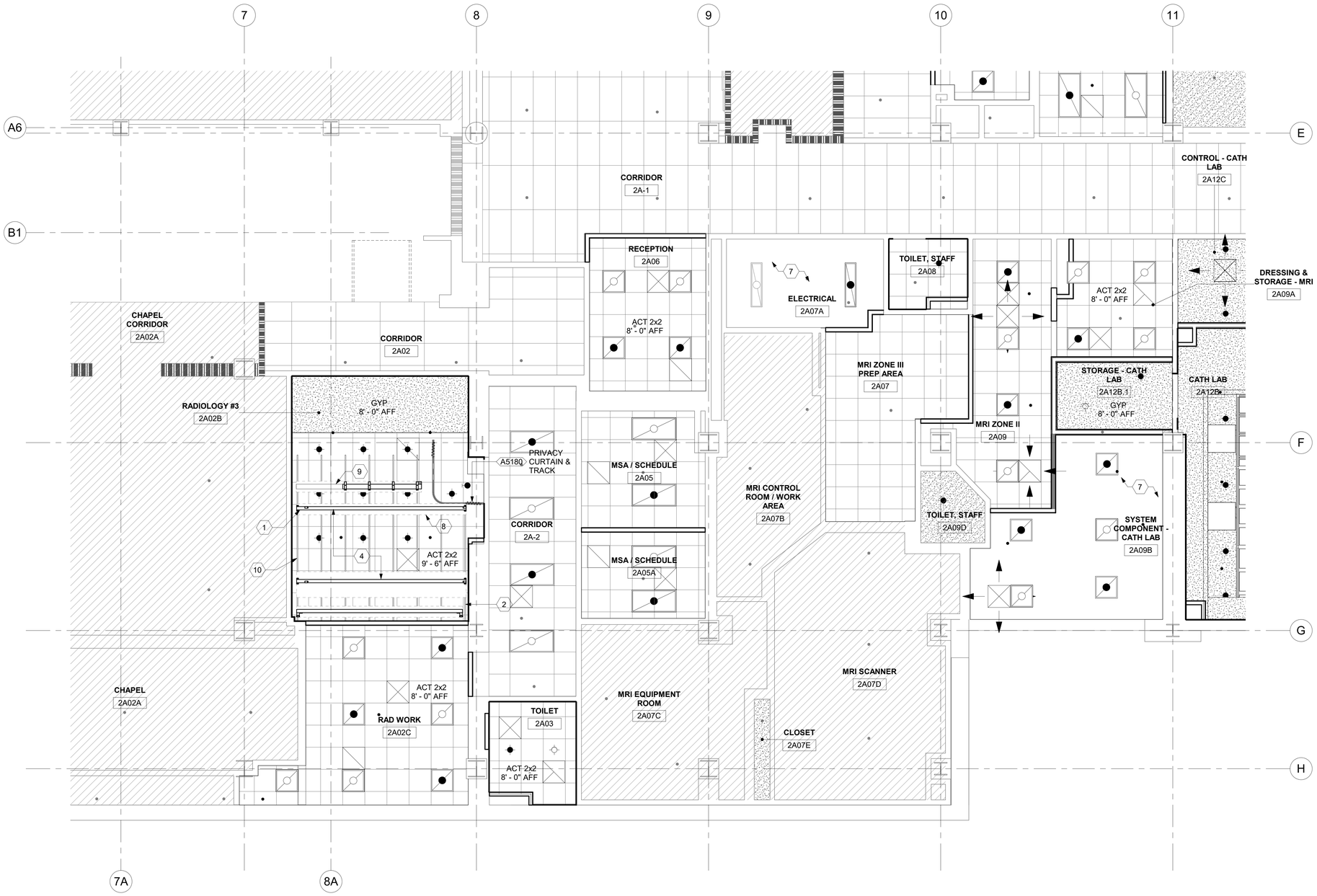
STAMP: REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PARTIAL CEILING PLAN - NORTH	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AC111

VA FORM 08 - 6231



1 LEVEL 2 - CEILING PLAN - SOUTH WEST

1/4" = 1'-0"

PROJECT NORTH

LEGEND

- 2x2 ACOUSTICAL CEILING TILE
- GYPSUM BOARD ON METAL STUDS
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- NIS

KEY NOTES (THIS SHEET ONLY)

1. CEILING MOUNTED WALL STAND RAIL, PER MFR DRAWINGS.
2. SLOPED TOP WALL CABINET, TYP. SEE INTERIOR ELEVATIONS FOR MATERIAL.
3. SLOPED TOP TALL CABINET, TYP. SEE INTERIOR ELEVATIONS FOR MATERIAL.
4. RADIOLOGY EQUIPMENT - OTC CEILING RAIL, PER MFR DRAWINGS.
5. EXISTING RAD FLUORO EQUIPMENT - RAIL MOUNTED TUBE HEAD UNIT.
6. EXISTING RAD FLUORO EQUIPMENT - RAIL MOUNTED MONITOR BOOM.
7. CEILING OPEN TO STRUCTURE ABOVE
8. RADIOLOGY EQUIPMENT - IGUS CHAIN, PER MFR DRAWINGS.
9. RESTRICTED CEILING AREA FOR RADIOLOGY EQUIPMENT. NO CEILING MOUNTED FIXTURES INCLUDING HVAC, LIGHTING AND SPRINKLERS
10. NEW UNISTRUT: FLUSH MOUNTED WITH FINISHED CEILING. UNISTRUT P1000 SERIES OR EQUIVALENT REQUIRED.

GENERAL NOTES

NOT USED ON THIS SHEET

KEY PLAN

AREA SHOWN

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
625 1ST AVE, STE 301
SEATTLE, WA 98104
(206) 590-2118
RAY SPEES

SPEESDESIGNBUILD

STAMP

REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PARTIAL CEILING PLAN - SOUTHWEST

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

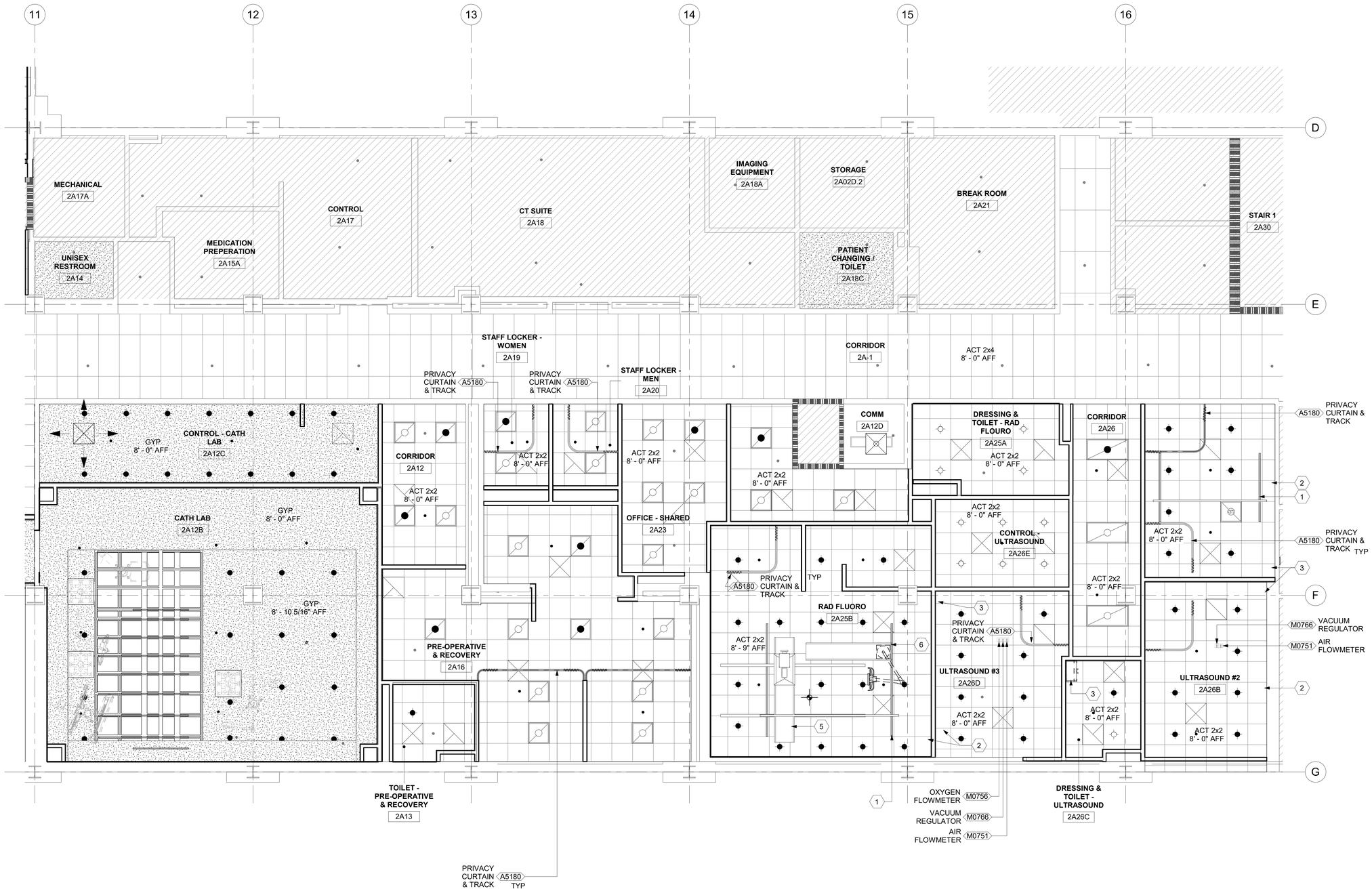
Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Drawing Number: AC112

Issue Date: 3/27/2026 | Checked: MK | Drawn: MA

VA FORM 08 - 6231



1 LEVEL 2 - CEILING PLAN - SOUTH EAST

1/4" = 1'-0"

LEGEND

- 2x2 ACOUSTICAL CEILING TILE
- GYPSUM BOARD ON METAL STUDS
- EXISTING TO REMAIN
- NEW CONSTRUCTION
- NIS

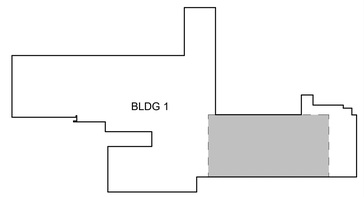
KEY NOTES (THIS SHEET ONLY)

1. CEILING MOUNTED WALL STAND RAIL, PER MFR DRAWINGS.
2. SLOPED TOP WALL CABINET, TYP. SEE INTERIOR ELEVATIONS FOR MATERIAL.
3. SLOPED TOP TALL CABINET, TYP. SEE INTERIOR ELEVATIONS FOR MATERIAL.
4. RADIOLOGY EQUIPMENT - OTC CEILING RAIL, PER MFR DRAWINGS.
5. EXISTING RAD FLUORO EQUIPMENT - RAIL MOUNTED TUBE HEAD UNIT.
6. EXISTING RAD FLUORO EQUIPMENT - RAIL MOUNTED MONITOR BOOM.
7. CEILING OPEN TO STRUCTURE ABOVE
8. RADIOLOGY EQUIPMENT - IGUS CHAIN, PER MFR DRAWINGS.
9. RESTRICTED CEILING AREA FOR RADIOLOGY EQUIPMENT. NO CEILING MOUNTED FIXTURES INCLUDING HVAC, LIGHTING AND SPRINKLERS
10. NEW UNISTRUT: FLUSH MOUNTED WITH FINISHED CEILING. UNISTRUT REQUIRED.

GENERAL NOTES

NOT USED ON THIS SHEET

KEY PLAN



AREA SHOWN

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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SDB SPEESDESIGNBUILD

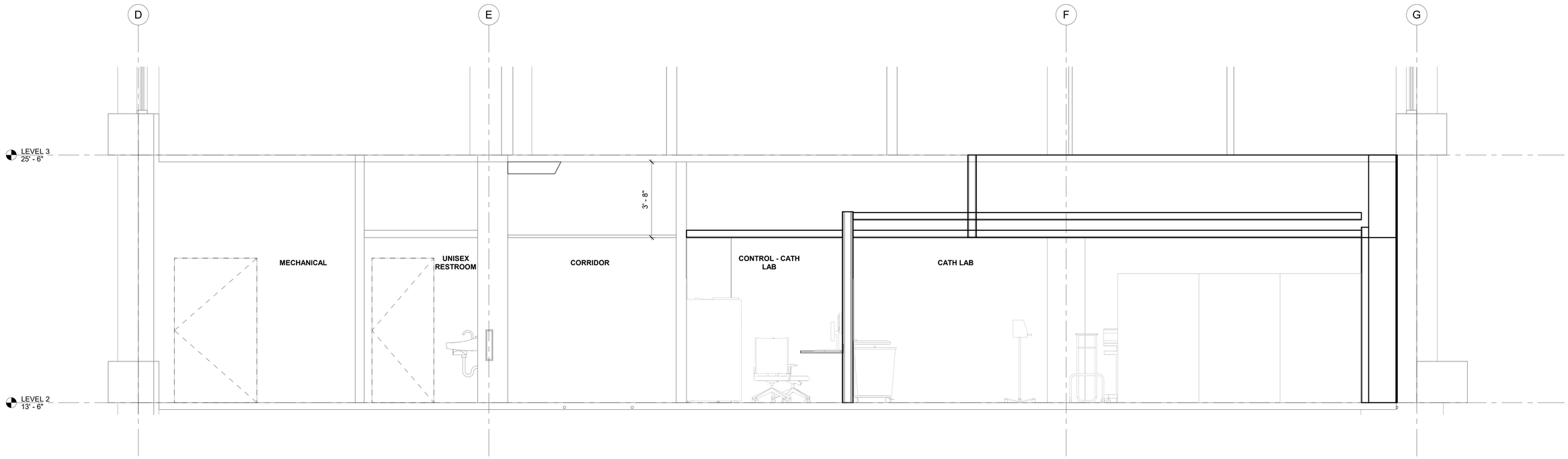
STAMP: REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

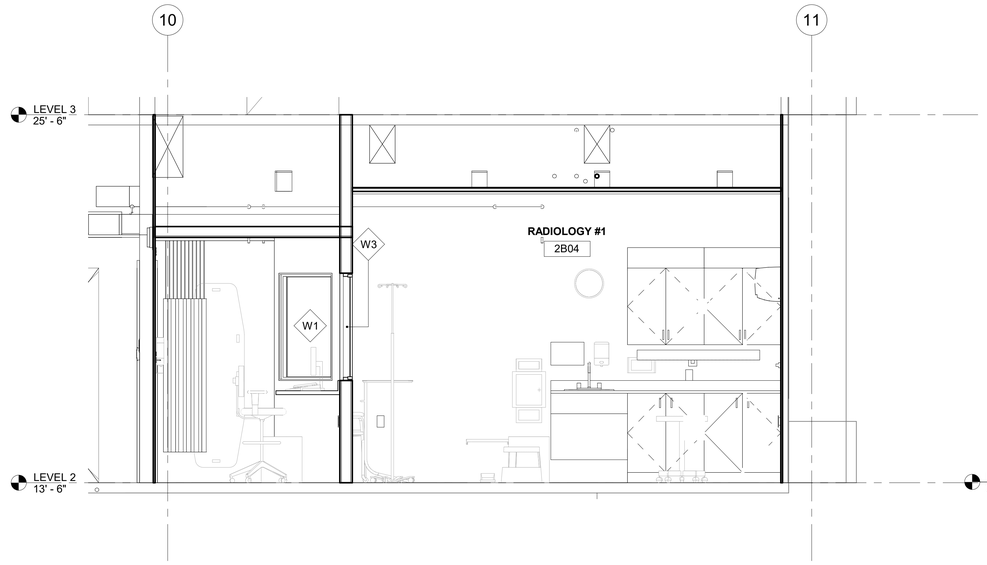
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PARTIAL CEILING PLAN - SOUTHEAST	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: MA	Drawing Number: AC113

VA FORM 08 - 6231



1 BUILDING SECTION
1/2" = 1'-0"



2 RADIOLOGY #1 SECTION
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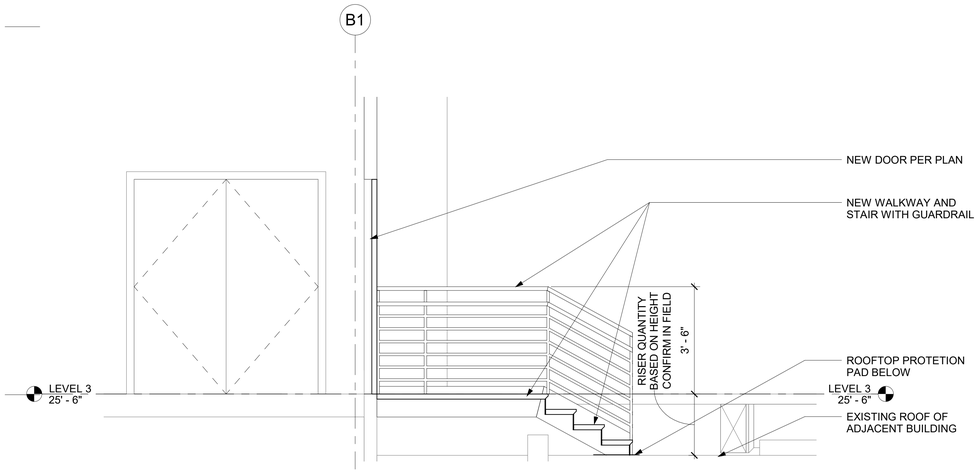

3 LEVEL 3 - ROOF ACCESS SECTION
1/2" = 1'-0"

Revisions:	Date:

CONSULTANT
ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD
A/E:
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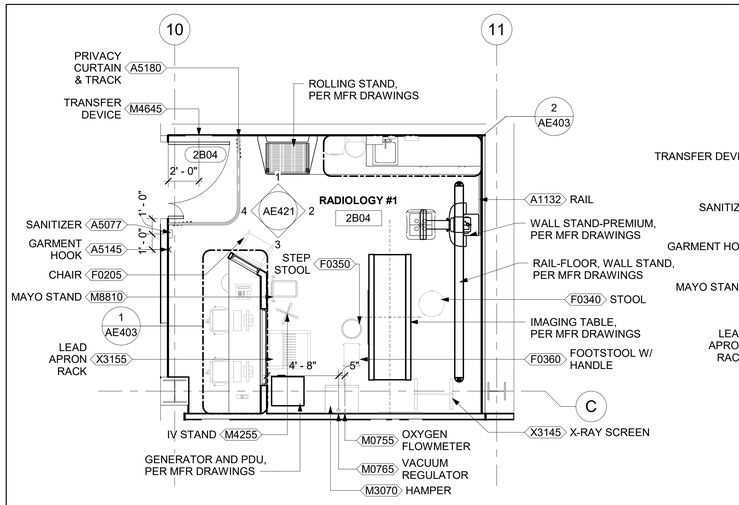
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: SECTIONS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: MA
Project Number: 570-21-220
Building Number: 001
Drawing Number: AE301

VA FORM 08 - 6231



1 EQUIPMENT PLAN - 2B04
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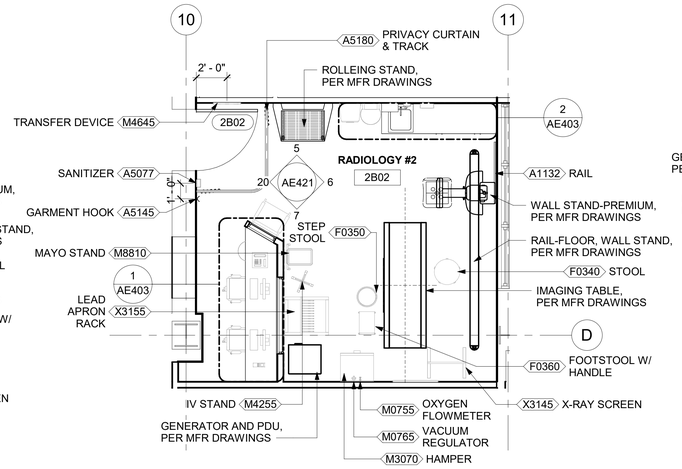

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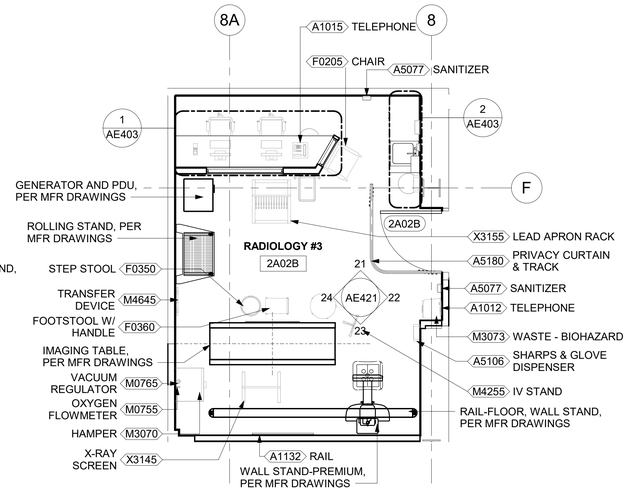

3 EQUIPMENT PLAN - 2A02B
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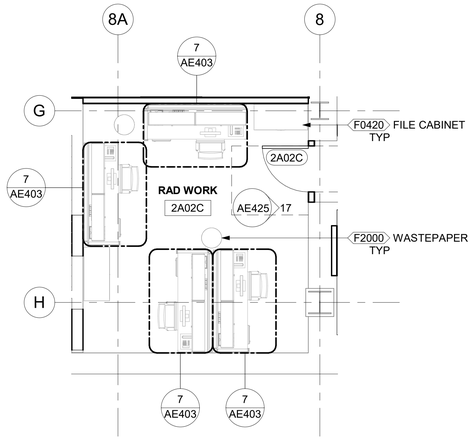
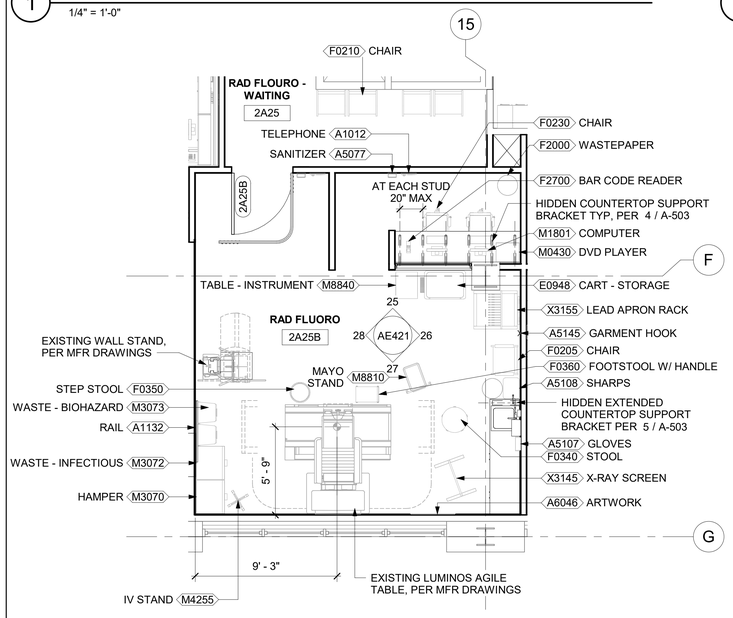


4 EQUIPMENT PLAN - 2A02C
1/4" = 1'-0"



5 EQUIPMENT PLAN - 2A25B & 2A25
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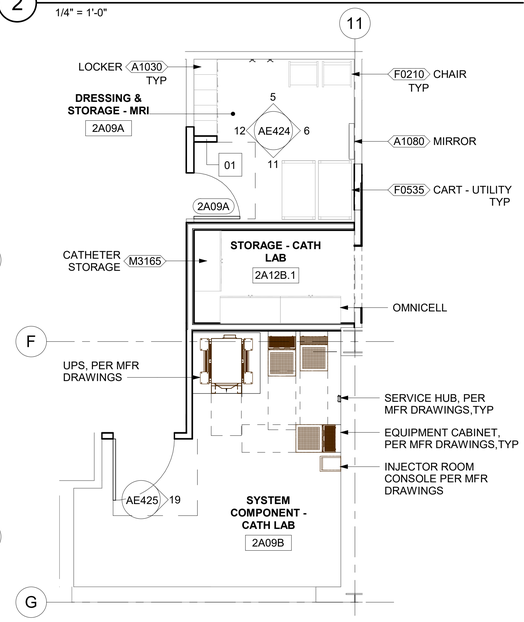

6 EQUIPMENT PLAN - 2A09B & 2A12B.1
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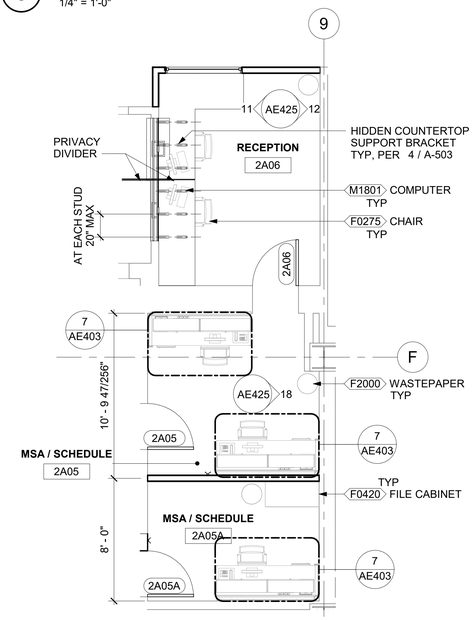

7 EQUIPMENT PLAN - 2A06
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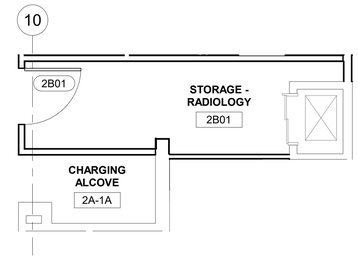

8 EQUIPMENT PLAN - 2B01 & 2A-1A
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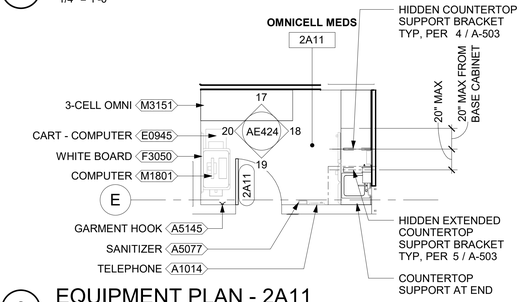

9 EQUIPMENT PLAN - 2A11
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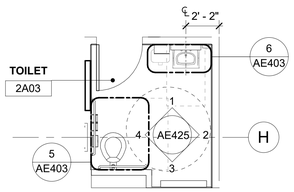

10 EQUIPMENT PLAN - 2A03
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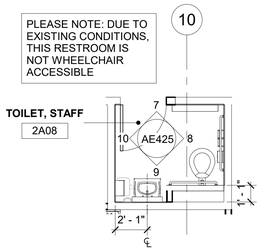

11 EQUIPMENT PLAN - 2A08
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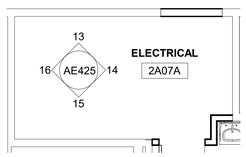

12 EQUIPMENT PLAN - 2A07A
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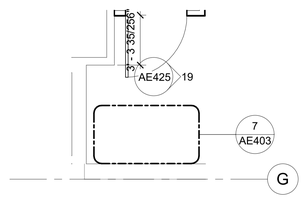
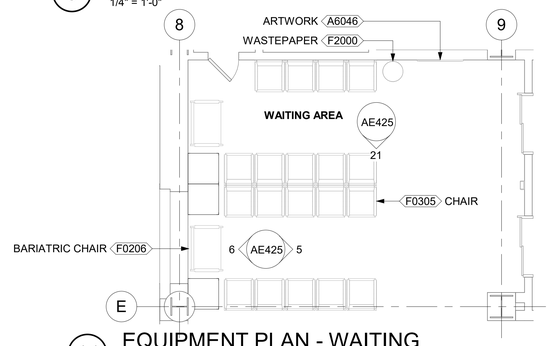


13 EQUIPMENT PLAN - 2A09C
1/4" = 1'-0"



14 EQUIPMENT PLAN - WAITING
1/4" = 1'-0"

Revisions:	Date:

CONSULTANT
ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD
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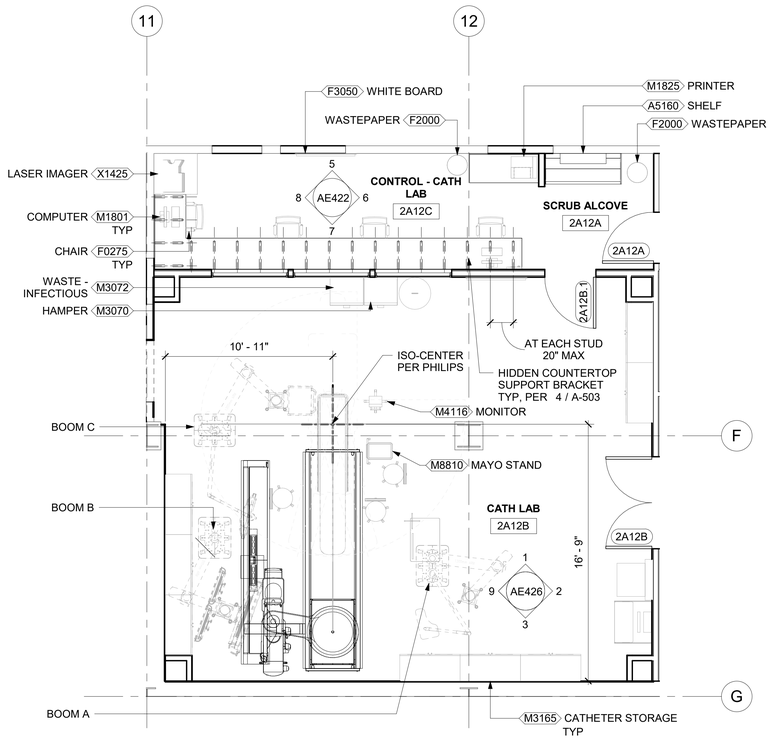
STAMP
REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON 10000
3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: EQUIPMENT PLANS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: AB
Project Number: 570-21-220
Building Number: 001
Drawing Number: AE401

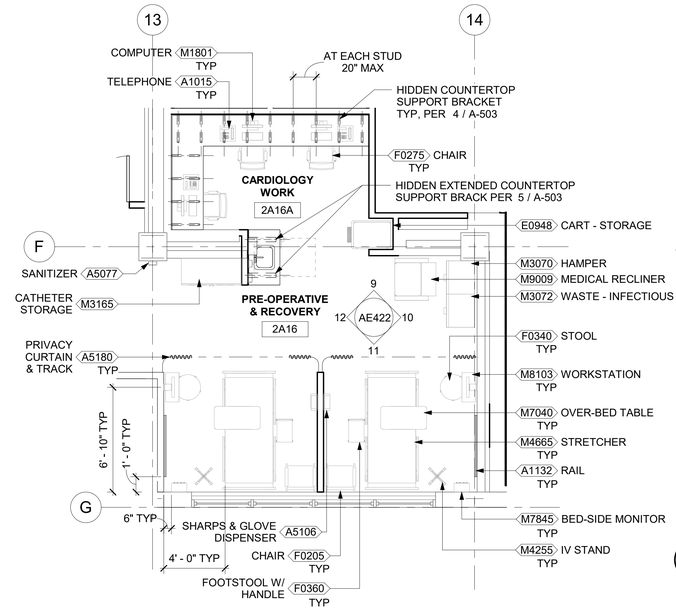
VA FORM 08 - 6231



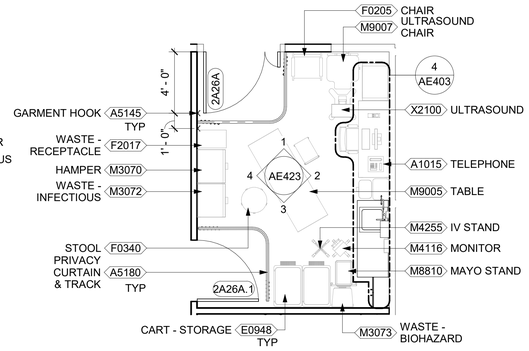
BOOM LEGEND

BOOM A (ANESTHESIA BOOM AND SHEILD)		BOOM B (MONITOR BOOM)		BOOM C (EQUIPMENT AND LIGHT BOOM)	
1	MEDICAL AIR	1	PHILIPS AZURION MONTIOR	4	EMERGENCY DUPLEX
2	OXYGEN			3	NON DATA PLATE
1	NITROUS OXIDE			10	VIDEO BLANK
2	VACUUM			4	VACUUM
1	WAGD			1	NITROGEN REGULATOR
5	VIDEO BLANK			3	LARGE SHELF
1	20A / 125V EMERGENCY SIMPLEX				
7	20A / 125V EMERGENCY DUPLEX				

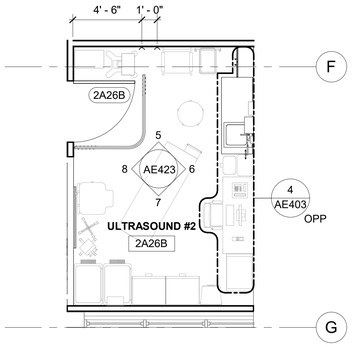
1 EQUIPMENT PLAN - 2A12A, 2A12B & 2A12C
1/4" = 1'-0"



2 EQUIPMENT PLAN - 2A16 & 2A16A
1/4" = 1'-0"



3 EQUIPMENT PLAN - 2A26A
1/4" = 1'-0"



4 EQUIPMENT PLAN - 2A26B
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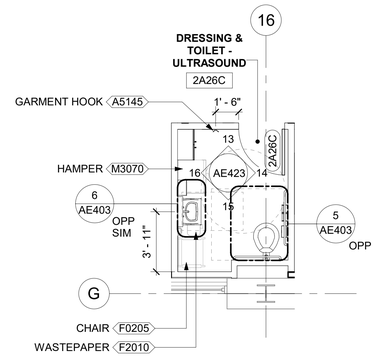

5 EQUIPMENT PLAN - 2A26C
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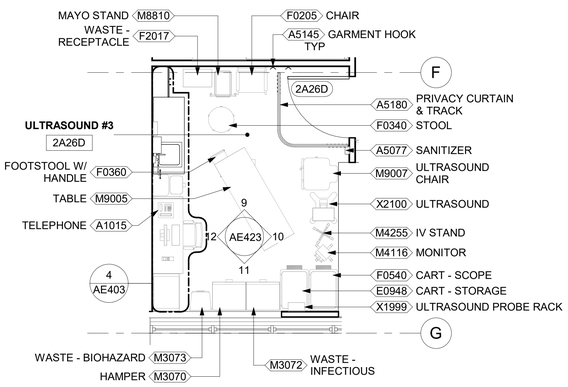

6 EQUIPMENT PLAN - 2A26D
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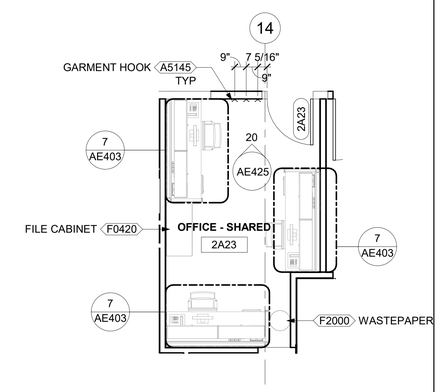

7 EQUIPMENT PLAN - 2A23
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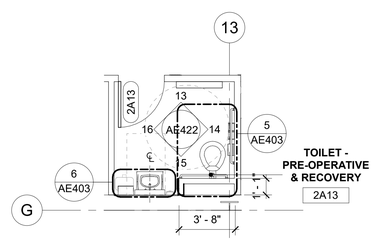

8 EQUIPMENT PLAN - 2A13
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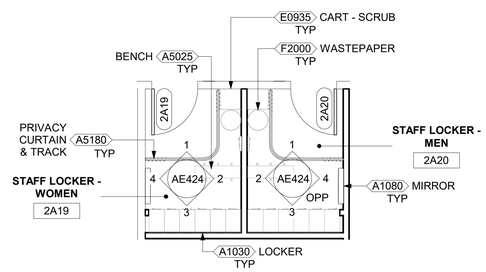

9 EQUIPMENT PLAN - 2A19 & 2A20
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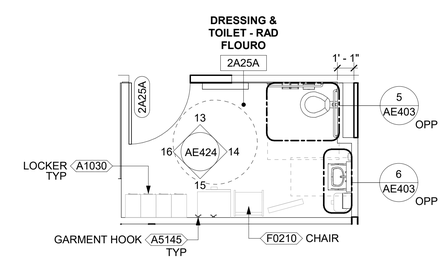

10 EQUIPMENT PLAN - 2A25A
1/4" = 1'-0"

Revisions:	Date:

CONSULTANT
ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD
A/E:
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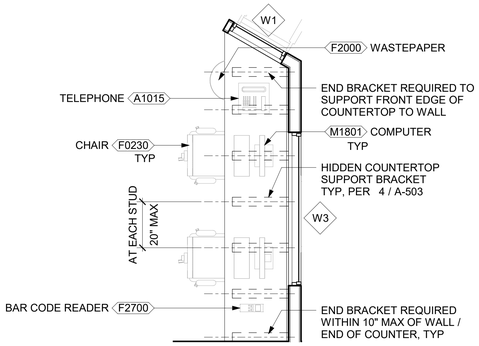
SDB SPEESDESIGNBUILD

STAMP
REGISTERED ARCHITECT
JAMES M. KING
STATE OF WASHINGTON
10000
3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
EQUIPMENT PLANS	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: AB	Drawing Number: AE402

VA FORM 08 - 6231



1 TYP EQUIPMENT PLAN - RADIOLOGY CONTROL
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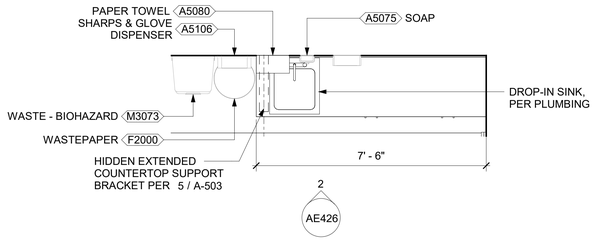
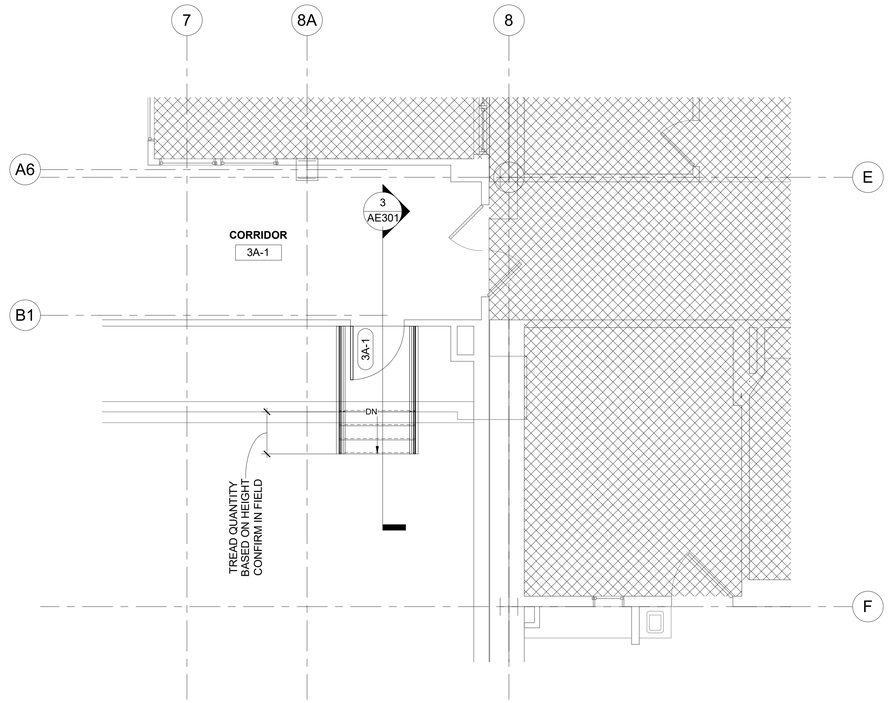
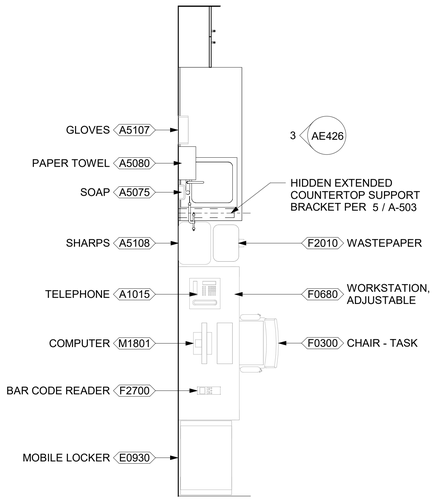


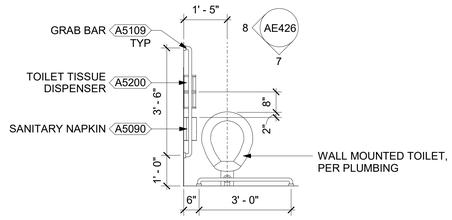
2 TYP EQUIPMENT PLAN - RADIOLOGY CASEWORK
1/2" = 1'-0"



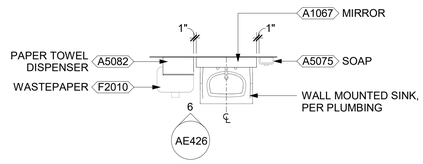
3 LEVEL 3 - ENLARGED FLOOR PLAN AT NEW ROOF ACCESS
1/4" = 1'-0"



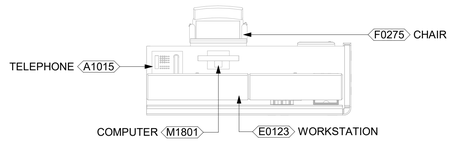
4 TYP EQUIPMENT PLAN - ULTRASOUND CASEWORK
1/2" = 1'-0"



5 TYP EQUIPMENT PLAN - TOILET
1/2" = 1'-0"



6 TYP EQUIPMENT PLAN - SINK
1/2" = 1'-0"



7 TYP EQUIPMENT PLAN - STAFF WORKSTATION
1/2" = 1'-0"

Revisions:	Date:

CONSULTANT
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ARCHITECT/ENGINEER OF RECORD
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SPEES DESIGN BUILD
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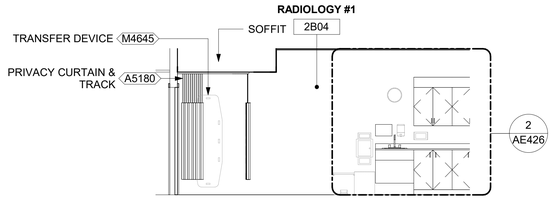
SDB SPEESDESIGNBUILD

STAMP
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

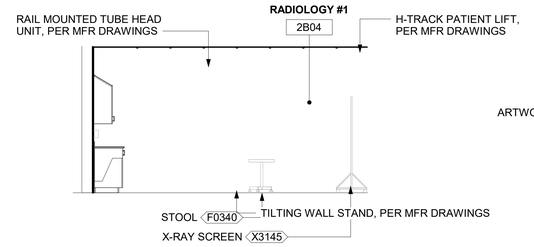
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED EQUIPMENT PLANS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: AB
Project Number: 570-21-220
Building Number: 001
Drawing Number: AE403

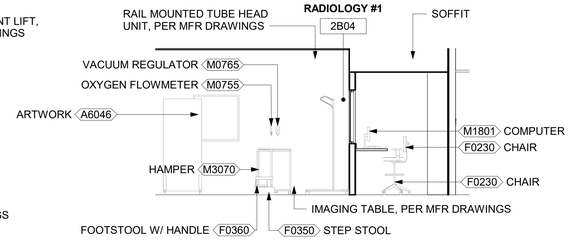
VA FORM 08 - 6231



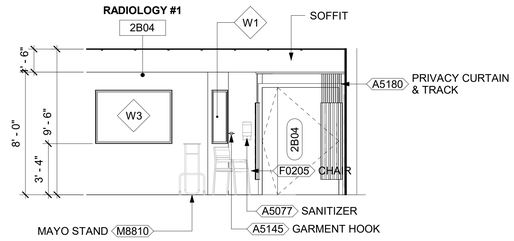
1 2B04 - NORTH ELEVATION
1/4" = 1'-0"



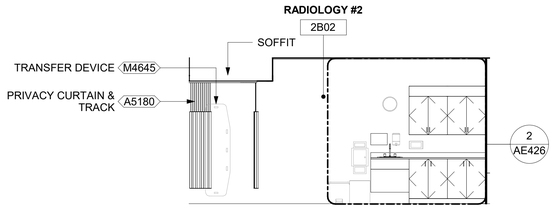
2 2B04 - EAST ELEVATION
1/4" = 1'-0"



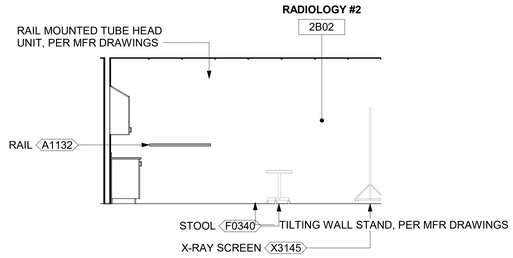
3 2B04 - SOUTH ELEVATION
1/4" = 1'-0"



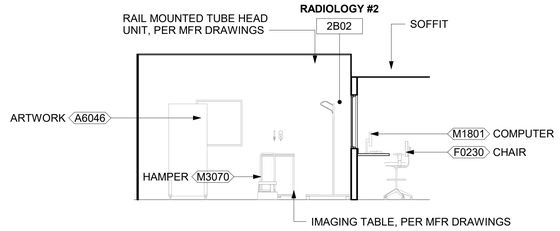
4 2B04 - WEST ELEVATION
1/4" = 1'-0"



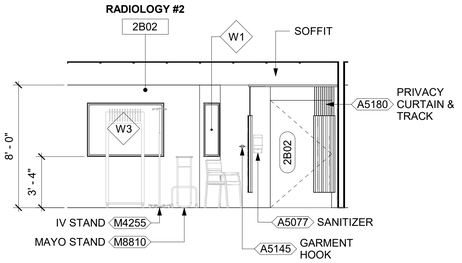
5 2B02 - NORTH ELEVATION
1/4" = 1'-0"



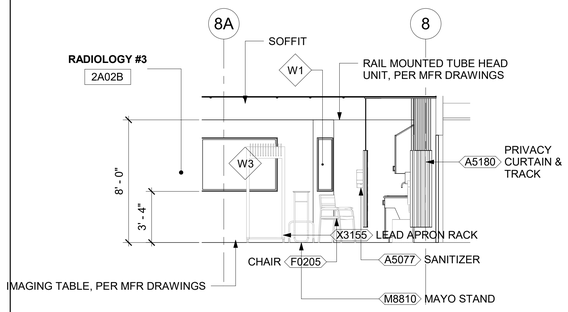
6 2B02 - EAST ELEVATION
1/4" = 1'-0"



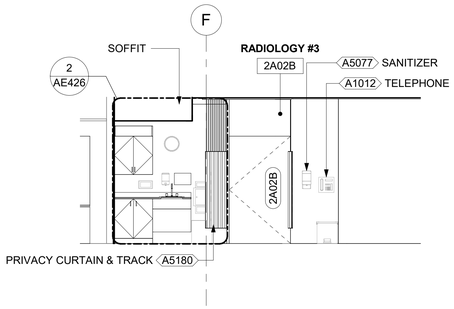
7 2B02 - SOUTH ELEVATION
1/4" = 1'-0"



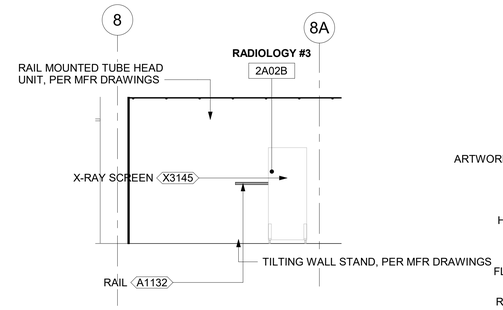
20 2B02 - WEST ELEVATION
1/4" = 1'-0"



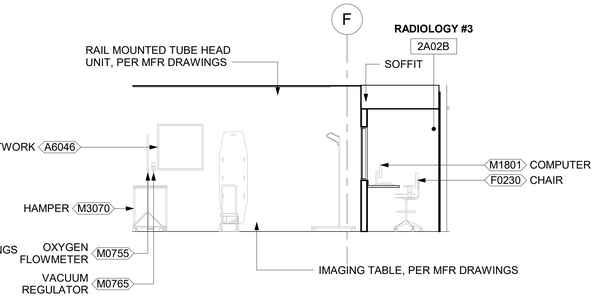
21 2A02B - NORTH ELEVATION
1/4" = 1'-0"



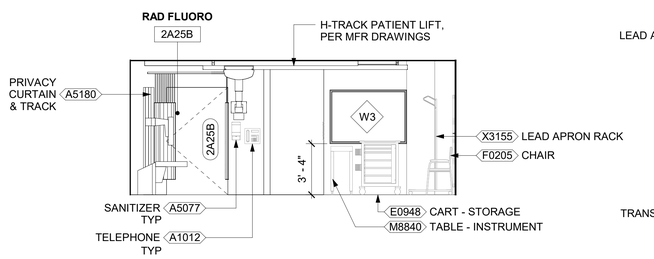
22 2A02B - EAST ELEVATION
1/4" = 1'-0"



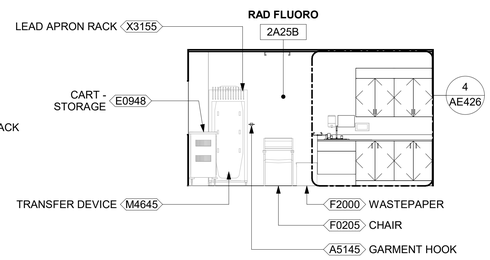
23 2A02B - SOUTH ELEVATION
1/4" = 1'-0"



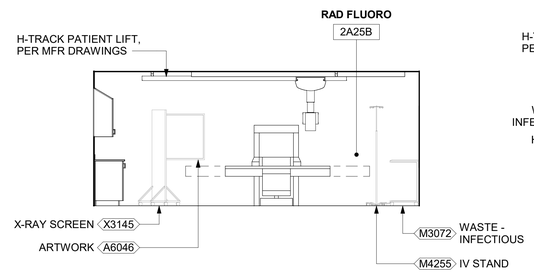
24 2A02B - WEST ELEVATION
1/4" = 1'-0"



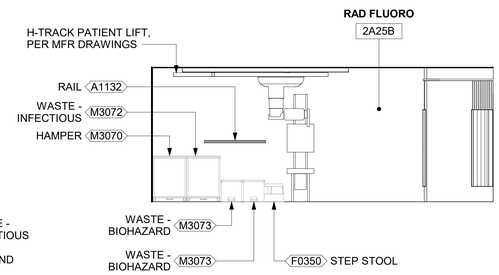
25 2A25B - NORTH ELEVATION
1/4" = 1'-0"



26 2A25B - EAST ELEVATION
1/4" = 1'-0"



27 2A25B - SOUTH ELEVATION
1/4" = 1'-0"



28 2A25B - WEST ELEVATION
1/4" = 1'-0"

Revisions:	Date:

CONSULTANT

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3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR ELEVATIONS

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026 | Checked: MK | Drawn: AB

Project Number: 570-21-220

Building Number: 001

Drawing Number: AE421

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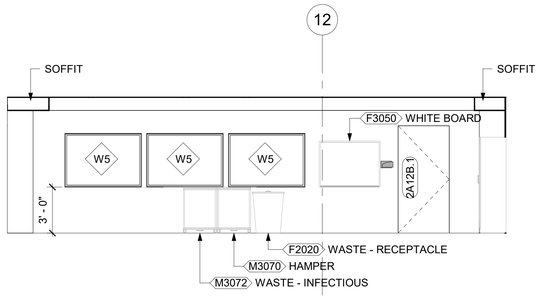
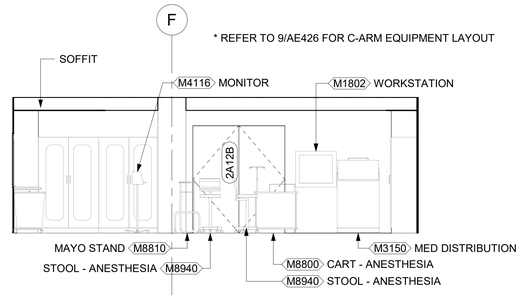
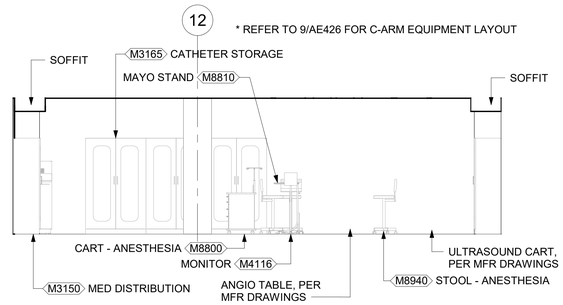


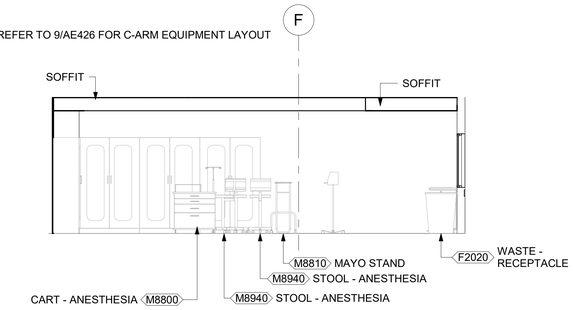
1 2A12B - NORTH ELEVATION
1/4" = 1'-0"



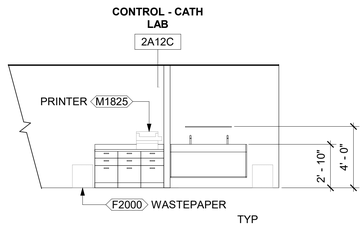
2 2A12B - EAST ELEVATION
1/4" = 1'-0"



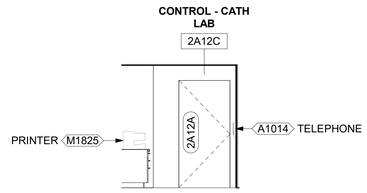
3 2A12B - SOUTH ELEVATION
1/4" = 1'-0"



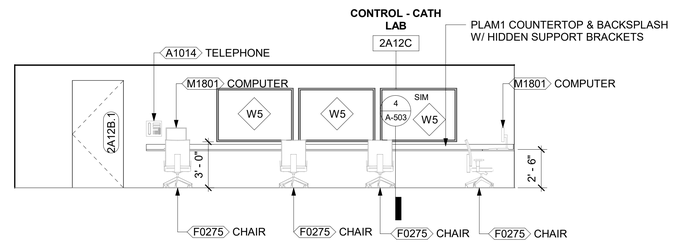
4 2A12B - WEST ELEVATION
1/4" = 1'-0"



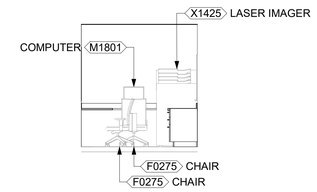
5 2A12C - NORTH ELEVATION
1/4" = 1'-0"



6 2A12C - EAST ELEVATION
1/4" = 1'-0"



7 2A12C - SOUTH ELEVATION
1/4" = 1'-0"



8 2A12C - WEST ELEVATION
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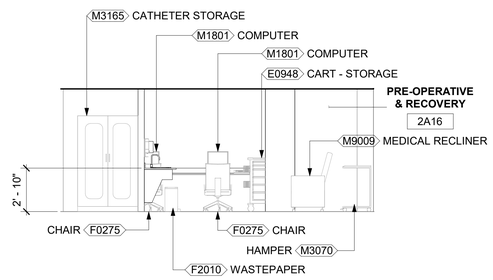
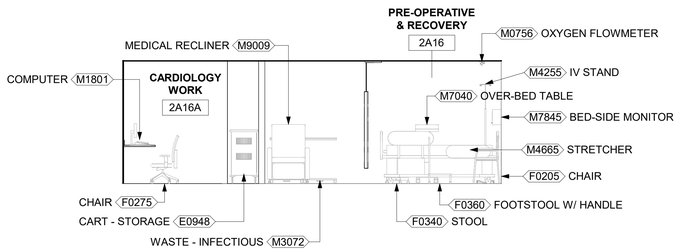
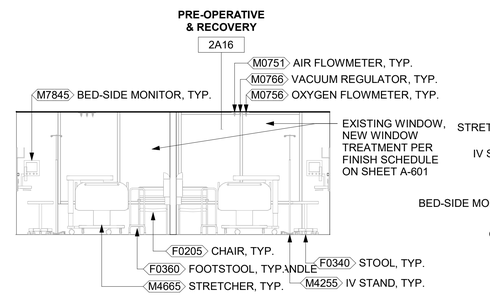


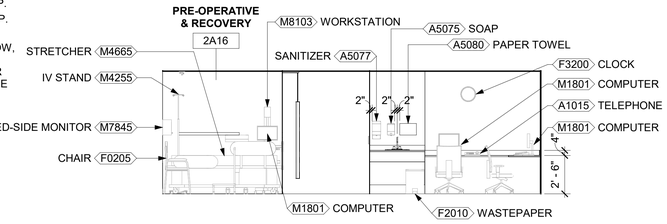
9 2A16 - NORTH ELEVATION
1/4" = 1'-0"



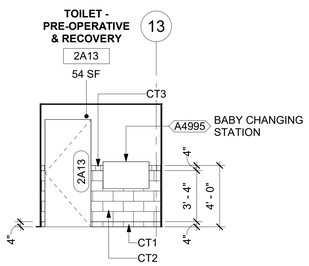
10 2A16 - EAST ELEVATION
1/4" = 1'-0"



11 2A16 - SOUTH ELEVATION
1/4" = 1'-0"



12 2A16 - WEST ELEVATION
1/4" = 1'-0"



13 2A13 - NORTH ELEVATION
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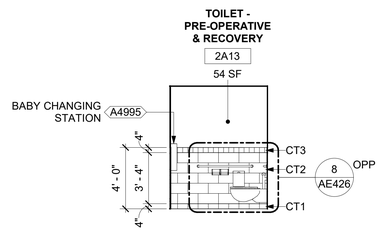

14 2A13 - EAST ELEVATION
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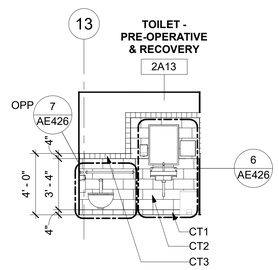
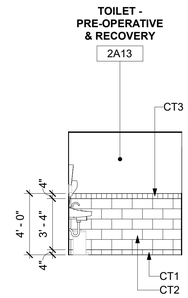


15 2A13 - SOUTH ELEVATION
1/4" = 1'-0"



16 2A13 - WEST ELEVATION
1/4" = 1'-0"

Revisions:	Date:

CONSULTANT
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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR ELEVATIONS
Approved:
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FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: MC
Project Number: 570-21-220
Building Number: 001
Drawing Number: AE422

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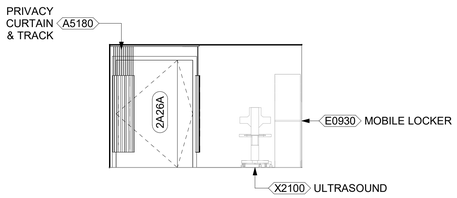
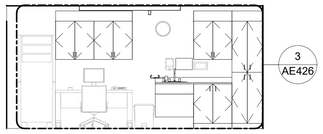
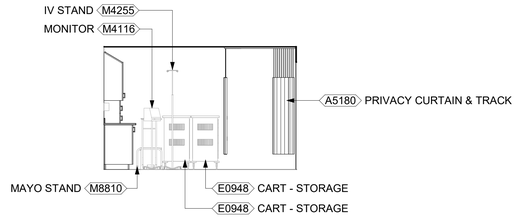


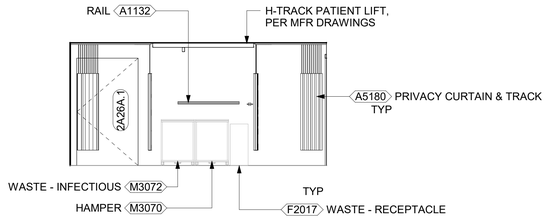
1 2A26A - NORTH ELEVATION
1/4" = 1'-0"



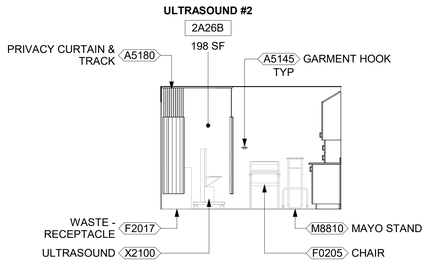
2 2A26A - EAST ELEVATION
1/4" = 1'-0"



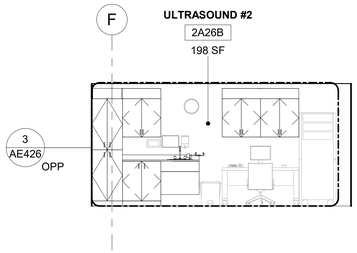
3 2A26A - SOUTH ELEVATION
1/4" = 1'-0"



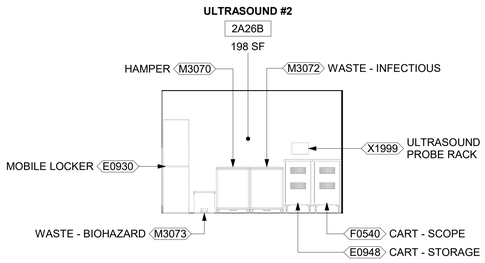
4 2A26A - WEST ELEVATION
1/4" = 1'-0"



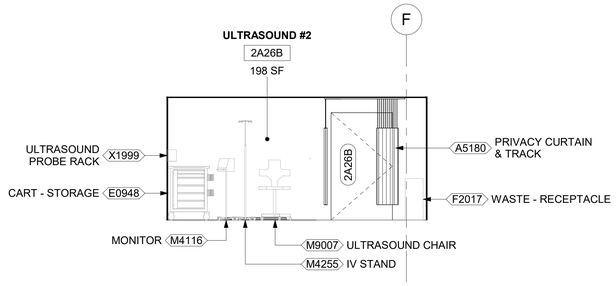
5 2A26B - NORTH ELEVATION
1/4" = 1'-0"



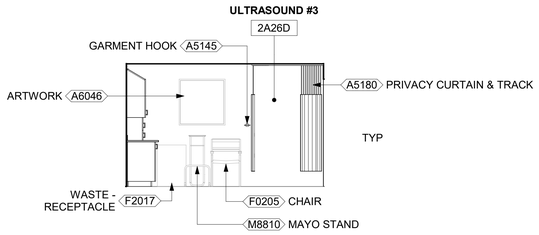
6 2A26B - EAST ELEVATION
1/4" = 1'-0"



7 2A26B - SOUTH ELEVATION
1/4" = 1'-0"



8 2A26B - WEST ELEVATION
1/4" = 1'-0"



9 2A26D - NORTH ELEVATION
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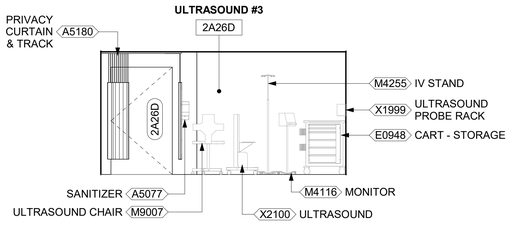
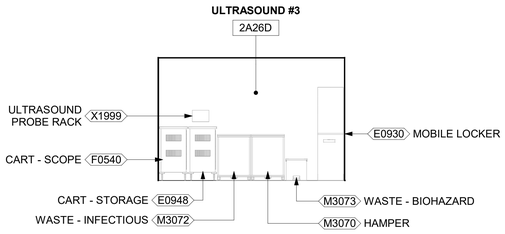
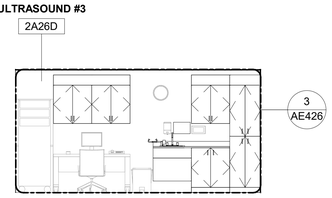


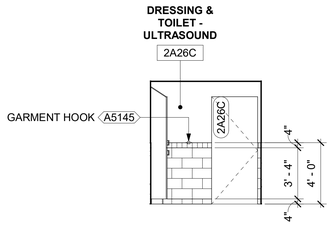
10 2A26D - EAST ELEVATION
1/4" = 1'-0"



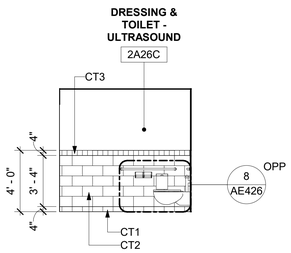
11 2A26D - SOUTH ELEVATION
1/4" = 1'-0"



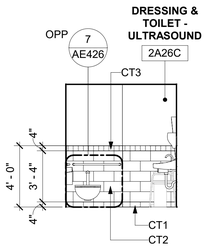
12 2A26D - WEST ELEVATION
1/4" = 1'-0"



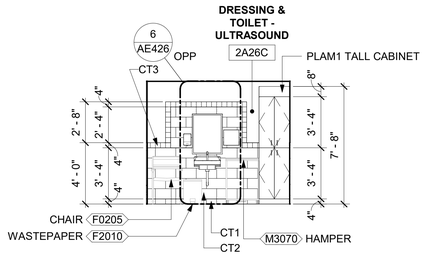
13 2A26C - NORTH ELEVATION
1/4" = 1'-0"



14 2A26C - EAST ELEVATION
1/4" = 1'-0"



15 2A26C - SOUTH ELEVATION
1/4" = 1'-0"



16 2A26C - WEST ELEVATION
1/4" = 1'-0"

Revisions:	Date:

CONSULTANT
ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD
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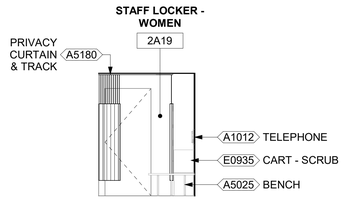
STAMP
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

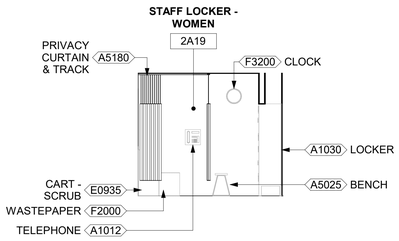
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR ELEVATIONS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: MA
Project Number: 570-21-220
Building Number: 001
Drawing Number: AE423

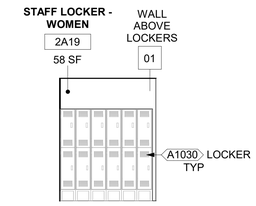
VA FORM 08 - 6231



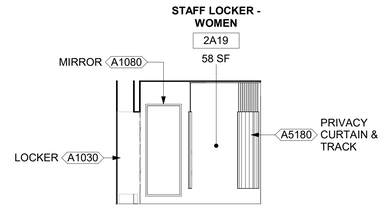
1 2A19 - NORTH ELEVATION
1/4" = 1'-0"



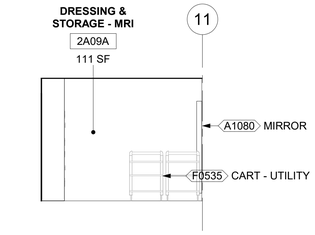
2 2A19 - EAST ELEVATION
1/4" = 1'-0"



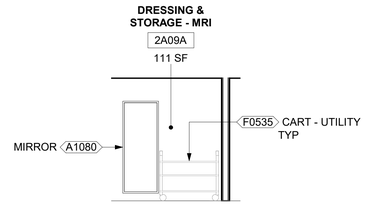
3 2A19 - SOUTH ELEVATION
1/4" = 1'-0"



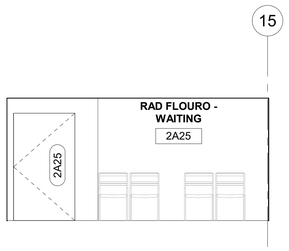
4 2A19 - WEST ELEVATION
1/4" = 1'-0"



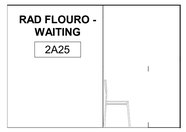
5 2A09A - NORTH ELEVATION
1/4" = 1'-0"



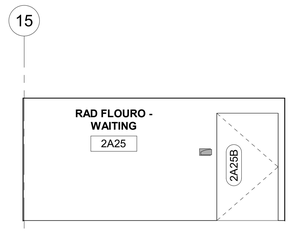
6 2A09A - EAST ELEVATION
1/4" = 1'-0"



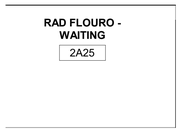
7 2A23C - NORTH ELEVATION
1/4" = 1'-0"



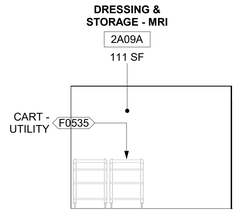
8 2A23C - EAST ELEVATION
1/4" = 1'-0"



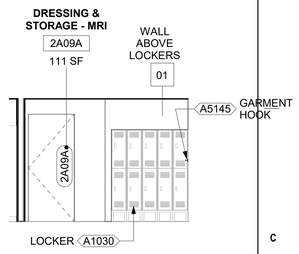
9 2A23C - SOUTH ELEVATION
1/4" = 1'-0"



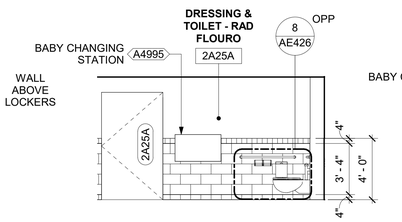
10 2A23C - WEST ELEVATION
1/4" = 1'-0"



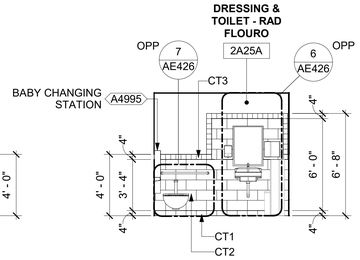
11 2A09A - SOUTH ELEVATION
1/4" = 1'-0"



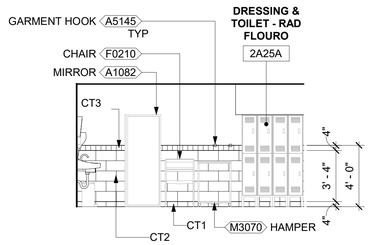
12 2A09A - WEST ELEVATION
1/4" = 1'-0"



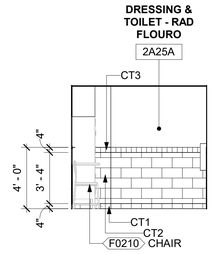
13 2A25A - NORTH ELEVATION
1/4" = 1'-0"



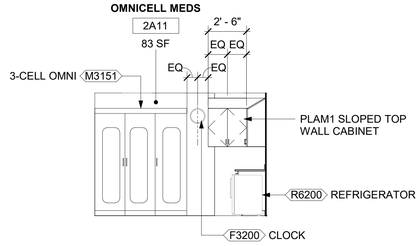
14 2A25A - EAST ELEVATION
1/4" = 1'-0"



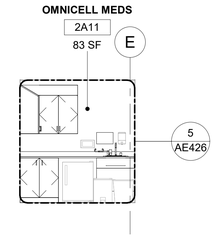
15 2A25A - SOUTH ELEVATION
1/4" = 1'-0"



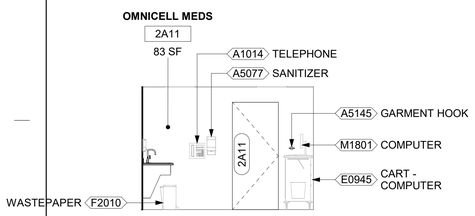
16 2A25A - WEST ELEVATION
1/4" = 1'-0"



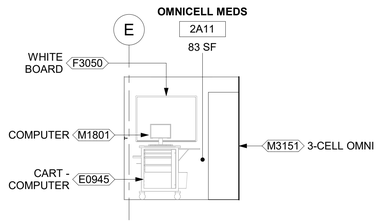
17 2A11 - NORTH ELEVATION
1/4" = 1'-0"



18 2A11 - EAST ELEVATION
1/4" = 1'-0"



19 2A11 - SOUTH ELEVATION
1/4" = 1'-0"



20 2A11 - WEST ELEVATION
1/4" = 1'-0"

Revisions:	Date:

CONSULTANT

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STAMP
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR ELEVATIONS

Approved:

Phase: 100% CD

FULLY SPRINKLERED

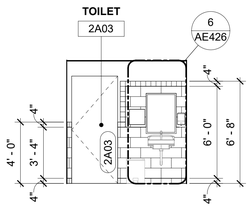
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

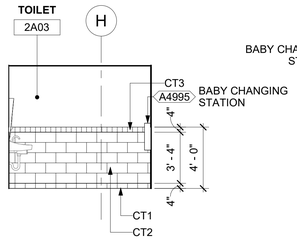
Issue Date: 3/27/2026
Checked: MK
Drawn: AB

Project Number: 570-21-220
Building Number: 001
Drawing Number: AE424

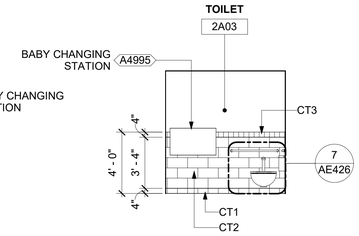
VA FORM 08 - 6231



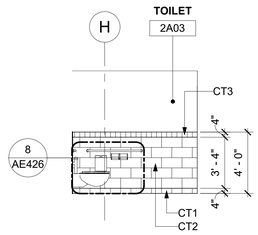
1 2A03 - NORTH ELEVATION
1/4" = 1'-0"



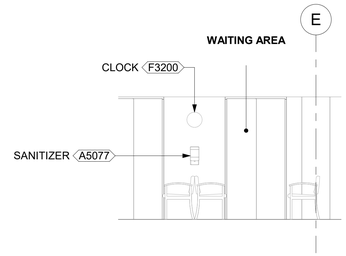
2 2A03 - EAST ELEVATION
1/4" = 1'-0"



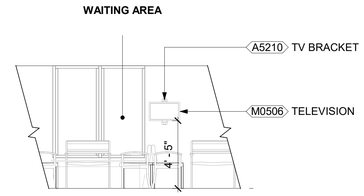
3 2A03 - SOUTH ELEVATION
1/4" = 1'-0"



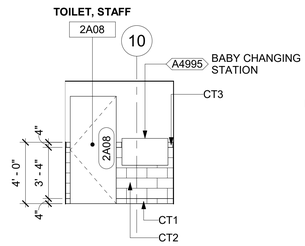
4 2A03 - WEST ELEVATION
1/4" = 1'-0"



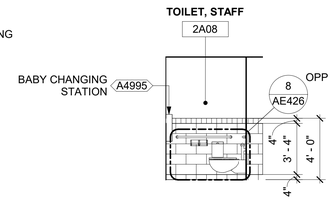
5 WAIT - EAST ELEVATION
1/4" = 1'-0"



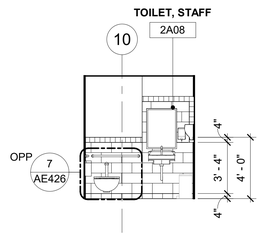
6 WAIT - WEST ELEVATION
1/4" = 1'-0"



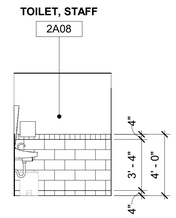
7 2A08 - NORTH ELEVATION
1/4" = 1'-0"



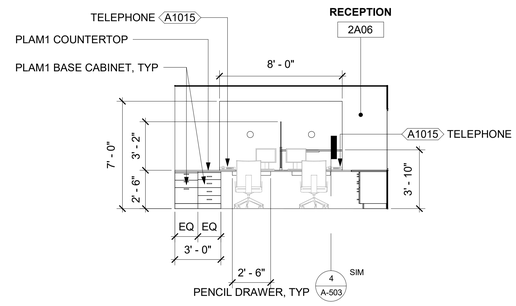
8 2A08 - EAST ELEVATION
1/4" = 1'-0"



9 2A08 - SOUTH ELEVATION
1/4" = 1'-0"



10 2A08 - WEST ELEVATION
1/4" = 1'-0"



11 2A06 - WEST ELEVATION
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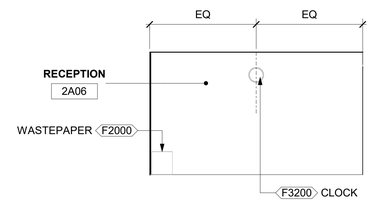
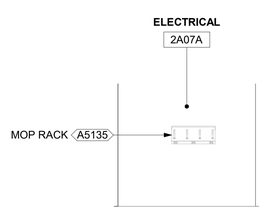


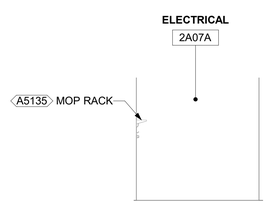
12 2A06 - EAST ELEVATION
1/4" = 1'-0"

13 2A07A - NORTH ELEVATION
1/4" = 1'-0"

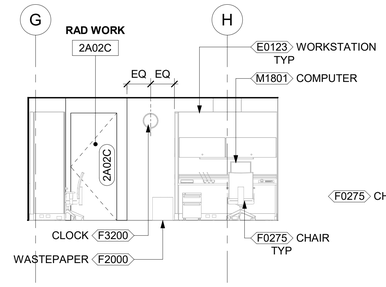
14 2A07A - EAST ELEVATION
1/4" = 1'-0"



15 2A07A - SOUTH ELEVATION
1/4" = 1'-0"



16 2A07A - WEST ELEVATION
1/4" = 1'-0"



17 2A02C - EAST ELEVATION
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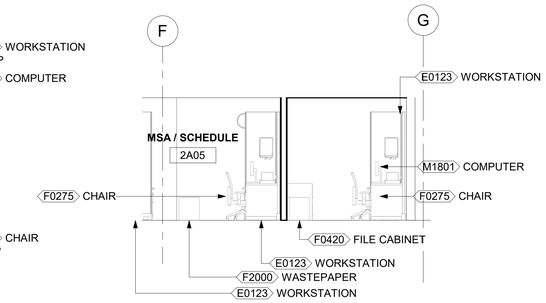

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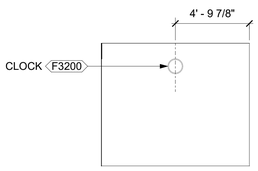
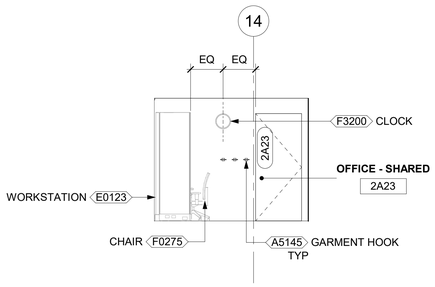
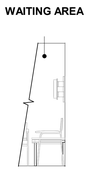


19 2A09C - EAST ELEVATION
1/4" = 1'-0"



20 2A23 - NORTH ELEVATION
1/4" = 1'-0"



21 WAIT - SOUTH ELEVATION
1/4" = 1'-0"

Revisions:	Date:

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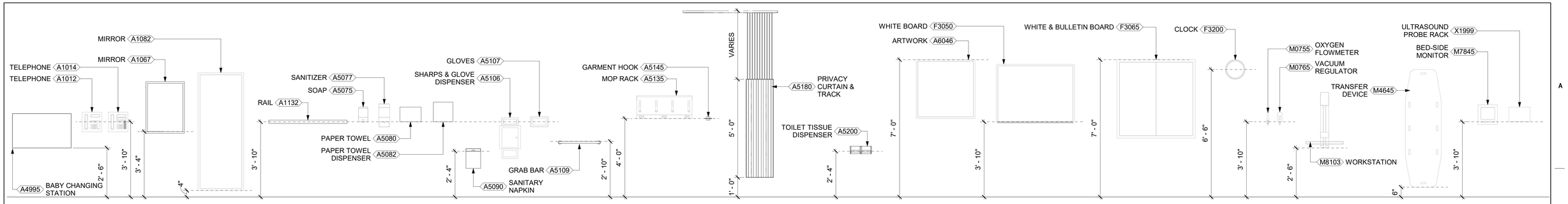
STAMP
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

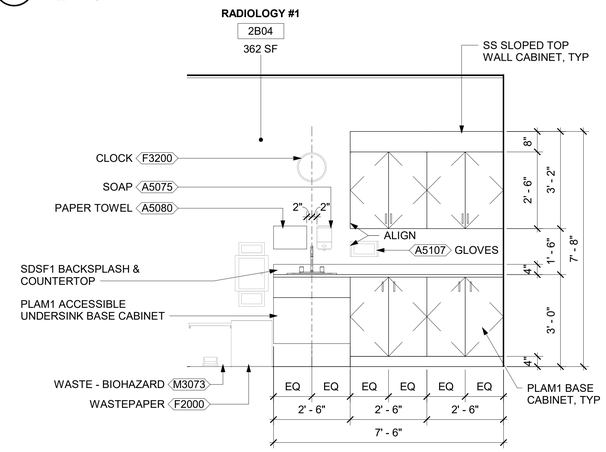
Drawing Title: INTERIOR ELEVATIONS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: AB
Project Number: 570-21-220
Building Number: 001
Drawing Number: AE425

VA FORM 08 - 6231



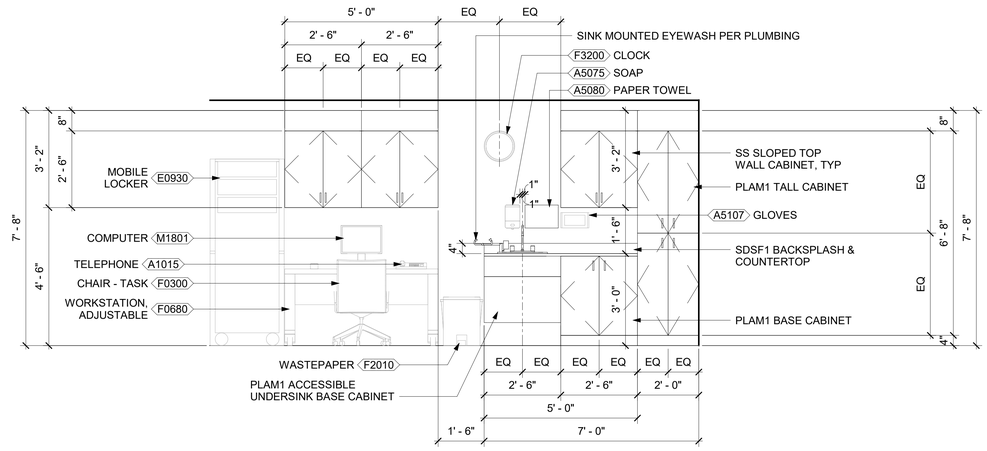
1 TYP MOUNTING HEIGHTS

1/2" = 1'-0"



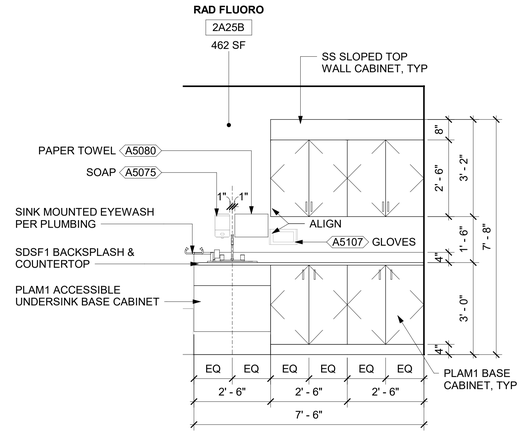
2 TYP ENLARGED ELEVATION - RADIOLOGY CASEWORK

1/2" = 1'-0"



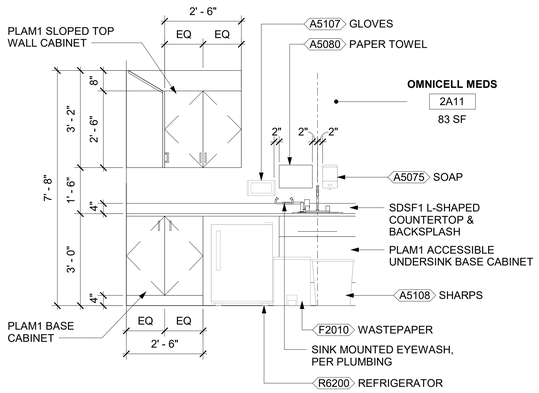
3 TYP ENLARGED ELEVATION - ULTRASOUND CASEWORK

1/2" = 1'-0"



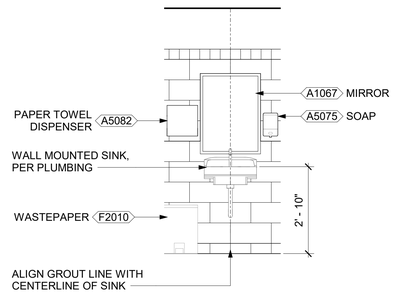
4 ENLARGED ELEVATION - 2A25B EAST

1/2" = 1'-0"



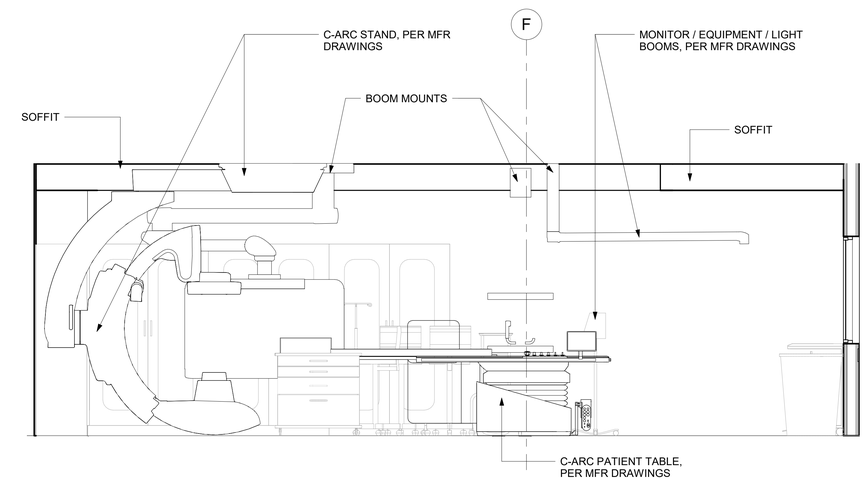
5 ENLARGED ELEVATION - 2A11 EAST

1/2" = 1'-0"



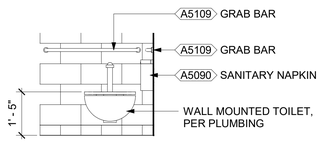
6 TYP ENLARGED ELEVATION - SINK

1/2" = 1'-0"



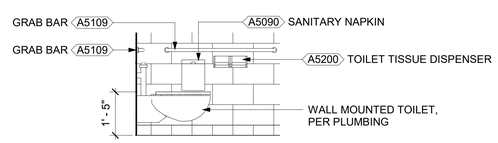
9 2A12B - STERIS AND PHILIPS EQUIPMENT

1/2" = 1'-0"



7 TYP ENLARGED ELEVATION - TOILET BACK WALL

1/2" = 1'-0"



8 TYP ENLARGED ELEVATION - TOILET SIDE WALL

1/2" = 1'-0"

Revisions:	Date:

CONSULTANT

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ARCHITECT/ENGINEER OF RECORD

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SPEESDESIGNBUILD

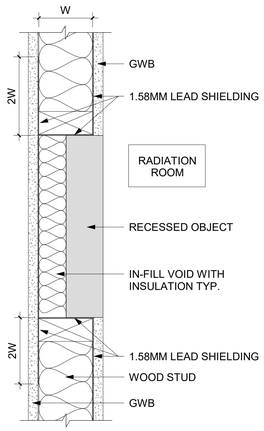
STAMP: 10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

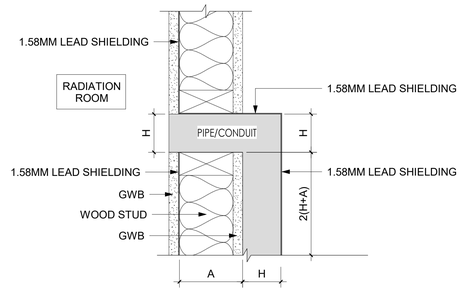
Drawing Title	Phase	Project Title	Project Number
ENLARGED INTERIOR ELEVATIONS	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MK · Drawn: AB	Drawing Number: AE426

VA FORM 08 - 6231



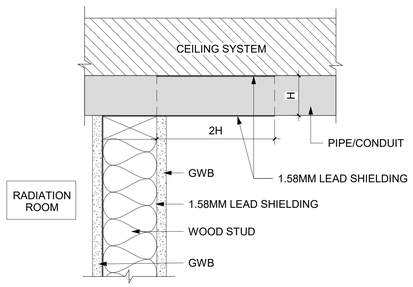
1 LEAD SHIELDING - GENERAL WALL INSTALLATION

NOT TO SCALE



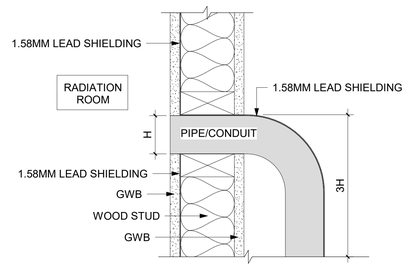
2 LEAD SHIELDING - TYPICAL PENETRATION

NOT TO SCALE



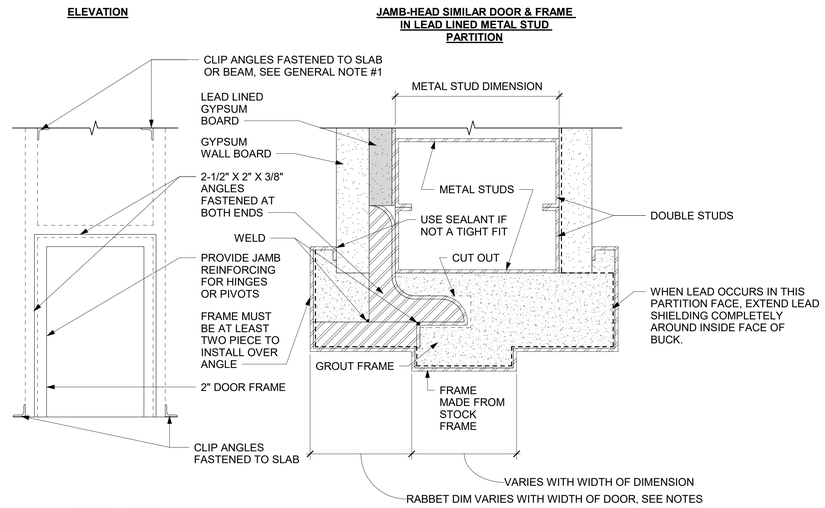
3 LEAD SHIELDING - STRAIGHT PIPE/CONDUIT PENETRATION

NOT TO SCALE



4 LEAD SHIELDING - CURVED ELBOW PENETRATION

NOT TO SCALE



GENERAL NOTES:

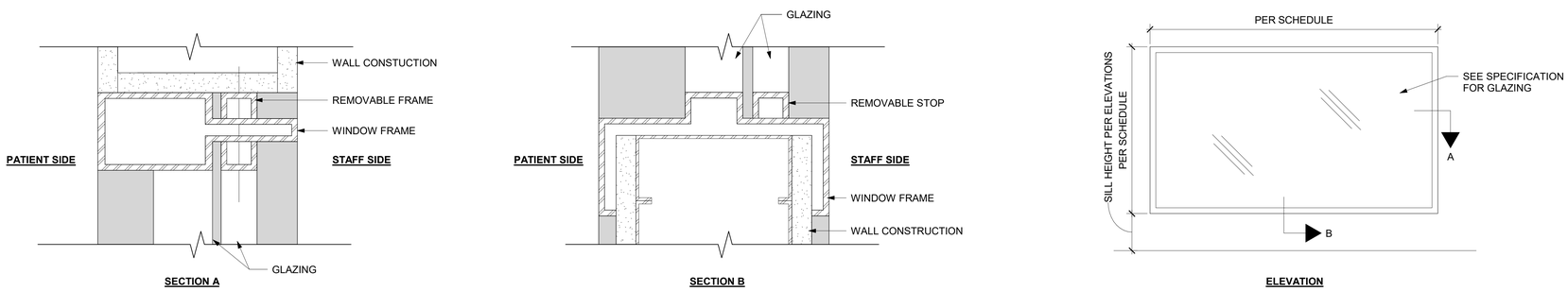
1. SPECIAL ANCHORAGE OF CLIP ANGLES AT INTERSTITIAL DECKS MAY BE REQUIRED.

2. THICKNESS OF LEAD AND LEAD GLASS IN DOORS IS TO BE DETERMINED BY A CERTIFIED MEDICAL/HEALTH PHYSICIST AND REVIEWED BY VA HEALTH PHYSICS PROGRAM.

3. LEAD IS NOT REQUIRED IN THE DOOR HEAD WHEN IT IS ONLY REQUIRED IN WALLS TO 7'-0" HEIGHT.

5 LEAD LINED DOOR TYPE 15 AND FRAME

3/4" = 1'-0"



6 OBSERVATION WINDOWS

1 1/2" = 1'-0"

GENERAL NOTES

1. REFER TO LEAD SHEILDING DESIGN FOR LEAD INSTALLATION INSTRUCTIONS.
2. SHIELDING/SCATTER REPORT HAS BEEN PROVIDED REFER TO APPENDIX A.
3. A COPY OF THE SHELIDING/SCATTER REPORT WILL BE SENT TO THE RADIATION SAFETY OFFICER FOR THIS PROJECT.

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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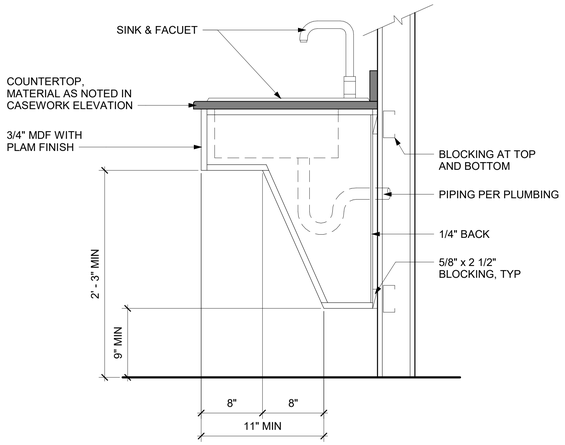
REGISTERED ARCHITECT 10000 JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management

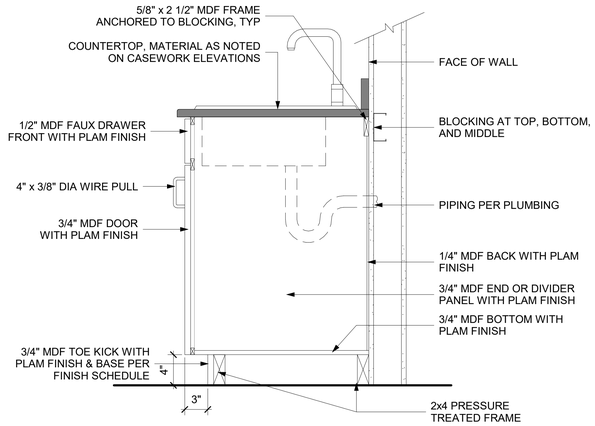
VA U.S. Department of Veterans Affairs

Drawing Title	LEAD SHIELDING DETAILS
Approved:	
Phase	100% CD
	FULLY SPRINKLERED
Project Title	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Project Number	570-21-220
Building Number	001
Location	VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date	3/27/2026
Checked	MK
Drawn	MC
Drawing Number	A-501

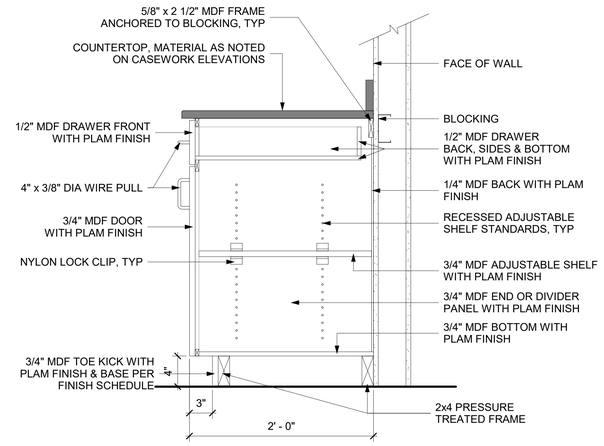
VA FORM 08 - 6231



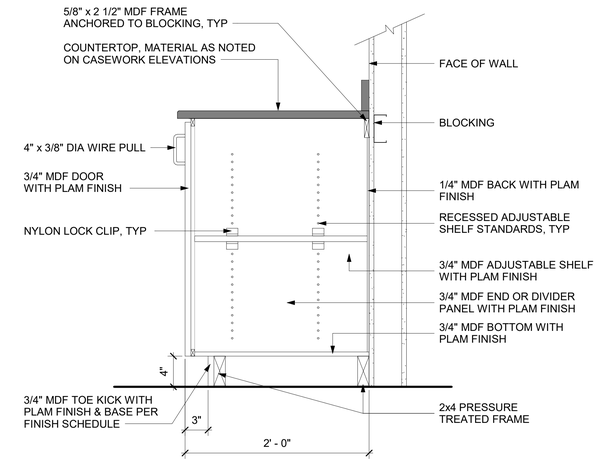
1 BASE CABINET DETAIL - ACCESSIBLE SINK
1 1/2" = 1'-0"



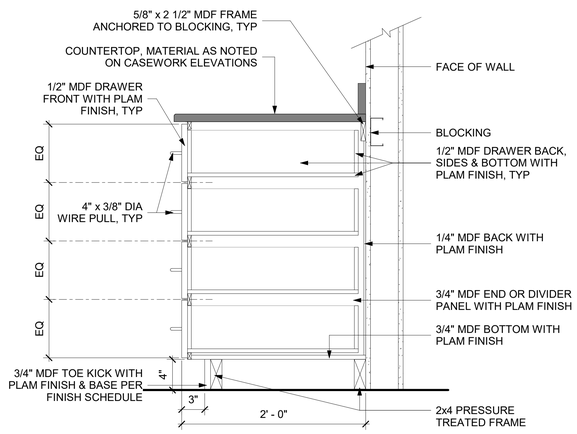
2 BASE CABINET DETAIL - SINK & DOOR
1 1/2" = 1'-0"



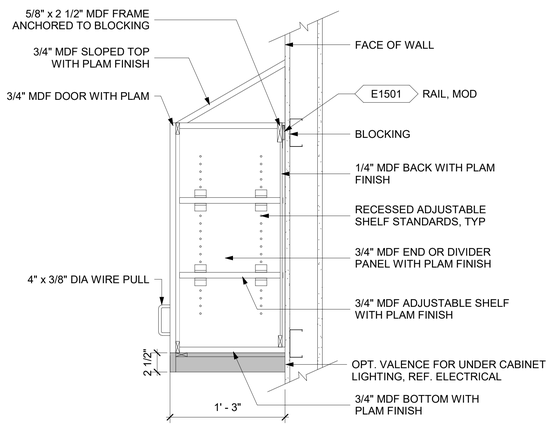
3 BASE CABINET DETAIL - DRAWER & DOOR
1 1/2" = 1'-0"



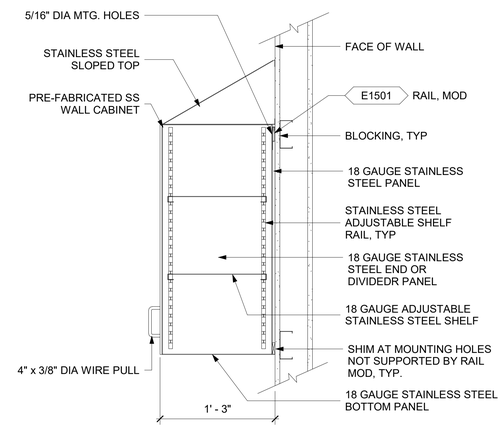
4 BASE CABINET DETAIL - DOOR
1 1/2" = 1'-0"



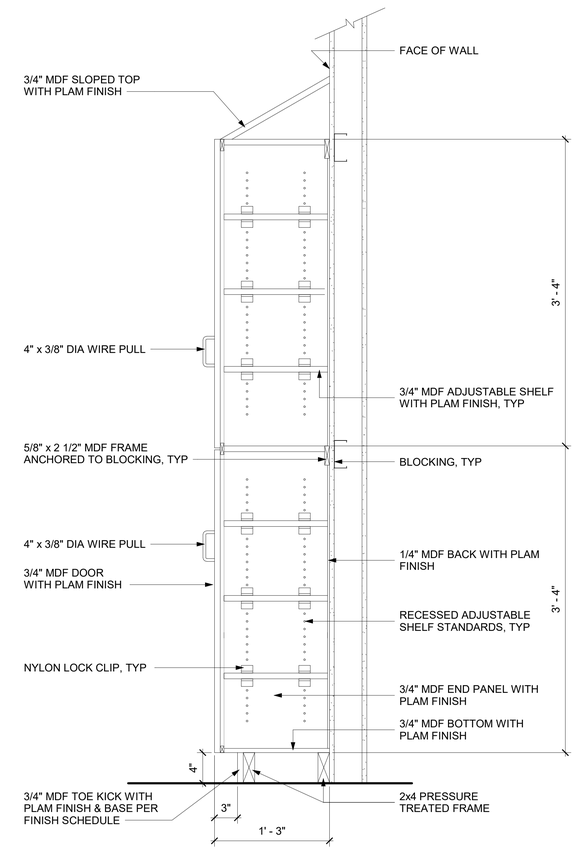
5 BASE CABINET DETAIL - 4 EQ DRAWERS
1 1/2" = 1'-0"



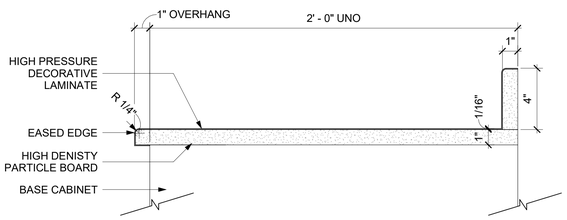
6 PLAM WALL CABINET DETAIL - SLOPED TOP
1 1/2" = 1'-0"



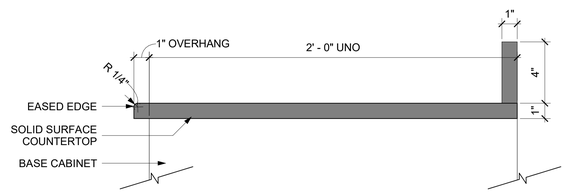
7 SS WALL CABINET DETAIL - SLOPED TOP
1 1/2" = 1'-0"



8 TALL CABINET DETAIL - DOUBLE DOOR
1 1/2" = 1'-0"



9 COUNTERTOP DETAIL - PLASTIC LAMINATE (PLAM)
3" = 1'-0"



10 COUNTERTOP DETAIL - SOLID SURFACE (SDSF)
3" = 1'-0"

Revisions:	Date:

CONSULTANT
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SDB SPEESDESIGNBUILD

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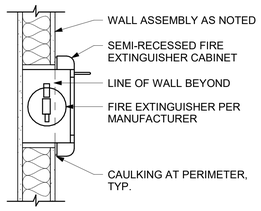
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

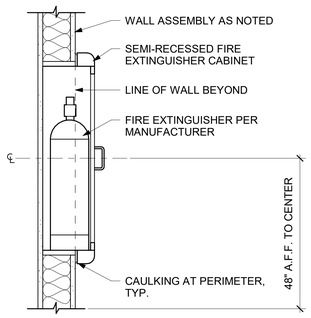
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: CASEWORK DETAILS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: AB
Project Number: 570-21-220
Building Number: 001
Drawing Number: A-502

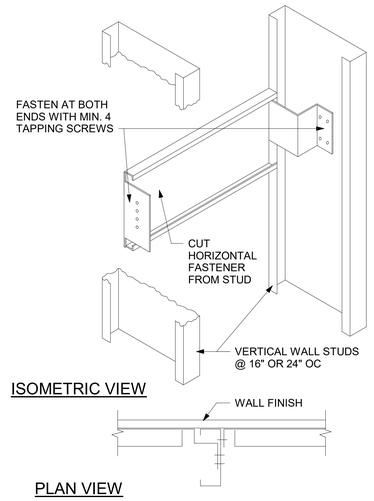
VA FORM 08 - 6231



1 FIRE EXTINGUISHER - PLAN VIEW
1 1/2" = 1'-0"

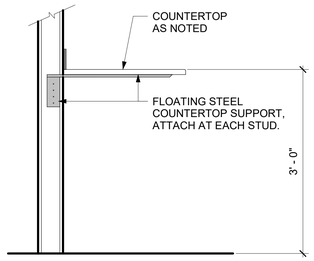


2 FIRE EXTINGUISHER - SECTION VIEW
1 1/2" = 1'-0"

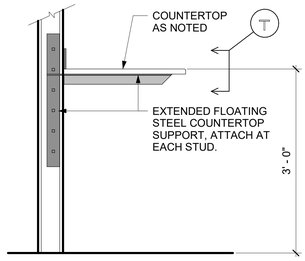


GENERAL NOTE:
CONTRACTOR SHALL COORDINATE LOCATIONS OF HORIZONTAL FASTENERS

3 TYP. BLOCKING DETAIL
1/2" = 1'-0"



4 HIDDEN COUNTERTOP SUPPORT BRACKET
1" = 1'-0"



5 HIDDEN EXTENDED COUNTERTOP SUPPORT BRACKET
1" = 1'-0"

Revisions:	Date:

CONSULTANT
ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD
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STAMP
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: INTERIOR DETAILS
Phase: 100% CD
Approved:
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Project Number: 570-21-220
Building Number: 001
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: MA
Drawing Number: A-503

VA FORM 08 - 6231

ROOM FINISH SCHEDULE

ROOM #	ROOM NAME	CEILING MAT	CEILING FIN	FLOOR MAT	BASE MAT	BASE HT	WAINSCOT MAT	WAINSCOT HT	WALL MAT	WALL FIN	COMMENTS
-	WAITING AREA	EXISTING	--	--	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	NO ADJUSTMENTS TO FINISHES
-	ELEVATOR LOBBY	EXISTING	--	--	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	NO ADJUSTMENTS TO FINISHES
2A02	CORRIDOR	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	PATCH WORK ONLY
2A02B	RADIOLOGY #3	ACT 2x2	--	WSF	INTEGRAL WSF	4"	--	--	GYP	P	STC 40
2A02C	RAD WORK	ACT 2x2	--	WSF	RB	4"	--	--	GYP	P	
2A02D.1	CHAPEL STORAGE	EXISTING	--	VT	RB	4"	--	--	GYP	P	
2A03	TOILET	ACT 2x2	--	PT	PT	4"	CT	4'-0"	GYP	P	STC 40
2A05	MSA / SCHEDULE	ACT 2x2	--	CPT	RB	4"	--	--	GYP	P	
2A05A	MSA / SCHEDULE	ACT 2x2	--	CPT	RB	4"	--	--	GYP	P	
2A06	RECEPTION	ACT 2x2	--	CPT	PRB	4"	--	--	GYP	P	
2A07A	ELECTRICAL	EXPOSED	--	SVT	SVT	4"	CT	4'-0"	GYP	SC	
2A08	TOILET, STAFF	ACT 2x2	--	PT	PT	4"	CT	4'-0"	GYP	P	
2A09	MRI ZONE II	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	PATCH WORK ONLY
2A09A	DRESSING & STORAGE - MRI	ACT 2x2	--	LVT	RB	4"	--	--	GYP	P	
2A09B	SYSTEM COMPONENT - CATH LAB	EXPOSED	SC	RES-3	INTEGRAL RES-3	4"	--	--	GYP	SC	
2A11	OMNICELL MEDS	ACT 2x2	SP	WSF	INTEGRAL WSF	4"	--	--	GYP	SC	
2A12	CORRIDOR	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	PATCH WORK ONLY
2A12A	SCRUB ALCOVE	EXISTING	--	RES-3	INTEGRAL RES-3	4"	S	5'-0"	GYP	SC	
2A12B	CATH LAB	GYP	SC	RES-3	RF INTEGRAL RES-3	6"	--	--	GYP	SC	STC 35 TO COOR, STC 50 TO ADJ ROOMS
2A12B.1	STORAGE - CATH LAB	GYP	--	RES-3	INTEGRAL RES-3	4"	RWC	4'-0"	GYP	P	STC 35 TO COOR, STC 50 TO ADJ ROOMS
2A12C	CONTROL - CATH LAB	GYP	SC	RES-3	INTEGRAL RES-3	4"	--	--	GYP	SC	
2A12D	COMM	EXISTING	--	--	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	
2A13	TOILET - PRE-OPERATIVE & RECOVERY	ACT 2x2	SP	PT	PT	4"	PT	4'-0"	GYP	SC	STC 40
2A16	PRE-OPERATIVE & RECOVERY	ACT 2x2	SP	WSF	INTEGRAL WSF	6"	--	--	GYP	SC	STC 35
2A16A	CARDIOLOGY WORK	EXISTING	--	EPY	RB	4"	RWC	4'-0"	GYP	SC	
2A19	STAFF LOCKER - WOMEN	ACT 2x2	--	PT	PT	4"	--	--	GYP	P	
2A20	STAFF LOCKER - MEN	ACT 2x2	--	WSF	RB	4"	--	--	GYP	P	
2A23	OFFICE - SHARED	ACT 2x2	--	CPT	RB	4"	--	--	GYP	P	
2A25	RAD FLOURO - WAITING	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	
2A25A	DRESSING & TOILET - RAD FLOURO	ACT 2x2	--	PT	PT	4"	CT	4'-0"	GYP	P	STC 40
2A25B	RAD FLUORO	ACT 2x2	--	WSF	INTEGRAL WSF	4"	--	--	GYP	P	STC 40
2A26	CORRIDOR	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	
2A26A	ULTRASOUND #1										
2A26B	ULTRASOUND #2	ACT 2x2	--	WSF	INTEGRAL WSF	4"	--	--	GYP	P	STC 40
2A26C	DRESSING & TOILET - ULTRASOUND	ACT 2x2	--	PT	PT	4"	CT	4'-0"	GYP	P	STC 40
2A26D	ULTRASOUND #3	ACT 2x2	--	WSF	INTEGRAL WSF	4"	--	--	GYP	P	STC 40
2A26E	CONTROL - ULTRASOUND	ACT 2x2	--	WSF	RB	4"	--	--	GYP	P	
2A-1	CORRIDOR	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	PATCH WORK ONLY
2A-1A	CHARGING ALCOVE	ACT 2x2	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	
2A-2	CORRIDOR	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	PATCH WORK ONLY
2B1	CORRIDOR	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	PATCH WORK ONLY
2B01	STORAGE - RADIOLOGY	ACT 2x2	--	WSF	INTEGRAL WSF	4"	RWC	4'-0"	GYP	P	STC 40
2B02	RADIOLOGY #2	ACT 2x2	--	WSF	INTEGRAL WSF	4"	--	--	GYP	P	STC 40
2B04	RADIOLOGY #1	ACT 2x2	--	WSF	INTEGRAL WSF	4"	--	--	GYP	P	STC 40
2B-1	CORRIDOR	EXISTING	--	MATCH ADJ EXIST	MATCH ADJ EXIST	--	MATCH ADJ	MATCH ADJ	MATCH ADJ EXIST	MATCH ADJ EXIST	PATCH WORK ONLY

FINISH ABBREVIATIONS

A(C)T	ACOUSTICAL CEILING TILE
GYP	GYPSUM BOARD
P	PAINT
RES	RESINOUS
SC/SP	SPECIAL COATING
WSF	WELDED SHEET FLOORING
CPT	CARPET
VT	VINYL TILE
LVT	LUXURY VINYL TILE
SVT	SHEET VINYL TILE
EPY	EPOXY FLOORING
PT	PORCELAIN TILE
CT	CERAMIC TILE
RWC	RIGID WALL COVERING
RB	RUBBER BASE
S	SOLID SURFACE

Revisions: Date:

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3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ROOM FINISH SCHEDULE

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

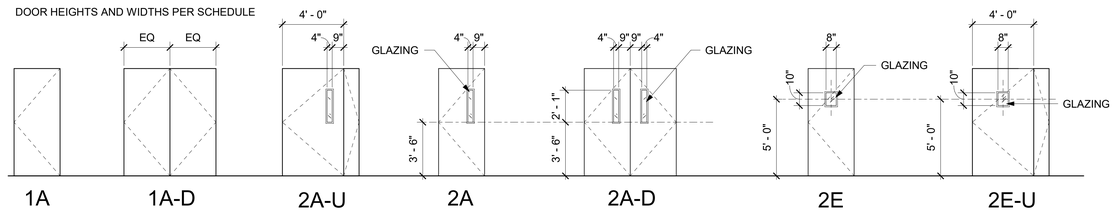
Issue Date: 3/27/2026

Checked: MK

Drawn: AK

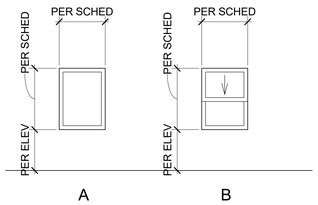
Drawing Number: A-601

VA FORM 08 - 6231



1 DOOR TYPES

1/4" = 1'-0"



2 WINDOW TYPES

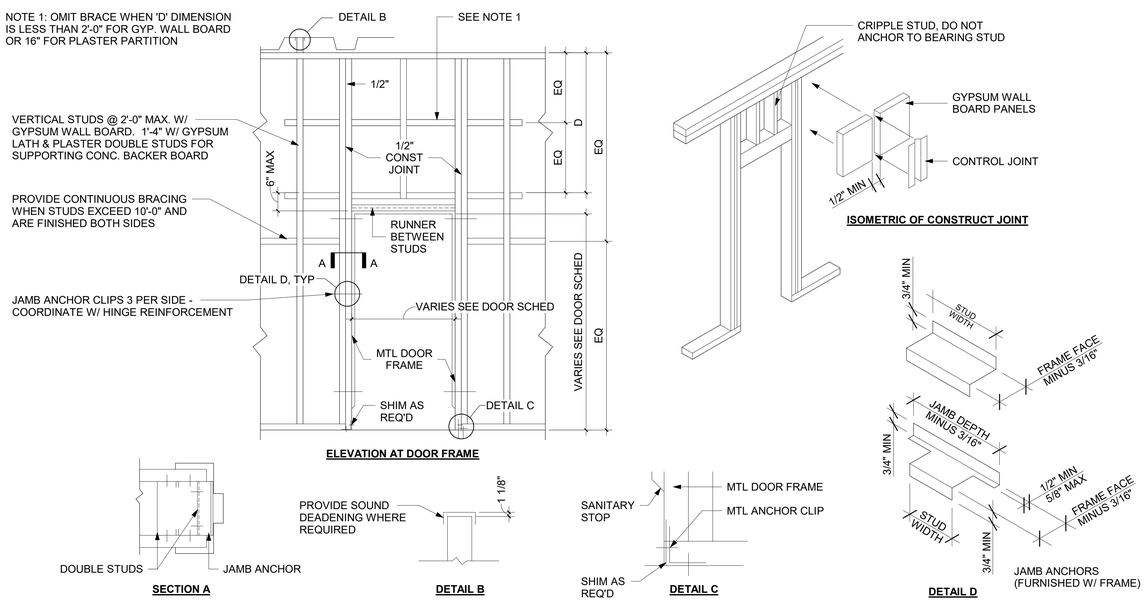
1/4" = 1'-0"

WINDOW SCHEDULE

MARK	TYPE	WIDTH	HEIGHT	COMMENTS
W1	A	2' - 0"	3' - 6"	LEAD LINED
W3	A	5' - 0"	3' - 6"	LEAD LINED
W5	A	5' - 0"	3' - 6"	LEAD LINED
W7	A	5' - 0"	4' - 0"	

DOOR SCHEDULE

MARK	ROOM #	ROOM NAME	DOOR SIZE WIDTH	DOOR SIZE HT	DOOR SIZE THK	DOOR TYPE	GLAZING TYPE	HW SET	MATERIAL DOOR	MATERIAL FRAME	FIRE RATING	SOUND RATING	COMMENTS
LEVEL 2													
2A02B	2A02B	RADIOLOGY #3	4' - 0"	7' - 0"	0' - 2"	2E	LEAD LINED	4Q	WOOD	HM		STC 40	LEAD LINED
2A02C	2A02C	RAD WORK	3' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2A02D.1	2A02D.1	CHAPEL STORAGE	2' - 8"	7' - 0"	0' - 2"	1A	--	5	WOOD	HM			
2A03	2A03	TOILET	3' - 0"	7' - 0"	0' - 2"	1A	--	2	WOOD	HM			
2A05	2A05	MSA / SCHEDULE	3' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2A05A	2A05A	MSA / SCHEDULE	3' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2A06	2A06	RECEPTION	3' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2A07	2A07	MRI ZONE III PREP AREA	4' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2A07A	2A07A	ELECTRICAL	3' - 0"	7' - 0"	0' - 2"	1A	--	SH-3D	WOOD	HM	45 MIN		
2A08	2A08	TOILET, STAFF	3' - 0"	7' - 0"	0' - 2"	1A	--	2	WOOD	HM			
2A09A	2A09A	DRESSING & STORAGE - MRI	3' - 0"	7' - 0"	0' - 2"	1A	--	2H	WOOD	HM	45 MIN		
2A09B	2A09B	SYSTEM COMPONENT - CATH LAB	4' - 0"	7' - 0"	0' - 2"	1A	--	5D	WOOD	HM	45 MIN		
2A11	2A11	OMNICELL MEDS	3' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	SH-3D	WOOD	HM			ACCESS CONTROL: CARD READER
2A12	2A12	CORRIDOR	6' - 0"	7' - 0"	0' - 2"	2A-D	TEMPERED	SH-10A	WOOD	HM			INTEGRATED DOOR ASSEMBLY
2A12A	2A12A	SCRUB ALCOVE	3' - 4"	7' - 0"	0' - 2"	2A	TEMPERED	4K	WOOD	HM			
2A12B	2A12B	CATH LAB	6' - 0"	7' - 0"	0' - 2"	2A-D	LEAD LINED	10H	WOOD	HM		STC 35	LEAD LINED AUTOMATIC OPERATOR: PUSH PLATE
2A12B.1	2A12B	CATH LAB	3' - 4"	7' - 0"	0' - 2"	2A	LEAD LINED	4Q	WOOD	HM		STC 50	LEAD LINED
2A13	2A13	TOILET - PRE-OPERATIVE & RECOVERY	3' - 0"	7' - 0"	0' - 2"	1A	--	2	WOOD	HM		STC 40	
2A16	2A16	PRE-OPERATIVE & RECOVERY	6' - 0"	7' - 0"	0' - 2"	2A-D	TEMPERED	12C	WOOD	HM			INTEGRATED DOOR ASSEMBLY AUTOMATIC OPERATOR: PUSH PLATE
2A19	2A19	STAFF LOCKER - WOMEN	3' - 0"	7' - 0"	0' - 2"	1A	--	SH-4	WOOD	HM			INTEGRATED DOOR ASSEMBLY ACCESS CONTROL: CARD READER
2A20	2A20	STAFF LOCKER - MEN	3' - 0"	7' - 0"	0' - 2"	1A	--	SH-4	WOOD	HM			INTEGRATED DOOR ASSEMBLY ACCESS CONTROL: CARD READER
2A23	2A23	OFFICE - SHARED	3' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2A25	2A25	RAD FLOURO - WAITING	4' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2A25A	2A25A	DRESSING & TOILET - RAD FLOURO	4' - 0"	7' - 0"	0' - 2"	1A	--	2J	WOOD	HM			
2A25B	2A25B	RAD FLUORO	4' - 0"	7' - 0"	0' - 2"	2E	LEAD LINED	4Q	WOOD	HM		STC 40	LEAD LINED DOOR
2A26	2A26	CORRIDOR	6' - 0"	7' - 0"	0' - 2"	2A-D	TEMPERED	12C	WOOD	HM			INTEGRATED DOOR ASSEMBLY AUTOMATIC OPERATOR: PUSH PLATE
2A26A	2A26A	ULTRASOUND #1	5' - 0"	7' - 0"	0' - 2"	2A-U	TEMPERED	10C	WOOD	HM		STC 40	LEAD LINED DOOR
2A26A.1	2A26A	ULTRASOUND #1	4' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	4K	WOOD	HM		STC 40	LEAD LINED
2A26B	2A26B	ULTRASOUND #2	4' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	4K	WOOD	HM		STC 40	LEAD LINED
2A26C	2A26C	DRESSING & TOILET - ULTRASOUND	3' - 0"	7' - 0"	0' - 2"	1A	--	2J	WOOD	HM		STC 40	
2A26D	2A26D	ULTRASOUND #3	4' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	4K	WOOD	HM		STC 40	LEAD LINED
2A26E	2A26E	CONTROL - ULTRASOUND	3' - 0"	7' - 0"	0' - 2"	2A	TEMPERED	3E	WOOD	HM			
2B01	2B01	STORAGE - RADIOLOGY	3' - 8"	7' - 0"	0' - 2"	2A	FIRE RATED	4F	WOOD	HM	45 MIN	STC 40	LEAD LINED DOOR
2B02	2B02	RADIOLOGY #2	4' - 0"	7' - 0"	0' - 2"	2E	LEAD LINED	4Q	WOOD	HM		STC 40	LEAD LINED
2B04	2B04	RADIOLOGY #1	5' - 0"	7' - 0"	0' - 2"	2E-U	LEAD LINED	10E	WOOD	HM		STC 40	LEAD LINED
LEVEL 3													
3A-1	3A-1	CORRIDOR	3' - 6"	7' - 0"	0' - 2"	1A		3E	STL	HM			



3 PARTITION FRAMING AT DOORS

3/4" = 1'-0"

GENERAL NOTES

1. SEE SPECIFICATION SECTION 08 71 00 - DOOR HARDWARE FOR HW SETS.
2. SILL HEIGHTS PER INTERIOR ELEVATIONS.

Revisions:	Date:

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STAMP: 10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: DOOR AND WINDOW SCHEDULES, TYPES & DETAILS

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Project Number: 570-21-220

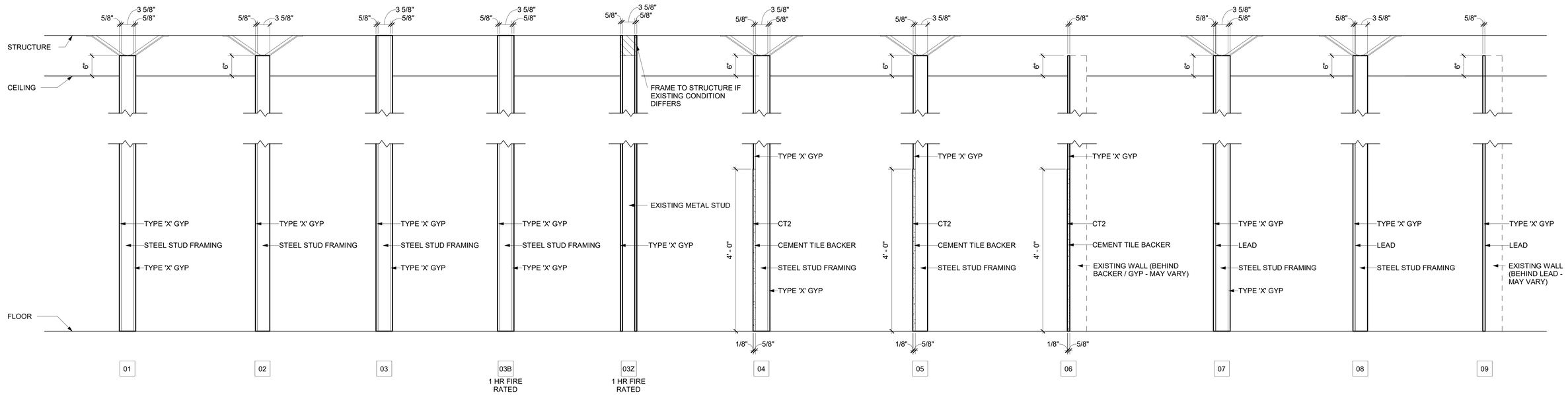
Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Drawing Number: A-602

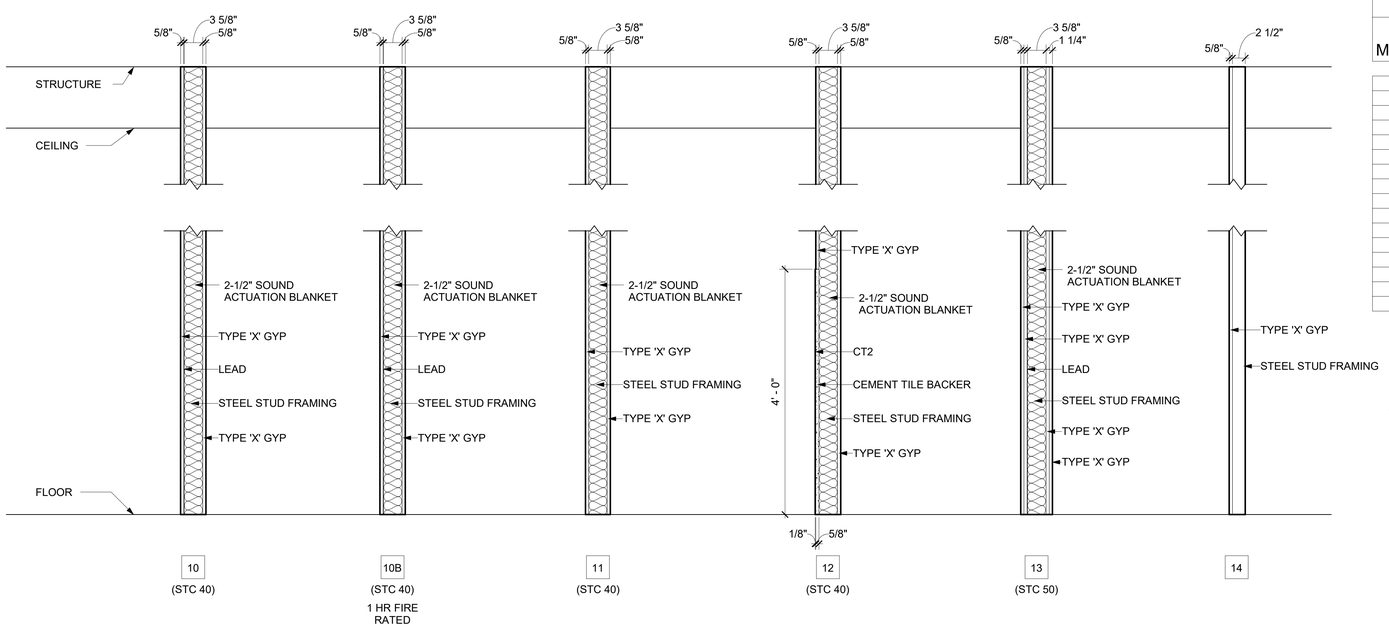
Issue Date: 3/27/2026 | Checked: MK | Drawn: AK

VA FORM 08 - 6231



1 WALL TYPES

1" = 1'-0"

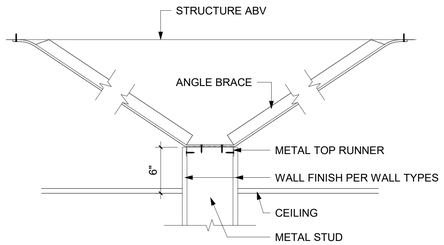


3 WALL TYPES (CONT.)

1" = 1'-0"

WALL SCHEDULE

MARK	PARTITION CODE	DESCRIPTION	WIDTH	FIRE RATING FR	FIRE RATING SOURCE	SOUND RATING STC	SOUND RATING SOURCE	COMMENTS
01	09P4101	3-5/8" MTL STUD, 5/8" GYP EA SIDE, "6 ABV CLG	0' - 4 7/8"					
02	09P4102	3-5/8" MTL STUD, 5/8" GYP ONE SIDE, "6 ABV CLG	0' - 4 1/4"					
03	09P4103	3-5/8" MTL STUD, 5/8" GYP EA SIDE, FULL HEIGHT	0' - 4 7/8"					
03B	09P4103B	3-5/8" MTL STUD, 5/8" GYP EA SIDE, FULL HEIGHT	0' - 4 7/8"	1 HR				
03Z	09P4103B	3-5/8" MTL STUD, 5/8" GYP EA SIDE, FULL HEIGHT	0' - 0 5/8"	1 HR				
04	09P4304	3-5/8" MTL STUD, 5/8" GYP ONE SIDE, TILE ONE SIDE, "6 ABV CLG						
05	09P4305	3-5/8" MTL STUD, 5/8" TILE ONE SIDE, "6 ABV CLG						
06	09P0306	NO MTL STUD, TILE AND BACKER ONLY						
08	09P4408	3-5/8" MTL STUD, 5/8" GYP AND LEAD, ONE SIDE, "6 ABV CLG	0' - 4 11/32"					
09	09P0409	NO MTL STUD, 5/8" GYP AND LEAD ONLY	0' - 0 23/32"					
10	09P4410	3-5/8" MTL STUD, 5/8" GYP EA SIDE WITH LEAD, ONE SIDE, "6 ABV CLG	0' - 4 31/32"			40	PG 18-3	
10B	09P4410	3-5/8" MTL STUD, 5/8" GYP EA SIDE WITH LEAD, ONE SIDE, "6 ABV CLG	0' - 4 31/32"	1 HR		40	PG 18-3	
11	09P4111	3-5/8" MTL STUD, 5/8" GYP EA SIDE, FULL HEIGHT	0' - 4 7/8"			40	PG 18-3	
12	09P4304	3-5/8" MTL STUD, 5/8" GYP ONE SIDE, TILE ONE SIDE, "6 ABV CLG						
13	09P4413	3-5/8" MTL STUD, 5/8" GYP EA SIDE WITH LEAD, ONE SIDE, "6 ABV CLG	0' - 6 7/32"			50	PG 18-3	
14	09P2114	2-1/2" MTL STUD, 5/8" GYP ONE SIDE, "6 ABV CLG	0' - 3 1/8"					



2 WALL CONNECTION TO STRUCT. DETAIL, TYP

1 1/2" = 1'-0"

PARTITION CODE LEGEND

EXAMPLE PARTITION CODE: **09P4107b**

- **09** - SPECIFICATION CATEGORY
- **P** - DETAIL TYPE CATEGORY
- **4** - NOMINAL SIZE
- **1** - PARTITION CATEGORY
- **07** - SEQUENCE NUMBER
- **b** - FIRE / SMOKE RATING

SPECIFICATION CATEGORY
- 03 CONCRETE
- 04 MASONRY
- 09 METAL STUD

DETAIL TYPE CATEGORY
- P PARTITION

NOMINAL SIZE
- 1 SIZE 1"
- 2 SIZE 2"
- 4 SIZE 4"
- 6 SIZE 6"
- 8 SIZE 8"

PARTITION CATEGORY
- 1 WITHOUT INSULATION
- 2 WITH INSULATION
- 3 TILE
- 4 LEAD LINED
- 5 SECURITY MESH
- 6 USER DEFINED/COMBOS
- 7 USER DEFINED/COMBOS

FIRE / SMOKE / SOUND RATING
- a SMOKE RATED
- b 1HR FIRE RATED
- c 1HR FIRE & SMOKED RATED
- d 2HR FIRE RATED
- e 2HR FIRE & SMOKE RATED
- f SOUND RATED
- g SOUND & SMOKE RATED
- h SOUND & 1HR FIRE RATED
- i SOUND & 1HR FIRE & SMOKE RATED
- j SOUND & 2HR FIRE RATED
- k SOUND & 2HR FIRE & SMOKE RATED

Revisions: | Date:

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3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: WALL ASSEMBLY SCHEDULE & TYPES

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026 | Checked: MK | Drawn: AK

Project Number: 570-21-220

Building Number: 001

Drawing Number: A-603

VA FORM 08 - 6231

SPECIALTY EQUIPMENT SCHEDULE

MARK	FURN / INST BY	POWER / DATA	NAME	DESCRIPTION
A1012	VV	YY	TELEPHONE	TELEPHONE, WALL MOUNTED, 1 LINE.
A1014	VV	YY	TELEPHONE	TELEPHONE, WALL MOUNTED, 1 LINE, WITH SPEAKER.
A1015	VV	YY	TELEPHONE	TELEPHONE, DESK, MULTIPLE LINE.
A1030	VV	NN	LOCKER	TWO PERSON LOCKER, DOUBLE TIER, 72Hx12Wx18D. THIS UNIT INCLUDES HOOKS FOR COATS AND HATS. DOOR EQUIPPED WITH SAFETY GUARD HANDLES.
A1067	CC	NN	MIRROR	A HIGH QUALITY 1/4" POLISHED FLOAT GLASS MIRROR WITH A STAINLESS-STEEL FRAME. FRAME HOLDS MIRROR IN A TILTED POSITION FOR ACCESSIBILITY AND COMPLIANCE WITH ADA REQUIREMENTS. MIRROR HAS A GALVANIZED STEEL BACK SECURED TO FRAME WITH CONCEALED SCREWS WITH INTEGRAL HORIZONTAL HANGING BRACKETS. MIRROR SHALL BE APPROXIMATELY 18" WIDE AND 36" HIGH.
A1080	CC	NN	MIRROR	WALL MOUNTED POSTURE MIRROR. CONSISTS OF A 1/4" PLATE GLASS IN A STURDY CORROSION RESISTANT FRAME WITH WATERPROOF BACK.
A1082	VV	NN	MIRROR	MOBILE SINGLE PANEL FULL-BODY MIRROR CONSTRUCTED OF HIGH QUALITY, DISTORTION-FREE GLASS WITH ANSI SAFETY BACKING. FRAMED IN FINISHED OAK LAMINATE FRAME AND BASE, MOUNTED ON TWO INCH DIAMETER SWIVELING CASTERS.
A1132	VC	NN	RAIL	HORIZONTAL EQUIPMENT MOUNTING RAIL WITH LOCK MOUNTING DEVICES CAPABLE OF; SUPPORTING UP TO 75 POUNDS EACH, BEING REPOSITIONED, AND MOUNTING AND DISMOUNTING OF EQUIPMENT WITHOUT THE USE OF TOOLS (SPECIAL TOOLS MAY BE REQUIRED TO UNLOCK ADAPTER THAT WAS PREVIOUSLY LOCKED TO THE RAIL). THE RAIL MUST BE CAPABLE OF SUPPORTING MEDICAL EQUIPMENT AND ACCESSORIES NORMALLY FOUND IN EXAM OR PATIENT ROOMS. THE RAIL SYSTEM MUST BE CAPABLE OF MOUNTING AND DISMOUNTING EQUIPMENT WITHOUT LEAVING OR CREATING NEW HOLES IN THE FINISHED SURFACE OF THE WALL. THE RAIL SYSTEM UTILIZES A SERIES OF MOUNTING PLATES AND ADAPTERS SPECIFIC TO THE DEVICE BEING MOUNTED TO THE RAIL. THE PLATE AND ADAPTER RAIL MOUNTING KIT MUST BE SPECIFIED TO MATCH THE EQUIPMENT BEING MOUNTED TO THE EQUIPMENT RAIL.
A4995	VC	NN	BABY CHANGING STATION	WALL MOUNTED DIAPER CHANGING TABLE FOR USE IN PUBLIC RESTROOMS. UNIT IS A FOLD DOWN SYSTEM THAT FOLDS UPWARD WHEN NOT IN USE FOR MINIMAL INTRUSION INTO THE ROOM. CHANGING SURFACE IS CONTOURED AND HAS SAFETY BELT TO INSURE THAT AN INFANT WILL NOT FALL FROM THE TABLE. TABLE IS DESIGNED TO HOLD NO LESS THAN 250 POUNDS STATIC WEIGHT. CLOSED DIMENSIONS ARE APPROXIMATELY 21" H X 36" W X 5" D. OPEN DIMENSIONS VARY ACCORDING TO STYLE. ONE SYSTEM'S OPEN DIMENSIONS ARE 15 " HIGH, 32" WIDE AND 19" DEEP.
A5025	VV	NN	BENCH	PORTABLE LOCKER ROOM BENCH. APPROXIMATELY 1-1/2" THICK. BENCHES SHALL BE LAMINATED HARDWOOD WITH A MOISTURE RESISTANT SEALER OR ANODIZED ALUMINUM UNITS ARE MOUNTED ON STRONG PEDESTALS.
A5075	VV	NN	SOAP	DISPENSER, SOAP, DISPOSABLE
A5077	VV	NN	SANITIZER	SANITIZER DISPENSER
A5080	CC	NN	PAPER TOWEL	A SURFACE MOUNTED, SATIN FINISH STAINLESS STEEL, SINGLE-FOLD, PAPER TOWEL DISPENSER. DISPENSER FEATURES: TUMBLER LOCK; FRONT HINGED AT BOTTOM; AND REFILL INDICATOR SLOT. MINIMUM CAPACITY 400 SINGLE-FOLD PAPER TOWELS.
A5082	CC	NN	PAPER TOWEL DISPENSER	DISPENSER, PAPER TOWEL, SENSOR, HANDS FREE
A5090	CC	NN	SANITARY NAPKIN	A SURFACE MOUNTED, SATIN FINISH STAINLESS STEEL, SANITARY NAPKIN DISPOSAL. DISPOSAL FEATURES A FLIP-UP COVER, SECURED TO THE CONTAINER BY A HEAVY-DUTY STAINLESS-STEEL PIANO-HINGE. DISPOSAL MAY BE SECURED TO WALL OR TOILET PARTITION.
A5106	VV	NN	SHARPS & GLOVE DISPENSER	THE UNIT IS DESIGNED FOR THE DISPOSAL OF SHARPS AND COMPLIES WITH OSHA GUIDELINES FOR THE HANDLING OF SHARPS. IT SHALL HOUSE A 5 QUART CONTAINER AND BE CAPABLE OF BEING MOUNTED ON A WALL. IT SHALL HAVE A GLOVE DISPENSER ATTACHED. THE UNIT SHALL BE SECURED BY A LOCKED ENCLOSURE.
A5107	VV	NN	GLOVES	EXAMINATION THREE (SMALL MEDIUM, LARGE) GLOVE DISPENSER BOX FOR WALL MOUNTING. FABRICATED OF EITHER COLD ROLLED STEEL WITH A WHITE BAKED ENAMEL FINISH, PLASTIC OR ACRYLIC. HARDWARE NOT INCLUDED; OPTION 3 POWDER COATED STEEL.
A5108	VV	NN	SHARPS	A CONTAINER FOR COLLECTING AND TRANSPORTING SYRINGES AND OTHER SHARPS FOR DECONTAMINATION AND DISPOSAL. AVAILABLE IN 2 GALLON AND 8 GALLON WITH LOCKING ROTOR. COMPLIES WITH OSHA REGULATIONS FOR HANDLING SHARPS.
A5109	CC	NN	GRAB BAR	A 1-1/4" DIAMETER, SATIN FINISH STAINLESS STEEL, PEENED GRIPPING SURFACE, 2 WALL TOILET STALL/ ROOM, GRAB BAR WITH CONCEALED MOUNTING FLANGES. SNAP OVER FLANGES ARE PROVIDED TO CONCEAL MOUNTING SCREWS. A SELECTION OF MOUNTING KITS AND CONCEALED ANCHOR DEVICES ARE AVAILABLE FROM THE MANUFACTURERS FOR DIFFERENT TYPES OF INSTALLATIONS.
A5135	VV	NN	MOP RACK	A SURFACE MOUNTED, SATIN FINISH STAINLESS STEEL, UTILITY SHELF WITH A MAXIMUM OF 6 MOP/BROOM HOLDERS AND 5 RAG HOOKS. UTILITY SHELF FEATURES: 8" DEEP SHELF; MOUNTING BRACKETS WELDED TO SHELF; SPRING ACTIVATED RUBBER CAM HOLDERS; AND DRYING ROD. UNIT IS AVAILABLE IN VARIOUS WIDTHS 30" (MINIMUM, 3 HOLDERS AND 2 HOOKS) TO 48" (MAXIMUM, 6 HOLDERS AND 5 HOOKS).
A5145	CC	NN	GARMENT HOOK	A SURFACE MOUNTED, SATIN FINISH STAINLESS STEEL, DOUBLE GARMENT HOOK. EQUIPPED WITH A CONCEALED MOUNTING BRACKET THAT IS SECURED TO A CONCEALED WALL PLATE.
A5160	CC	NN	SHELF	A SURFACE MOUNTED, SATIN FINISH, STAINLESS STEEL SHELF WITH A MINIMUM DEPTH OF 8". MOUNTING BRACKETS ARE WELDED TO SHELF.
A5180	CC	NN	PRIVACY CURTAIN & TRACK	SURFACE MOUNTED CUBICLE TRACK, WITH CURTAIN. TRACK CONSTRUCTED OF THICK EXTRUDED ALUMINUM. EQUIPED WITH SELF LUBRICATING CARRIERS, BEADED DROP CHAIN HOOKS, AND FLAME RESISTANT CURTAIN. TO INCLUDE REMOVABLE END CAPS.
A5200	CC	NN	TOILET TISSUE DISPENSER	A CONCEALED SURFACE MOUNTED, DOUBLE ROLL, SATIN FINISH STAINLESS STEEL, TOILET TISSUE DISPENSER. UNIT ACCOMMODATES TWO STANDARD-CORE TOILET TISSUE ROLLS THROUGH 5" IN DIAMETER. SPINDLES ARE CHROME PLATED PLASTIC WITH A HEAVY-DUTY INTERNAL SPRING AND TURN FREELY FOR NON-CONTROLLED DELIVERY.
A5210	VV	NN	TV BRACKET	WALL MOUNTED TELEVISION BRACKET WITH ADJUSTABLE ARM. CONSISTS OF MOVABLE ARM WITH MINIMUM 120 DEGREE SWIVEL.
A6046	VV	NN	ARTWORK	THIS JSN IS TO BE USED FOR DETERMINING AND DEFINING LOCATION OF DECORATIVE ARTWORK.
C04Q0			CABINET - BASE ADA	
E0123	VV	NN	WORKSTATION	WORKSTATION TYPICALLY INCLUDING 4 STANDARD SOLID PANELS, 2 PANEL CONNECTORS, 2-WAY CORNER, 1 PANEL-TO-PANEL CONNECTOR, 2 FINISHED END HARDWARE, 1 CANTILEVERED, WORK SURFACE, 2 LOCKABLE FLIPPER UNITS, 2 SHELF/STORAGE/DISPLAYS, 2 LIGHTS, 1 TACK BOARD, 1 TOOL RAIL, 1 PAPER TRAY, 1 DIAGONAL TRAY, 1 ADJUSTABLE KEYBOARD TRAY, 1 MOBILE PEDESTAL, AND BOX/FILE.
E0930	VV	NN	MOBILE LOCKER	THIS TYPICAL INCLUDES: 1 MOBILE SUPPLY LOCKER, 2 TRAY/SHELF, 4 DRAWERS, 3"H, 2 DRAWERS, 6"H , DRAWER ORGANIZER BINS
E0935	VV	NN	CART - SCRUB	SCRUB CART
E0945	VV	YY	CART - COMPUTER	THIS TYPICAL INCLUDES: 1 CART BODY, STYLE-A NARROW, W/RAISED EDGE TOP 2 DRAWERS, 3" H 4 DRAWERS, 6" H 1 ACCESSORY RAIL, SIDE DRAWER ORGANIZER BINS
E0948	VV	NN	CART - STORAGE	THIS TYPICAL INCLUDES: 1 CART BODY, STYLE-A NARROW, W/RAISED EDGE TOP 2 DRAWERS, 3" H 4 DRAWERS, 6" H 1 ACCESSORY RAIL, SIDE DRAWER ORGANIZER BINS
F0205	VV	NN	CHAIR	UPHOLSTERED SIDE CHAIR, 32" HIGH x 21" WIDE x 23" DEEP WITH ARMS, PADDED SEATS AND PADDED BACKS. SEAT HEIGHT IS A MINIMUM OF 17".
F0206	VV	NN	BARIATRIC CHAIR	A BARIATRIC SIDE CHAIR WITH ARMS.CHAIR WILL HAVE A PADDED SEAT AND BACK AND HAVE A CAPACITY OF 800 POUNDS.
F0210	VV	NN	CHAIR	UPHOLSTERED SIDE CHAIR APPROXIMATELY 32" HIGH x 19" WIDE x 23" DEEP WITH FLOOR GLIDES. SEAT IS NON-TILTING AND WITHOUT ARMS.
F0230	VV	NN	CHAIR	DRAFTING CHAIR APPROXIMATELY 47" HIGH x 20" WIDE x 20" DEEP WITH ROTARY STOOL AND A FIVESTAR BASE WITH CASTERS. PADDED SEAT AND BACK. FOOT RING ADJUSTS WITH CHAIR.
F0275	VV	NN	CHAIR	HIGHBACK CONTEMPORARY SWIVEL CHAIR, 41" HIGH x 23" WIDE x 23" DEEP WITH FIVE CASTER SWIVEL BASE AND ARMS. BACK AND SEAT ARE FOAM PADDED AND UPHOLSTERED WITH EITHER WOVEN TEXTILE FABRIC OR VINYL.
F0300	VV	NN	CHAIR - TASK	TASK CHAIR, APPROXIMATELY 34" H x 26" W x 22" D WITH ADJUSTABLE ARMS AND A FIVE CASTER ADJUSTABLE SWIVEL BASE. SEAT AND BACK ARE FOAM PADDED AND UPHOLSTERED IN WOVEN FABRIC OR VINYL.
F0305	VV	NN	CHAIR	SINGLE SEAT WAITING ROOM CHAIR WITH FOAM PADDED SEAT AND BACK. UPHOLSTERED WITH EITHER WOVEN FABRIC TEXTILE OR VINYL. ARMS AND FLOOR GLIDES INCLUDED.. Upholstered with either woven fabric textile or vinyl. Arms and floor glides included.
F0340	VV	NN	STOOL	SELF ADJUSTING STOOL. CONSISTS OF A FOAM PADDED UPHOLSTERED SEAT WITH ATTACHED FOOTREST FOR ADDED COMFORT. MOUNTED ON SWIVEL CASTERS. DESIGNED FOR DOCTOR'S USE DURING EXAMINATIONS.
F0350	VV	NN	STEP STOOL	STEP STOOL, APPROXIMATELY 18" HIGH X 16" DIAMETER WITH THREE RETRACTABLE CASTERS, SKID PROOF RINGS AND RIBBED TREADS.
F0360	VV	NN	FOOTSTOOL W/ HANDLE	A FOOTSTOOL USED TO ASSIST PATIENTS GETTING ON AND OFF EXAM OR SURGICAL TABLES. FITTED WITH A HANDRAIL FOR ADDED SECURITY AND BALANCE OF THE PATIENT.
F0420	VV	NN	FILE CABINET	HALF HEIGHT THREE DRAWER LATERAL FILING CABINET, 28" HIGH x 42" WIDE x 18" DEEP WITH RECESSED HANDLES, LOCKING DEVICE AND DRAWER LABEL HOLDERS. DRAWERS ARE ADAPTABLE TO EITHER LETTER OR LEGAL-SIZE MATERIALS.
F0535	VV	NN	CART - UTILITY	UTILITY CART.
F0540	VV	NN	CART - SCOPE	A CART DESIGNED SPECIFICALLY FOR THE SAFE TRANSPORT OF ENDOSCOPY SCOPES. THE CART WILL HAVE A LIGHTWEIGHT FRAME OF A TUBULAR WELDED CONSTRUCTION. THE SIDES AND BACK PANELS WILL BE OF A FOAMED RESIN WITH A WORK TOP OF SEAMLESS, RAISED EDGE PLASTIC. THE CART WILL HAVE RECTANGLE OR ROUND TRAYS WITH LIDS AND WILL HAVE 4 CASTERS WITH 2 LOCKING. CART MAY HAVE A ROLL-TOP DOOR WITH A KEY LOCK.
F0680	VV	YN	WORKSTATION, ADJUSTABLE	MOBILE OR FREE-STANDING COMPUTER WORK CENTER FOR USE AS A SINGLE-MONITOR PACS WORKSTATION. FEATURES INCLUDE LAMINATE WORK SURFACE, KEYBOARD ARM, MANUAL HEIGHT ADJUSTMENTS, CPU HOLDER AND MONITOR ARM.
F2000	VV	NN	WASTEPAPER	WASTEPAPER BASKET, FIRE RESISTANT, APPROXIMATELY 40 QUART CAPACITY.
F2010	VV	NN	WASTEPAPER	"STEP-ON" WASTEPAPER BASKET WITH INNER LINER AND FOOT PETAL ACTIVATED FLIP TOP.
F2017	VV	NN	WASTE - RECEPTACLE	RECTANGULAR STEEL WASTE RECEPTACLE WITH STEP-ON LID AND 24 GALLON CAPACITY.
F2020	VV	NN	WASTE - RECEPTACLE	FORTY-FOUR GALLON TRASH CAN, 32" HIGH x 24" DIAMETER, WITH LID.
F2700	VV	YY	BAR CODE READER	HANDHELD LASER BAR CODE READER WITH COMPUTER INTERFACE. USED FOR AUTOMATED INVENTORY, USING BAR CODE STICKERS / LABELS. CONVENIENCE OUTLET REQUIRED AT POINT OF USE.
F3050	VV	NN	WHITE BOARD	WHITEBOARD UNIT, APPROXIMATELY 36" H x 48" W CONSISTING OF A WHITE PORCELAIN ENAMEL WRITING SURFACE WITH AN ATTACHED CHALK TRAY. MAGNETIC SURFACE FOR USE WITH WATERCOLOR PENS.
F3200	VV	NN	CLOCK	CLOCK, 12" DIAMETER. ROUND SURFACE, EASY TO READ NUMBERS WITH SWEEP SECOND HAND. BATTERY OPERATED, (BATTERIES NOT INCLUDED).

SPECIALTY EQUIPMENT SCHEDULE

MARK	FURN / INST BY	POWER / DATA	NAME	DESCRIPTION
M0430	VV	YN	DVD PLAYER	PROFESSIONAL MEDICAL GRADE DVD VIDEO RECORDER/PLAYER. APPROXIMATELY 5" HIGH X 10" WIDE X 14" DEEP. MEETS NTSC AND PAL STANDARDS AND EMPLOYS MPEG2 VIDEO COMPRESSION. CAPABLE OF HIGH-SPEED PICTURE SEARCH, DIRECT RECORDING INTO AVAILABLE DISC SPACE AND RECORDING AND PLAYBACK ON VARIOUS DVD FORMATS. AUDIO USES DOLBY DIGITAL FORMAT. CONVENIENCE OUTLET REQUIRED AT POINT OF USE.
M0506	VV	YY	TELEVISION	FLAT SCREEN TELEVISION WITH APPROXIMATELY 32' TO 40' DIAGONAL SCREEN SIZE. THE TV WILL HAVE BUILT-IN SPEAKERS, NTSC TUNER, A 16:9 WIDE SCREEN ASPECT RATIO, A MINIMUM OF 1280 X 768 RESOLUTION AND A REMOTE CONTROL.
M0515	VV	YY	TELEVISION	HIGH DEFINITION (HDTV) MULTIMEDIA FLAT PANEL LED 40" CLASS DISPLAY TELEVISION. 16:9 WIDE SCREEN ASPECT RATIO, MINIMUM OF 1920 X 1080 DISPLAY RESOLUTION, DIGITAL TUNER, MINIMUM REFRESH RATE OF 60HZ, MINIMUM OF TWO HDMI PORTS AND 1 USB PORT ENERGY STAR CERTIFIED.
M0751	VV	NN	AIR FLOWMETER	UNIT HAS A STAINLESS-STEEL NEEDLE VALVE WITH CLEAR FLOWTUBE FOR CONNECTION TO 50 PSI AIR OUTLET FROM CENTRAL PIPELINE SYSTEM. REQUIRES THE APPROPRIATE ADAPTER FOR CONNECTION TO THE CEILING OUTLET AND FITTING TO CONNECT TO TUBING. DATABASE PRICES REFLECT FITTINGS WITH AN ATTACHED DISS POWER OUTLET.
M0755	VV	NN	OXYGEN FLOWMETER	CONSISTS OF A CLEAR CRYSTAL FLOWTUBE CALIBRATED TO 3.5 OR 8 LPM DEPENDING ON MANUFACTURER. FOR OXYGEN REGULATION IN HOSPITAL SETTINGS. DATABASE PRICING INCLUDES DISS FITTING AND DISS POWER OUTLET AND WALL ADAPTER. OTHER FITTING AND ADAPTER CONFIGURATIONS ARE AVAILABLE.
M0756	VV	NN	OXYGEN FLOWMETER	CONSISTS OF A CLEAR CRYSTAL FLOWTUBE CALIBRATED TO 3.5 OR 8 LPM DEPENDING ON MANUFACTURER. FOR OXYGEN REGULATION IN HOSPITAL SETTINGS. DATABASE PRICING INCLUDES DISS FITTING AND DISS POWER OUTLET AND CEILING ADAPTER. OTHER FITTING AND ADAPTER CONFIGURATIONS ARE AVAILABLE.
M0765	VV	NN	VACUUM REGULATOR	VACUUM PRESSURE REGULATOR FOR CONNECTION TO CENTRAL PIPED VACUUM SYSTEM. STANDARD DISPLAY SCALE IS GRADUATED AT LEAST FROM 0 TO 200 MM HG OF VACUUM. DISPLAYS ON SPECIALIZED REGULATORS MAY COVER OTHER VACUUM RANGES. REGULATOR TYPE (CONTINUOUS, INTERMITTENT, CONTINUOUS/INTERMITTENT, SURGICAL, PEDIATRIC, THORACIC, ETC.) AS REQUIRED. TO BE USED IN DELIVERY, NEONATAL, PEDIATRICS OR ANY AREA WHERE SUCTION IS REQUIRED. DATABASE PRICING REFLECTS CONTINUOUS REGULATORS GRADUATED TO 200 MM HG WITH A FULL LINE VACUUM SELECTION SWITCH AND DISS CONFIGURED INLETS AND OUTLETS.
M0766	VV	NN	VACUUM REGULATOR	VACUUM PRESSURE REGULATOR FOR CONNECTION TO CENTRAL PIPED VACUUM SYSTEM. STANDARD DISPLAY SCALE IS GRADUATED AT LEAST FROM 0 TO 200 MM HG OF VACUUM. DISPLAYS ON SPECIALIZED REGULATORS MAY COVER OTHER VACUUM RANGES. REGULATOR TYPE (CONTINUOUS, INTERMITTENT, CONTINUOUS/INTERMITTENT, SURGICAL, PEDIATRIC, THORACIC, ETC.) AS REQUIRED. TO BE USED IN DELIVERY, NEONATAL, PEDIATRICS OR ANY AREA WHERE SUCTION IS REQUIRED. DATABASE PRICING REFLECTS CONTINUOUS REGULATORS GRADUATED TO 200 MM HG WITH A FULL LINE VACUUM SELECTION SWITCH AND DISS CONFIGURED INLETS AND OUTLETS.
M1801	VV	YY	COMPUTER	DESKTOP MICROPROCESSING COMPUTER. THE UNIT SHALL CONSIST OF A CENTRAL PROCESSING MINI TOWER, FLAT PANEL MONITOR, KEYBOARD, MOUSE AND SPEAKERS. THE SYSTEM SHALL HAVE THE FOLLOWING MINIMUM CHARACTERISTICS: A 2.8 GHZ PENTIUM PROCESSOR; 512 MB MEMORY; 80GB HARD DRIVE; 32/48X CD-ROMDVD COMBO; 1.44MB NETWORK INTERFACE CARD; VIDEO 32 MB NVIDIA; A 18 INCH FLAT PANEL MONITOR. THE COMPUTER IS USED THROUGHOUT THE FACILITY TO INPUT, MANIPULATE AND RETRIEVE INFORMATION.
M1802	VV	NN	WORKSTATION	A WALL MOUNTED RETRACTABLE WORKSTATION.
M1825	VV	YY	PRINTER	HIGH RESOLUTION COMPUTER PRINTER WITH A VARIETY OF TYPE STYLES AND SHEET/ENVELOPE FEEDER TRAYS.
M3070	VV	NN	HAMPER	MOBILE LINEN HAMPER WITH HAND OR FOOT OPERATED LID. MADE OF HEAVY TUBULAR STAINLESS STEEL WITH HEAVY GAUGE WELDED STEEL PLATFORM. HOLDS 25" HAMPER BAGS. MOUNTED ON BALL BEARING CASTERS.
M3072	VV	NN	WASTE - INFECTIOUS	FRAME FOR AN INFECTIOUS WASTE COLLECTION BAG. MADE OF HEAVY TUBULAR STAINLESS STEEL WITH HEAVY GAUGE WELDED STEEL PLATFORM. ADJUST TO HOLD 18" OR 25" TRASH BAGS. MOUNTED ON BALL BEARING CASTERS AND INCLUDES PERMANENTLY MOUNTED HINGED LID.
M3073	VV	NN	WASTE - BIOHAZARD	A BIOHAZARD WASTE CONTAINER WITH A STEP-ON LID. THE CONTAINER WILL HAVE A CAPACITY OF APPROXIMATELY 12 GALLONS AND BE MADE OF A FIRE SAFE MATERIAL.
M3150	VV	YY	MED DISTRIBUTION	AN AUTOMATED DISPENSING SYSTEM THAT PROVIDES CONTROLLED DISPENSING, INVENTORY AND SECURITY.
M3151	CC	NN	3-CELL OMNI	OMNI CELL, 3 CABINETS.
M3165	VV	YY	CATHETER STORAGE	A CABINET TO BE USED FOR THE HANGING STORAGE OF CATHETERS. CABINET COMES WITH ADJUSTABLE LAMINATE SHELVES, SLIDE-OUT ARMS EQUIPPED WITH HANGERS TO HOLD VARIOUS SIZE CATHETERS, AND DOORS. DOOR LOCKS ARE AN OPTIONAL ACCESSORY.
M4116	VV	YY	MONITOR	ELECTRONIC SPHYGMOMANOMETER. LCD DISPLAYS NON-INVASIVE BLOOD PRESSURE, PULSE RATE AND TEMPERATURE. USED IN HOSPITALS AND CLINICS. INCLUDES AN OPTIONAL MOBILE STAND.
M4255	VV	NN	IV STAND	ADJUSTABLE IV STAND WITH 4-HOOK ARRANGEMENT. STAND HAS STAINLESS STEEL CONSTRUCTION WITH HEAVY WEIGHT BASE. ADJUSTS FROM 66 INCHES TO 100 INCHES AND IS MOUNTED ON CONDUCTIVE RUBBER, BALL BEARING, SWIVEL CASTERS.
M4645	VV	NN	TRANSFER DEVICE	A PATIENT TRANSFER BOARD DESIGNED TO MAKE LATERAL PATIENT TRANSFERS SAFER FOR STAFF AND BE MORE COMFORTABLE FOR THE PATIENTS. THE BOARD USES A SMOOTH, LOW FRICTION AND STATIC FREE SURFACE TO ELIMINATE THE NEED FOR METAL ROLLERS. THE BOARD HAS A SOFT FOAM CORE THAT MAKES THEM LIGHTWEIGHT FOR EASE OF USE AND STORAGE. THE LONG BOARD DEVICE ALSO ENABLES THE TRANSFER OF A PATIENT IN THE SEATED OR FOWLER POSITION.
M4665	VV	NN	STRETCHER	RECOVERY/SURGICAL STRETCHER. STRONG I-BEAM CONSTRUCTION TYPE UNIT. THE HEIGHT IS ADJUSTABLE WITH MANUAL BACKREST AND CRANK OPERATED KNEE CATCH. STAINLESS OR PAINTED STEEL TOP AND CHASSIS. FEATURES 8" OR 10" CONDUCTIVE CASTERS, WITH LOCK AND BRAKE, FOLDING, TUCK-AWAY CHROME SIDE-RAILS AND IV STAND AND A FLAME RETARDANT ANTIBACTERIAL MATTRESS.
M7040	VV	NN	OVER-BED TABLE	OVERBED TABLE. ADJUSTABLE HEIGHT TABLE CONSTRUCTED OF HEAVY GAUGE STEEL. MOUNTED ON 2" DIAMETER TWIN SWIVEL CASTERS WITH BUMPER CAPS. TABLETOP IS CONSTRUCTED WITH A HIGH-PRESSURE PLASTIC LAMINATED SURFACE THAT RESISTS CHIPPING, SCRATCHING, AND STAINING. IT INCLUDES A VANITY TRAY AND A MIRROR. TABLE IS DESIGNED FOR USE OVER BED, WHEELCHAIR OR LARGE CHAIR.
M7845	VV	YY	BED-SIDE MONITOR	4 CHANNEL BEDSIDE PHYSIOLOGICAL MONITOR. THE UNIT CONSIST OF A FOUR-CHANNEL NON-FADE MONOCHROME DISPLAY MONITOR, AN ALARM SYSTEM AND PRINTER-RECORDING CAPABILITIES. THE MONITOR HAS COLOR CODED CONTROLS AND AUTOMATIC CALIBRATION. THE UNIT DISPLAYS UP TO FOUR WAVEFORMS SIMULTANEOUSLY. THE PARAMETERS TO BE MONITORED ARE USER SELECTABLE. THE MONITOR MAY BE CONNECTED TO A CENTRAL MONITORING STATION. THE UNIT MONITORS PATIENTS IN MOST ACUTE CARE AREAS, STEP-DOWN UNITS, PROCEDURE ROOMS AND EMERGENCY ROOMS.
M8103	VV	NN	WORKSTATION	A WALL MOUNTED RETRACTABLE WORKSTATION.
M8800	VV	YN	CART - ANESTHESIA	MOBILE ANESTHESIA CART. THE CART SHALL BE BUILT OF STAINLESS STEEL AND MOUNTED ON 4" CASTERS FOR EASY MOBILITY. IT SHALL BE CAPABLE OF BEING EQUIPPED WITH BOTTLE HOLDERS, ADJUSTABLE IV POLE, STORAGE DRAWERS, SHELVES AND A TOP BAR/RAIL.
M8810	VV	NN	MAYO STAND	ADJUSTABLE INSTRUMENT TABLE. TABLE IS CORROSION RESISTANT STAINLESS-STEEL CONSTRUCTION AND IS MOUNTED ON TWO CASTERS WITH TWO SKID RAILS. IT HAS TELESCOPIC UPRIGHT ADJUSTS FROM 39 INCHES TO 60 INCHES WITH AUTOMATIC LOCKING DEVICE, AND REMOVABLE 13"X19" INSTRUMENT TRAY.
M8840	VV	NN	TABLE - INSTRUMENT	MOBILE X-RAY PROTECTIVE SCREEN/BARRIER. THE X-RAY BARRIER PROVIDES OPTICALLY-CLEAR VISIBILITY WHILE SHIELDING MEDICAL PERSONNEL FROM SCATTER RADIATION. ITS LARGE CLEAR PB LEAD-PLASTIC OR ACRYLIC WINDOW OFFERS 0.5 MM LEAD-EQUIVALENT PROTECTION TO THE USER'S HEAD AND UPPER BODY. THE UNIT IS USED FOR EFFECTIVE RADIATION PROTECTION OF DEPARTMENT PERSONNEL DURING VASCULAR OR OTHER PROCEDURES.
M8940	VV	NN	STOOL - ANESTHESIA	ANESTHESIA STOOL WITH BACK. ALL STAINLESS STEEL WITH WELL-CURVED BACK PANEL AND WIDE CONDUCTIVE SEAT.
M9005	VV	NN	TABLE	TABLE DEDICATED TO ULTRASOUND PROCEDURES INCLUDING OB/GYN. TABLE HAS AN OPEN FRAME DESIGN TO ALLOW SONOGRAPHERS TO GET CLOSE TO THE PATIENT. TABLE HEIGHT IS ADJUSTABLE FROM APPROXIMATELY 23" TO 39". TABLE INCLUDES SIDE RAILS AND ARM BOARD.
M9007	VV	NN	ULTRASOUND CHAIR	THE SONOGRAPHY CHAIR PRESENTS AN ERGONOMIC ENHANCEMENT WHEN SCANNING PATIENTS. MULTIPLE ADJUSTMENTS FOR SEAT HEIGHT, BACK HEIGHT AND BACKWARDS TILT TENSION ADJUSTMENT WITH INTEGRATED SEAT SLIDER ALLOW FOR A VARIETY OF COMFORTABLE POSTURES. A FOOT RING IS STANDARD FOR ADDITIONAL SUPPORT AND POSITIONING.
M9009	VV	YN	MEDICAL RECLINER	POWERED RECLINER, AND USB CHARGING PORT PROVIDE MODERN CONVENIENCES AND COMFORT FOR PATIENTS DURING TREATMENT.
R6200	VV	YN	REFRIGERATOR	UTILITY REFRIGERATOR APPROXIMATELY 35" H X 24" W X 26" D. THE UNIT HAS A TWO TRAY ICE CUBE COOLING SYSTEM. THE REFRIGERATOR FITS STANDARD DIMENSIONS FOR UNDERCOUNTER INSTALLATION.
X1425	VV	YY	LASER IMAGER	LASER IMAGER. SOLID STATE LASER THAT PROVIDES HIGH RESOLUTION IMAGES OF SUPERIOR QUALITY AND ACCURACY. AN INFRARED LASER BEAM IS SCANNED ACROSS EACH FILM BY A PRECISION ROTATING POLYGON, WHILE CORRECTING OPTICS FOCUS AND CONTROL THE BEAM'S INTENSITY. CAN BE INTERFACED TO AS MANY AS EIGHT (8) MODALITIES WITH INTERFACE KIT.
X1999	VV	NN	ULTRASOUND PROBE RACK	UNIVERSAL PROBE RACK USED TO HOLD/STORE ULTRASOUND PROBES & TRANSDUCERS. FEATURES INCLUDE CABLE SUPPORTS AND CAPACITY FOR FIVE PROBES.
X2100	VV	YY	ULTRASOUND	HIGH DEFINITION, DIAGNOSTIC ULTRASOUND SYSTEM FOR RADIOLOGY, CARDIOLOGY, VASCULAR, OB-GYN, PERINATOLOGY, AND SURGICAL IMAGING APPLICATIONS. THE UNIT EMPLOYS CURVED, PHASED AND LINEAR ARRAY IMAGING TECHNOLOGY. THE SYSTEM SUPPORTS COLORFLOW, PULSE AND CONTINUOUS WAVE IMAGING MODALITIES. ON BOARD SOFTWARE MEASUREMENT PACKAGES AVAILABLE FOR ALL IMAGING APPLICATIONS. THE SYSTEM IS DICOM 3.0 COMPATIBLE, FOR EASY LINKAGE TO FILMLESS IMAGE MANAGEMENT SYSTEMS AND REVIEW STATIONS. IN ADDITION, A FULL LINE OF PROBES AND CONVENTIONAL RECORDING DEVICES ARE AVAILABLE.
X3145	VV	YN	X-RAY SCREEN	MOBILE X-RAY PROTECTIVE SCREEN/BARRIER. THE X-RAY BARRIER PROVIDES OPTICALLY-CLEAR VISIBILITY WHILE SHIELDING MEDICAL PERSONNEL FROM SCATTER RADIATION. ITS LARGE CLEAR PB LEAD-PLASTIC OR ACRYLIC WINDOW OFFERS 0.5 MM LEAD-EQUIVALENT PROTECTION TO THE USER'S HEAD AND UPPER BODY. THE UNIT IS USED FOR EFFECTIVE RADIATION PROTECTION OF DEPARTMENT PERSONNEL DURING VASCULAR OR OTHER PROCEDURES.
X3155	VV	NN	LEAD APRON RACK	APRON AND GLOVES RACK. THIS IS A MOBILE UNIT WHICH HOLDS APRONS AND GLOVES. THE BODY IS HEAVY GAUGE STEEL FINISH IN GRAY OR GREEN BAKED ENAMEL, GLOVE AND APRON HOLDING ARMS ARE ALUMINUM.

KEY

VV - VA FURNISHED, VA INSTALLED
CC - CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
VC - VA FURNISHED, CONTRACTOR INSTALLED
CV - CONTRACTOR FURNISHED, VA INSTALLED

YY - YES POWER, YES DATA
YN - YES POWER, NO DATA
NY - NO POWER, YES DATA
NN - NO POWER, NO DATA

GENERAL NOTES

1. CONTRACTOR TO CONFIRM QUANTITIES OF EACH ITEM PRIOR TO PURCHASE OR INSTALLATION.

Revisions: Date:

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3/27/2026

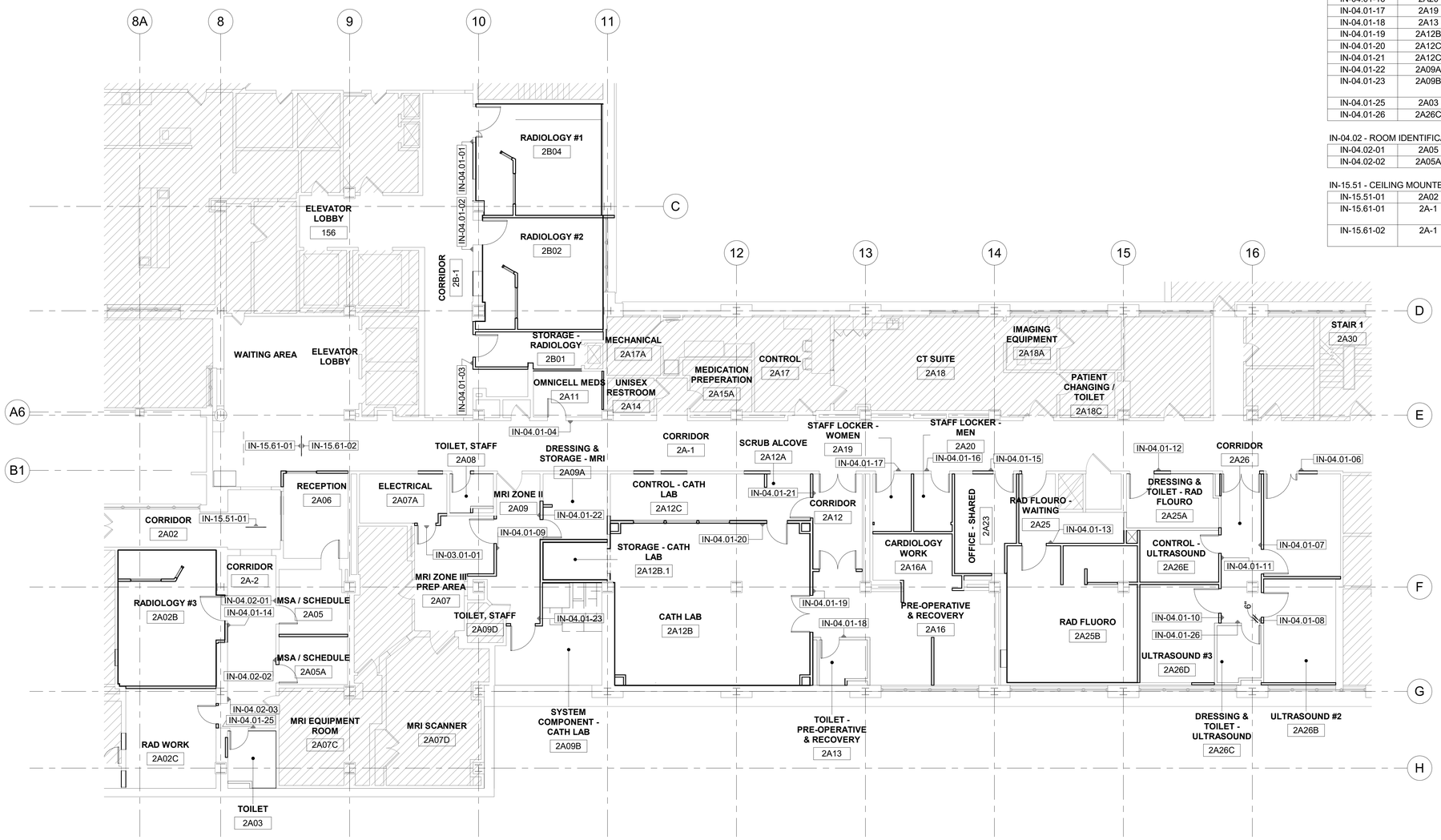
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: EQUIPMENT SCHEDULE
Phase: 100% CD
Approved:
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Project Number: 570-21-220
Building Number: 001
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: AB
Drawing Number: A-604

VA FORM 08 - 6231

SIGNAGE MESSAGE SCHEDULE

MARK	ROOM NUMBER	ROOM NAME	MESSAGE	COMMENTS
IN-03.01 - NUMBER IDENTIFICATION				
IN-03.01-01	2A07A	ELECTRICAL	SEE ENLARGED SIGN FOR MESSAGE	
IN-04.01 - ROOM IDENTIFICATION				
IN-04.01-01	2B04	RADIOLOGY #1	Radiology Room 1	
IN-04.01-02	2B02	RADIOLOGY #2	Radiology Room 2	
IN-04.01-03	2B01	STORAGE - RADIOLOGY	Radiology Storage	
IN-04.01-04	2A11	OMNICELL MEDS	Omnicell Meds	
IN-04.01-06	2A26A	ULTRASOUND #1	Ultrasound Room 1	
IN-04.01-07	2A26A	ULTRASOUND #1	Ultrasound Room 1	
IN-04.01-08	2A26B	ULTRASOUND #2	Ultrasound Room 2	
IN-04.01-09	2A07	MRI ZONE III PREP AREA	MRI ZONE PREP AREA	
IN-04.01-10	2A26D	ULTRASOUND #3	Ultrasound Room 3	
IN-04.01-11	2A25E	CONTROL - ULTRASOUND	Control	
IN-04.01-12	2A23A	DRESSING & TOILET - RAD FLOURO	Dressing & Toilet	
IN-04.01-13	2A25B	RAD FLOURO	Rad Flouro	
IN-04.01-14	2A02B	RADIOLOGY #3	Radiology Room 3	
IN-04.01-15	2A23	OFFICE - SHARED	Office	
IN-04.01-16	2A20	STAFF LOCKER - MEN	Locker - Men	
IN-04.01-17	2A19	STAFF LOCKER - WOMEN	Locker - Women	
IN-04.01-18	2A13	TOILET - PRE-OPERATIVE & RECOVERY	Pre-Operative & Recovery	
IN-04.01-19	2A12B	CATH LAB	Cath Lab	
IN-04.01-20	2A12C	CONTROL - CATH LAB	Control	
IN-04.01-21	2A12C	CONTROL - CATH LAB	Control	
IN-04.01-22	2A09A	DRESSING & STORAGE - MRI	MRI Dressing & Storage	
IN-04.01-23	2A09B	SYSTEM COMPONENT - CATH LAB	System Component - Cath Lab	
IN-04.01-25	2A03	TOILET	Toilet	
IN-04.01-26	2A26C	DRESSING & TOILET - ULTRASOUND	Dressing & Toilet	
IN-04.02 - ROOM IDENTIFICATION (SMALL)				
IN-04.02-01	2A05	MSA/SCHEDULE	MSA/Schedule	
IN-04.02-02	2A05A	MSA/SCHEDULE	MSA/Schedule	
IN-15.51 - CEILING MOUNTED DIRECTIONAL				
IN-15.51-01	2A02	CORRIDOR	Reception	
IN-15.61-01	2A-1	CORRIDOR	LEFT: Waiting RIGHT: Reception	
IN-15.61-02	2A-1	CORRIDOR	LEFT: Reception RIGHT: Waiting	



1 SIGNAGE LOCATION PLAN
1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. ALL FINAL MESSAGES AND LOCATIONS TO BE REVIEWED AND APPROVED BY VA SIGNAGE MANAGER OR VA COR PRIOR TO FABRICATION.
2. SIGN TYPE 15 IS ABOVE HEAD (SEE ENLARGED SIGNAGE & CEILING PLAN).

Revisions: Date:

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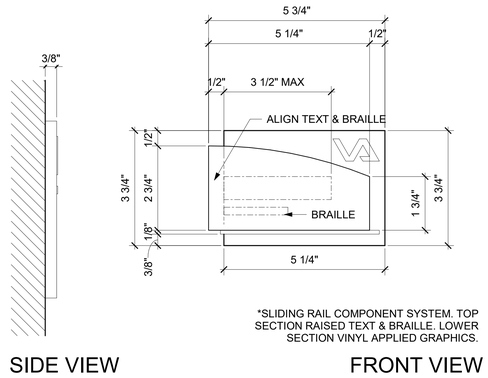
10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON
3/27/2026

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: SIGNAGE LOCATION PLAN & MESSAGE SCHEDULE
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MK
Drawn: AB
Project Number: 570-21-220
Building Number: 001
Drawing Number: AW001

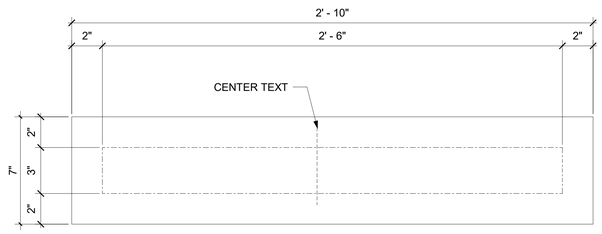
VA FORM 08 - 6231

1 IN-03.01 - ROOM NUMBER IDENTIFICATION
6" = 1'-0"



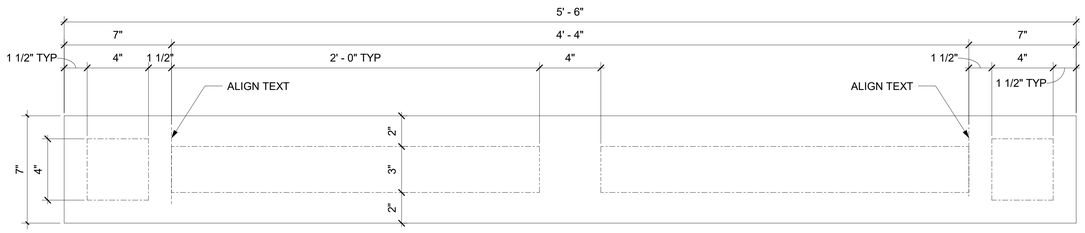
4 IN-03.01 - ROOM NUMBER IDENTIFICATION - DIMENSIONS
6" = 1'-0"

2 IN-15.51 - CEILING MOUNTED DIRECTIONAL
3" = 1'-0"

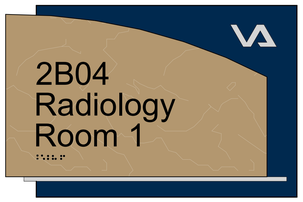


10 IN-15.51 - CEILING MOUNTED DIRECTIONAL - DIMENSIONS
3" = 1'-0"

3 IN-15.61 - CEILING MOUNTED DIRECTIONAL
3" = 1'-0"

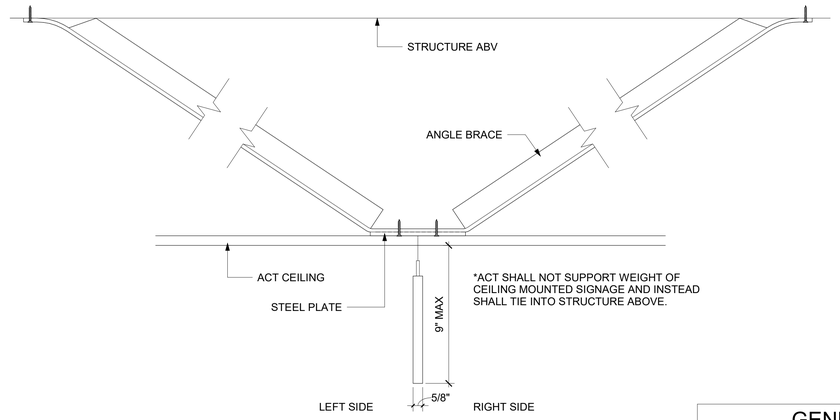


8 IN-15.61 - CEILING MOUNTED DIRECTIONAL - DIMENSIONS
3" = 1'-0"

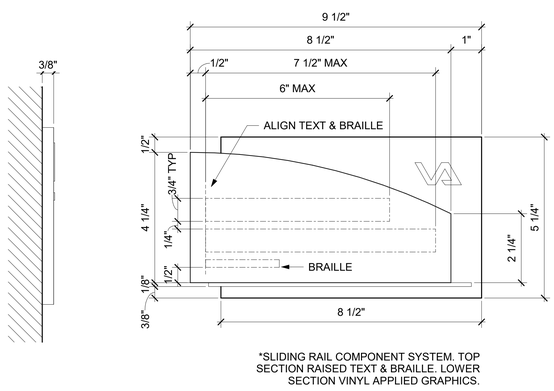


6 IN-04.01 - ROOM IDENTIFICATION
6" = 1'-0"

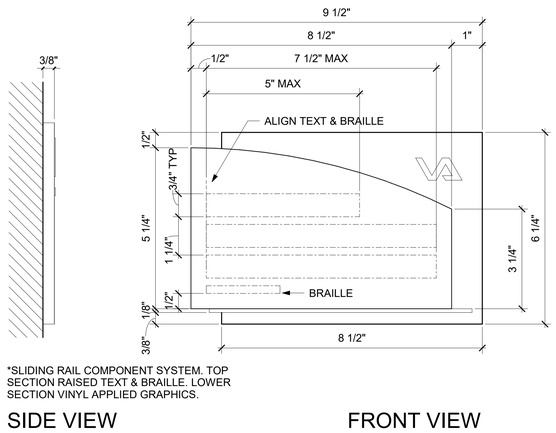
15 IN-04.02 - ROOM IDENTIFICATION (SMALL)
6" = 1'-0"



11 IN-15.51 & 15.61 - CEILING & SOFFIT MOUNTED DIRECTIONAL - DIMENSIONS
3" = 1'-0"



16 IN-04.02 - ROOM IDENTIFICATION (SMALL) - DIMENSIONS
6" = 1'-0"



5 IN-04.01 - ROOM IDENTIFICATION - DIMENSIONS
6" = 1'-0"

GENERAL NOTES

1. SEE SHEET AW001 FOR SIGN LOCATIONS AND MESSAGES.
2. ANY SIGNS USING "VA" OR "U.S. DEPARTEMENT OF VETERANS AFFAIRS" ARTWORK SHALL USE VA PROVIDED LOGO FOR CORRECT PROPORTIONS AND LAYOUTS.

Revisions:	Date:

CONSULTANT

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SPEES DESIGN BUILD
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED SIGNAGE IN-03.01, IN-04.01, IN-04.02, IN-15.51	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 / Checked: MK / Drawn: AB	Drawing Number: AW002

VA FORM 08 - 6231

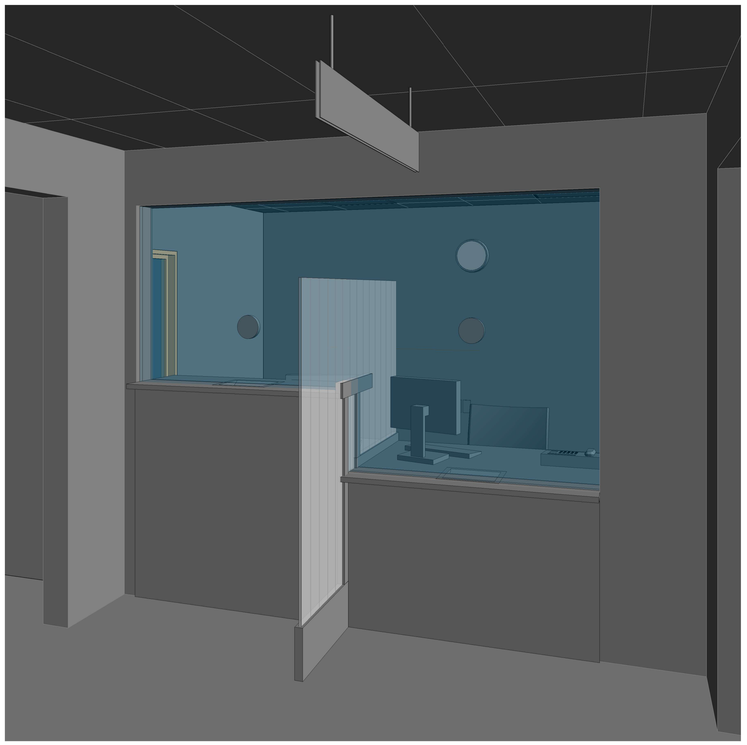
1 CATH LAB PERSPECTIVE - A

12" = 1'-0"

2 WAITING FROM RECEPTION PERSPECTIVE

3 CATH LAB PERSPECTIVE - B

12" = 1'-0"



5 RECEPTION WINDOW PERSPECTIVE

Revisions:	Date:

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10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON

3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PERSPECTIVE IMAGES

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: MK

Drawn: MA

Project Number: 570-21-220

Building Number: 001

Drawing Number: IN101

VA FORM 08 - 6231

1 LEVEL 2 - FLOOR FINISH PLAN

1/8" = 1'-0"

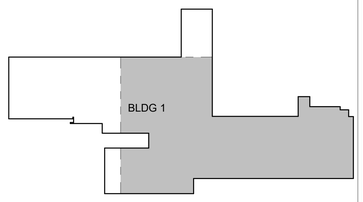
PROJECT NORTH

LEGEND

- LVT - LUXURY VINYL TILE
- SVT - SHEET VINYL TILE
- WSF - WELDED SHEET FLOORING
- PT - PORCEAIN TILE
- RES - RESINOUS 3
- CPT - CARPET
- EXP - EXPOSED
- MATCH ADJACENT EXISTING FLOORING
- OUTSIDE OF PROJECT SCOPE

GENERAL NOTES

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

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SDB SPEESDESIGNBUILD

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10000 REGISTERED ARCHITECT JAMES M. KING STATE OF WASHINGTON

3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FLOOR FINISH PLAN	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BLDG 1	570-21-220
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Drawing Number: IN102
		Issue Date: 3/27/2026 · Checked: MK · Drawn: NE	

VA FORM 08 - 6231

FIRE PROTECTION DEMOLITION GENERAL NOTES

1. REFER TO ALL DRAWINGS FOR COORDINATION BETWEEN DEMOLITION AND NEW WORK. COORDINATE DEMOLITION WORK WITH THAT OF OTHER TRADES.
2. COORDINATE SALVAGE AND REUSE OF EXISTING EQUIPMENT WITH OWNER. ITEMS OF VALUE WHICH ARE NOT DIRECTED TO BE RETURNED TO THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR. STORAGE OR SALE OF ITEMS ON THE PROJECT SITE IS PROHIBITED.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
   A) PROTECTING, COVERING, AND SEALING EXISTING EQUIPMENT AND SURROUNDINGS DURING DEMOLITION FROM DIRT, DUST, AND DEBRIS.
   B) ENSURING THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION.
   C) PREVENTING INJURY TO PERSONS AND DAMAGE TO PROPERTY.
   D) PROVIDING ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE.
   E) REPAIRING DAMAGED PROPERTY TO ITS ORIGINAL CONDITION IMMEDIATELY AFTER THE DAMAGE OCCURS.
   F) TAKING EFFECTIVE MEASURES TO PREVENT DUST MIGRATION.
4. MAINTAIN ALL UTILITIES EXCEPT THOSE REQUIRING REMOVAL OR RELOCATION. KEEP UTILITIES IN SERVICE AND PROTECT FROM DAMAGE. DO NOT INTERRUPT UTILITIES SERVING AREAS OUTSIDE OF PRESENT SCOPE WITHOUT FIRST OBTAINING PERMISSION FROM OWNER. PROVIDE TEMPORARY SERVICES AS REQUIRED.
5. REMOVE AND DISPOSE OF EXISTING FIRE PROTECTION EQUIPMENT AS SHOWN, UNLESS NOTED OTHERWISE. COORDINATE WITH ARCHITECTURAL PLANS, AREAS OF DEMOLITION AROUND, ADJACENT, OR CONNECTED TO EXISTING MECHANICAL EQUIPMENT THAT IS TO REMAIN.

FIRE PROTECTION SHEET INDEX

F-001	FIRE PROTECTION GENERAL NOTES
FD101	SECOND FLOOR DEMO - FIRE PROTECTION
F-101	SECOND FLOOR - FIRE PROTECTION

FIRE PROTECTION GENERAL NOTES

1. ALL WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE CURRENT VA GUIDES AND LOCAL FIRE PROTECTION CODES AND ORDINANCES.
2. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. IN CASES OF CONFLICT BETWEEN MANUFACTURER REQUIREMENTS, DRAWINGS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
3. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND VA COR PRIOR TO ANY CUTTING OF WALLS AND ROOF.
4. CONTRACTOR SHALL PROVIDE FIRE CAULKING AT ALL PIPING PENETRATIONS OF FIRE RATED ASSEMBLIES AS REQUIRED.
5. IF FLOOR OR RATED WALL PENETRATIONS CANNOT BE FIRE STOPPED AT THE END OF THE WORK SHIFT, TEMPORARY FIRESTOPPING COMPOSED OF MINERAL WOOL SHALL BE INSTALLED IN THE PENETRATION TO PROVIDE PROTECTION AGAINST FIRE/SMOKE SPREAD THROUGH THE UNSEALED PENETRATION.
6. ACCESS PANELS IN HARD SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATIONS. COORDINATE LOCATION WITH FIRE PROTECTION INSTALLATION AND DEMONSTRATE ACCESS TO EQUIPMENT SERVED.
7. ROOMS THAT DO NOT HAVE CEILINGS (EXPOSED TO STRUCTURE) SHALL HAVE THE BRANCH PIPING MODIFIED TO TURN THE SPRINKLER HEAD UPRIGHT. PROVIDE SPRINKLER PROTECTION CAGE. ALL EXPOSED FIRE PROTECTION LINES SHALL BE PAINTED RED.
8. ROOMS WITH FINISHED CEILINGS SHALL HAVE SPRINKLER LOCATIONS ADJUSTED AS NEEDED FOR APPROPRIATE COVERAGE PER LATEST EDITION OF NFPA 13.
9. MODIFY EXISTING SPRINKLER SYSTEM WITHIN THE LIMITS OF CONTRUCTION TO COMPLY WITH NFPA 13. PROVIDE TEMPORARY UPRIGHT SPRINKLER HEADS TO PROTECT SPACES WHERE CEILINGS ARE REMOVED FOR CONSTRUCTION UNTIL THE NEW CEILING IS INSTALLED AND NEW DROPS TO NEW PENDENT SPRINKLERS ARE INSTALLED. TEMPORARY SPRINKLERS ARE NOT REQUIRED IF NEW OR EXISTING CEILING IS IN PLACE AT THE END OF THE WORK SHIFT. PROVIDE TEMPORARY SPRINKLERS AS REQUIRED TO PROVIDE CONTINUOUS COVERAGE OF ALL AREAS WITH CONSTRUCTION OF CONSTRUCTION BARRIER WALLS.
10. NFPA STANDARDS: FIRE-SUPPRESSION-SYSTEM, SPECIALTIES, ACCESSORIES, INSTALLATION, AND TESTING SHALL COMPLY WITH THE LATEST EDITION OF NFPA 13 "INSTALLATION OF SPRINKLER SYSTEMS."
11. CONTRACTOR SHALL HAVE NICET III/IV TECHNICIAN DESIGN DRAWINGS OR A LICENSED FIRE PROTECTION ENGINEER STAMP ON ALL SHOP DRAWING.
12. NEW FIRE PROTECTION PIPING SHALL BE PAINTED PER VA SPECIFICATIONS.
13. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF PIPING, SPRINKLERS, EQUIPMENT, AND MATERIALS WITH OTHER TRADES IN ACCORDANCE WITH NFPA 13.
14. SPRINKLER LOCATIONS ARE SCHEMATIC IN NATURE ONLY. CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATIONS OF ALL SPRINKLERS AND HEAD COUNT TO PROVIDE A FULLY FINISHED SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA 13.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING NEW WATER SUPPLY FLOW TESTS IN ACCORANCE WITH THE REQUIREMENTS OF NFPA 13 AND NFPA 291, PRIOR TO SUBMITTING FIRE SPRINKLER SHOP DRAWINGS.
16. PER NFPA 13, PROVIDE AN AUTOMATIC AIR VENT AND ISOLATION CONTROL VALVE AT A HIGH POINT OF EACH WET PIPE SYSTEM. IF THE AUTOMATIC AIR VENT INCORPORATES A DISCHARGE OUTLET, THE DISCHARGE SHALL BE PIPED TO A SAFE DISCHARGE LOCATION.
17. ALL SPRINKLER BRANCH LINES SHALL BE RESTRAINED AGAINST EXCESSIVE MOVEMENT PER NFPA 13.
18. CONTRACTOR SHALL TAKE INTO ACCOUNT THE CONFIGURATION OF EACH AREA BEING PROTECTED AND SHALL LAYOUT THE SPRINKLER LOCATIONS TO BE SYMMETRICALLY SPACED TO THE GREATEST EXTENT POSSIBLE.
19. FIRE PROTECTION SPRINKLER SYSTEM PIPING SHALL BE INSTALLED TO MINIMIZE PIPING OFFSETS IN ROOMS OF EXPOSED STRUCTURE. PIPING SHALL BE INSTALLED AS TIGHT TO STRUCTURE AS POSSIBLE AND SHALL BE INSTALLED TO MINIMIZE VISUAL IMPACTS.
20. NFPA 70 REQUIRES A DEDICATED SPACE OF 6'-0" ABOVE ALL ELECTRICAL PANELS, TRANSFORMERS, SWITCHGEARS, ETC. NO PIPING, DUCTS, OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THIS ZONE. ALL SPRINKLER PIPING THAT IS NOT COORDINATED TO AVOID THESE AREAS SHALL BE MODIFIED AND RELOCATED AT THE FIRE PROTECTION SPRINKLER CONTRACTOR'S EXPENSE.
21. ALL SPRINKLER SYSTEM COMPONENTS, DEVICES, AND MATERIALS INSTALLED AS PART OF THIS PROJECT SHALL BE NEW.
22. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ELEVATION AND HORIZONTAL ADJUSTMENTS IN THE PIPING REQUIRED TO FOLLOW THE BUILDING'S STRUCTURE, CEILING HEIGHTS, AND ARCHITECHTURAL FEATURES. THE CONTRACT DOCUMENTS ARE CONEPTUAL IN NATURE AND SHOW A PROPOSED FIRE SPRINKLER MAIN PIPE ROUTING, AND ROUTING IN EXPOSED AREAS, BUT DO NOT INCLUDE ALL REQUIRED FITTINGS OR OFFSETS THAT ALLOW THE PIPING TO BE INSTALLED AS IT IS SHOWN ON THE CONTRACT DOCUMENTS.

PIPING SYSTEMS

—FPW—	FIRE PROTECTION WET

PIPING SYMBOLS

- CONTINUATION
- DROP IN PIPE
- ELBOW
- TEE
- UNION
- TOP CONNECTION
- BOTTOM CONNECTION
- TOP CONNECTION, 45(DEG) OR 90° (DEG)
- BOTTOM CONNECTION, 45(DEG) OR 90° (DEG)
- PIPE UP
- PIPE DOWN
- VALVE (AS INDICATED OR SPECIFIED)
- CHECK VALVE
- BACKFLOW PREVENTER
- ZCV — ZONE CONTROL VALVE

ADDITIONAL SYMBOLS

- 2 / PL4 — DETAIL NUMBER; DRAWING NUMBER WHERE DRAWN
- A / PL7 — SECTION LETTER; DRAWING NUMBER WHERE SHOWN
- 26-P 3 — BUILDING NO. WHERE EQUIPMENT IS LOCATED; EQUIPMENT ABBREVIATION (PUMP); PUMP NO. 3 IN BUILDING NO. 26; TYPICAL UNIT NO.
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- LIMIT OF DEMOLITION
- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- SMOKE RATED WALL
- SMOKE & 1 HR FIRE RATED WALL

FIRE PROTECTION SYMBOLS

- PENDENT SPRINKLER
- UPRIGHT SPRINKLER WITH GUARD

ABBREVIATIONS

A/E:	ARCHITECT/ENGINEER
AFF:	ABOVE FINISH FLOOR
AFG:	ABOVE FINISH GRADE
AI:	ANALOG INPUT
AO:	ANALOG OUTPUT
ASJ:	ALL SERVICE JACKET
BACNET:	BUILDING AUTOMATION AND CONTROL NETWORK
BAS:	BUILDING AUTOMATION SYSTEM
BFP:	REDUCED PRESSURE BACKFLOW PREVENTER
BHP:	BRAKE HORSEPOWER
COR:	CONTRACTING OFFICER'S REPRESENTATIVE
CV:	CONTROL VALVE
CXA:	COMMISSIONING AGENT
DDC:	DIRECT DIGITAL CONTROL
DOE:	DEPARTMENT OF ENERGY
DWG:	DRAWING
E:	EXISTING
ECC:	ENGINEERING CONTROL CENTER AKA BAS
EL:	ELEVATION
EPA:	ENVIRONMENTAL PROTECTION AGENCY
F:	FAHRENHEIT
FDC:	FIRE DEPARTMENT (HOSE) CONNECTION
FS:	FLOW SWITCH
GAL:	GALLON
GPD:	GALLONS PER DAY
GPH:	GALLONS PER HOUR
GPM:	GALLONS PER MINUTE
HP:	HORSEPOWER
HZ:	HERTZ
ID:	INSIDE DIAMETER
INV:	INVERT
KW:	KILOWATT
KWH:	KILOWATT HOUR
LB:	POUND
MAX:	MAXIMUM
MFG:	MANUFACTURER
MIN:	MINIMUM
NC:	NORMALLY CLOSED
NO:	NORMALLY OPEN
NOM:	NOMINAL
NPS:	NOMINAL PIPE SIZE
NTS:	NOT TO SCALE
OC:	ON CENTER
OD:	OUTSIDE DIAMETER
OR:	OPERATING ROOM
PD:	PRESSURE DROP OR DIFFERENCE
PG:	PRESSURE GAUGE
PID:	PROPORTIONAL-INTEGRAL-DIFFERENTIAL
PLC:	PROGRAMMABLE LOGIC CONTROLLERS
PPB:	PARTS PER BILLION
PPM:	PARTS PER MILLION
PRV:	PRESSURE REDUCING VALVE
PSI:	POUNDS PER SQUARE INCH
PSIA:	POUNDS PER SQUARE INCH ATMOSPHERE
PSIG:	POUNDS PER SQUARE INCH GAUGE
RAD:	RADIANS
RPM:	REVOLUTIONS PER MINUTE
SF:	SQUARE FEET
SPEC:	SPECIFICATION
SQFT:	SQUARE FEET
STD:	STANDARD
TDH:	TOTAL DYNAMIC HEAD
TYP:	TYPICAL
V:	VOLT
VA:	VETERANS ADMINISTRATION
VAMC:	VETERANS ADMINISTRATION MEDICAL CENTER
VA TIL:	WWW.CFM.VA.GOV/TIL/INDEX.ASP
VHA:	VETERANS HEALTH ADMINISTRATION
VSD:	VARIABLE SPEED DRIVE
YCO:	YARD CLEANOUT
YH:	YARD HYDRANT

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Cath Lab Renovation/570-17-220 - VAFr - Cath Lab - Mechanical - 210929.rvt
3/27/2026 6:53:39 PM

Revisions:	Date:

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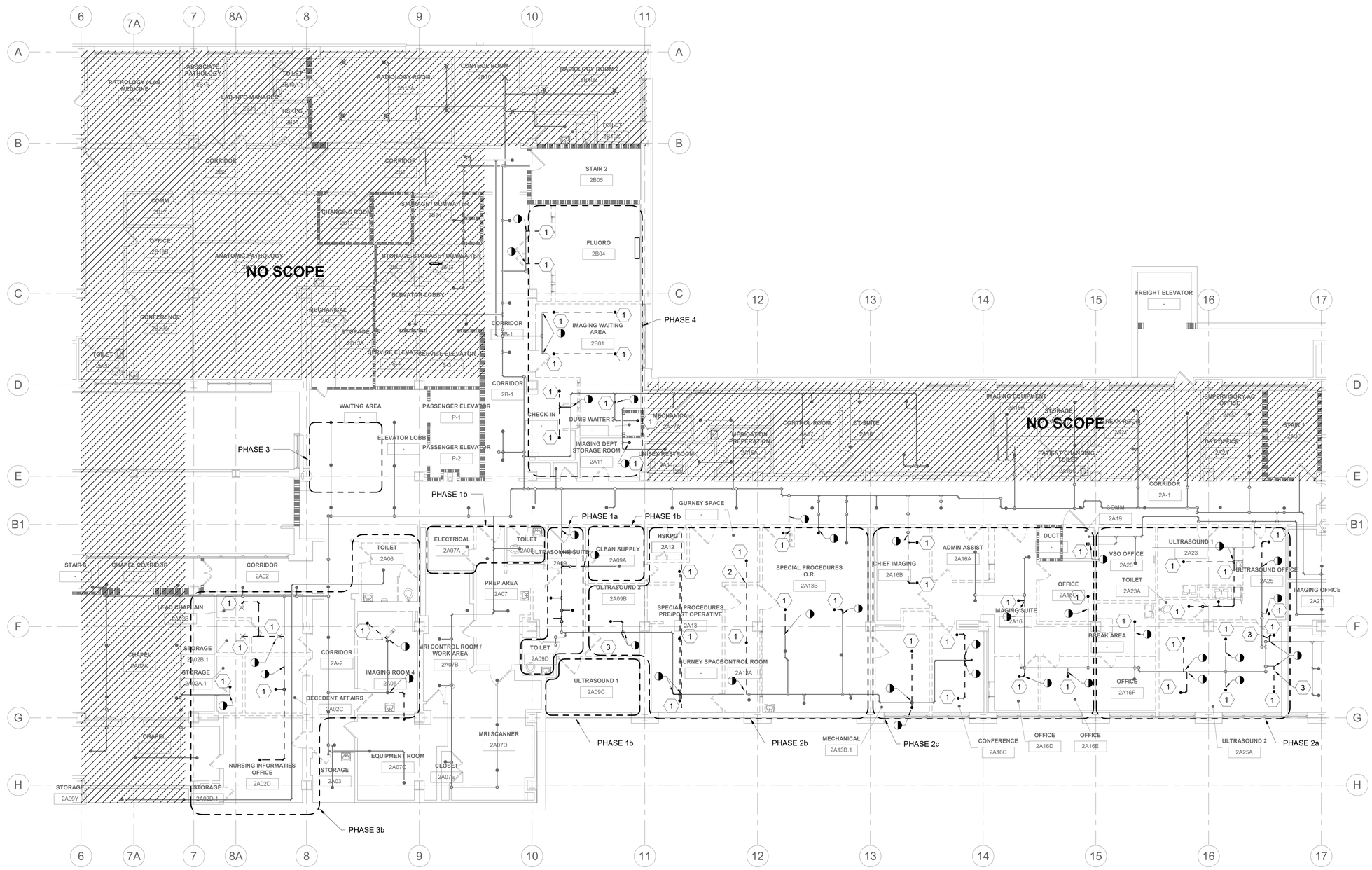
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	FIRE PROTECTION GENERAL NOTES
Phase	100% CD
Approved:	
Project Title	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Project Number	570-21-220
Building Number	
Location	VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Drawing Number	F-001
Issue Date	3/27/2026
Checked	MH
Drawn	AV

VA FORM 08 - 6231



1 SECOND FLOOR DEMO PLAN - FIRE PROTECTION

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES AND IN ACCORDANCE WITH THE CURRENT INTERNATIONAL MECHANICAL CODE.
3. ALL NEW MATERIAL, METHODS, AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE BUILDING STANDARDS AS APPROVED BY THE OWNER.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHTECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. PHASING PLAN SHOWN HERE FOR CONVENIENCE.
10. SEE ATTACHED FIRE SPRINKLER AS-BUILT DRAWINGS FOR REFERENCE.
11. VERIFY SPRINKLER ISOLATION VALVE SERVICE TO AREAS EXTERNAL TO AREA OF DEMOLITION WORK AND COORDINATE ANY SHUTDOWN OF SERVICE ASSOCIATED.

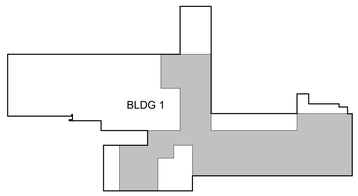
KEY NOTES

1 DEMOLISH AND REMOVE ALL SPRINKLER HEADS SHOWN IN THE SCOPE OF WORK AREA. MAINTAIN ACTIVE FIRE PROTECTION IN THIS AREA DURING CONSTRUCTION TO ALLOW FOR THE USE OF NON-RATED CONSTRUCTION BARRIERS. INSTALL TEMPORARY UPRIGHT SPRINKLERS DURING PHASES OF CONSTRUCTION WHERE THE CEILING IS REMOVED. DRAIN PIPING AND PROTECT EXISTING STRUCTURE FROM WATER DAMAGE. USE CARE AND CAUTION TO PROTECT SURROUNDING AREAS AND COORDINATE WITH OTHER TRADES DURING REMOVAL OF SPRINKLER PIPING. DAMAGE TO OTHER TRADES WORK SHALL BE IMMEDIATLY NOTED BY PROJECT MANAGER.

2 PIPING PENTETRATION THRU WALL. COORDINATE WITH ARCHITECTURE TO PATCH ANY REMAINING OPENING.

3 CAP PIPING AT POINT OF DEMOLITION.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

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STAMP: MICHAEL G. HUBBARD, STATE OF WASHINGTON, 39485, REGISTERED PROFESSIONAL ENGINEER, 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR DEMO - FIRE PROTECTION	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: FD101

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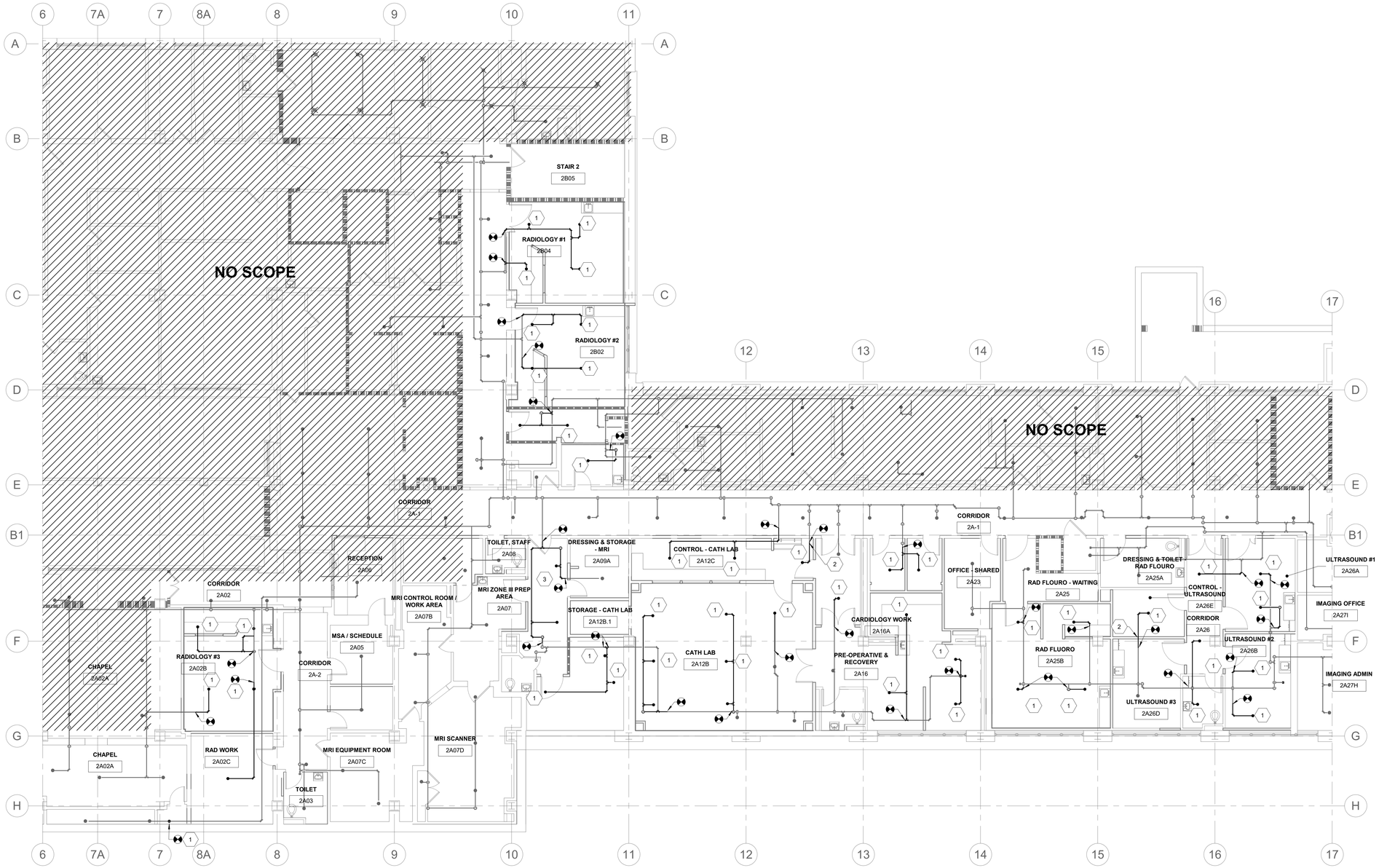


1 SECOND FLOOR PLAN - FIRE PROTECTION

SCALE: 1/8" = 1'-0"

PROJECT NORTH

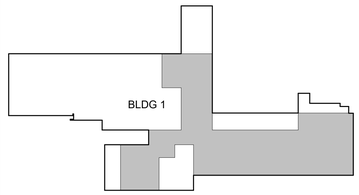
GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES AND IN ACCORDANCE WITH THE CURRENT INTERNATIONAL MECHANICAL CODE.
3. ALL NEW MATERIAL, METHODS, AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE BUILDING STANDARDS AS APPROVED BY THE OWNER.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHTECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.
10. INSTALL TEMPORARY UPRIGHT SPRINKLERS DURING PHASES OF CONSTRUCTION WHERE THE CEILING IS REMOVED. DRAIN PIPING AND PROTECT EXISTING STRUCTURE FROM WATER DAMAGE. USE CARE AND CAUTION TO PROTECT SURROUNDING AREAS AND COORDINATE WITH OTHER TRADES DURING REMOVAL OF SPRINKLER PIPING. DAMAGE TO OTHER TRADES WORK SHALL BE IMMEDIATLY NOTED BY PROJECT MANAGER. CONTRACTOR TO SUBMIT NFPA 25 COMPLIANT IMPAIRMENT PLAN AND TEMPORARY PROTECTION PLAN FOR EACH PHASE.
11. SEE ATTACHED FIRE SPRINKLER AS-BUILT DRAWINGS FOR REFERENCE.
12. SPRINKLER HEAD 7.5' SPACING FROM WALL ARE SHOWN WITH DASHED LINE.
13. SPRINKLER HAZARD CLASSIFICATION IS LIGHT HAZARD OCCUPANCY FOR ALL SPACES IN SCOPE OF WORK.
14. ALL NEW FIRE PROTECTION PIPING IS 2" PIPING FOR BASIS OF DESIGN. FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR SIZING OF FINAL SIZING AND ROUTING OF PIPING.

KEY NOTES (#)

1 USG CONCEALED SPRINKLER HEAD.
2 PIPING PENETRATION THROUGH WALL.
3 REROUTE FIRE PROTECTION PIPING AS REQUIRED TO PROPERLY ROUTE DUCTWORK SERVING CATH LAB THROUGH THIS CORRIDOR.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR - FIRE PROTECTION	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: F-101

VA FORM 08 - 6231

GENERAL NOTES

MECHANICAL DEMOLITION GENERAL NOTES

1. REFER TO ALL DRAWINGS FOR COORDINATION BETWEEN DEMOLITION AND NEW WORK. COORDINATE DEMOLITION WORK WITH THAT OF OTHER TRADES.

2. COORDINATE SALVAGE AND REUSE OF EXISTING EQUIPMENT WITH OWNER. ITEMS OF VALUE WHICH ARE NOT DIRECTED TO BE RETURNED TO THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR. STORAGE OR SALE OF ITEMS ON THE PROJECT SITE IS PROHIBITED.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
   A) PROTECTING, COVERING, AND SEALING EXISTING EQUIPMENT AND SURROUNDINGS DURING DEMOLITION FROM DIRT, DUST, AND DEBRIS.
   B) ENSURING THE SAFE PASSAGE OF PERSONS IN AND AROUND THE BUILDING DURING DEMOLITION.
   C) PREVENTING INJURY TO PERSONS AND DAMAGE TO PROPERTY.
   D) PROVIDING ADEQUATE SHORING AND BRACING TO PREVENT COLLAPSE.
   E) REPAIRING DAMAGED PROPERTY TO ITS ORIGINAL CONDITION IMMEDIATELY AFTER THE DAMAGE OCCURS.
   F) TAKING EFFECTIVE MEASURES TO PREVENT DUST MIGRATION.

4. MAINTAIN ALL UTILITIES EXCEPT THOSE REQUIRING REMOVAL OR RELOCATION. KEEP UTILITIES IN SERVICE AND PROTECT FROM DAMAGE. DO NOT INTERRUPT UTILITIES SERVING AREAS OUTSIDE OF PRESENT SCOPE WITHOUT FIRST OBTAINING PERMISSION FROM OWNER. PROVIDE TEMPORARY SERVICES AS REQUIRED.

5. REMOVE AND DISPOSE OF EXISTING MECHANICAL EQUIPMENT AS SHOWN, UNLESS NOTED OTHERWISE. COORDINATE WITH ARCHITECTURAL PLANS, AREAS OF DEMOLITION AROUND, ADJACENT, OR CONNECTED TO EXISTING MECHANICAL EQUIPMENT THAT IS TO REMAIN.

MECHANICAL GENERAL NOTES

1. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.

2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, VA STANDARDS, AND SPECIFICATIONS.

3. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. IN CASES OF CONFLICT BETWEEN MANUFACTURER REQUIREMENTS, DRAWINGS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

4. COORDINATE INSTALLATION OF EQUIPMENT AND MATERIALS WITH OTHER TRADES.

5. DO NOT ROUTE CONDENSATE PIPING OVER ELECTRICAL PANELS OR ELECTRONIC EQUIPMENT.

6. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND VA COR PRIOR TO ANY CUTTING OF WALLS AND ROOF.

7. IF FLOOR OR RATED WALL PENETRATIONS CANNOT BE FIRE STOPPED AT THE END OF THE WORK SHIFT, TEMPORARY FIRESTOPPING COMPOSED OF MINERAL WOOL SHALL BE INSTALLED IN THE PENETRATION TO PROVIDE PROTECTION AGAINST FIRE/SMOKE SPREAD THROUGH THE UNSEALED PENETRATION.

8. INSTALL GRAVITY CONDENSATE DRAIN PIPING WITH A MINIMUM OF 1/8" PER LINEAR FOOT (1%) SLOPE.

9. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN A FURRED CHASE, ABOVE HARD SUSPENDED CEILING, OR ABOVE AN ACOUSTICAL CEILING.

10. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS.

11. ACCESS PANELS IN HARD SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATIONS. COORDINATE LOCATION WITH MECHANICAL INSTALLATION AND DEMONSTRATE ACCESS TO EQUIPMENT SERVED.

12. EXTERNAL STATIC PRESSURE NOTED IN THE SCHEDULES INCLUDES DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC. LOSS FOR FILTERS SHALL BE FOR FILTERS AT 50% LOADING.

13. DIFFUSER, REGISTER, AND GRILLE SIZES SHOWN ON FLOOR PLANS ARE NECK SIZES.

14. WATER PIPE CONNECTIONS TO AIR HEATING AND COOLING COILS SHALL BE MADE TO PROVIDE COUNTER FLOW BETWEEN WATER AND AIR.

15. WALL TYPE EXHAUST REGISTERS NOTED AS "BR" ON DRAWINGS ARE TO BE INSTALLED WITH BOTTOM ELEVATION OF REGISTER AT 7" ABOVE FINISHED FLOOR.

16. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF CEILING DIFFUSERS, REGISTERS, AND GRILLES.

17. SEISMIC PROVISIONS REQUIRED - SEE SPECS.

18. ALL PRESSURES LISTED ARE GAUGE PRESSURE UNLESS OTHERWISE NOTED.

MECHANICAL SHEET INDEX

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ABBREVIATIONS

A/E: ARCHITECT / ENGINEER
AAHX: AIR TO AIR HEAT EXCHANGER
AAV: AUTOMATIC AIR VENT
AB: AIR BLENDER
ACC: AIR COOLED CONDENSER
ACCH: AIR COOLED CHILLER
ACCU: AIR COOLED CONDENSING UNIT
ACD: AUTOMATIC CONTROL DAMPER, MODULATING
ACD-TP: AUTOMATIC CONTROL DAMPER, TWO POSITION
ACU: AIR CONDITIONING UNIT
AFF: ABOVE FINISHED FLOOR
AFMS: AIR FLOW MEASURING STATION
AHU: AIR-HANDLING UNIT
AMP: AMPERE
AP: ACCESS PANEL
APD: AIR PRESSURE DROP
AQST: AQUASTAT
AS: AIR SEPARATOR
ASHRAE: AMERICAN SOCIETY OF HEATING REFRIGERATION AIR CONDITIONING ENGINEERS

B: BOILER
BDD: BACKDRAFT DAMPER
BFP: BACKFLOW PREVENTER
BHP: BRAKE HORSEPOWER
BT: BLOWOFF TANK
BTC: BLOWOFF TANK CONTROL VALVE
BTU: BRITISH THERMAL UNIT
BTUH: BRITISH THERMAL UNIT PER HOUR

CAV: CONSTANT AIR VOLUME
CC: COOLING COIL
CCD: COOLING COIL CONDENSATE DRAIN
CD: CEILING DIFFUSER
CD-1: CONSTRUCTION DOCUMENTS (SUBMISSION1)
CD-2: CONSTRUCTION DOCUMENTS (SUBMISSION2)
CFH: CUBIC FEET PER HOUR
CFM: CUBIC FEET PER MINUTE
CH: CHILLER
CHP: CHILLED WATER PUMP
CHW: CHILLER WATER
CHR: CHILLED WATER RETURN
CHS: CHILLED WATER SUPPLY
CM: CARBON MONOXIDE
CO: CLEAN OUT
CO2: CARBON DIOXIDE
COMP: COMPRESSOR UNIT
COP: COEFFICIENT OF PERFORMANCE
CP: CONDENSATE PUMP
CS: CONDENSATE STORAGE TANK
CSG: CLEAN STEAM GENERATOR
CT: COOLING TOWER
CU: CONDENSING UNIT
CUH: CABINET UNIT HEATER
CV: CONSTANT VOLUME
CW: COLD WATER (POTABLE)
CWCC: CHILLED WATER COOLING COIL
CWP: CONDENSER WATER PUMP
CWR: CONDENSER WATER RETURN (TO COOLING TOWER)
CWS: CONDENSER WATER SUPPLY (FROM COOLING TOWER)

Db: DRY-BULB TEMPERATURE
DB: DECIBELS
DCW: DOMESTIC COLD WATER
DD-1: DESIGN DEVELOPMENT (SUBMISSION 1)
DD-2: DESIGN DEVELOPMENT (SUBMISSION 2)
DDC: DIRECT DIGITAL CONTROLS
DEG: DEGREE
DHW: DOMESTIC HOT WATER
DHWR: DOMESTIC HOT WATER RETURN
DIA: DIAMETER
DIW: DEIONIZED WATER
DP: DEW POINT TEMPERATURE
DPS: DIFFERENTIAL PRESSURE SENSOR
DX: DIRECT EXPANSION
DXCC: DIRECT EXPANSION COOLING COIL

EA: EXHAUST AIR
EAT: ENTERING AIR TEMPERATURE
EC: EVAPORATIVE COOLER
ECC: ENGINEERING CONTROL CENTER
EDH: ELECTRIC DUCT HEATER
EER: ENERGY EFFICIENCY RATIO
EF: EXHAUST FAN
EG: EXHAUST GRILLE
EGS: EMERGENCY GAS SHUTOFF
EH: EXHAUST HOOD
EJ: EXPANSION JOINT
ENT: ENTERING
ER: EXHAUST REGISTER
ERC: ELECTRIC REHEAT COIL
ERP: ELECTRIC RADIANT PANEL
ESP: EXTERNAL STATIC PRESSURE
ET: EXPANSION TANK
EUH: ELECTRIC UNIT HEATER
EWC: EVAPORATIVE WATER COOLER
EWT: ENTERING WATER TEMPERATURE
EX: EXISTING

F: FAHRENHEIT
F&T: FLOAT AND THERMOSTATIC
F/SDPR: COMBINATION FIRE SMOKE DAMPER
FA: FREE AREA
FC: FLEXIBLE CONNECTION
FCU: FAN COIL UNIT (4 PIPE)
FCUC: FAN COIL UNIT COOLING ONLY
FCUH: FAN COIL UNIT HEATING ONLY
FCW: FORWARD CURVED WHEEL (FAN)
FD: FLOOR DRAIN
FD: FIRE DAMPER
FF: FINAL FILTER
FM: FLOW METER
FOP: FUEL OIL PUMP
FOT: FUEL OIL TANK
FOHX: FUEL OIL HEAT EXCHANGER
FPM: FEET PER MINUTE
FPS: FEET PER SECOND
FPTU: FAN POWERED TERMINAL UNIT
FR: FLOOR REGISTER
FS: FLOW SWITCH
FSTAT: FREEZESTAT
FT: FEET
FT WC: FEET OF WATER COLUMN
FT-LB: FOOT-POUND
FV: FACE VELOCITY

GA: GAUGE
GAL: GALLONS
GPD: GALLONS PER DAY
GPH: GALLONS PER HOUR
GPM: GALLONS PER MINUTE
GPR: GAS PRESSURE REGULATOR

H: HUMIDIFIER
HAC: HOUSEKEEPING AID CLOSET
HB: HOSE BIB
HC: HEATING COIL
HD: HOOD
HOA: HAND/OFF/AUTOMATIC
HP: HEAT PUMP
HP: HORSEPOWER
HPDT: HIGH PRESSURE DRIP TRAP
HPR: HIGH PRESSURE RETURN (STEAM CONDENSATE)
HPS: HIGH PRESSURE SUPPLY (STEAM)
HRC: HEAT RECOVERY COIL
HRD: HEAT RECOVERY DEVICE
HRP: HYDRONIC RADIANT (CEILING) PANEL
HRW: HEAT RECOVERY WHEEL
HSTAT: HUMIDISTAT
HW: HOT WATER
HWC: HOT WATER COIL
HWHC: HOT WATER HEATING COIL
HWP: HEATING HOT WATER PUMP
HWR: HEATING HOT WATER RETURN
HWS: HEATING HOT WATER SUPPLY
HWUH: HOT WATER UNIT HEATER
HX: HEAT EXCHANGER
HZ: HERTZ

I/O: INPUT/OUTPUT
IAQ: INDOOR AIR QUALITY
IBT: INVERTED BUCKET TRAP
ICU: INTENSIVE CARE UNIT
ID: INSIDE DIAMETER
IFB: INTEGRAL FACE BYPASS
IN: INCHES
IN HG: INCHES OF MERCURY
IN WC: INCH WATER COLUMN
IN WG: INCH WATER GAUGE
IN-LB: INCH-POUND
IRH: INTRARED HEATER
IU: INDUCTION UNIT

KW: KILOWATT
KWH: KILOWATT HOUR

LAT: LEAVING AIR TEMPERATURE
LBS/HR: POUNDS PER HOUR
LF: LINEAR FOOT (FEET)
LH: LATENT HEAT
LPG: LIQUEFIED PETROLEUM GAS
LPR: LOW PRESSURE RETURN (STEAM CONDENSATE)
LPRC: LOW PRESSURE STEAM RETURN (CLEAN)
LLHX: LIQUID TO LIQUID HEAT EXCHANGER
LPS: LOW PRESSURE STEAM
LPSC: LOW PRESSURE STEAM (CLEAN)
LSD: LINEAR SLOT DIFFUSER
LVG: LEAVING
LVR: LOUVER
LWT: LEAVING WATER TEMPERATURE

MA: MIXED AIR
MAT: MIXED AIR TEMPERATURE
MAU: MAKE-UP AIR UNIT
MAV: MANUAL AIR VENT
MAX: MAXIMUM
MB: MIXING BOX
MBH: 1,000 BTUH
MCA: MINIMUM BRANCH CIRCUIT AMPACITY
MERV: MINIMUM EFFICIENCY REPORTING VALUE
MIN: MINIMUM
MOV: MOTOR OPERATED VALVE
MPR: MEDIUM PRESSURE RETURN (STEAM CONDENSATE)
MPS: MEDIUM PRESSURE STEAM
MRI: MAGNETIC RESONANCE IMAGING
MVD: MANUAL VOLUME DAMPER

NA: NOT APPLICABLE
NC: NOISE CRITERIA
NC: NORMALLY CLOSED
NG: NATURAL GAS
NGFM: NATURAL GAS FLOWMETER
NO: NORMALLY OPEN
NOM: NOMINAL
NPLV: NON-STANDARD PART LOAD VALUE
NPSH: NET POSITIVE SUCTION HEAD
NPSHA: NET POSITIVE SUCTION HEAD AVAILABLE
NPSHR: NET POSITIVE SUCTION HEAD REQUIRED
NTS: NOT TO SCALE

OA: OUTSIDE AIR
OAD: OUTDOOR AIR DAMPER
OAG: OUTSIDE AIR GRILLE
OAI: OUTSIDE AIR INTAKE
OD: OUTSIDE DIAMETER
OR: OPERATING ROOM

P: PUMP
Pa: PASCAL
PC: PUMPED CONDENSATE
PCF: POUNDS PER CUBIC FOOT (FEET)
PD: PRESSURE DROP
PF: PRE-FILTER
PG: PRESSURE GAUGE
PHC: PREHEAT COIL
PPM: PARTS PER MILLION
PRS: PRESSURE REGULATING (VALVE) STATION
PRV: PRESSURE REGULATING VALVE
PSI: POUNDS PER SQUARE INCH
PSIA: POUNDS PER SQUARE INCH – ABSOLUTE
PSIG: POUNDS PER SQUARE INCH – GAUGE
PTAC: PACKAGED TERMINAL AIR CONDITIONER

R/E: RETURN OR EXHAUST
RA: RETURN AIR
RAD: RETURN AIR DAMPER
RAT: RETURN AIR TEMPERATURE
RCCH: REMOTE CONDENSER CHILLER
RD: REFRIGERANT DISCHARGE
RDS: ROOM DATA SHEETS
REA: RELIEF AIR
RF: RETURN FAN
RG: RETURN GRILLE
RH: RELATIVE HUMIDITY
RHC: REHEAT COIL
RHG: REFRIGERANT HOT GAS
RL: REFRIGERANT LIQUID LINE
RLA: RUN LOAD AMPERE
RO: REVERSE OSMOSIS
RPM: REVOLUTIONS PER MINUTE
RR: RETURN REGISTER
RS: REFRIGERANT SUCTION
RTU: ROOF TOP UNIT

SA: SUPPLY AIR
SAD: SOUND ATTENUATING DEVICE
SAT: SUPPLY AIR TEMPERATURE
SCFM: STANDARD CUBIC FEET PER MINUTE
SD: SMOKE DETECTOR
SD-1: SCHEMATIC DESIGN (SUBMISSION1)
SD-2: SCHEMATIC DESIGN (SUBMISSION2)
SDPR: SMOKE DAMPER
SEN: SENSIBLE HEAT
SF: SUPPLY FAN
SG: SUPPLY AIR GRILLE
SH: STEAM HUMIDIFIER
SHC: STEAM HEATING COIL
SP: STATIC PRESSURE
SPD: SUPPLY PROCESS AND DISTRIBUTION
SPRV: STEAM PRESSURE REDUCING VALVE
SPS: STATIC PRESSURE SENSOR
SQ FT: SQUARE FOOT (FEET)
SR: SUPPLY AIR REGISTER
SS: STAINLESS STEEL
SSHX: STEAM TO STEAM HEAT EXCHANGER
SSR: SOLID SEPARATOR
ST: STEAM TRAP
SUH: STEAM UNIT HEATER
SV: STEAM PRESSURE REDUCING VALVE
SVS: STEAM VENT SILENCER
SW: SOFTWATER
SWHX: STEAM TO WATER HEAT EXCHANGER

T&PCV: TEMPERATURE AND PRESSURE CONTROL VALVE
TAB: TESTING, ADJUSTING, BALANCE
TD: TEMPERATURE DIFFERENCE
TDH: TOTAL DYNAMIC HEAD
TDS: TOTAL DISSOLVED SOLIDS
TG: TRANSFER GRILLE
TP: TRAP
TR: TOP REGISTER
TSP: TOTAL STATIC PRESSURE
TSTAT: THERMOSTAT
TU: TERMINAL UNIT
TWU: THRU-WALL UNIT

UH: UNIT HEATER

V: VALVE
VAV: VARIABLE AIR VOLUME
VD: VOLUME DAMPER (MANUAL OPPOSED BLADE)
VFD: VARIABLE FREQUENCY DRIVE
VP: VACUUM PUMP
VPS: VARIABLE PRIMARY SYSTEM
VR: VACUUM (STEAM CONDENSATE) RETURN
VSD: VARIABLE SPEED DRIVE

W: WATTS
WAG: WASTE ANESTHESIA GAS
WB: WET-BULB (TEMPERATURE)
WC: WATER COOLED
WCCH: WATER COOLED CHILLER
WCCU: WATER COOLED CONDENSING UNIT
WCHP: WATER COOLED HEAT PUMPS
WCPU: WATER COOLED PACKAGED UNIT
WF: WATER FILTER
WFCV: WATER FLOW CONTROL VALVE
WFM: WATER FLOWMETER
WFMD: WATER FLOW MEASURING DEVICE
WG: WATER GAUGE
WPD: WATER SIDE PRESSURE DROP

YR: YEAR

Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL - GENERAL NOTES AND ABBREVIATIONS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MH
Drawn: AV
Project Number: 570-21-220
Building Number: 001
Drawing Number: M-001

VA FORM 08 - 6231

PIPING LEGEND

S-60	HIGH PRESSURE STEAM (60 PSIG AND ABOVE)
CR-60	HIGH PRESSURE STEAM CONDENSATE RETURN
S-30	MEDIUM PRESSURE STEAM (16 PSIG THRU 59 PSIG)
CR-30	MEDIUM PRESSURE STEAM CONDENSATE RETURN
S-15	LOW PRESSURE STEAM (15 PSIG AND BELOW)
CR-15	LOW PRESSURE STEAM CONDENSATE RETURN
PC	CONDENSATE PUMP DISCHARGE
HWS	HOT WATER HEATING SUPPLY
HWR	HOT WATER HEATING RETURN
GHS	GLYCOL-WATER HEATING SUPPLY
GHR	GLYCOL-WATER HEATING RETURN
RL/RS	REFRIGERANT LIQUID/SUCTION
RHG	REFRIGERANT HOT GAS
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
GCS	CHILLED GLYCOL-WATER SUPPLY
GCR	CHILLED GLYCOL-WATER RETURN
D	CONDENSATE DRAIN
G	NATURAL GAS (1/2 PSI OR LESS)
X	EXISTING PIPE TO BE REMOVED

ADDITIONAL SYMBOLS

- 2 / H4 — DETAIL NUMBER; DRAWING NUMBER WHERE DRAWN
- A / H7 — SECTION LETTER; DRAWING NUMBER WHERE SHOWN
- 26-SF 3 — BUILDING NO. WHERE EQUIPMENT IS LOCATED; EQUIPMENT ABBREVIATION (SUPPLY FAN); SUPPLY FAN NO. 3 IN BUILDING NO. 26; TYPICAL UNIT NO.
- 26-TU-1-1 — BUILDING NO. WHERE EQUIPMENT IS LOCATED; ITEM (TERMINAL UNIT SHOWN); ITEM NUMBER (TERMINAL UNIT NO. 1); SERVED BY AIR HANDLER UNIT NO. 1
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- LIMIT OF DEMOLITION

FLOOR PLAN CONTROL SYMBOLS

- T — TEMPERATURE SENSOR OR THERMOSTAT
- H — ROOM HUMIDISTAT
- M — MOISTURE SENSOR
- R — REFRIGERANT SENSOR

DUCTWORK SYMBOLS

SINGLE LINE | DOUBLE LINE | SINGLE LINE | DOUBLE LINE

- ROUND DUCT UP
- ROUND DUCT DOWN
- SUPPLY DUCT UP
- SUPPLY DUCT DOWN
- OR — STANDARD RADIUS ELBOW (R= W) SUPPLY/RETURN /EXHAUST (R, W)
- TURNING VANES
- OR — BULLHEAD SPLIT SUPPLY
- CEILING DUCT MTD. DIFF/GRILLE
- TAKEOFF TO DIFF/GRILLE
- HARD ELBOW
- CEILING DUCT MTD. DIFF/GRILLE
- ACOUSTICALLY LINED DUCT
- DUCTWORK OR EQUIPMENT TO BE REMOVED
- OPEN END DUCT W/ 1/4"x1/4" WMS
- FLEXIBLE DUCT
- RETURN DUCT UP
- EXHAUST DUCT UP
- RETURN DUCT DOWN
- EXHAUST DUCT DOWN
- HORIZONTAL OFFSET SUPPLY/RETURN /EXHAUST
- RISE/DROP — RISE OR DROP SUPPLY/RETURN /EXHAUST — RISE UP, DROP DN
- 45°F TAP TAKE-OFF
- 90°F TAP TAKE-OFF — RECT. TAP, ROUND DUCT, ROUND TAP, RECT TAP
- RECTANGULAR MAIN DUCT
- 90°F TAP TAKE-OFF — ROUND TAKEOFF
- ROUND MAIN DUCT
- BULLHEAD CONVERGE RETURN /EXHAUST
- SIDEWALL DUCT MTD. REG./GRILLE
- SUPPLY SIDEWALL LINEAR DIFFUSER (W/SHEET METAL PLENUM W/1" LINING & BRANCH CONN FOR EVERY 4' OF LENGTH) — VD, VD
- SUPPLY CEILING LINEAR DIFFUSER (W/SHEET METAL PLENUM W/1" LINING & BRANCH CONN FOR EVERY 4' OF LENGTH) — VD, VD, BOOT BY LD MF'R

ADDITIONAL DUCTWORK SYMBOLS

- 1 — FIRE DAMPER
- BD — BACKDRAFT DAMPER
- M — MOTORIZED DAMPER
- STANDARD 4-WAY BLOW SUPPLY DIFFUSER
- 3-WAY BLOW SUPPLY DIFFUSER
- OR — 2-WAY BLOW SUPPLY DIFFUSER
- 1-WAY BLOW SUPPLY DIFFUSER
- W"/H" — WIDTH AND HEIGHT IN INCHES FOR FLAT OVAL DUCT

AIR OUTLET CALLOUT

- 1 — AIR OUTLET TYPE
- 2 — NECK SIZE (IN)
- 3 — AIRFLOW (CFM)

[SD] 18X18 / 500

FIRE PROTECTION

- PENDENT SPRINKLER
- UPRIGHT SPRINKLER WITH GUARD

GENERAL PIPING SYMBOLS

- DIRECTION OF PIPE PITCH (DOWN)
- DIRECTION OF FLOW
- ANCHOR
- REDUCER OR INCREASER
- ECCENTRIC REDUCER
- TOP CONNECTION. 45° OR 90°
- BOTTOM CONNECTION, 45° OR 90°
- SIDE CONNECTION
- CAPPED OUTLET
- RISE OR DROP IN PIPE
- UNION
- PIPE UP
- PIPE DOWN
- INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL
- FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL
- THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES SEE DETAIL
- THERMOMETER
- PRESSURE GAUGE
- VENTURI FLOW METER
- REFRIGERANT SIGHT GLASS
- TEST PLUG (PRESSURE/TEMPERATURE)
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- QUICK-COUPLE HOSE CONNECTOR
- TOP TAKEOFF
- BOTTOM TAKEOFF
- PIPE BREAK
- BLIND FLANGE

VALVE SYMBOLS

- GATE VALVE - THREADED/FLANGED
- GLOBE VALVE - THREADED/FLANGED
- GATE VALVE WITH 3/4" HOSE ADAPTER
- CHECK VALVE
- WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
- WYE STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR
- FLEXIBLE CONNECTION
- ANGLE GLOBE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- MODULATING CONTROL VALVE
- MODULATING CONTROL BUTTERFLY VALVE
- TWO POSITION CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- THREE-WAY TWO POSITION CONTROL VALVE
- PRESSURE REGULATING VALVE
- PRESSURE SAFETY VALVE
- AUTOMATIC BALANCING CONTROL VALVE
- WATER BALANCE DEVICE
- CIRCUIT SETTER VALVE
- GATE VALVE WITH GLOBE-VALVED BYPASS
- PLUG VALVE
- CONTROL VALVE (CV) - FLOAT-OPERATED
- PRESSURE REDUCING VALVE (PRV)
- LC — WATER LEVEL CONTROLLER
- M — FLOW METER

CONTROLS DIAGRAM SYMBOLS

- T — ROOM THERMOSTAT/TRANSMITTER – WALL MOUNT
- M — ROOM HUMIDISTAT (MOISTURE)/TRANSMITTER – WALL MOUNT
- TT — TEMPERATURE TRANSMITTER
- TT — TEMPERATURE TRANSMITTER, AVERAGING ELEMENT
- MT — MOISTURE (HUMIDITY) TRANSMITTER
- PT — PRESSURE TRANSMITTER
- SPS — STATIC PRESSURE SENSOR
- FT — FLOW TRANSMITTER
- IT — CURRENT TRANSMITTER
- CT — CONDUCTIVITY TRANSMITTER
- SD — SMOKE DETECTOR
- PDT — PRESSURE DIFFERENTIAL TRANSMITTER
- PDS — PRESSURE DIFFERENTIAL SWITCH
- HS — HAND SWITCH (HAND—OFF—AUTO SWITCH)
- ZC — VALVE OR DAMPER POSITION CONTROLLER
- KR — LOCAL RECORDING TIME CLOCK (RUNTIME)
- TSL — TEMPERATURE SWITCH, LOW (FREEZESTAT)
- SHT — TEMPERATURE SWITCH, HIGH (FREEZESTAT)
- LC — LEVEL CONTROLLER
- LT — LEVEL TRANSMITTER
- PSH — PRESSURE SWITCH HIGH
- PSL — PRESSURE SWITCH LOW
- EPT — ELECTRONIC TO PNEUMATIC TRANSDUCER
- ATCO2 — CARBON DIOXIDE TRANSMITTER
- ATCO — CARBON MONOXIDE TRANSMITTER
- ATOC — OCCUPANCY SENSOR
- LTCP — LOCAL TEMPERATURE CONTROL PANEL
- HVAC — HVAC CONTROL PANEL
- VSMC — VARIABLE SPEED MOTOR CONTROLLER INTEGRATE CONTROL POINT ON REMOTE GRAPHICS
- EC C — WORKSTATION AT ENERGY CONTROL CENTER
- T C — TEMPERATURE CONTROLLER. SEE SEQUENCE OF OPERATION
- P C — PRESSURE CONTROLLER. SEE SEQUENCE OF OPERATION
- S C — SPEED CONTROLLER. SEE SEQUENCE OF OPERATION
- F C — FLOW CONTROLLER. SEE SEQUENCE OF OPERATION
- FSH — FLOW SWITCH HIGH
- FSL — FLOW SWITCH LOW
- KC — TIME CLOCK CONTROLLING EQUIPMENT ON A SCHEDULE
- TEMPERATURE SENSING ELEMENT FOR TRANSMITTING TEMPERATURE TO EMCS (PROVIDE 12 INCHES [200mm] MINIMUM LENGTH IN DUCT WHEN SPACE PERMITS.)
- A — SENSOR WITH AVERAGING ELEMENT TO TRANSMIT TEMPERATURE TO EMCS
- M — MOTOR STARTER
- ELECTRIC OPERATED CONTROL DAMPER/OR VALVE

INDOOR DESIGN CONDITIONS

ROOM TYPE	SUMMER		WINTER	
	TEMP DB (°F)	REL HUM (%)	TEMP DB (°F)	REL HUM (%)
CATH LAB	66	30-60	70	30-60
EXAM ROOMS	75	30-60	70	30-60
RADIOLOGY	75	30-60	70	30-60
ULTRASOUND	75	30-60	70	30-60
WAITING AREA	75	30-60	70	30-60

OUTDOOR DESIGN CONDITIONS

STATE	COUNTY	ALTITUDE (FT)	CLIMATE ZONE	SUMMER		WINTER
				TEMP DB (°F)	TEMP WB (°F)	TEMP DB (°F)
CALIFORNIA	FRESNO	308	5A	103.6	71.2	31.5

Revisions: | Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032
SDB SPEESDESIGNBUILD

STAMP

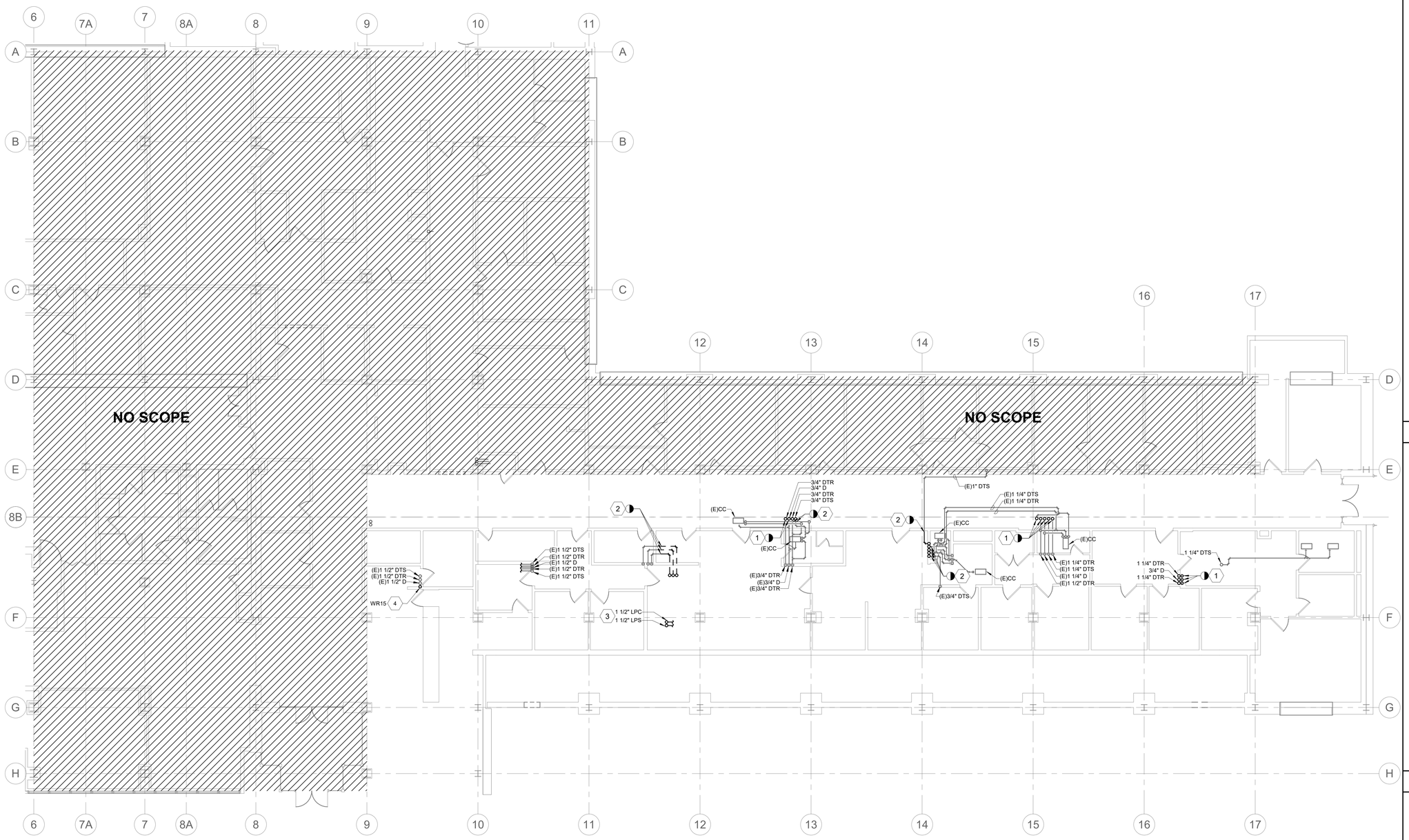
MICHAEL G. HUBBARD — STATE OF WASHINGTON — 3/27/2026 — 39485 — REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	MECHANICAL - LEGENDS
Phase	100% CD
Project Title	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Project Number	570-21-220
Building Number	
Approved:	
	FULLY SPRINKLERED
Location	VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Drawing Number	M-002
Issue Date	3/27/2026
Checked	MH
Drawn	AV

VA FORM 08 - 6231



1 FIRST FLOOR DEMO PLAN - HYDRONIC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

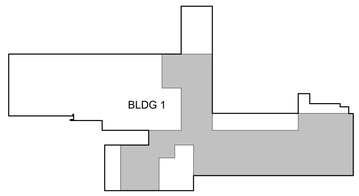
GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES AND IN ACCORDANCE WITH THE CURRENT INTERNATIONAL MECHANICAL CODE.
3. ALL NEW MATERIAL, METHODS, AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE BUILDING STANDARDS AS APPROVED BY THE OWNER.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMENCEMENT OF WORK.

KEY NOTES (#)

1. NEW CONNECTION TO BE MADE IN RISE AS HIGH AS POSSIBLE AT THIS LOCAITON. REMOVE PIPING UP THRU FLOOR.
2. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL PIPING, SUPPORTS, INSULATION, ETC. SHOWN DASHED BEYOND THIS POINT.
3. REMOVE PIPING BACK TO NEAREST MAIN AND CAP.
4. REMOVE PIPING BACK FOR DUAL-TEMPERATURE RISER INDICATED BACK TO MAIN IN SUB-BASEMENT AND CAP.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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SPEESDESIGNBUILD

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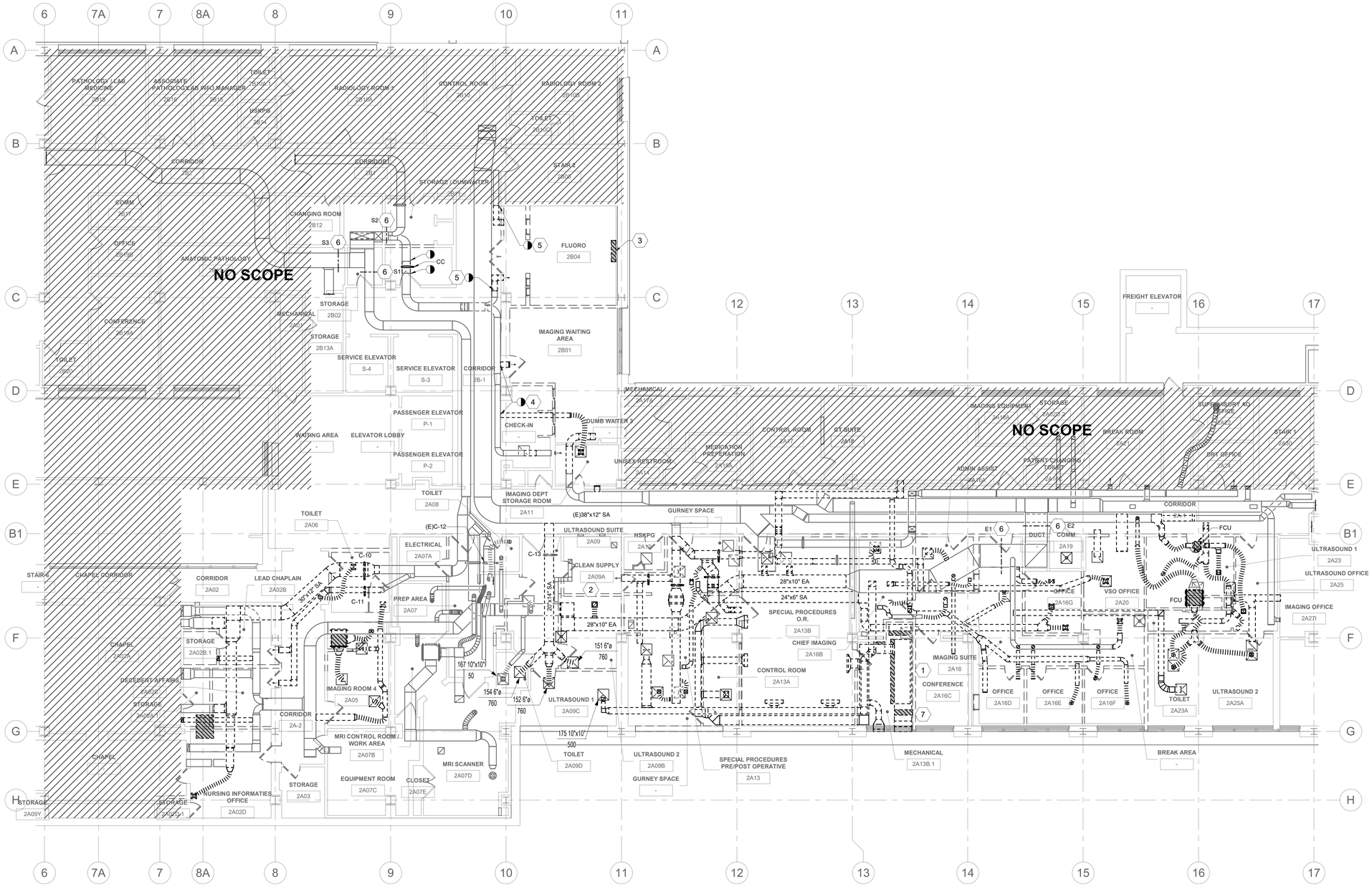
MICHAEL G. HUBBARD
STATE OF WASHINGTON
3/27/2026
39485
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FIRST FLOOR DEMO PLAN - HYDRONIC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: MD101

VA FORM 08 - 6231



1 SECOND FLOOR DEMO PLAN - HVAC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

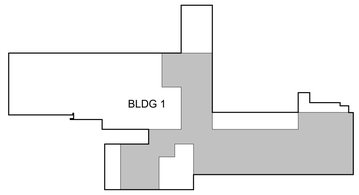
GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES AND IN ACCORDANCE WITH THE CURRENT INTERNATIONAL MECHANICAL CODE.
3. ALL NEW MATERIAL, METHODS, AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE BUILDING STANDARDS AS APPROVED BY THE OWNER.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHTECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

KEY NOTES

1. DEMO EXISTING UNIT AND ALL ASSOCIATED DUCTING, CONTROLS AND ACCESSORIES. SALVAGE HUMIDIFIER AND CONDENSATE PUMP FOR INSTALLATION ON NEW AIR HANDLER.
2. CAP AND SEAL DUCT PENETRATION AT MAIN DUCT.
3. REMOVE MINI-SPLIT INDOOR UNIT AND ASSOCIATED PIPING AND CONTROLS, INCLUDING LOCAL THERMOSTAT. LOCATE AND REMOVE ALL REFRIGERANT PIPING BACK TO ASSOCIATED CONDENSING UNIT AND REMOVE CONDENSING UNIT.
4. CAP DUCTWORK AT THIS LOCATION AND REMOVE DUCTWORK SHOWN DASHED BEYOND THIS POINT.
5. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL DUCTWORK, SUPPORTS, AND INSULATION SHOWN DASHED BEYOND THIS POINT.
6. PREFORM PRE-DEMOLITION TRAVERSE OF DUCTWORK AT OR NEAR THIS LOCATION TO DETERMINE BRANCH AIRFLOW RATE. CLEARLY IDENTIFY TESTED BRANCH ON REPORT PER SUGGESTED TAG.
7. DEMO EXISTING ELECTRIC HEATING COIL.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032

SDB SPEESDESIGNBUILD

STAMP

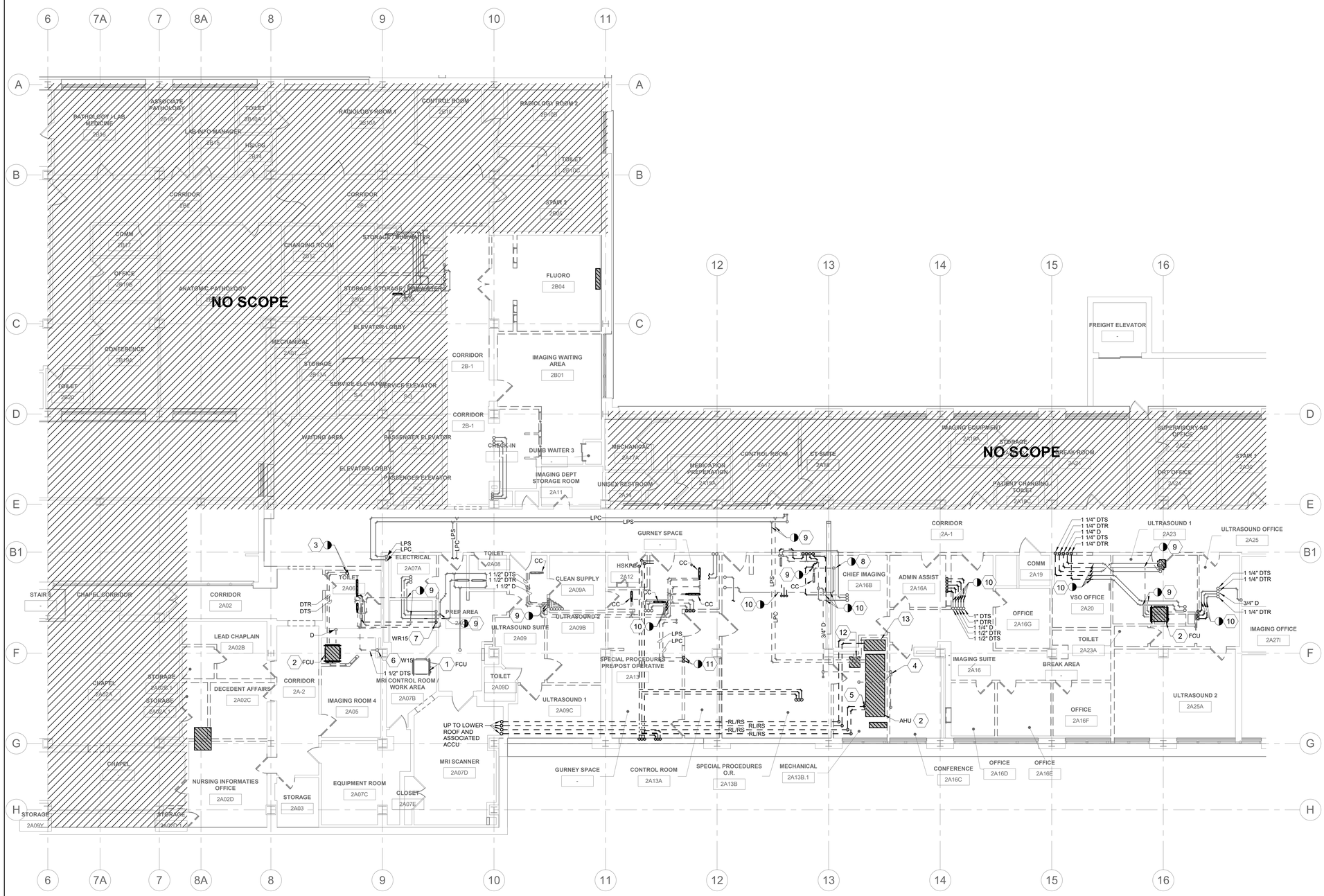
MICHAEL G. HUBBARD, STATE OF WASHINGTON, 39485, REGISTERED PROFESSIONAL ENGINEER, 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR DEMO - HVAC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: MD102

VA FORM 08 - 6231



1 SECOND FLOOR DEMO PLAN - HYDRONIC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
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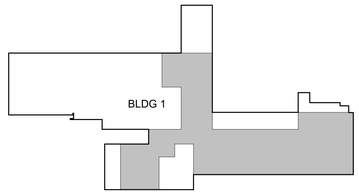
3. ALL NEW MATERIAL, METHODS, AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE BUILDING STANDARDS AS APPROVED BY THE OWNER.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMENCEMENT OF WORK.

KEY NOTES (#)

1. EXISTING UNIT INDICATED TO REMAIN.
2. REMOVE INDICATED EQUIPMENT AND ASSOCIATED HYDRONIC PIPING, VALVING, ETC.
3. REMOVE DUAL-TEMPERATURE SUPPLY AND RETURN PIPING BACK TO NEAREST MAIN AND CAP.
4. REMOVE CONDENSATE PUMP ASSOCIATED WITH AIR HANDLING UNIT AND ASSOCIATED PIPING, INSULATION, SUPPORTS, ETC.
5. REMOVE REFRIGERANT PIPING FROM AIR HANDLING UNIT BACK TO ASSOCIATED AIR-COOLED CONDENSING UNIT ON ROOF ABOVE MRI ROOM. CAREFULLY RETRIEVE AND PROPERLY DISPOSE OF REFRIGERANT IN STRICT ADHERENCE TO LOCAL AND STATE CODES.
6. REMOVE PIPING BACK FOR DUAL-TEMPERATURE RISER INDICATED BACK TO JUST BELOW DECK ON THIS FLOOR. CAP RISER PIPING AT THE DUAL-TEMPERATURE MAIN IN 7TH FLOOR, DRAIN PIPING, AND ABANDON REMAINING INACCESSIBLE RISER PORTIONS.
7. REMOVE PIPING BACK FOR DUAL-TEMPERATURE RISER INDICATED BACK TO WITHIN WALL CAVITY ON THIS FLOOR. CAP RISER PIPING AT THE DUAL-TEMPERATURE MAIN IN SUB-BASEMENT, DRAIN PIPING, AND ABANDON REMAINING INACCESSIBLE RISER PORTIONS.
8. CAP PIPING AT THIS LOCATION IN RISE AND REMOVE PIPING SHOWN DASHED BEYOND THIS POINT.
9. CAP PIPING AT THIS LOCATION AND REMOVE PIPING SHOWN DASHED BEYOND THIS POINT.
10. NEW CONNECTION TO BE MADE AT THIS LOCATION. REMOVE ALL PIPING, SUPPORTS, INSULATION, ETC. SHOWN DASHED BEYOND THIS POINT.
11. REMOVE PIPING SHOWN DASHED AND BACK TO NEAREST MAIN ON FLOOR BELOW.
12. REMOVE EXISTING HUMIDIFIER AND ASSOCIATED PIPING. CAP AND SEAL PIPING WITHIN 2 PIPE DIAMETERS OF MAIN.
13. REMOVE EXISTING FAN COIL UNIT, REFRIGERANT PIPING, AND ASSOCIATED CONDENSING UNIT.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032

SDB SPEESDESIGNBUILD

STAMP

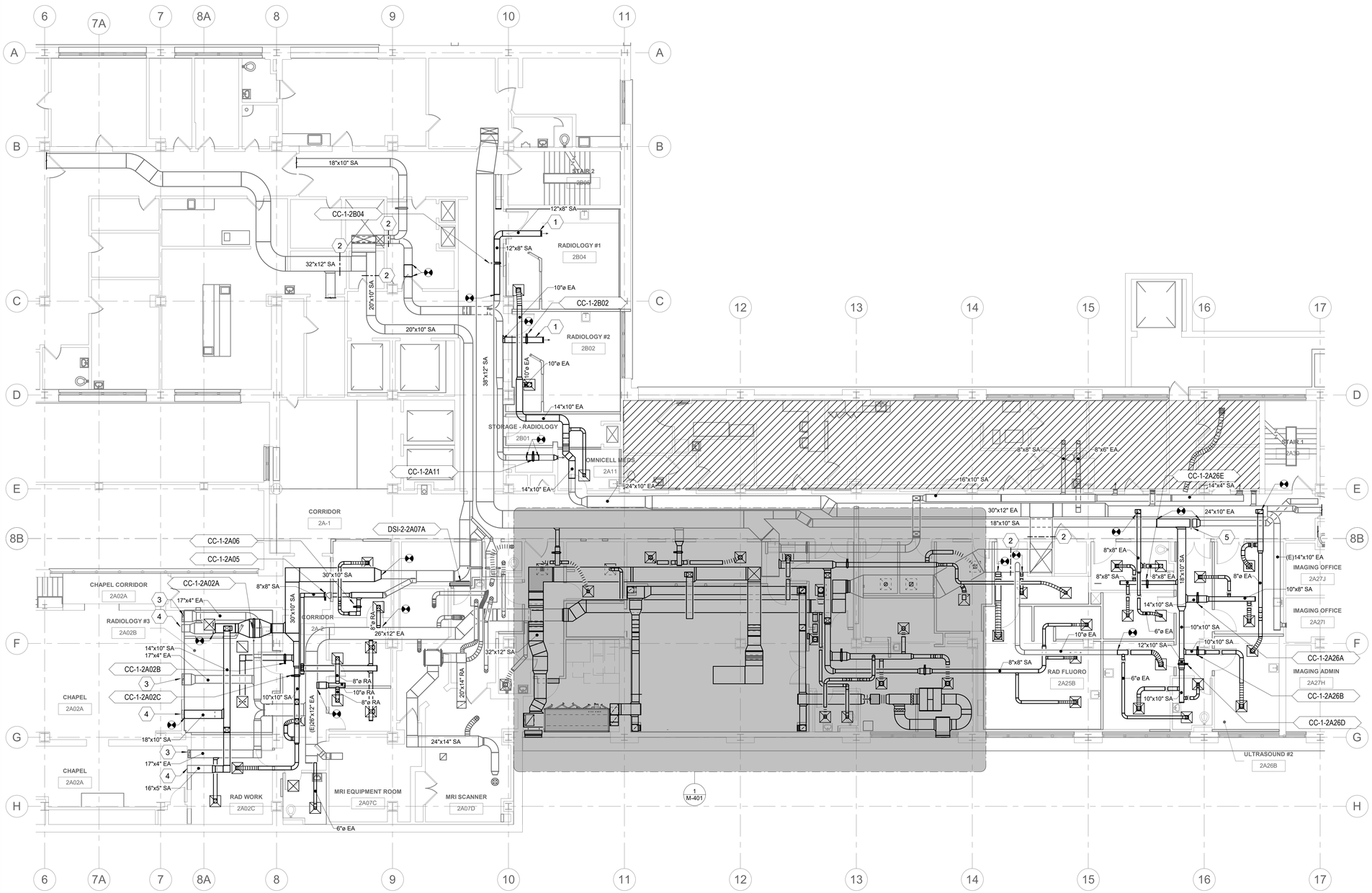
MICHAEL G. HUBBARD, STATE OF WASHINGTON, 39485, REGISTERED PROFESSIONAL ENGINEER, 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR DEMO PLAN - HYDRONIC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: MD103

VA FORM 08 - 6231



1 SECOND FLOOR PLAN - HVAC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
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5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHTECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

KEY NOTES (#)

1 INSTALL SUPPLY REGISTER ON SOFFIT SIDEWALL.
2 BALANCE TRAVERSE AT THIS LOCATION TO PRE-TEST AIRFLOW RATE PER PRE-DEMOLITION TEST REPORT.
3 BALANCE EXHAUST GRILLE TO 280 CFM.
4 BALANCE SUPPLY GRILLE TO 400 CFM.
5 BALANCE DAMPER TO 200 CFM.

KEY PLAN

AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032

SPEESDESIGNBUILD

STAMP

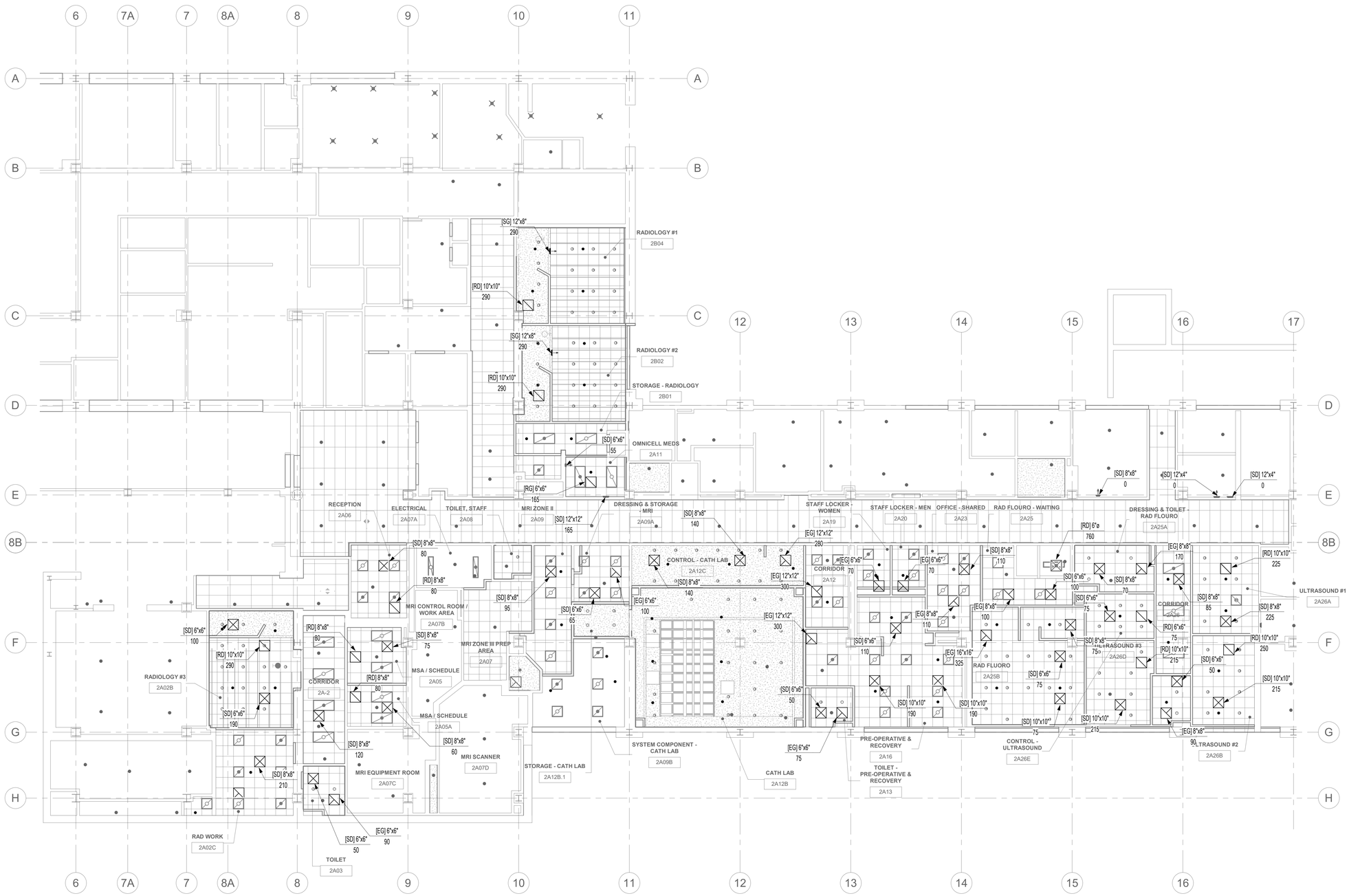
MICHAEL G. HUBBARD, STATE OF WASHINGTON, 39485, REGISTERED PROFESSIONAL ENGINEER, 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR - HVAC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: M-101

VA FORM 08 - 6231



1 SECOND FLOOR CEILING PLAN - HVAC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

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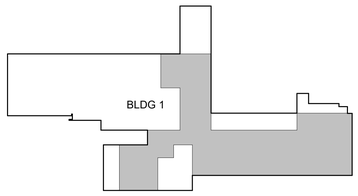
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHTECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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SPEESDESIGNBUILD

STAMP

MICHAEL G. HUBBARD
STATE OF WASHINGTON
3/27/2026
39485
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR CEILING PLAN - HVAC

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: MH

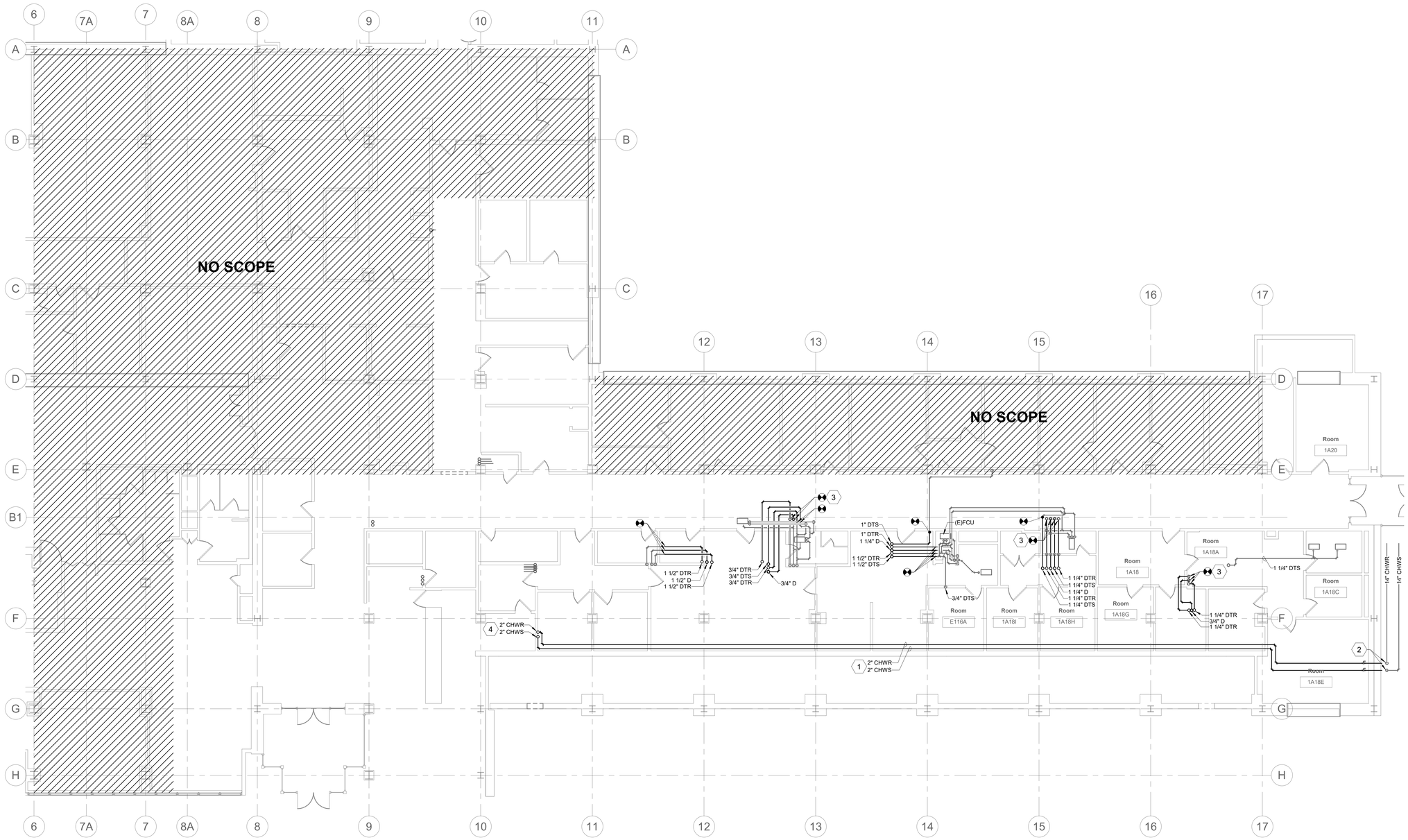
Drawn: AV

Project Number: 570-21-220

Building Number: 001

Drawing Number: M-102

VA FORM 08 - 6231



1 FIRST FLOOR PLAN - HYDRONIC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

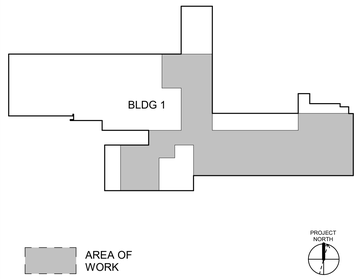
GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES AND IN ACCORDANCE WITH THE CURRENT INTERNATIONAL MECHANICAL CODE.
3. ALL NEW MATERIAL, METHODS, AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE BUILDING STANDARDS AS APPROVED BY THE OWNER.
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMENCEMENT OF WORK.

KEY NOTES (#)

1 PIPING OF SIZE INDICATED HUNG FROM BOTTOM OF OVERHAND, TIGHT TO STRUCTURE.
2 PIPING INDICATED TO CONNECT TO EXISTING 14" CHILLED WATER MAINS WITHING MECHANICAL PIPING CHASE STRUCTURE ON PLAN-EAST SIDE OF BUILDING. COORDINATE ANY SHUTDOWNS WITH COR AND VA.
3 MAKE NEW CONNECTION IN RISE TO EXISTING WATER RISER.
4 PIPING OF SIZE INDICATED UP THRU FLOOR TO AHU.

KEY PLAN



Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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SPEESDESIGNBUILD

STAMP

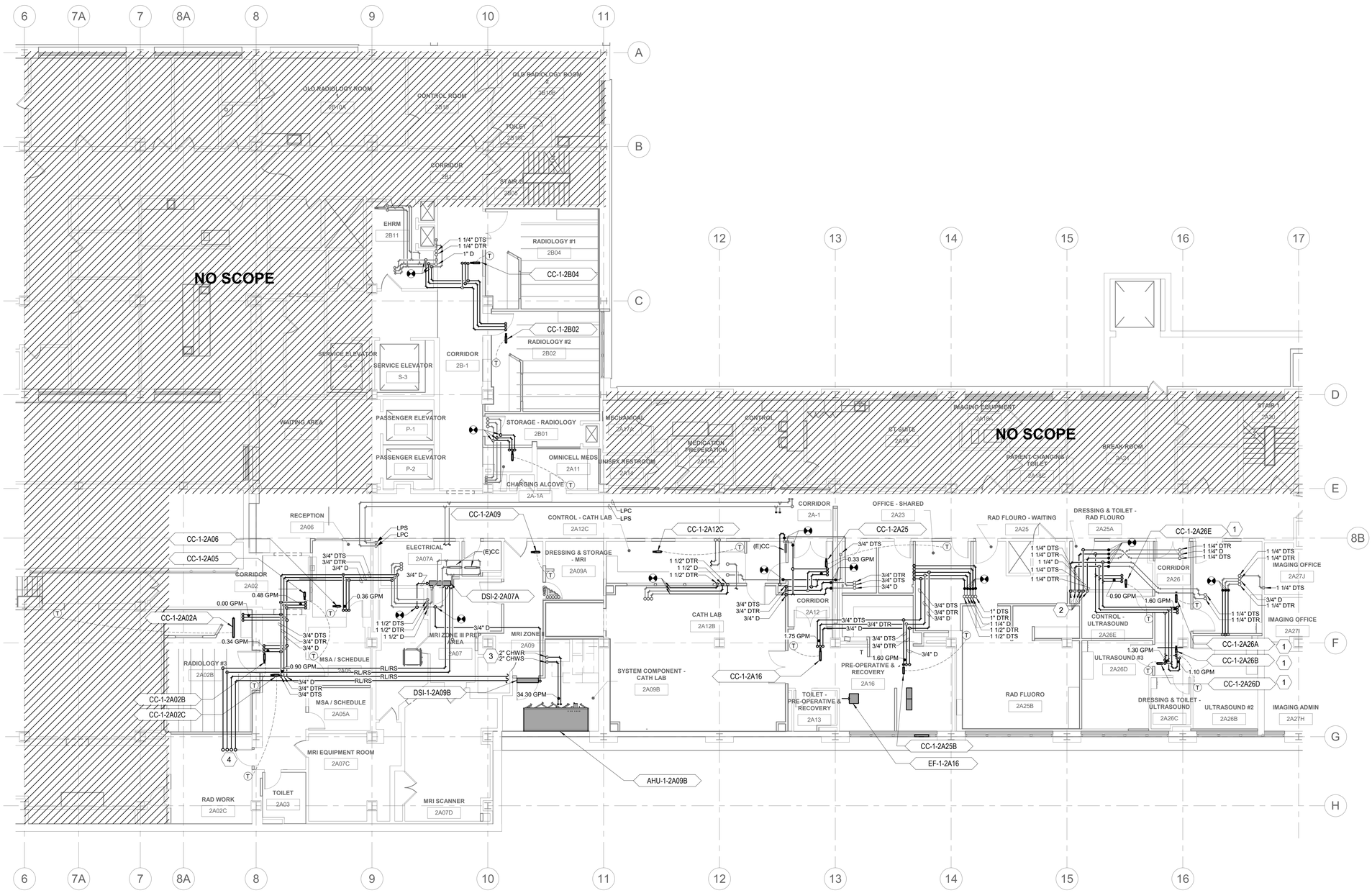
MICHAEL G. HUBBARD
STATE OF WASHINGTON
3/27/2026
39485
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FIRST FLOOR PLAN - HYDRONIC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: MP101

VA FORM 08 - 6231



1 SECOND FLOOR PLAN - HYDRONIC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
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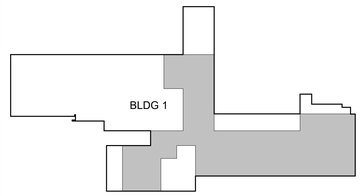
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMENCEMENT OF WORK.

KEY NOTES (#)

1. MAKE FINAL FULL SIZE CONNECTIONS TO NEW HEATING WATER COIL. CONFIRM UNIT LEFT/RIGHT-HANDED PIPING CONNECTION PRIOR TO FINAL INSTALLATION.
2. ROUTE PIPING OF SIZE INDICATED DOWN THRU FLOOR TO RECONNECT TO RISER MAINS IN CEILING OF FLOOR BELOW.
3. ROUTE CHILLED WATER PIPING OF SIZE INDICATED UNDER AHU AND DOWN THRU MECHANICAL ROOM FLOOR.
4. ROUTE REFRIGERANT PIPING UP THRU ROOF TO ASSOCIATED CONDENSING UNIT ON THE LOWER ROOF. REFRIGERANT PIPING SHALL BE ROUTED, SIZED, AND INSULATED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
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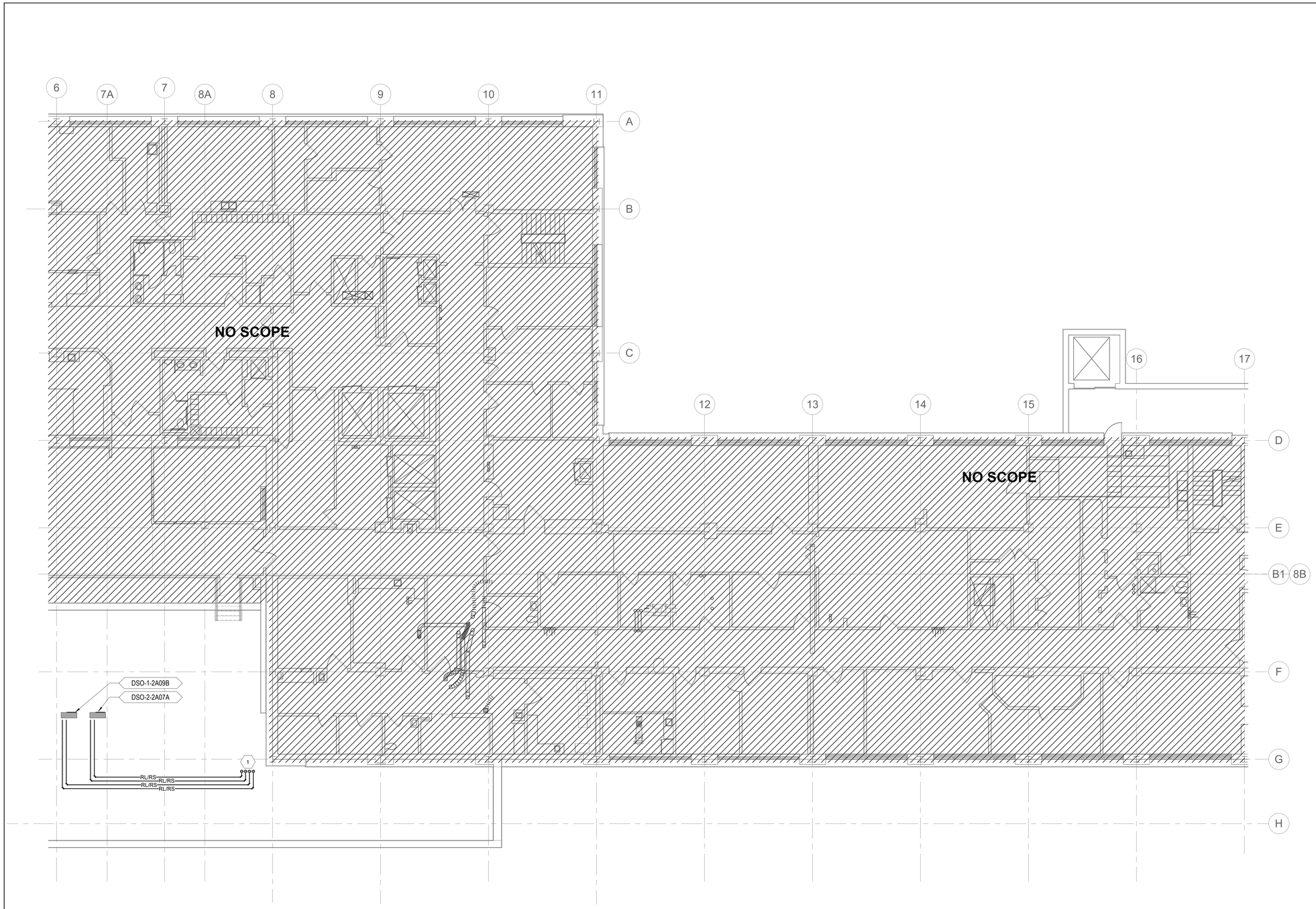
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR PLAN - HYDRONIC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: MP102

VA FORM 08 - 6231



1 SECOND FLOOR PLAN - HYDRONIC

SCALE: 1/8" = 1'-0"

GENERAL NOTES

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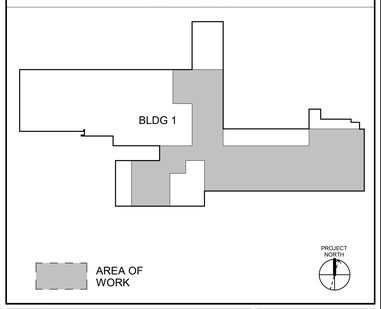
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMENCEMENT OF WORK.

KEY NOTES (#)

1 ROUTE REFRIGERANT PIPING DN THRU ROOF TO ASSOCIATED INDOOR UNIT ON THE FLOOR BELOW. REFRIGERANT PIPING SHALL BE ROUTED, SIZED, AND INSULATED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

KEY PLAN



Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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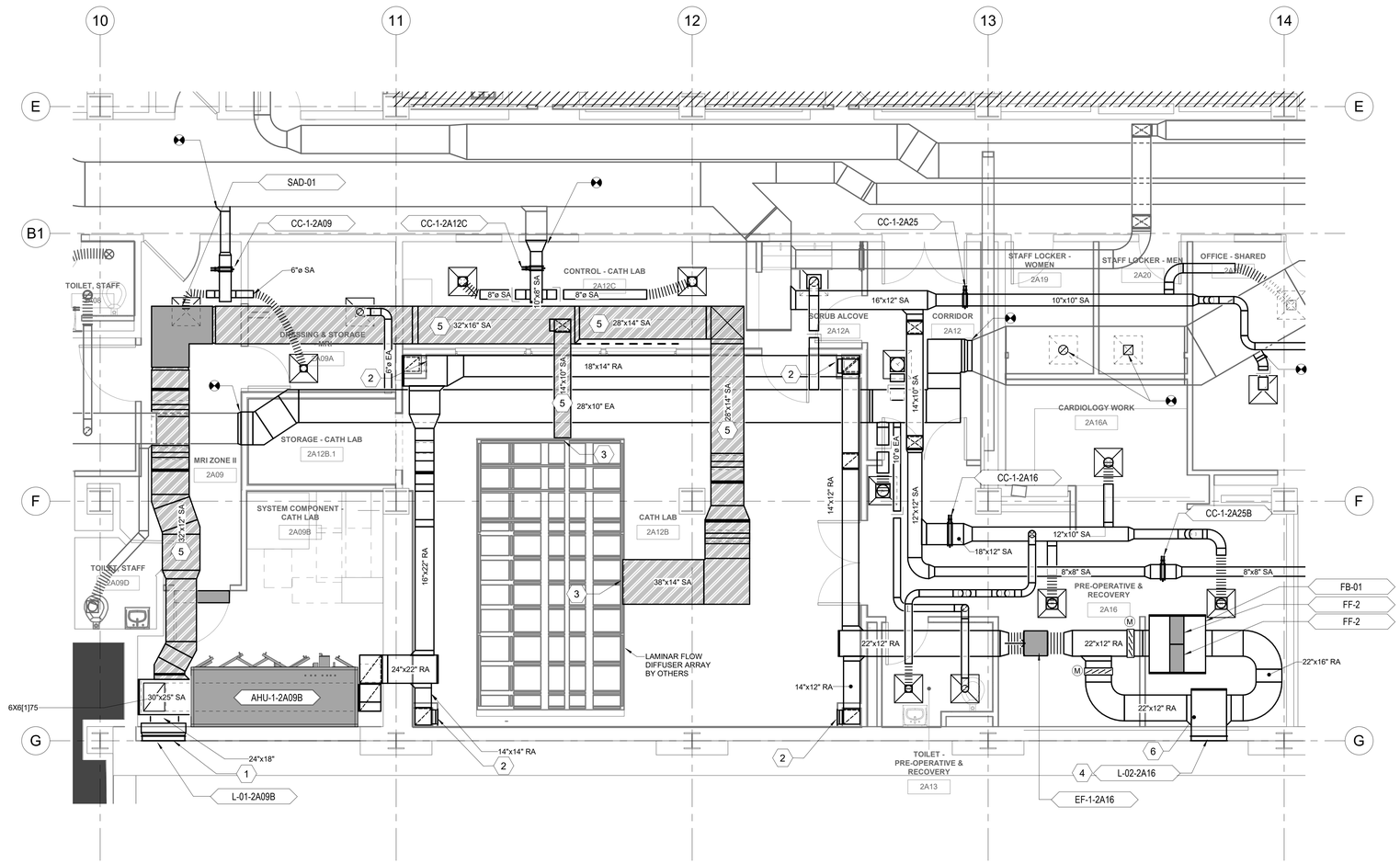
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
THIRD FLOOR PLAN - HYDRONIC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 / Checked: MH / Drawn: AV	Drawing Number: MP103

VA FORM 08 - 6231



1 SECOND FLOOR ENLARGED PLAN - HVAC

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
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5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
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7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHTECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY UNIT SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

KEY NOTES

1 COORDINATE LOUVER OPENING WITH ARCHITECTURAL AND STRUCTURAL.

2 14" x 14" DUCT DOWN TO LOW 12" x 30" RETURN GRILLE WITH BOTTOM-OF-GRILLE LOCATED 8" ABOVE FINISHED FLOOR. PROVIDE ACCESS PANEL FOR AIRFLOW DAMPER LOCATED IN RISE. COORDINATE FINAL LOCATION OF PANEL WITH ARCHITECT. BALANCE EXHAUST GRILLE TO 625 CFM.

3 SUPPLY AIR CONNECTION OF SIZE INDICATED TO LAMINAR FLOW DIFFUSER ARRAY IN STERIS 'CLEANSUITE' UNIT IN CEILING. COORDINATE EXACT DUCT CONNECTION LOCATION WITH ARCHITECTURAL CEILING AND EQUIPMENT LAYOUT.

4 USE EXISTING LOUVER OPENING FOR EXHAUST FAN INSTALLATION. BLANK OFF UNUSED PORTION OF EXISTING LOUVER PENETRATION AND SEAL WEATHER TIGHT

5 DUCTWORK SERVING THE CATH LAB SHALL BE STAINLESS STEEL, HATCHED AND SHADED.

6 30" x 46" x 28" EXHAUST PLENUM.

KEY PLAN

AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
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SPEESDESIGNBUILD

STAMP

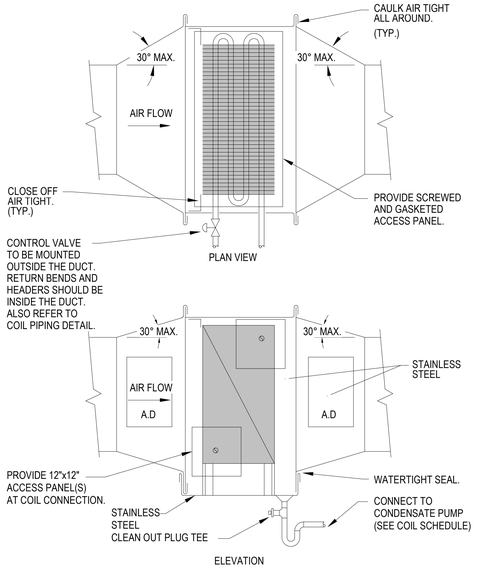
MICHAEL G. HUBBARD — STATE OF WASHINGTON — 39485 — REGISTERED PROFESSIONAL ENGINEER — 3/27/2026

Office of Construction and Facilities Management

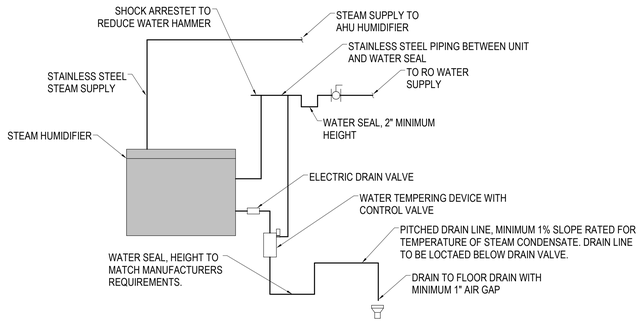
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR - ENLARGED HVAC	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: M-401

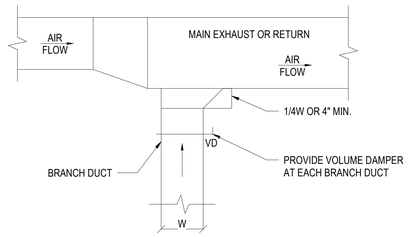
VA FORM 08 - 6231



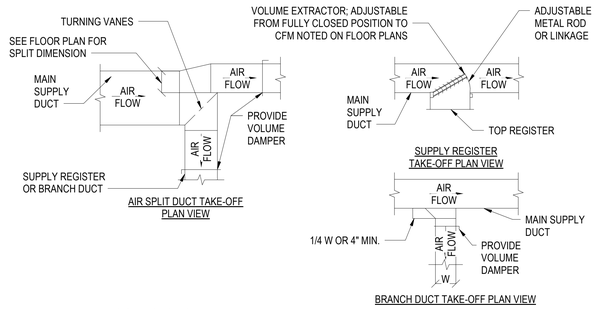
1 2-PIPE DUCT COIL INSTALLATION
NTS



2 HUMIDIFIER DETAIL
NTS



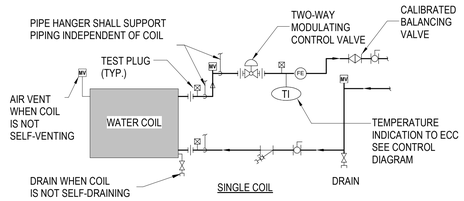
3 EXHAUST OR RETURN BRANCH DUCTWORK
NTS



DESIGNER'S NOTES:

1. THE SUPPLY REGISTER TAKE-OFF MAY BE USED FOR UP UP TO 25% OF THE MAIN DUCT CFM. THE BRANCH DUCT TAKE-OFF MAY BE USED FOR UP TO 15% OF THE MAIN DUCT CFM ANYTIME AND UP TO 40% WHEN THE MAIN DUCT VELOCITY IS 1000 FPM OR LESS. THE AIR SPLIT DUCT TAKE-OFF SHALL BE USED IN ALL OTHER CASES AND MAY BE USED AT ANYTIME.
2. SHOW ALL VOLUME DAMPERS ON FLOOR PLANS.

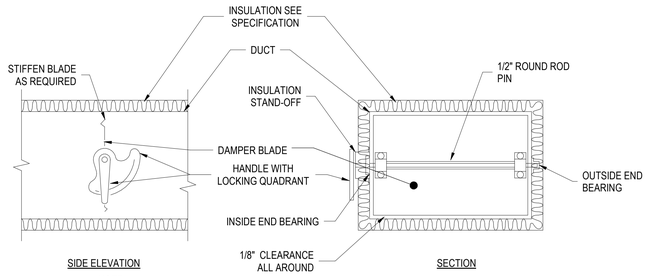
4 SUPPLY DUCTWORK TAKEOFFS
NTS



NOTES:

1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST 2 HANGERS FOR EACH PIPE SHALL BE SPRING & NEOPRENE TYPE. TYPE "H" FOR 4"∅ PIPE & SMALLER. TYPE "H-P" FOR 5"∅ PIPE & LARGER.
2. PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES, OR EQUIPMENT.
3. THE FLOW ELEMENT MAY BE INSTALLED IN THE SUPPLY PIPING IF THE REQUIRED MINIMUM UPSTREAM AND DOWNSTREAM DIMENSIONS CANNOT BE OBTAINED IN THE RETURN PIPING.

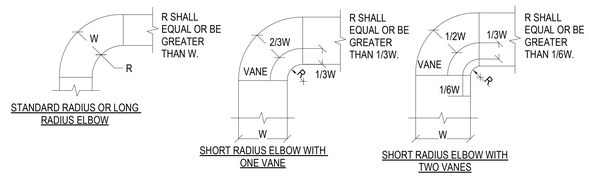
5 COIL PIPING CONNECTIONS
NTS



NOTE:

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

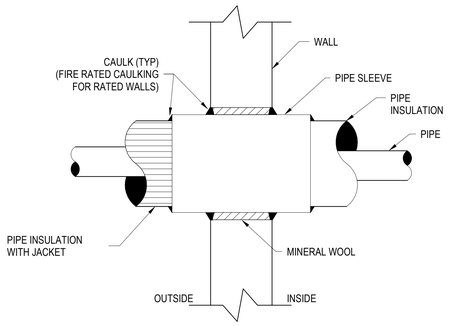
6 VOLUME DAMPER DETAIL
NTS



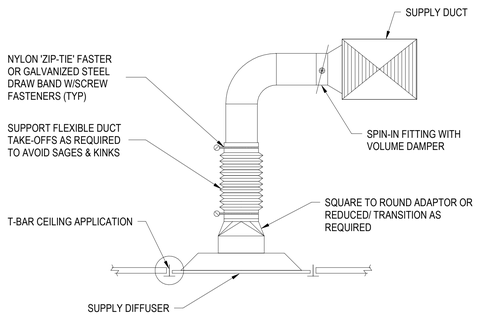
NOTE:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

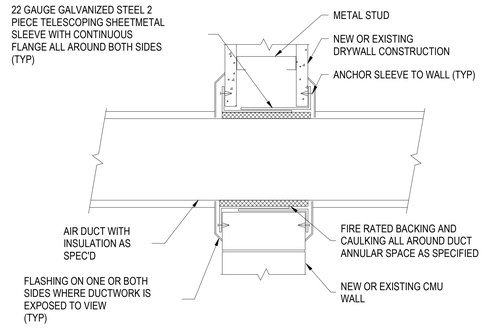
7 DUCTWORK RADIUS ELBOWS
NTS



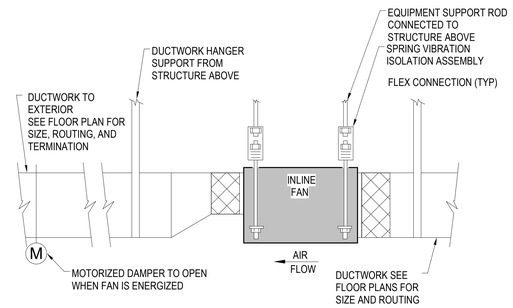
8 PIPE THRU WALL (RATED/UNRATED) DETAIL
NTS



9 TYPICAL DIFFUSER CONNECTION
NTS



10 RECTANGULAR DUCT THRU WALL DETAIL
NTS



NOTES

1. REFER TO CONSTRUCTION SPECIFICATION FOR MATERIALS, EQUIPMENT, AND INSTALLATION REQUIREMENTS

11 INLINE EXHAUST FAN DETAIL
NTS

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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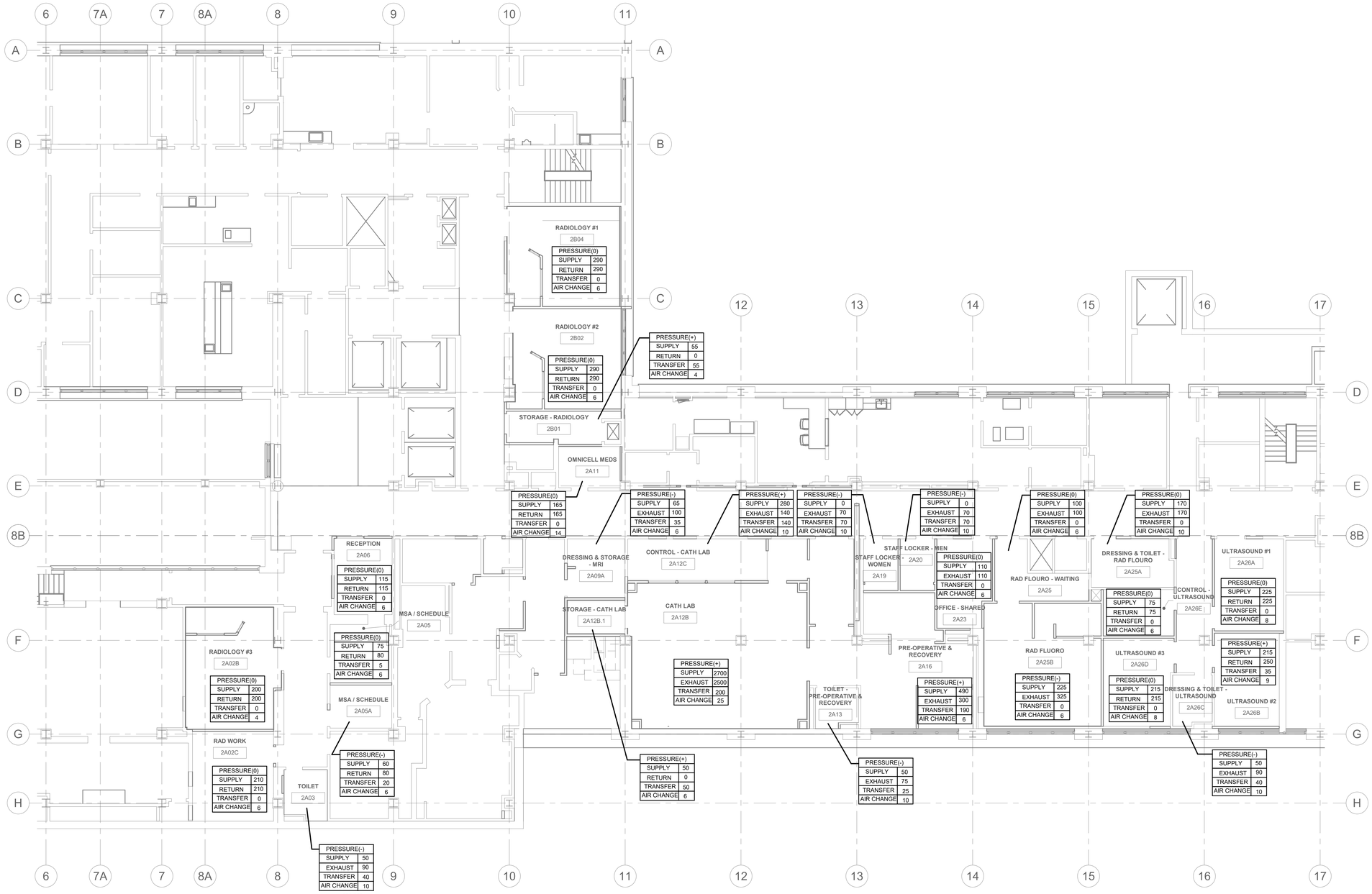
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
MECHANICAL - DETAILS I	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: M-501

VA FORM 08 - 6231



1 SECOND FLOOR AIRFLOW BALANCE HVAC
1/8" = 1'-0"

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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3/27/2026
39485
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL - DETAILS II

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: MH

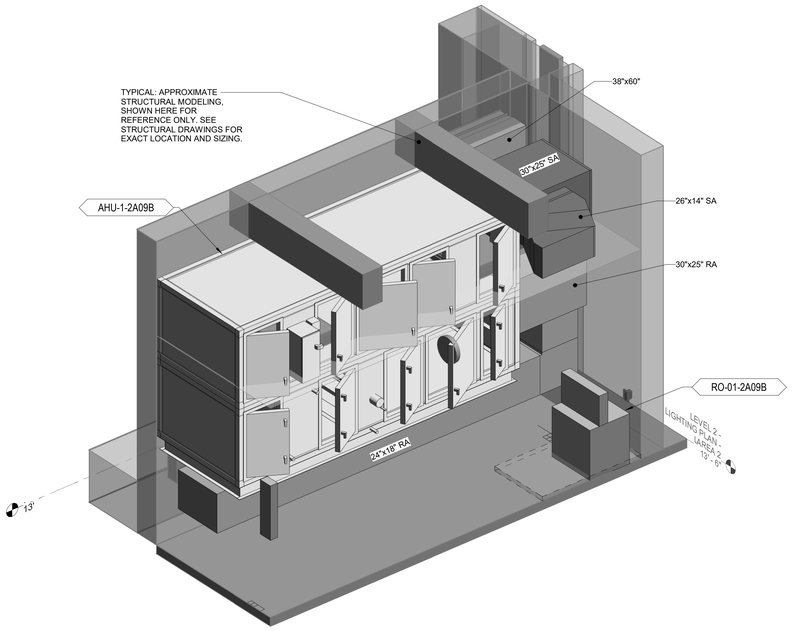
Drawn: AV

Project Number: 570-21-220

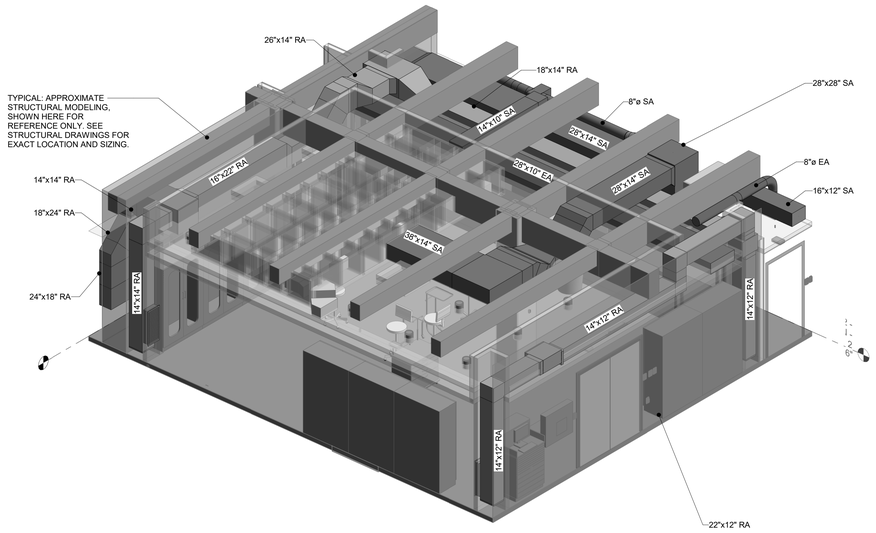
Building Number: 001

Drawing Number: M-502

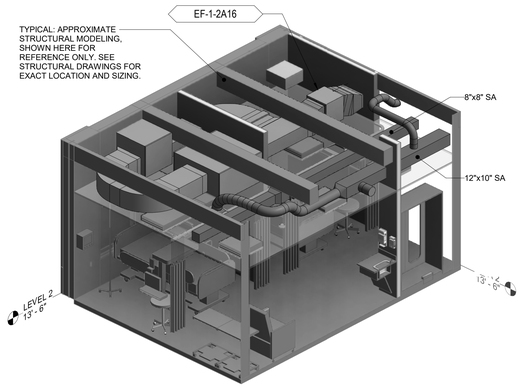
VA FORM 08 - 6231



1 MECHANICAL ROOM AHU ISOMETRIC
NTS



2 CATH LAB CLEANSUITE ISOMETRIC
NTS



3 EXHAST FAN & HEPA FILTER ISOMETRIC
NTS

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL - ISOMETRIC
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MH
Drawn: AV
Project Number: 570-21-220
Building Number:
Drawing Number: M-503

VA FORM 08 - 6231

AIR HANDLING UNIT (AHU) SCHEDULE

REMARKS:
1. UNIT SHALL BE IBC OR ASCE SEISMIC CERTIFIED.
2. BASIS OF DESIGN UNIT SHALL SHIP IN (2) SHIPPING SPLITS THAT CAN BE BROKEN DOWN FURTHER IN THE FIELD TO FIT THROUGH A 4'-0" WIDE DOOR.
3. UNIT SHALL BE HUNG FROM STRUCTURE ABOVE. UNIT SHALL BE SUPPORTED BY SEISMIC-RESTRAINED SPRING ISOLATORS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

EQUIPMENT TAG	LOCATION	AREA SERVED	BASIS OF DESIGN		TYPE	AIR FLOW (VAV OR CAV)	AIRFLOW (CFM)				SUPPLY FAN TAG	PREFILTER TAG 1	PREFILTER TAG 2	FINAL FILTER TAG	PREHEAT COIL TAG	COOLING COIL TAG	REHEAT COIL	HUMIDIFIER TAG	ELECTRICAL			REMARKS
			MANUFACTURER	MODEL			MAX. SUPPLY	DESIGN SUPPLY	MIN. OA	RETURN									UNIT VOLTAGE / PHASE	LIGHTING VOLTAGE / PHASE	LIGHTING MOCP	
AHU-1-2A09B	2A09B	CATH LAB	YORK	XTI-36X51	SEMI-CUSTOM	VAV	3,050	2700	500	2200	SF-1	PF-1	PF-2	FF-1	PHC-1	CC-AHU-1	RHC-1	SH-1	480 / 3	120 / 1	15	1-3

AHU-1 ELECTRIC REHEAT COIL (RHC) SCHEDULE

EQUIPMENT TAG	SYSTEM AND/OR SERVICE	FUTURE OVERSIZE CAPACITY (CFM)	DESIGN AIRFLOW (CFM)	APD (IN WC)	EAT (°F)	LAT (°F)	MIN CAPACITY (BTU/HR)	ELECTRICAL					DISCONNECT FURNISHED BY	REMARKS
								KW	CONTROL TYPE	FLA	MCA	MOCP		
RHC-1	AHU-1-2A09B	3050	2,700	0.09	54	77	75064	22	SCR	27.61	34.51	40	MANUFACTURER	-

AHU-1 SUPPLY FAN (SF) SCHEDULE

EQUIPMENT TAG	EQUIPMENT SERVED	BASIS OF DESIGN		CFM MAX	CFM DESIGN	CFM MIN	ESP (IN WC)	TYPE	WHEEL	CLASS	DIAMETER (IN)	FEI	DRIVE	FPM MAX RPM	BHP	HP	ELECTRICAL (FAN MOTOR)					STARTER FURNISHED BY	DISCONNECT FURNISHED BY	SPRING ISOLATOR SIZE (IN)	REMARKS
		MANUFACTURER	MODEL														VOLT	PH	FLA	MCA	MOCP				
SF-1	AHU-1-2A09B	TWIN CITY	EPFN	3050	2700	1350	1.5	SWSI PLENUM	ALUMINUM AIRFOIL	II	15	1.24	DIRECT DRIVE	3909	5.21	7.5	460	3	9	11.25	20	VFD	MANUFACTURER	2	

AHU-1 CHILLED WATER COIL (CC) SCHEDULE

REMARKS:
1. COIL IS SIZED FOR 100% OA FOR EMERGENCY EPIDEMIC MODE.
2. PERFORMANCE IS BASED ON 20% GLYCOL.
3. COIL SECTION SHALL BE PROVIDED WITH STAINLESS STEEL DRAINPAN.

EQUIPMENT TAG	SYSTEM AND/OR SERVICE	AIR				EAT (°F)		LAT		WATER						REMARKS
		FUTURE CAPCITY (CFM)	DESIGN AIRFLOW (CFM)	FACE VELOCITY (FPM)	APD (IN WC)	Db (°F)	Wb (°F)	Db (°F)	Wb (°F)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	FLOW (GPM)	EWT (°F)	LWT (°F)	WPD (FT)	
CC-AHU-1	AHU-1-2A09B	3,050	2,700	410	0.74	103.8	69.6	47.4	47.4	201	189	34.3	42	54	8.3	1 - 3

AHU-1 ELECTRIC PREHEATING COIL (PHC) SCHEDULE

REMARKS:
1. COIL SIZED FOR 100% OA FOR EMERGENCY EPIDEMIC MODE.
2. PERFORMANCE BASED ON 20% PROPYLENE GLYCOL.
3. COIL SECTION SHALL BE PROVIDED WITH STAINLESS STEEL DRAIN PAN.

EQUIPMENT TAG	SYSTEM AND/OR SERVICE	FUTURE CAPACITY (CFM)	DESIGN AIRFLOW (CFM)	APD (IN WC)	EAT (°F)	LAT (°F)	MIN CAPACITY (BTU/HR)	ELECTRICAL					DISCONNECT FURNISHED BY	REMARKS
								KW	CONTROL TYPE	FLA	MCA	MOCP		
PHC-1	AHU-1-2A09B	3,050	2,700	0.09	31.5	54	81888	24	SCR	30.12	37.65	45	MANUFACTURER	1-3

FILTER SCHEDULE

EQUIPMENT TAG	SYSTEM AND/OR SERVICE	MERV RATING	AIR FLOW (CFM)			CARTRIDGES			REMARKS
				INITIAL (IN)	CHANGEOVER (IN)	QUANTITY	SIZE (IN)	ARRANGEMENT	
FF-1	AHU-1-2A09B	HEPA 99.97%	3050	1.37	2	2	23.375X19.375X11.5	FINAL FILTER	
FF-2	AHU-1-2A09B	HEPA 99.97%	3050	1.37	2	2	24x24x12	PANDEMIC FILTER	
PF-1	AHU-1-2A09B	8	3050	0.26	0.75	2	24x20x2	PREFILTER	
PF-2	AHU-1-2A09B	11	3050	0.45	1	2	24x20x4	PREFILTER	

EXHAUST FAN SCHEDULE

REMARKS:
1. PROVIDE ELECTRICALLY-COMMUTATED MOTOR WITH SHAFT GROUNDING RINGS.
2. 0 - 10 VDC FOR CONTROL.
3. PROVIDE WITH MOUNTED AND WIRED JUNCTION BOX.
4. PROVIDE NEMA 1 SWITCH SHIPPED LOOSE.
5. FAN SHALL BE SEISMIC-RATED PER IBC ASCE 7.
6. PROVIDE SEISMIC-RESTRAINED SPRING ISOLATORS.

EQUIPMENT TAG	LOCATION	AREA SERVED	BASIS OF DESIGN		DESIGN (CFM)	ESP (IN WC)	TYPE	FEI	DRIVE	RPM	BHP	HP	ELECTRICAL (FAN MOTOR)		DISCONNECT FURNISHED BY	OPERATING WEIGHT (LBS)	REMARKS
			MANUFACTURER	MODEL									VOLT	PH			
EF-1-2A16	2A16	CATH LAB	GREENHECK	SQ-160-VG	2,700	1.75	CENTRIFUGAL INLINE	1.24	DIRECT	1528	1.24	2	208	3	DIV 26	128	1 - 6

SOUND ATTENUATING DEVICE (SAD) SCHEDULE

REMARKS:
1. OTHER ACCEPTABLE MANUFACTURERS: SEE SPECIFICATIONS.

EQUIPMENT TAG	LOCATION	AREA AND/OR BLDG SERVED	BASIS OF DESIGN		SYSTEM AND/OR SERVICE	TYPE	CASING MATERIAL	LINER	MEDIA MATERIAL	AIRFLOW (CFM)	VELOCITY (FPM)	APD W/ SYSTEM EFFECTS (IN WG)	ATTENUATOR DIMENSIONS (IN)			DYNAMIC INSERTION LOSS DB OCTAVE BAND AND MID-FREQUENCY [CPS]								REMARKS
			MANUFACTURER	MODEL									WIDTH	HEIGHT	CENTER LINE LENGTH	63	125	250	500	1000	2000	4000	8000	
SAD-01	2A09	CATH LAB	PRICE	PERM	AHU-1-2A09B	PACKLESS ELBOW	304 STAINLESS STEEL	PERFORATED	NO MEDIA	2700	1013	0.18	32	12	72	9	11	20	24	20	15	12	11	1

FILTER BOX SCHEDULE

1. PROVIDE DIGITAL SIGNAL OUT TO BAS FOR DIRTY FILTER REPLACEMENT.
2. STANDARD FILTER HOUSING.

EQUIPMENT TAG	SYSTEM SERVED	MODEL	FILTER RACK SIZE (HIGH x WIDE)	FILTER IN BOX	REMARKS
FB-01	AHU-1-2A09B	ECO GLIDEPACK	1 x 2	FF-3	1,2

LOUVER SCHEDULE

REMARKS:
1. PROVIDE WITH BIRDSCREEN.

EQUIPMENT TAG	LOCATION	AREA AND/OR BLDG SERVED	BASIS OF DESIGN		SERVICE	CFM	DEPTH (IN)	WIDTH (IN)	HEIGHT (IN)	FREE AREA (SQ FT)	VELOCITY (FPM)	MAXIMUM APD @ AIR FLOW RATE (IN WC)	REMARKS
			MANUFACTURER	MODEL									
L-01-2A09B	2A09B - SYSTEM COMPONENT CATH LAB	CATH LAB	GREENHECK	EAD-635	AHU-01 INTAKE	2,700	6	36	60	9	301	0.1	1
L-02-2A16	2A16 - PRE-OPERATIVE & RECOVERY	CATH LAB	GREENHECK	EAD-635	AHU-01 EXHAUST	2,700	6	30	28	3	850	0.1	1

DUCTLESS SPLIT INDOOR UNIT (DSI) SCHEDULE

REMARKS:
1. INDOOR UNITS SHALL BE POWERED BY OUTDOOR UNIT.
2. REFRIGERANT TYPE USED IN SPLIT SYSTEMS DO NOT INCLUDE LEAK DETECTION / MITIGATION. CHARGE IN SYSTEM IS COMPLIANT WITH ASHRAE 15. BASE REFRIGERANT CHARGE IS 4.41 LBS. CHARGE WITH 150'-0" OF PIPING IS 6.94 LBS.
3. PROVIDE WITH MANUFACTURER'S THERMOSTAT WITH BACnet INTERFACE. SEE CONTROL DIAGRAM FOR FURTHER INFORMATION.
4. REFRIGERANT PIPING MAXIMUM LENGTH SHALL BE NO MORE THAN 165'-0".
5. PROVIDE FACTORY BASE PAN HEATER.
6. PROVIDE SLIDE-IN AIR FILTER.
7. PROVIDE BLUEDIAMOND 'MICROBLUE' (OR APPROVED EQUIVALENT) CONDENSATE DRAIN PUMP POWERED BY INDOOR UNIT. MINIMUM 1.3 GPH DISCHARGE AT 16'-0" WC WITH MINIMUM 6'-0" LIFT.
8. SEE DRAWINGS FOR OUTDOOR UNIT MOUNTING LOCATION. ROOF-MOUNTED UNITS SHALL BE PROVIDED WITH SEISMIC-RATED STANDS.
9. CONTRACTOR SHALL INSTALL AND TEST REFRIGERANT PIPING IN ACCORDANCE WITH ASHRAE 15-2022 SECTION 9.13.1 THRU 9.13.7. THIS INCLUDES PIPE STRENGTH TESTING VIA APPROVED TEST GASES, VISUAL INSPECTION, AND LEAKAGE TESTING. REFERENCE FOR SYSTEMS INCLUDING 55 LBS OF REFRIGERANT OR MORE IN ACCORDANCE WITH 9.13.7.

EQUIPMENT TAG	LOCATION	AREA SERVED	BASIS OF DESIGN		OUTDOOR UNIT	REFRIGERANT TYPE	STYLE	MAX. AIRFLOW (CFM)	CAPACITY (BTU/H)		ELECTRICAL		UNIT DIMENSIONS				REMARKS
			MANUF.	MODEL					COOLING	HEATING	VOLT	PH	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	WEIGHT (LBS)	
DSI-1-2A09B	2A09B - SYSTEM COMPONENT CATH LAB	2A09B - SYSTEM COMPONENT CATH LAB	LG	KNSAP361A	DSI-1-2A09B	R-32	HIGHWALL	1,100	34,000	38,900	208	1	48.0	11.0	15.0	45	1 - 9
DSI-2-2A07A	2A07A - ELECTRICAL	2A07A - ELECTRICAL	LG	KNSAP361A	DSO-2-2A07A	R-32	HIGHWALL	1,100	34,000	38,900	208	1	48.0	11.0	15.0	45	1 - 9

DUCTLESS SPLIT OUTDOOR UNIT (DSO) SCHEDULE

EQUIPMENT TAG	LOCATION	UNIT SERVED	BASIS OF DESIGN		NOMINAL TONNAGE	SEER2	HSPF2	AMBIANT OPERATING RANGE (°F)		ELECTRICAL				LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	WEIGHT (LBS)	REMARKS
			MANUF.	MODEL				HEATING	COOLING	VOLT	PH	MCA	MOCP					
DSO-1-2A09B	3RD FLOOR LOWER ROOF	DSI-1-2A09B	LG	KUSAP361A	3.0	20	8.5	-4 - 65	14 - 118	208	1	23	30	38.0	16.0	33.0	150	-
DSO-2-2A07A	3RD FLOOR LOWER ROOF	DSI-2-2A07A	LG	KUSAP361A	3.0	20	8.5	-4 - 65	14 - 118	208	1	23	30	38.0	16.0	33.0	150	-

Revisions: Date:

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3/27/2026
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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SCHEDULES - HVAC
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Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
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Project Number: 570-21-220
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Drawing Number: M-601

VA FORM 08 - 6231

CHILLED / HEATING WATER COIL (CC) SCHEDULE

REMARKS:
1. COIL IS DUAL-TEMPERATURE CHILLED & HEATING WATER. COIL IS SCHEDULED FOR THE HIGHER CHILLED WATER VALUES IN REGARDS TO THE FLOW, GPM.
2. PROVIDE COIL WITH BLUE DIAMOND 'MICROBLUE' (OR APPROVED EQUIVALENT) CONDENSATE PUMP WITH 1.3 GPH DISCHARGE, 16'-0" HEAD, AND MIN. 6'-0" LIFT.
3. COIL MINIMUM GPM SHALL BE NO LESS THAN 0.5 UNLESS LOWER VALUES CAN BE RELIABLY BALANCED.

EQUIPMENT TAG	LOCATION	AREA SERVED	AIR FLOW (CFM)	MAX. FACE VELOCITY (FPM)	MAX. WPD (FT)	MAX. APD (IN WC)	COOLING PERFORMANCE								HEATING PERFORMANCE					REMARKS
							FLOW (GPM)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EWT (°F)	LWT (°F)	EAT DB (°F)	EAT WB (°F)	LAT DB/WB (°F)	MBH	EWT (°F)	LWT (°F)	EAT (°F)	MIN. LAT (°F)	
CC-1-2A02A	2A02B - RADIOLOGY #3	2A02A - CHAPEL	1200	450	5.0	0.5	6.3	31.5	26.7	45	55	75	63	54.7 / 54.1	80.4	140	110	55	85	1,2
CC-1-2A02B	2A2 - CORRIDOR	2A02B - RADIOLOGY #3	290	450	5.0	0.5	1.5	7.5	6.5	45	55	75	63	54.6 / 54.2	19.9	140	110	55	85	1,2
CC-1-2A02C	2A-2 - CORRIDOR	2A02C - RAD WORK	385	450	5.0	0.5	1.9	9.7	8.5	45	55	75	63	54.9 / 54.5	25.2	140	110	55	85	1,2
CC-1-2A05	2A-2 - CORRIDOR	2A05 - MSA / SCHEDULE	130	450	5.0	0.5	0.9	4.6	3.5	45	55	75	63	50.5 / 50.5	10.9	140	110	55	85	1,2
CC-1-2A06	2A06 - RECEPTION	2A06 - RECEPTION	80	450	5.0	0.5	0.4	2.2	1.9	45	55	75	63	53.8 / 53.8	5.9	140	110	55	85	1 - 3
CC-1-2A09	2A09 - MRI ZONE II	2A09 - MRI ZONE II	200	450	5.0	0.5	1.0	4.9	4.4	45	55	75	63	55.0 / 54.6	13.4	140	110	55	85	1,2
CC-1-2A11	2A-1A - CHARGING ALCOVE	2A11 - OMNICELL MEDS	220	450	5.0	0.5	1.1	5.7	4.9	45	55	75	63	54.6 / 54.1	14.7	140	110	55	85	1,2
CC-1-2A12C	2A12C - CONTROL - CATH LAB	2A12C - CONTROL - CATH LAB	275	450	5.0	0.5	1.4	6.8	6.1	45	55	75	63	54.9 / 54.6	19.2	140	110	55	85	1,2
CC-1-2A16	2A16 - PRE-OPERATIVE & RECOVERY	2A16 - PRE-OPERATIVE & RECOVERY	560	450	5.0	0.5	3.0	14.9	12.5	45	55	75	63	54.6 / 53.9	35.9	140	110	55	85	1,2
CC-1-2A25	2A12 - CORRIDOR	2A25 - RAD FLUORO WAITING	300	450	5.0	0.5	1.6	7.9	6.7	45	55	75	63	54.5 / 54.1	19.8	140	110	55	85	1,2
CC-1-2A25B	2A16 - PRE-OPERATIVE & RECOVERY	2A25B - RAD FLUORO	325	450	5.0	0.5	1.6	8.1	7.1	45	55	75	63	55.0 / 54.6	21.7	140	110	55	85	1,2
CC-1-2A26A	2A26 - CORRIDOR	2A26A - ULTRASOUND #1	310	450	5.0	0.5	1.6	8.0	6.9	45	55	75	63	54.8 / 54.2	20.1	140	110	55	85	1,2
CC-1-2A26B	2A26 - CORRIDOR	2A26B - ULTRASOUND #2	215	450	5.0	0.5	1.1	5.4	4.8	45	55	75	63	54.8 / 54.5	14.8	140	110	55	85	1,2
CC-1-2A26D	2A26 - CORRIDOR	2A26D - ULTRASOUND #3	265	450	5.0	0.5	1.3	6.7	5.8	45	55	75	63	54.9 / 54.4	17.6	140	110	55	85	1,2
CC-1-2A26E	2A25A - DRESSING & TOILET - RAD FLUORO	2A26E - CONTROL - ULTRASOUND	175	450	5.0	0.5	0.9	4.7	4.0	45	55	75	63	54.1 / 53.9	12.5	140	110	55	85	1,2
CC-1-2B02	2B-1 - CORRIDOR	2B02 - RADIOLOGY #2	290	450	5.0	0.5	1.5	7.5	6.5	45	55	75	63	54.6 / 54.2	19.9	140	110	55	85	1,2
CC-1-2B04	2B-1 - CORRIDOR	2B04 - RADIOLOGY #1	290	450	5.0	0.5	1.5	7.5	6.5	45	55	75	63	54.6 / 54.2	19.9	140	110	55	85	1,2

ELECTRIC TO STEAM HUMIDIFIER (ESH) SCHEDULE

REMARKS:
1. STEAM DISPERSION GRID IS PROVIDED WITH AIR HANDLING UNIT, AHU-1.
2. UNIT SHALL BE CAPABLE OF ACCEPTING R.O. WATER.
3. PROVIDE WITH BACnet COMPATIBLE BMS INTERFACE.

EQUIPMENT TAG	LOCATION	AREA AND/OR BLDG SERVED	BASIS OF DESIGN		SYSTEM AND/OR SERVICE	HUMIDIFIER TYPE	AIR FLOW (CFM)	CAPACITY (# / HR)	EAT		LAT		ELECTRICAL				UNIT DIMENSIONS				REMARKS
			MANUFACTURER	MODEL					DB (°F)	RH (%)	DB (°F)	RH (%)	VOLT	PH	FLA	KW	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	WEIGHT (LBS)	
001-ESH-01-2A09B	2A09B	CATH LAB	DRISTEEM	RX-63-1	AHU-1	ELECTRIC STEAM	3050	63	33.5	61	75	35	480	3	27.1	21	25	17	25	145	1 - 3

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Issue Date: 3/27/2026
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VA FORM 08 - 6231

CONTROLS SYMBOLS

T	ROOM THERMOSTAT/TRANSMITTER - WALL MOUNT
H	ROOM HUMIDISTAT (MOISTURE)/TRANSMITTER - WALL MOUNT
TT	TEMPERATURE TRANSMITTER
TT	TEMPERATURE TRANSMITTER, AVERAGING ELEMENT
M	MOISTURE (HUMIDITY) TRANSMITTER
PT	PRESSURE TRANSMITTER
SPS	STATIC PRESSURE SENSOR
FT	FLOW TRANSMITTER
IT	CURRENT TRANSMITTER
CT	CONDUCTIVITY TRANSMITTER
SD	SMOKE DETECTOR
PDT	PRESSURE DIFFERENTIAL TRANSMITTER
PDS	PRESSURE DIFFERENTIAL SWITCH
HS	HAND SWITCH (HAND-OFF-AUTO SWITCH)
ZC	VALVE OR DAMPER POSITION CONTROLLER
KR	LOCAL RECORDING TIME CLOCK (RUNTIME)
TSL	TEMPERATURE SWITCH, LOW (FREEZESTAT)
TSH	TEMPERATURE SWITCH, HIGH (FREEZESTAT)
LC	LEVEL CONTROLLER
LT	LEVEL TRANSMITTER
RHC	RE HEAT COIL
FE	AIRFLOW SENSOR
TE	TEMPERATURE SENSOR
ATU	AIR TERMINAL UNITS

CONTROLS SYMBOLS

PSH	PRESSURE SWITCH HIGH
PSL	PRESSURE SWITCH LOW
EPT	ELECTRONIC TO PNEUMATIC TRANSDUCER
AT CO2	CARBON DIOXIDE TRANSMITTER
AT CO	CARBON MONOXIDE TRANSMITTER
AT OC	OCCUPANCY SENSOR
LTCP	LOCAL TEMPERATURE CONTROL PANEL
HVAC	HVAC CONTROL PANEL
VSMC	VARIABLE SPEED MOTOR CONTROLLER
SD	SMOKE DAMPER
ECC	INTEGRATE CONTROL POINT ON REMOTE GRAPHICS WORKSTATION AT ENERGY CONTROL CENTER
TC	TEMPERATURE CONTROLLER. SEE SEQUENCE OF OPERATION
PC	PRESSURE CONTROLLER. SEE SEQUENCE OF OPERATION
SC	SPEED CONTROLLER. SEE SEQUENCE OF OPERATION
FC	FLOW CONTROLLER. SEE SEQUENCE OF OPERATION
FSH	FLOW SWITCH HIGH
FSL	FLOW SWITCH LOW
KC	TIME CLOCK CONTROLLING EQUIPMENT ON A SCHEDULE

CONTROLS SYMBOLS

	TEMPERATURE SENSING ELEMENT FOR TRANSMITTING TEMPERATURE TO EMCS (PROVIDE 12 INCHES [200mm] MINIMUM LENGTH IN DUCT WHEN SPACE PERMITS.)
A	SENSOR WITH AVERAGING ELEMENT TO TRANSMIT TEMPERATURE TO EMCS
	MOTOR STARTER
M	ELECTRIC OPERATED CONTROL DAMPER/OR VALVE

VALVE SYMBOLS

GATE VALVE - THREADED/FLANGED
GLOBE VALVE - THREADED/FLANGED
GATE VALVE WITH 3/4" HOSE ADAPTER
CHECK VALVE
WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
WYE STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR
FLEXIBLE CONNECTION
ANGLE GLOBE VALVE
BUTTERFLY VALVE
BALL VALVE
MODULATING CONTROL VALVE
MODULATING CONTROL BUTTERFLY VALVE
TWO POSITION CONTROL VALVE
THREE-WAY MODULATING CONTROL VALVE
THREE-WAY TWO POSITION CONTROL VALVE
PRESSURE REGULATING VALVE
PRESSURE SAFETY VALVE
AUTOMATIC BALANCING CONTROL VALVE
WATER BALANCE DEVICE
CIRCUIT SETTER VALVE
GATE VALVE WITH GLOBE-VALVED BYPASS
PLUG VALVE
CONTROL VALVE (CV) - FLOAT-OPERATED
PRESSURE REDUCING VALVE (PRV)
LC WATER LEVEL CONTROLLER
M FLOW METER
FLOAT & THERMOSTATIC TRAP

Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

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FULLY SPRINKLERED

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Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

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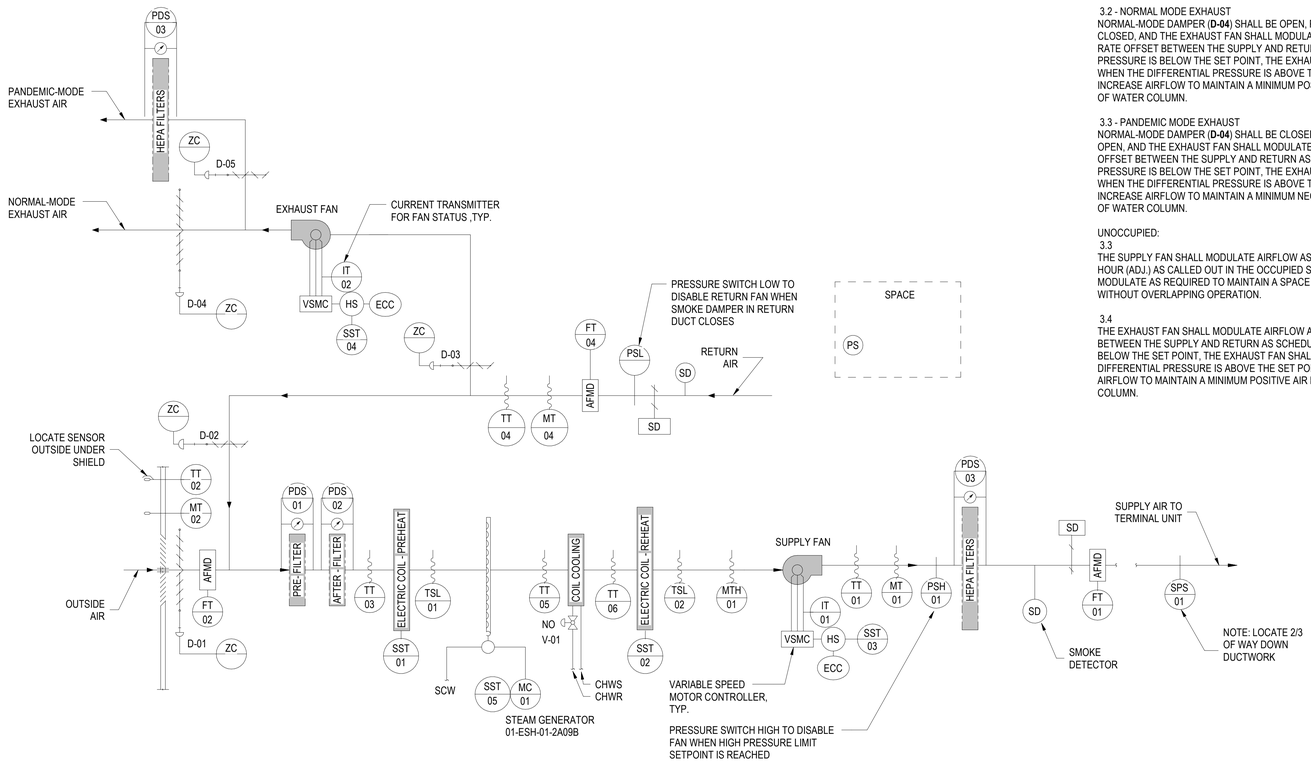
JOB: 570-21-220
BUILDING: 001

SYSTEM: VAV AIR HANDLER

SYSTEM COMPONENT:	POINT ID	ABBREVIATION	POINT LEGEND: PROPRIETARY/LOCAL TERMINAL NO.	ELECTRICAL POWER	EMERGENCY POWER	OPERATOR OVERRIDE	SYSTEM OUTPUTS: BINARY: PID COMMAND	ON/OFF/AUTO SELECTION	ALARMS	ANALOG: PID COMMAND	SYSTEM INPUTS: BINARY: PROPRIETARY/LOCAL TERMINAL NO.	HIGH LIMIT PRESSURE	LOW LIMIT PRESSURE	ANALOG: TEMPERATURE (°F)	PRESSURE	FLOW RATE	PERCENT	ELECTRICAL POWER	SYSTEM SOFTWARE/CONTROL: ALARM PROCESSING: ALARM DELAY TIME	ALARM RESET TIME	ALARM PRIORITY	LOW LIMIT	APPLICATION/FUNCTION: SCHEDULE EXAMPLE/TOP	CHANGE OVER	TIME CLOCK	INTERLOCK/SEQUENCE/AND	INTERLOCK/OR	ENERGY SAVER	ENERGY MONITORING	TREND	DEMAND LIMIT CONTROL	RESET SCHEDULE	EMERGENCY/FOCUS MMC CONTROL	SPACE TEMP CONTROL	DDC COMMUNICATION	SENSOR	REMARKS
SUPPLY AIR TEMPERATURE	AI-01	SA-TT-01							•				•																										
SUPPLY AIR HUMIDITY	AI-02	SA-MT-01							•								•																				•		
SUPPLY AIR FLOW (CFM)	AI-03	SA-FT-01							•						•				•																		•		
SUPPLY AIR STATIC PRESSURE	AI-04	SA-PSH-01							•							•			•												•						•		
RETURN AIR TEMPERATURE	AI-05	RA-TT-04							•				•																										
RETURN AIR HUMIDITY	AI-06	RA-MT-04							•								•																				•		
RETURN AIR FLOW (CFM)	AI-07	RA-FT-04							•						•				•																		•		
PRE-HEAT TEMPERATURE	AI-08	PH-TT-03																								•													
PRE-HEAT START/STOP	BO-01	PH-SST-01		•					•				•																								•		
COOLING COIL TEMPERATURE	AI-09	CC-TT-05							•				•						•																		•		
COOLING COIL VALVE	AO-06	CC-V-01					•		•				•						•																		•		
RE-HEAT TEMPERATURE	AI-10	RH-TT-06						•	•				•													•											•		
RE-HEAT START/STOP	BO-02	RH-SST-02		•					•				•																								•		
MIXED AIR LOW LIMIT	BI-01	MA-TSL-01							•		•		•						•	•																	•		
SUPPLY FAN STATUS	BI-02	STS-IT-01						•																													•		
EXHAUST FAN STATUS	BI-03	STS-IT-02						•																													•		
STATIC PRESSURE HIGH LIMIT	BI-04	SA-SPS-01									•								•																		•		
HUMIDITY HIGH LIMIT	BI-05	SA-MTH-01										•							•																		•		
SUPPLY FAN VSMC ALARM	BI-06	SF-ALA				•			•																												•		
SUPPLY FAN VSMC	AO-01	SF-SPD																																		•	•	FULL COMMUNICATION	
SUPPLY FAN START/STOP	BO-03	SA-SST-03		•					•														•														•		
EXHAUST FAN VSMC ALARM	BI-07	RF-ALA							•																												•		
EXHAUST FAN VSMC	AO-02	RF-SPD				•																														•	•	FULL COMMUNICATION	
EXHAUST FAN START/STOP	BO-04	EA-SST-04		•																			•														•		
OUTSIDE AIR DAMPER	AO-03	D-01																								•											•		
RETURN AIR DAMPER	AO-04	D-02																								•											•		
EXHAUST AIR DAMPER	AO-05	D-03																																			•		
STEAM GENERATOR START/STOP	BO-05	ESG-SST-05		•		•																															•		
PRE-FILTER PRESSURE DROP	AO-11	PDS-01						•						•																							•		
AFTER-FILTER PRESSURE DROP	AO-12	PDS-02						•						•																							•		
HEPA FILTER PRESSURE DROP	AO-13	PDS-03						•						•																							•		



2 !MC-01_AIR HANDLING UNIT CONTROL DIAGRAM

NTS

1. GENERAL

1.1
THE BUILDING MANAGEMENT SYSTEM (BMS) SHALL INITIATE OCCUPIED MODE AND START THE AIR HANDLER BASED ON OWNER-PROVIDED SCHEDULE OR A CALL FOR HEATING / COOLING DURING UNOCCUPIED MODE.

1.2
DURING OCCUPIED MODE, OUTSIDE AIR DAMPER (**D-01**) SHALL BE FULLY OPEN. RETURN AIR DAMPER (**D-02**) AND EXHAUST DAMPER (**D-03**) SHALL MODULATE IN OPPOSITION TO MAINTAIN MINIMUM OUTSIDE AIRFLOW RATE OR SATISFY ECONOMIZER-MODE SEQUENCE.

1.3
DURING UNOCCUPIED MODE THE OUTSIDE AIR DAMPER (**D-01**) AND EXHAUST DAMPER (**D-03**) SHALL BE CLOSED. RETURN AIR DAMPER (**D-02**) SHALL BE OPEN.

2. TEMPERATURE CONTROL

2.1
SUPPLY AIR TEMPERATURE SETPOINT (AS SET BY ECC), SENSED BY SENSOR (**TT-01**), SHALL BE MAINTAINED BY MODULATING COOLING CONTROL VALVE (**V-01**). REHEAT COIL SHALL BE ENERGIZED VIA PID CONTROL LOOP TO MAINTAIN THE SUPPLY AIR TEMP. COOLING COIL AND REHEAT COIL SHALL NOT OPERATE SIMULTANEOUSLY UNLESS THE UNIT IS IN DEHUMIDIFICATION MODE.

2.2
ECONOMIZER SHALL BE FIRST STAGE OF COOLING WHENEVER MODE IS AVAILABLE AND REQUIREMENTS FOR MODE ARE MET AS FOLLOWS:
- OUTDOOR TEMPERATURE (**TT-02**) IS BETWEEN 72°F AND 55°F.
- OUTSIDE AIR DRY BULB (**TT-02**) IS LESS THAN THE RETURN DRY BULB (**TT-04**) .
- OUTSIDE AIR ENTHALPY (**TT-02** & **MT-02**) IS LOWER THAN THE RETURN AIR ENTHALPY (**TT-04** & **MT-04**).

WHEN ECONOMIZER IS ENABLED, RETURN AIR DAMPER (**D-02**) SHALL CLOSE. OUTSIDE AIR AND EXHAUST DAMPERS (**D-01** & **D-02**) SHALL BE FULLY OPEN, AND COOLING COIL VALVE (**V-01**) SHALL MODULATE AS REQUIRED TO MAINTAIN SETPOINT.

3. AIR FLOW CONTROL

OCCUPIED:
3.1
THE SUPPLY FAN SHALL MODULATE AS REQUIRED TO MAINTAIN AIRFLOW RATE FOR THE SPACE OF 25 AIR CHANGES / HOUR (ADJ.). THE REHEAT COIL SHALL ENERGIZE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SET POINT OF 68°F (ADJ.)

3.2 - NORMAL MODE EXHAUST
NORMAL-MODE DAMPER (**D-04**) SHALL BE OPEN, PANDEMIC-MODE DAMPER (**D-05**) SHALL BE CLOSED, AND THE EXHAUST FAN SHALL MODULATE AS REQUIRED TO MAINTAIN AN AIRFLOW RATE OFFSET BETWEEN THE SUPPLY AND RETURN AS SCHEDULED. WHEN THE DIFFERENTIAL PRESSURE IS BELOW THE SET POINT, THE EXHAUST FAN SHALL REDUCE REDUCE AIRFLOW. WHEN THE DIFFERENTIAL PRESSURE IS ABOVE THE SET POINT, THE EXHAUST FAN SHALL INCREASE AIRFLOW TO MAINTAIN A MINIMUM POSITIVE AIR PRESSURIZATION OF +0.06 INCHES OF WATER COLUMN.

3.3 - PANDEMIC MODE EXHAUST
NORMAL-MODE DAMPER (**D-04**) SHALL BE CLOSED, PANDEMIC-MODE DAMPER (D-05) SHALL BE OPEN, AND THE EXHAUST FAN SHALL MODULATE AS REQUIRED TO MAINTAIN AN AIRFLOW RATE OFFSET BETWEEN THE SUPPLY AND RETURN AS SCHEDULED. WHEN THE DIFFERENTIAL PRESSURE IS BELOW THE SET POINT, THE EXHAUST FAN SHALL REDUCE REDUCE AIRFLOW. WHEN THE DIFFERENTIAL PRESSURE IS ABOVE THE SET POINT, THE EXHAUST FAN SHALL INCREASE AIRFLOW TO MAINTAIN A MINIMUM NEGATIVE AIR PRESSURIZATION OF -0.06 INCHES OF WATER COLUMN.

UNOCCUPIED:
3.3
THE SUPPLY FAN SHALL MODULATE AIRFLOW AS REQUIRED TO MAINTAIN 10 AIR CHANGES / HOUR (ADJ.) AS CALLED OUT IN THE OCCUPIED SEQUENCE. THE HEATING AND COOLING SHALL MODULATE AS REQUIRED TO MAINTAIN A SPACE TEMPERATURE SET POINT OF 68°F (ADJ.) WITHOUT OVERLAPPING OPERATION.

3.4
THE EXHAUST FAN SHALL MODULATE AIRFLOW AS REQUIRED TO MAINTAIN AN AIR FLOW OFFSET BETWEEN THE SUPPLY AND RETURN AS SCHEDULED. WHEN THE DIFFERENTIAL PRESSURE IS BELOW THE SET POINT, THE EXHAUST FAN SHALL DECREASE AIRFLOW, AND WHEN THE DIFFERENTIAL PRESSURE IS ABOVE THE SET POINT, THE EXHAUST FAN SHALL INCREASE AIRFLOW TO MAINTAIN A MINIMUM POSITIVE AIR PRESSURIZATION OF +0.06 INCHES OF WATER COLUMN.

4. HUMIDITY CONTROL

4.1
WHEN THE SYSTEM HUMIDITY SETPOINT AS SENSED BY RETURN AIR HUMIDITY (**MT-04**) IS MET, THE STEAM GENERATOR SHALL BE OFF. WHEN THE SYSTEM CALLS FOR HUMIDITY, THE STEAM GENERATOR SHALL MODULATE TO MAINTAIN A RELATIVE HUMIDITY LEVEL OF 50% (ADJ.).

4.2 HUMIDIFICATION:
RETURN AIR HUMIDITY SHALL BE MAINTAINED AT A SETPOINT OF 50% RELATIVE HUMIDITY (ADJ.) VIA DIGITAL CONTROL PANEL (DCP) BY ENGAGING ELECTRIC STEAM GENERATOR TO MAINTAIN HUMIDITY SETPOINT. DCP SHALL DISENGAGE STEAM GENERATOR WHENEVER THE SUPPLY FAN IS OFF.

4.3 DEHUMIDIFICATION:
RETURN AIR HUMIDITY SHALL BE MAINTAINED AT SETPOINT OF 42°F [5.6° C] DEW POINT (ADJ.) VIA DIGITAL CONTROL PANEL BY MODULATING COOLING COIL VALVE (**V-01**) TO MAINTAIN THE HUMIDITY SETPOINT. THE RETURN AIR DRYBULB TRANSMITTER (**TT-04**) AND HUMIDITY TRANSMITTER (**MT-04**) SHALL BE USED TO CALCULATE RETURN AIR DEW POINT TEMPERATURE. THE RE-HEAT COIL SHALL ENERGIZE AS REQUIRED TO PROVIDE THE SUPPLY AIR TEMPERATURE SET POINT AFTER DEHUMIDIFICATION.

5. FREEZE PROTECTION

5.1
IF MIXED AIR TEMPERATURE (**TT-03**) FALLS BELOW 45°F [7°C], AN ALARM SIGNAL SHALL INDICATE AT THE DCP AND ECC. IF THE TEMPERATURE (**TSL-01**) FALLS BELOW 40°F [4.4°C], THE SUPPLY AND RETURN FANS SHALL SHUT DOWN AND A CRITICAL ALARM SHALL INDICATE AT THE DIGITAL CONTROL PANEL AND ECC. **TSL-01** SHALL BE HARDWIRED TO THE SUPPLY FAN AND RETURN FAN AND BOTH SHALL BE SHUTDOWN IN HAND, AUTO OR BYPASS MODE. **TSL-01** WILL REQUIRE MANUAL RESET AT THE DEVICE.

6. LOSS OF COOLING PROTECTION

6.1
IF SUPPLY AIR TEMPERATURE (**TT-01**) RAISES ABOVE 65°F [18°C], AN ALARM SIGNAL SHALL INDICATE AT THE DCP AND ECC. IF TEMPERATURE (**TT-01**) RAISES ABOVE 70°F [21°C], THE SUPPLY AND RETURN FANS SHALL SHUT DOWN AND A CRITICAL ALARM SHALL INDICATE AT THE DIGITAL CONTROL PANEL AND ECC.

7. AUTOMATIC SMOKE CONTROL

7.1
WHEN SMOKE IS DETECTED BY THE RETURN DUCT SMOKE DETECTOR, THE SUPPLY FAN SHALL CONTINUE TO OPERATE AND EXHAUST FAN SHALL START. THE OUTSIDE AIR INTAKE AND EXHAUST AIR DAMPERS (**D-01** & **D-03**) SHALL FULLY OPEN AND THE RETURN AIR DAMPER (**D-02**) SHALL CLOSE.

7.2
WHEN SMOKE IS DETECTED BY THE SUPPLY AIR SMOKE DETECTOR, THE SUPPLY FAN AND EXHAUST FAN SHALL SHUT OFF AND ALL DAMPERS SHALL CLOSE.

8. EMERGENCY CONSTANT SPEED OPERATION

8.1
UPON FAILURE OF THE VSMC, THE SUPPLY AND RETURN FANS SHALL BE STARTED / STOPPED MANUALLY AT THE DIGITAL CONTROL PANEL OR THE ECC THROUGH THE BY-PASS STARTER. FANS SHALL THEN BE OPERATED AT CONSTANT SPEED.

9. SERVICE MAINTENANCE CHANGEOVER

9.1
WHEN THE AIR HANDLER IS COMMANDED OFF THE NORMALLY OPEN DAMPERS IN MAIN DUCTWORK SHALL CLOSE AND THE NORMALLY CLOSED DAMPERS IN THE BYPASS SHALL BE OPENED.

Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL - CONTROL DIAGRAMS I
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MH
Drawn: AV
Project Number: 570-21-220
Building Number:
Drawing Number: M-702

VA FORM 08 - 6231

JOB: 570-21-220 BUILDING: 001			POINT LEGEND	SYSTEM OUTPUTS		SYSTEM INPUTS		SYSTEM SOFTWARE/CONTROL		PAGE:
				BINARY	ANA-LOG	BINARY	ANALOG	ALARM PROCESSING	APPLICATION/FUNCTION	
SYSTEM: DUAL HEATING/COOLING COIL SYSTEM COMPONENT:	POINT ID	ABBREVIATION	PRIORITY/ADD-ALTERNATE NO. ELECTRIC DEVICE START/STOP OPEN/CLOSE SPEED COMMAND VALVE POSITION DAMPER POSITION STATUS ALARM PRESSURE HIGH HUMIDITY HIGH STATIC PRESSURE LOW TEMPERATURE	TEMPERATURE (T) PRESSURE POSITION FLOW PERCENT STATIC PRESSURE CARBON MONOXIDE HUMIDITY ACTUATOR Local Alarm Panel Area Alarm Panel Major Alarm Panel HIGH LIMIT LOW LIMIT	SCHEDULE START/STOP FUNCTION DUTY CYCLE TEMPERATURE ENTHALPY ECONOMIZER DEMAND LIMIT ECONOMIZER DEMAND LIMIT RESET TEMPERATURE OVERRIDE STATIC PRESSURE RESET PRESSURE/VOLUME CONTROL FAILURE MODE SPACE TEMP CONTROL FLOW COMMUNICATION TRENDING	REMARKS
SPACE AIR TEMPERATURE	AI-1	SAT				•			•	
SPACE AIR HUMIDITY	AI-2	SAH			•		•		•	
VALVE V-1	AO-1	VLV-V1		•					•	

SEQUENCE OF OPERATION

1.TEMPERATURE CONTROL AND MONITORING

1.1
THE DUCTLESS SPLIT(S) SHALL OPERATE CONTINUOUSLY TO MAINTAIN A SPACE TEMPERATURE OF 75°(ADJ).

1.2
SHOW SPACE TEMPERATURE AND HUMIDITY AT THE GRAPHIC DISPLAY. PROVIDE TEMPERATURE TRENDS.

1.3
SHOW RACK TEMPERATURE AND HUMIDITY. SEE PLANS FOR NUMBER OF RACKS PER TR. PROVIDE TEMPERATURE TRENDS.

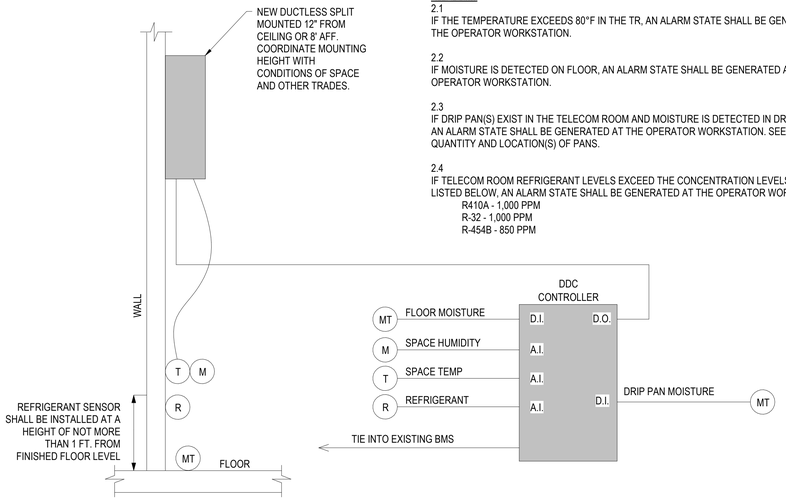
2. ALARMS

2.1
IF THE TEMPERATURE EXCEEDS 80°F IN THE TR, AN ALARM STATE SHALL BE GENERATED AT THE OPERATOR WORKSTATION.

2.2
IF MOISTURE IS DETECTED ON FLOOR, AN ALARM STATE SHALL BE GENERATED AT THE OPERATOR WORKSTATION.

2.3
IF DRIP PAN(S) EXIST IN THE TELECOM ROOM AND MOISTURE IS DETECTED IN DRAIN PAN(S), AN ALARM STATE SHALL BE GENERATED AT THE OPERATOR WORKSTATION. SEE PLANS FOR QUANTITY AND LOCATION(S) OF PANS.

2.4
IF TELECOM ROOM REFRIGERANT LEVELS EXCEED THE CONCENTRATION LEVELS (PPM) LISTED BELOW, AN ALARM STATE SHALL BE GENERATED AT THE OPERATOR WORKSTATION.
R410A - 1,000 PPM
R-32 - 1,000 PPM
R-454B - 850 PPM



2 !M-08_TELECOMMUNICATION ROOM CONTROL DIAGRAM DETAIL
SCALE: NTS

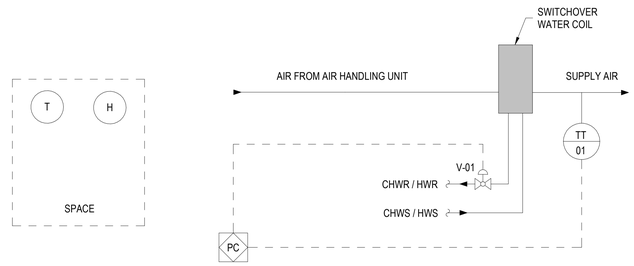
COIL SEQUENCE OF OPERATION:

1. GENERAL
1.1
2-PIPE CHANGEOVER SHALL OCCUR SIMULTANEOUSLY FOR ALL COILS BASED ON EXISTING BMS SCHEDULE.

2. FLOW CONTROL
2.1
DURING COOLING PERIOD (CHILLED WATER AVAILABLE), VALVE (**V-01**) SHALL MODULATE TO MAINTAIN 75°F (ADJ.) AT THE ZONE CONTROL THERMOSTAT.
DURING HEATING PERIOD (HEATING WATER AVAILABLE), VALVE (**V-01**) SHALL MODULATE TO MAINTAIN 70°F (ADJ.) AT THE ZONE CONTROL THERMOSTAT.

3. ALARMS
3.1
IF THE SPACE TEMPERATURE, AS SENSED BY THERMOSTAT, FALLS OUTSIDE OF THE RANGE OF 70°F-82°F (ADJ.) AN ALARM SHALL BE GENERATED AT OPERATOR WORKSTATION.

3.2
IF THE SPACE HUMIDITY, AS SENSED BY HUMIDISTAT, FALLS OUTSIDE OF 40%-60% RH, AN ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION.



1 **!M-01_2-PIPE HEATING/COOLING COIL CONTROL DIAGRAM**
NTS

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
MECHANICAL - CONTROL DIAGRAMS II	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: M-703

VA FORM 08 - 6231

PIPING SYSTEMS

CW	DOMESTIC COLD WATER, COLD WATER
HW	DOMESTIC HOT WATER, HOT WATER
HWR	DOMESTIC HOT WATER RETURN, HOT WATER RETURN
MA	MEDICAL AIR
MV	MEDICAL VACUUM
LA	LABORATORY AIR
LV	LABORATORY VACUUM
OA	ORAL EVACUATION
D	CONDENSATE DRAIN
	VENT (SANITARY)
SS	SOIL, WASTE, OR SANITARY SEWER
SD	STORM WATER
N2O	NITROUS OXIDE
O	OXYGEN
N2	NITROGEN
NG	NATURAL GAS
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
F	FIRE PROTECTION
OW	OIL LADEN WASTE
ACID	ACID LADEN WASTE
GW	GREASE WASTE
NPW	NON POTABLE WATER
X	EXISTING PIPE TO BE REMOVED
SW	SOFTENED WATER
PSS	PUMPED SEWAGE

ADDITIONAL SYMBOLS

- 2 / PL4 — DETAIL NUMBER; DRAWING NUMBER WHERE DRAWN
- A / PL7 — SECTION LETTER; DRAWING NUMBER WHERE SHOWN
- 26-P 3 — BUILDING NO. WHERE EQUIPMENT IS LOCATED; EQUIPMENT ABBREVIATION (PUMP); PUMP NO. 3 IN BUILDING NO. 26; TYPICAL UNIT NO.
- SAN / 1 — RISER SYSTEM; RISER NUMBER
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- LIMIT OF DEMOLITION

PIPING SYMBOLS

CONTINUATION
DROP IN PIPE
VALVE IN RISER
ELBOW
TEE
UNION
TOP CONNECTION
BOTTOM CONNECTION
DIRECTION OF PIPE PITCH (DOWN)
VTR — VENT THRU ROOF
PRESSURE REDUCING VALVE
BALL JOINT
FLEXIBLE CONNECTOR
TOP CONNECTION, 45(DEG) OR 90° (DEG)
BOTTOM CONNECTION, 45(DEG) OR 90° (DEG)
CAPPED OUTLET
PIPE UP
PIPE DOWN
STRAINER
FLOOR DRAIN WITH TRAP
F — FLOOR DRAIN WITH CLEANOUT
D C — FLOOR SINK WITH HALF GRATE
O — FLOOR SINK WITH FULL GRATE
DIRECTION OF FLOW
FLOOR PENETRATION
WH — FREEZE-PROOF WALL HYDRANT
WCO — WALL CLEANOUT
HOSE BIB
WATER HAMMER ARRESTOR/ACCESS
THERMOMETER
T — THERMOMETER WELL
STRAINER WITH BLOW-OFF AND HOSE CONNECTION
PRESSURE GAUGE
M — FLOW METER
CO — CLEAN OUT
FCO — FLOOR CLEANOUT
P-TRAP

ABBREVIATIONS

AC:	ALTERNATING CURRENT
A/E:	ARCHITECT/ENGINEER
AFF:	ABOVE FINISH FLOOR
AFG:	ABOVE FINISH GRADE
AG:	AIR GAP
AI:	ANALOG INPUT
AO:	ANALOG OUTPUT
ASHRAE:	AMERICAN SOCIETY OF HEATING REFRIGERATION, AIR CONDITIONING ENGINEERS
ASJ:	ALL SERVICE JACKET
ASME:	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE:	AMERICAN SOCIETY OF PLUMBING ENGINEERS
ASR:	AUTOMATIC SPRINKLER RISER
BACNET:	BUILDING AUTOMATION AND CONTROL NETWORK
BAS:	BUILDING AUTOMATION SYSTEM
BFP:	REDUCED PRESSURE BACKFLOW PREVENTER
BHP:	BRAKE HORSEPOWER
BTU:	BRITISH THERMAL UNIT
BTU/H:	BRITISH THERMAL UNIT PER HOUR
CFM:	CUBIC FEET PER MINUTE
CO:	CLEANOUT
COR:	CONTRACTING OFFICER'S REPRESENTATIVE
CV:	CONTROL VALVE
CXA:	COMMISSIONING AGENT
DB:	DECIBELS
DB(A):	DECIBELS (A WEIGHTED)
DDC:	DIRECT DIGITAL CONTROL
DFU:	DRAINAGE FIXTURE UNITS
DI:	DIGITAL INPUT
DI:	DEIONIZED WATER
DN:	DIAMETER NOMINAL
DO:	DIGITAL OUTPUT
DOE:	DEPARTMENT OF ENERGY
DW:	DISHWASHER
DWG:	DRAWING
DWV:	DRAINAGE, WASTE AND VENT
E:	EXISTING
ECC:	ENGINEERING CONTROL CENTER AKA BAS
EL:	ELEVATION
EPA:	ENVIRONMENTAL PROTECTION AGENCY
F:	FAHRENHEIT
FCO:	FLOOR CLEANOUT
FD:	FLOOR DRAIN
FDC:	FIRE DEPARTMENT (HOSE) CONNECTION
FOP:	FUEL OIL PUMP
FOR:	FUEL OIL RETURN
FOS:	FUEL OIL SUPPLY
FOV:	FUEL OIL VENT
FS:	FLOW SWITCH
FSK:	FOIL-SCRIM-KRAFT FACING
FU:	FIXTURE UNITS
GAL:	GALLON
GCO:	GRADE CLEANOUTS
GPD:	GALLONS PER DAY
GPH:	GALLONS PER HOUR
GPM:	GALLONS PER MINUTE
GPR:	GAS PRESSURE REGULATOR
GRS:	GAS REGULATOR STATION
GT:	GREASE TRAP
GVTR:	GAS VENT THROUGH ROOF
H&CW:	HOT AND COLD WATER
HB:	HOSE BIB
HD:	HUB DRAIN
HEX:	HEAT EXCHANGER
HG:	MERCURY
HOA:	HANDS-OFF-AUTOMATIC
HP:	HORSEPOWER
HVE:	HIGH VOLUME EVACUATION
HWCP:	HOT WATER CIRCULATING PUMP
HZ:	HERTZ
ID:	INSIDE DIAMETER
INV:	INVERT
IPC:	INTERNATIONAL PLUMBING CODE
KW:	KILOWATT
KWH:	KILOWATT HOUR
LAV:	LAVATORY
LB:	POUND
LBS/HR:	POUNDS PER HOUR
MA:	MEDICAL AIR
MAV:	MEDICAL AIR VENT
MAX:	MAXIMUM
MBH:	1000 BTU PER HOUR
MB:	MOP BASIN
MFG:	MANUFACTURER
MG:	MILLIGRAM
MIN:	MINIMUM
MV:	MEDICAL VACUUM
N2:	NITROGEN
N20:	NITROGEN OXIDE
NC:	NORMALLY CLOSED
NG:	NATURAL GAS
NO:	NORMALLY OPEN
NOM:	NOMINAL
NPS:	NOMINAL PIPE SIZE
NTS:	NOT TO SCALE
O2:	OXYGEN
OC:	ON CENTER
OD:	OUTSIDE DIAMETER
OR:	OPERATING ROOM
OSD:	OPEN SIGHT DRAIN
OS&Y:	OUTSIDE STEM AND YOKE
OXY:	OXYGEN
PA:	PASCAL
PD:	PRESSURE DROP OR DIFFERENCE
PG:	PRESSURE GAUGE
PID:	PROPORTIONAL-INTEGRAL-DIFFERENTIAL
PLC:	PROGRAMMABLE LOGIC CONTROLLERS
PPB:	PARTS PER BILLION
PPM:	PARTS PER MILLION
PRV:	PRESSURE REDUCING VALVE
PSI:	POUNDS PER SQUARE INCH
PSIA:	POUNDS PER SQUARE INCH ATMOSPHERE
PSIG:	POUNDS PER SQUARE INCH GAUGE
PVC:	POLYVINYL CHLORIDE
PW:	POTABLE WATER
RAD:	RADIANS
RD:	ROOF DRAIN
RO:	REVERSE OSMOSIS
RPM:	REVOLUTIONS PER MINUTE
SAN:	SANITARY SEWER
SCFM:	STANDARD CUBIC FEET PER MINUTE
SF:	SQUARE FEET
SMACNA:	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SK	SINK
SPEC:	SPECIFICATION
SPS:	STERILE PROCESSING SERVICES
SQFT:	SQUARE FEET
SS:	STAINLESS STEEL
STD:	STANDARD
SW:	STORM WATER
SWP:	STEAM WORKING PRESSURE
TCV:	TEMPERATURE CONTROL VALVE
TD:	TRENCH DRAIN
TDH:	TOTAL DYNAMIC HEAD
TEMP:	TEMPERATURE
TMV:	THERMOSTATIC MIXING VALVE
T/P:	TEMPERATURE AND PRESSURE
TP:	TRAP PRIMER
TSTAT:	THERMOSTAT
TYP:	TYPICAL
UR:	URINAL
V:	VOLT
VA:	VETERANS ADMINISTRATION
CSS:	SERVICE
VAC:	VACUUM
VAMC:	VETERANS ADMINISTRATION MEDICAL CENTER
VA TIL:	WWW.CFM.VA.GOV/TIL/INDEX.ASP
VHA:	VETERANS HEALTH ADMINISTRATION
VSD:	VARIABLE SPEED DRIVE
VTR:	VENT THROUGH ROOF
W:	WASTE
WAGD:	WASTE ANESTHESIA GAS DISPOSAL
WC:	WATER CLOSET
WCO:	WATER CLEANOUT
WG:	WATER GAUGE
WH:	WALL HYDRANT
WOG:	WATER, OIL, GAS
WPD:	WATER PRESSURE DROP
WS:	WASTE STACK
WSFU:	WATER SUPPLY FIXTURE UNITS
YCO:	YARD CLEANOUT
YH:	YARD HYDRANT

PIPING VALVES

GATE VALVE
GLOBE VALVE
GATE VALVE WITH 3/4" HOSE ADAPTER
CHECK VALVE
ANGLE GLOBE VALVE
BUTTERFLY VALVE
BALL VALVE
PRESSURE REGULATING VALVE
PRESSURE SAFETY VALVE
CALIBRATED BALANCING VALVE

PLUMBING SHEET INDEX

P-001	PLUMBING - LEGENDS & ABBREVIATIONS
PD101	FIRST FLOOR DEMO PLAN - WASTE & VENT
PD102	FIRST FLOOR DEMO PLAN - DOMESTIC WATER
PD103	SECOND FLOOR DEMO PLAN - WASTE & VENT
PD104	SECOND FLOOR DEMO PLAN - DOMESTIC WATER
PD105	SECOND FLOOR PLAN - MED-GAS DEMO
P-101	FIRST FLOOR PLAN - WASTE & VENT
P-102	FIRST FLOOR PLAN - DOMESTIC WATER
P-103	SECOND FLOOR PLAN - WASTE & VENT
P-104	SECOND FLOOR PLAN - DOMESTIC WATER
P-105	SECOND FLOOR PLAN - MED GAS
P-501	PLUMBING DETAILS

BACKFLOW PREVENTER SCHEDULE

EQUIPMENT TAG	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	MAX. DIFFERENTIAL PRESSURE DROP (PSI)	MODEL SIZE	ISOLATION VALVES	REMARKS
001-BFP-01-2A09B	ZURN/WILKINS	975XL2	10	3/4"	BALL	-

PLUMBING FIXTURE SCHEDULE

REMARKS:
1. PROVIDE WITH DRAIN PLUG AND STRAINER.
2. PROVIDE WITH LAMINAR FLOW FAUCET.

FIXTURE NUMBER	DESCRIPTION	BASIS OF DESIGN MANUFACTURER AND CATALOG # (BASIS OF DESIGN ONLY OTHER MANUFACTURES THAT MEET THE SPECIFICATIONS ARE ACCEPTABLE)	FAUCET/FLUSH VALVE	CONNECTIONS (IN)				REMARKS
				HW	CW	W	V	
P-103	WATER CLOSET, WALL MOUNT, FLUSH VALVE (ACCESSIBLE)	KOHLER KINGSTON ULTRA K-84325-0	SLOAN UPPERCUT WES 111-1.6/1.1 (1.6/1.1 GPF) MANUAL DUAL FLUSH VALVE	-	1"	3"	2"	-
P-401	WALL MOUNTED LAVATORY (ACCESSIBLE)	ZURN Z822ZURN Z5360 20"X18"00-XL, SINGLE LEVER, 0.5 GPM	ZURN Z82200-XL, SINGLE LEVER, 0.5 GPM	1/2	1/2	1-1/2	1-1/2	1,2
P-519	DOUBLE COMPARTMENT, WALL MOUNT, STAINLESS STEEL SCRUB SINK	ELKAY EWSF26026SACC 60" X 23" X 26"t	ELKAY LKB721C, BELOW DECK MOUNT, SENSOR ACTIVATED, 8" SPOUT 1.5 GPM	1/2	1/2	1-1/2	1-1/2	1,2
P-524	DOUBLE COMPARTMENT, COUNTER MOUNTED, STAINLESS STEEL	ELKAY SDE23322 33"22"X8"	ELKAY GOOSE NECK SWIVEL, DOUBLE LEVER, 2.2 GPM	1/2	1/2	1-1/2	1-1/2	1,2
P-528	SINGLE COMPARTMENT, COUNTER MOUNT, STAINLESS STEEL, ADA SINK	ELKAY LRAD222265 22"X22"X6.5"	ELKAY LK1001CR, BELOW DECK MOUNT, SINGLE HANDLE, ADA, 8" SPOUT, W/HOSE SPRAY 0.5 GPM	1/2	1/2	2	2	1,2
P-708	EMERGENCY EYEWASH (DECK MOUNTED SWIVEL)	JR SMITH FIG 2005	PROVIDE G6020 THERMOSTATIC MIXING VALVE	1/2	1/2	-	-	-

FLOOR DRAIN SCHEDULE

FIXTURE NUMBER	DESCRIPTION	BASIS OF DESIGN MANUFACTURER AND CATALOG # (BASIS OF DESIGN ONLY OTHER MANUFACTURES THAT MEET THE SPECIFICATIONS ARE ACCEPTABLE)	SIZE (IN)	WASTE CONNECTION
FD-S	FLOOR SINK WITH HALF DRAIN	ZURN Z1900-2	12X12X6	3"

WATER SOFTENER SCHEDULE

EQUIPMENT TAG	AREA AND/OR BLDG SERVED	BASIS OF DESIGN		SYSTEM AND/OR SERVICE	FLOW RATE (GPM)	WATER CONN SIZE (IN)	OPERATING WEIGHT (LBS)	REMARKS
		MANUFACTURER	MODEL					
WS-01-2A09B	CATH LAB	DRI STEEM	WS-844	ELECTRIC HUMIDIFIER	0.1	1	139	1

PACKAGED REVERSED OSMOSIS SCHEDULE

EQUIPMENT TAG	AREA AND/OR BLDG SERVED	BASIS OF DESIGN		SYSTEM AND / OR SERVICE	INCOMING DISSOLVED SOLIDS (PPM)	CAPACITY (GPM)	FEED FLOW (GPM)	REJECT FLOW (GPM)	CLEANING FLOW (GPM)	ELECTRICAL			DISCONNECT FURNISHED BY	OPERATING WEIGHT (LBS)	REMARKS
		MANUFACTURER	MODEL							VOLT	PH	FLA			
RO-01-2A09B	CATH LAB	DRI STEEM	RO-201	ELECTRIC HUMIDIFIER	108	0.20	0.1	0-0.5	0.2	208	1	2.8	EC	155	-

Revisions: | Date:

CONSULTANT
ENGINEERING DISCIPLINE:

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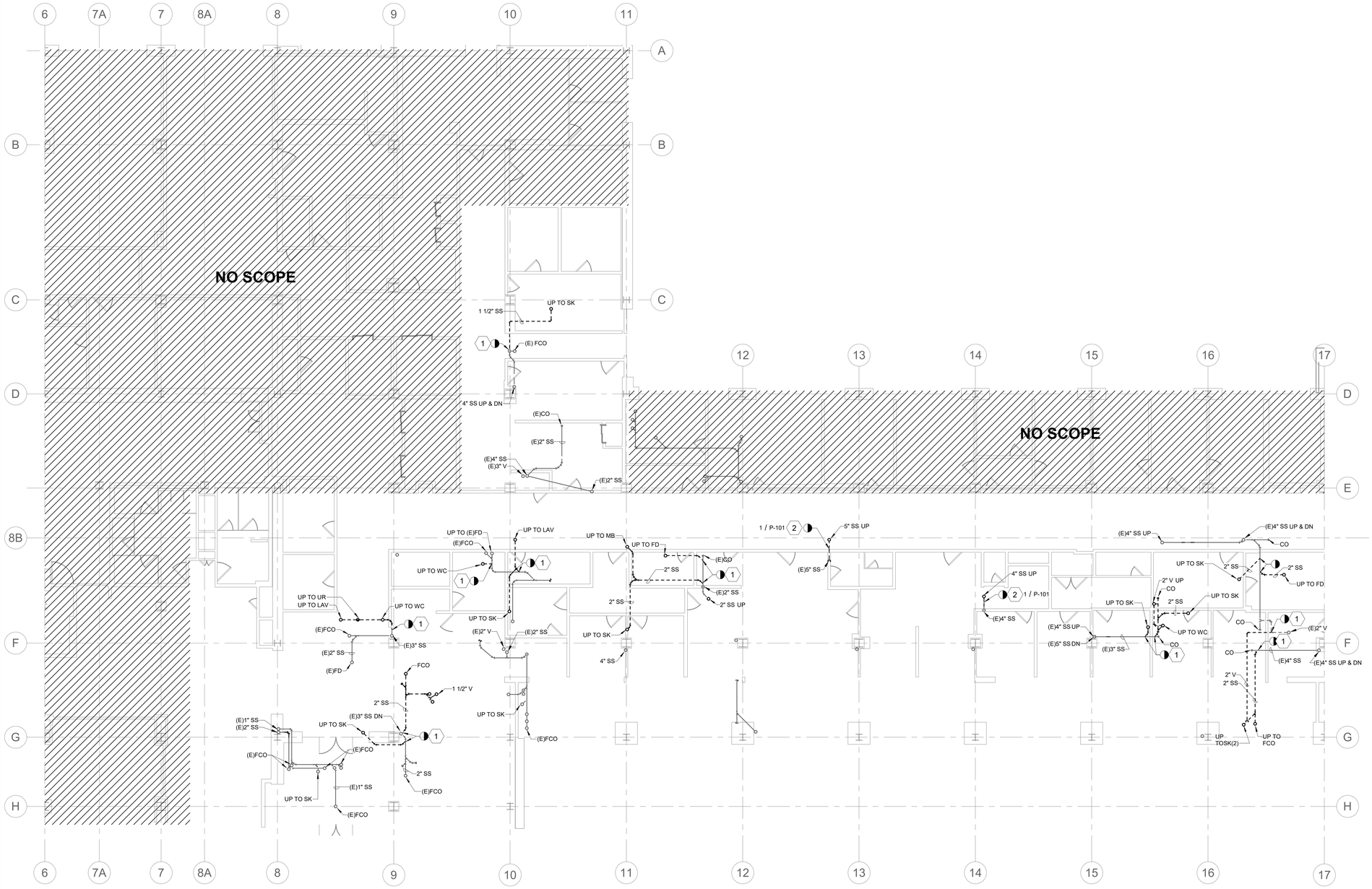
MICHAEL G. HUBBARD — STATE OF WASHINGTON — 3/27/2026 — 39485 — REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING - LEGENDS & ABBREVIATIONS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: MH
Drawn: AV
Project Number: 570-21-220
Building Number: 001
Drawing Number: P-001

VA FORM 08 - 6231



1 FIRST FLOOR DEMO PLAN - WASTE & VENT

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
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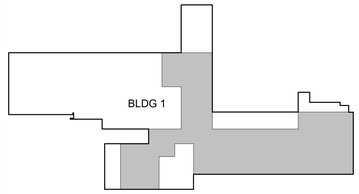
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY SYSTEM SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

KEY NOTES

1 CAP AND SEAL PIPING WITHIN TWO PIPE DIAMETERS OF THE MAIN.
2 REMOVE PIPING BEYOND THIS POINT SHOWN DASHED. SEE ASSOCIATED SHEET FOR NEW SANITARY REROUTE.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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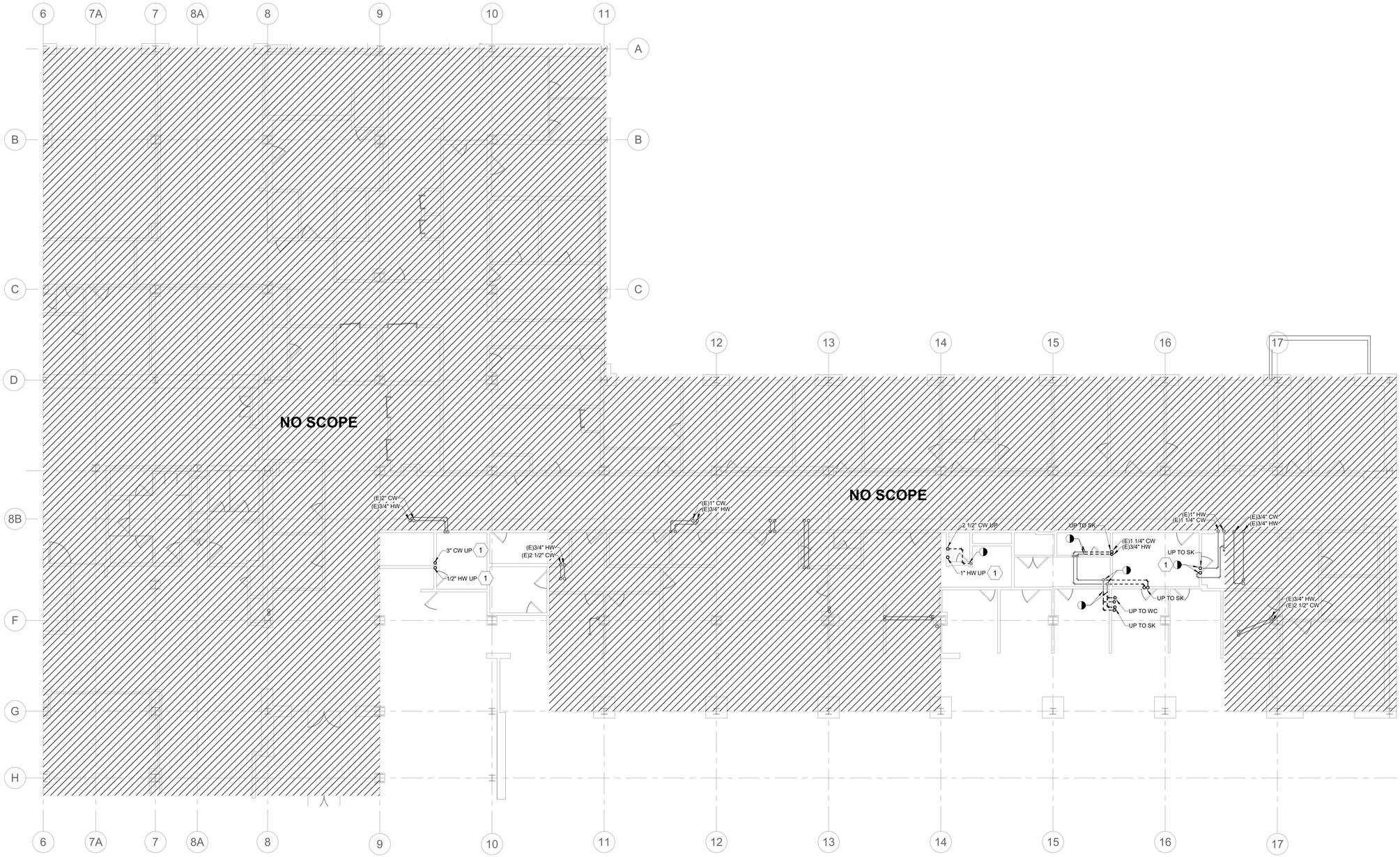
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FIRST FLOOR DEMO PLAN - WASTE & VENT	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: PD101

VA FORM 08 - 6231



1 FIRST FLOOR DEMO PLAN - DOMESTIC WATER

SCALE: 1/8" = 1'-0"

PROJECT NORTH

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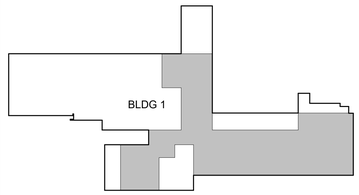
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY SYSTEM SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

KEY NOTES

1 DEMOLISH EXISTING PIPING SECTION AT HIGH LEVEL FOR NEW TIE IN CONNECTION. SEE NEW WORK PLANS FOR TIE IN LOCATION.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

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ARCHITECT/ENGINEER OF RECORD

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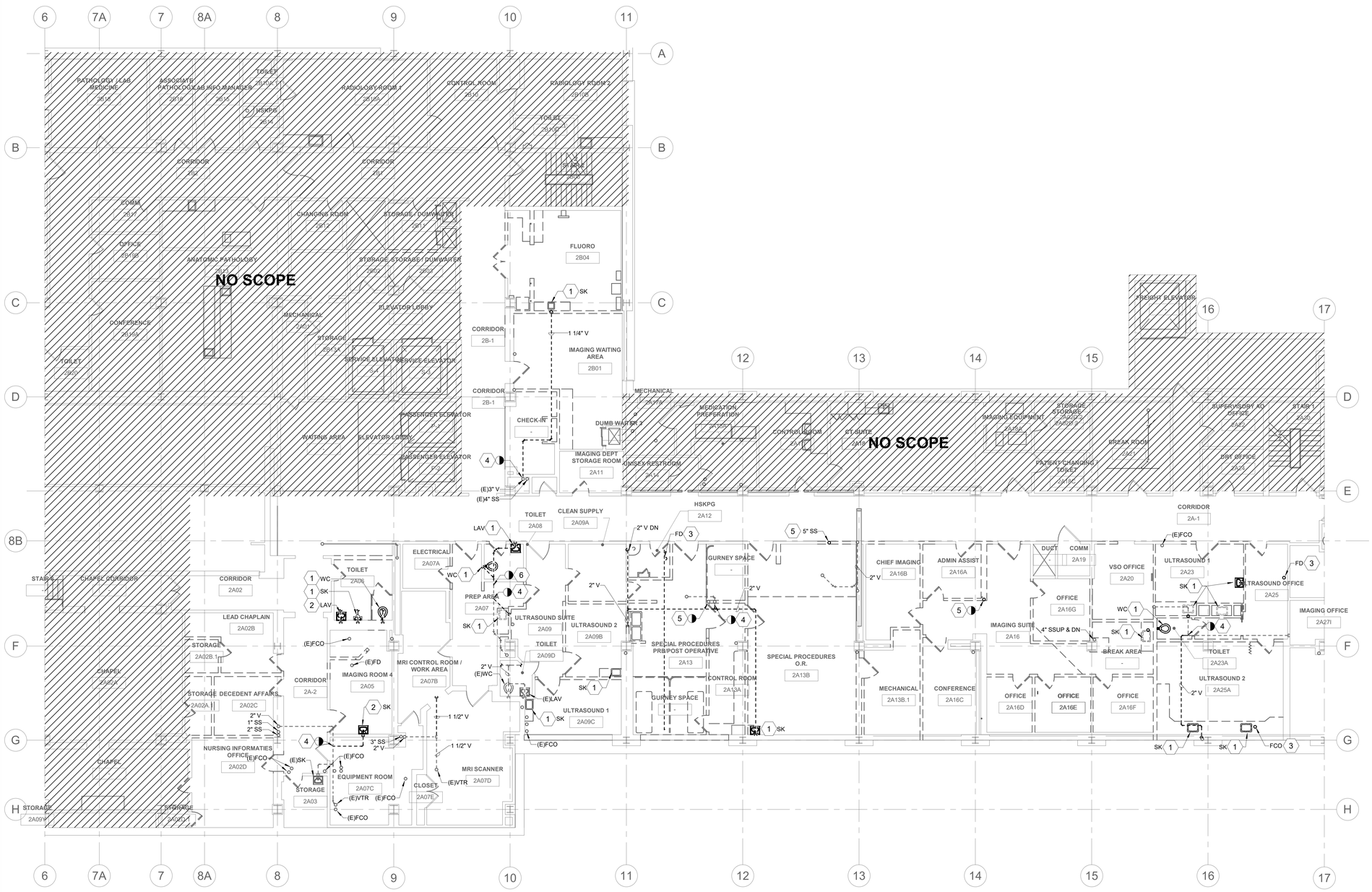
MICHAEL G. HUBBARD, STATE OF WASHINGTON, 39485, REGISTERED PROFESSIONAL ENGINEER, 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FIRST FLOOR DEMO PLAN - DOMESTIC WATER	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: PD102

VA FORM 08 - 6231



1 SECOND FLOOR DEMO PLAN - WASTE & VENT

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

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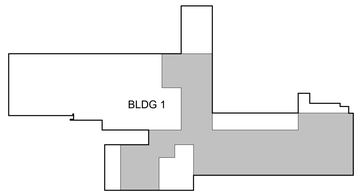
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
9. SEE ARCHITECTURAL PLAN FOR PHASING REQUIREMENTS AND COORDINATE ANY SYSTEM SHUTDOWNS WITH COR AND GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

KEY NOTES

1. REMOVE PLUMBING FIXTURE INDICATED. REMOVE VENT AND WASTE PIPING BACK TO MAIN LINES. CAP AND SEAL PIPING WITHIN TWO PIPE DIAMETERS FROM THE MAIN..
2. REMOVE PLUMBING FIXTURE INDICATED. REMOVE HOT WATER, COLD WATER, VENT, AND WASTE PIPING BACK TO NEAREST RESPECTIVE MAIN PIPING. CAP AND SEAL PIPING WITHIN TWO PIPE DIAMETERS FROM THE MAIN.
3. REMOVE IN-FLOOR FIXTURE INDICATED AND ASSOCIATED PIPING BELOW FLOOR. SEE FLOOR BELOW FOR SCOPE.
4. CAP AND SEAL PIPING AT THIS LOCATION WITHIN TWO PIPE DIAMTERS OF THE MAIN. REMOVE PIPING SHOWN DASHED BEYOND THIS POINT.
5. DEMOLISH EXISTING PIPING SECTION AT HIGH LEVEL FOR NEW TIE IN CONNECTION. SEE NEW WORK PLANS FOR NEW ROUTING OF SANITARY MAIN PIPING.
6. DEMOLISH EXISTING PIPING SECTION AT HIGH LEVEL FOR NEW TIE IN CONNECTION. REMOVE ALL PIPING, SUPPORTS, AND INSULATION OF REMOVED PIPING SECTION.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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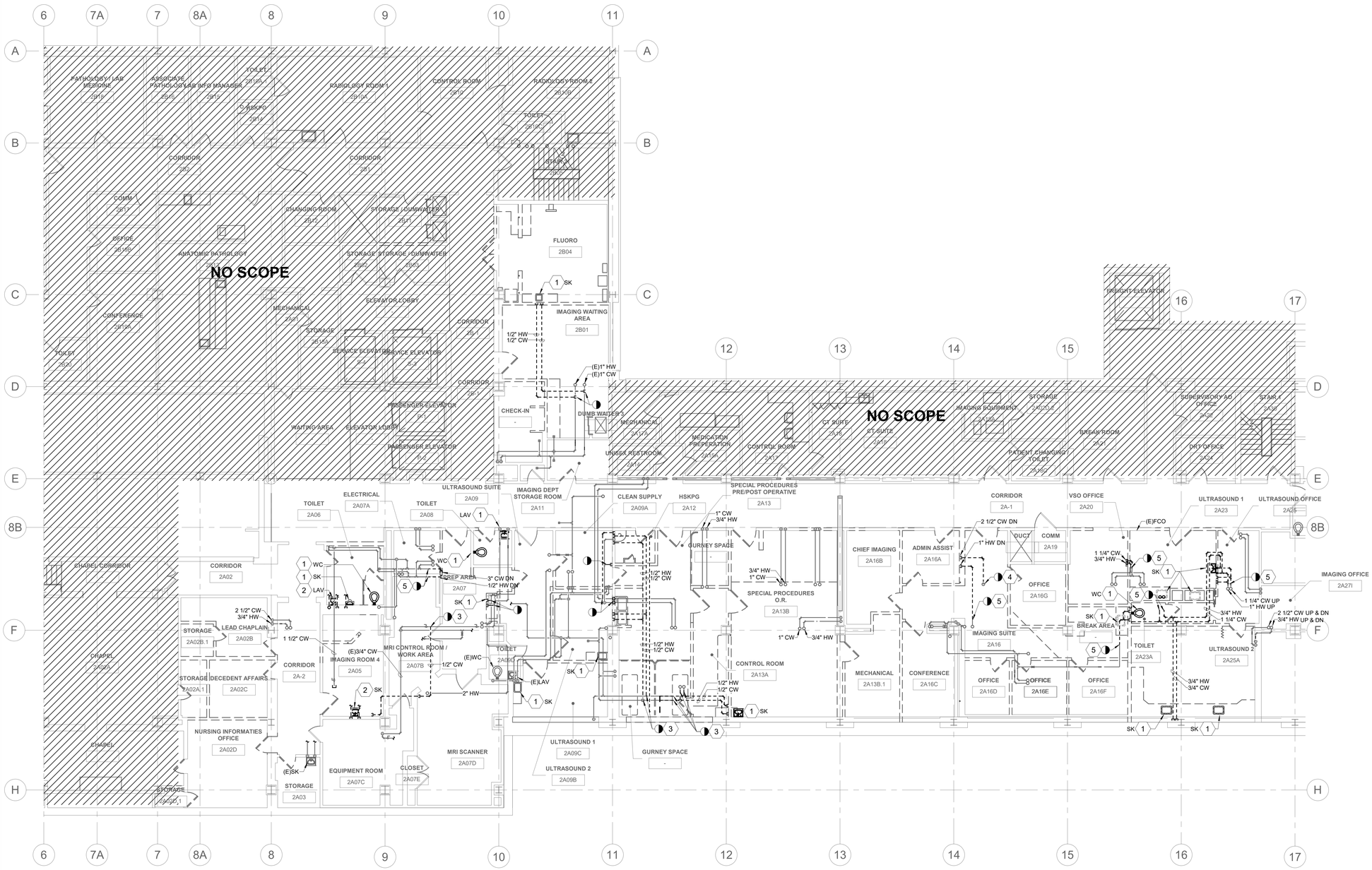
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR DEMO PLAN - WASTE & VENT	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: PD103

VA FORM 08 - 6231



1 SECOND FLOOR DEMO PLAN - DOMESTIC WATER

SCALE: 1/8" = 1'-0"

GENERAL NOTES

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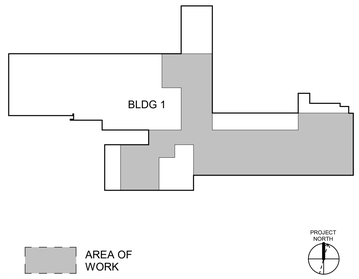
KEY PLAN



Revisions:	Date:

CONSULTANT

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ARCHITECT/ENGINEER OF RECORD

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SPEESDESIGNBUILD

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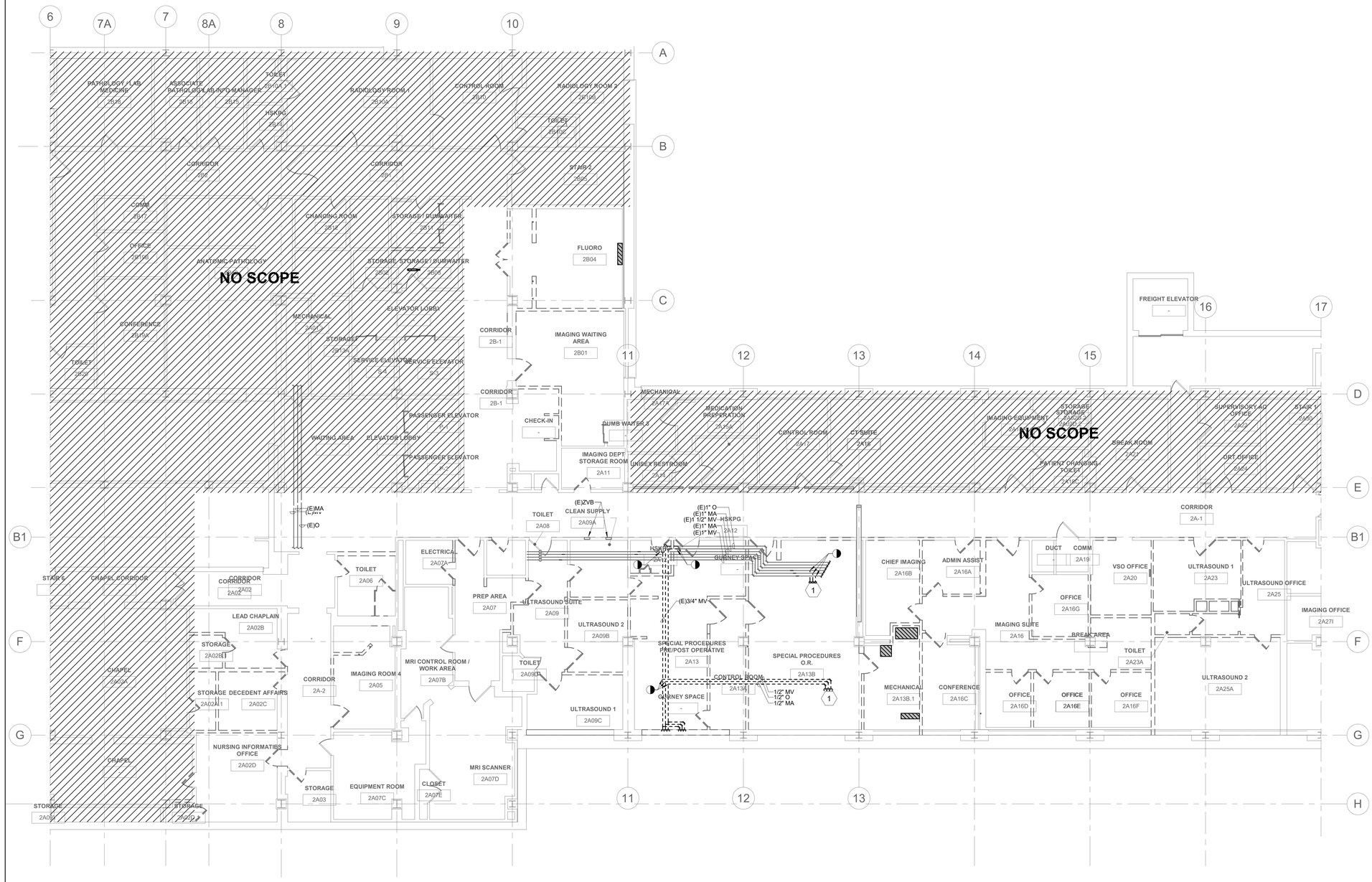
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR DEMO PLAN - DOMESTIC WATER	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: PD104

VA FORM 08 - 6231



1 SECOND FLOOR DEMOLITION PLAN - MEDICAL GAS

SCALE: 1/8" = 1'-0"

PROJECT NORTH

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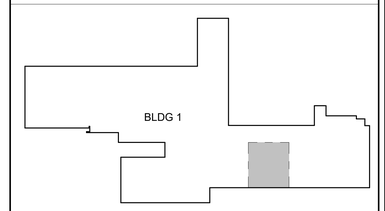
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.

KEY NOTES

1 REMOVE MEDICAL GAS OUTLETS ON SOFFIT AND REMOVE MEDICAL GAS PIPING INDICATED BACK TO MAIN AND CAP.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

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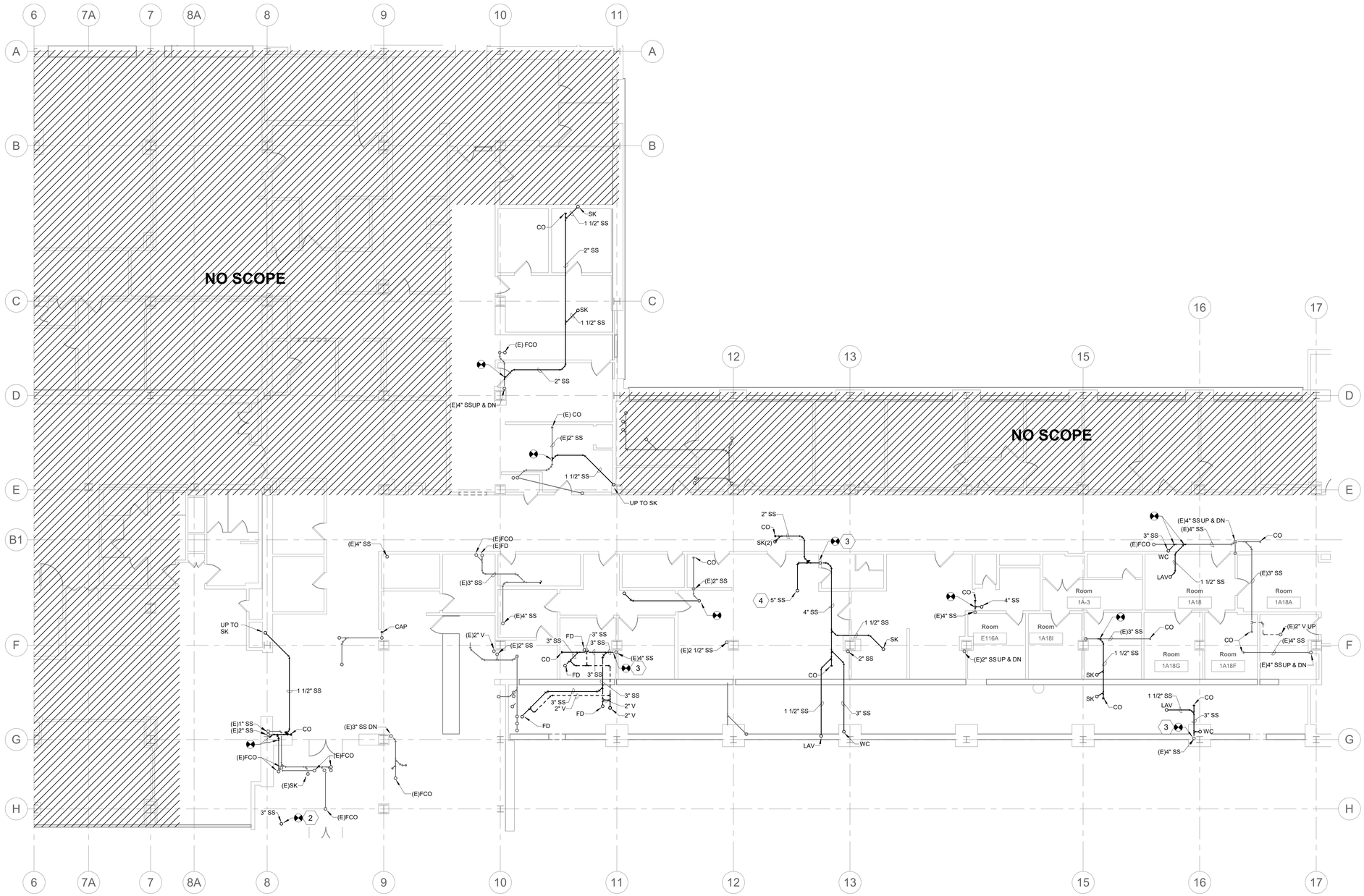
MICHAEL G. HUBBARD
STATE OF WASHINGTON
3/27/2026
39485
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR PLAN - MED-GAS DEMO	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: PD105

VA FORM 08 - 6231



1 FIRST FLOOR PLAN - WASTE & VENT

SCALE: 1/8" = 1'-0"

PROJECT NORTH

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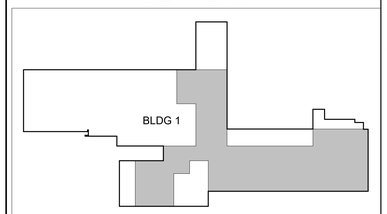
4. CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.

KEY NOTES

2 ROUTE NEW SANITARY PIPING OF SIZE INDICATED DOWN TO 4" SANITARY MAIN ON THE FLOOR BELOW.
3 MAKE NEW CONNECTION TO EXISTING SANITARY PIPING IN RISE.
4 PIPING OF SIZE INDICATED UP TO WITHIN CHASE ON FLOOR ABOVE.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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SPEESDESIGNBUILD

STAMP

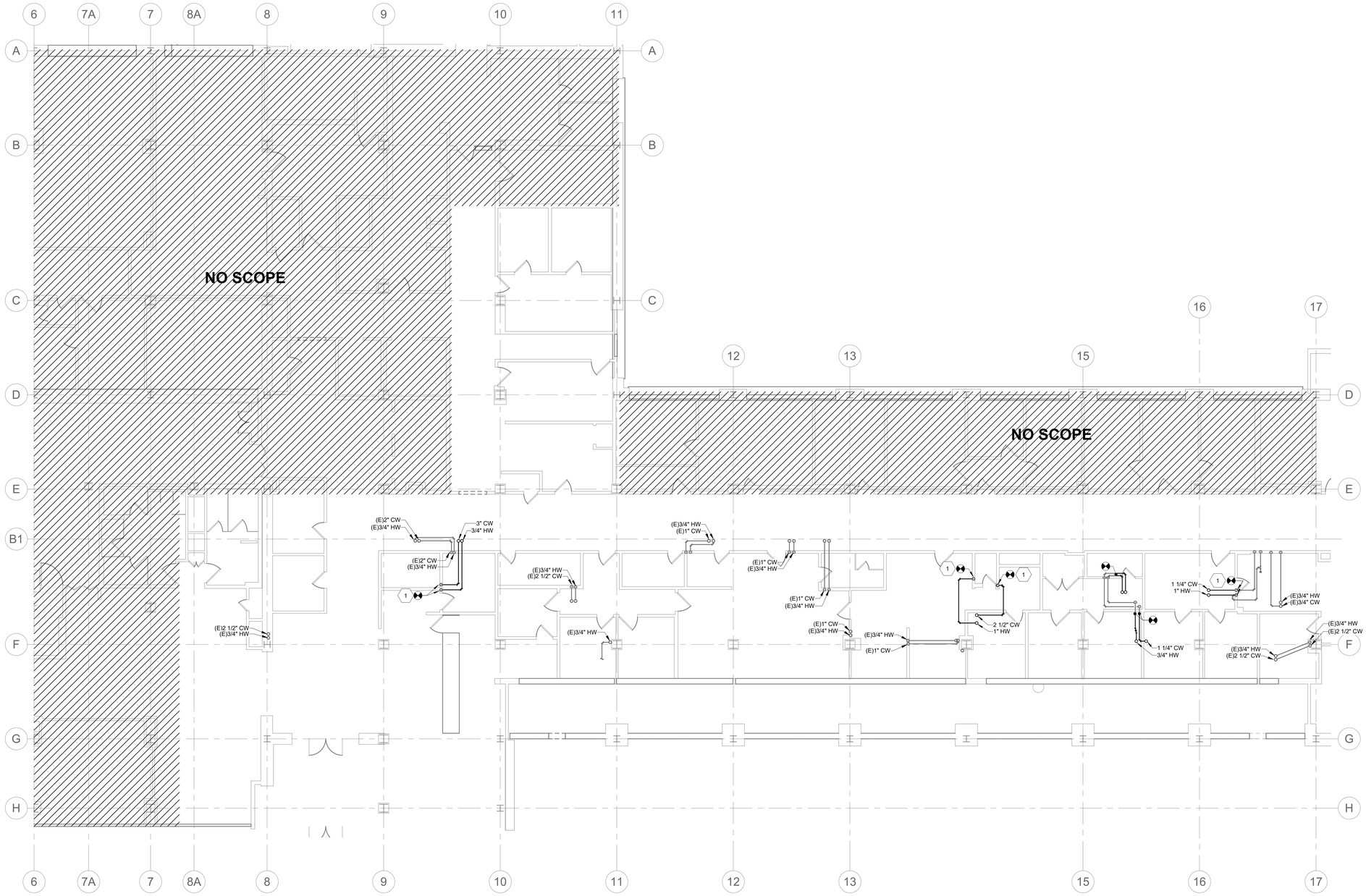
MICHAEL G. HUBBARD
STATE OF WASHINGTON
3/27/2026
39485
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FIRST FLOOR PLAN - WASTE & VENT	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: P-101

VA FORM 08 - 6231



1 FIRST FLOOR PLAN - DOMESTIC WATER

SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
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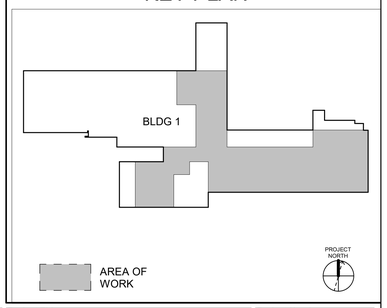
5. COORDINATE EXACT LOCATION OF DUCTWORK WITH EQUIPMENT, LIGHTING, PIPING, ETC.
6. PENETRATIONS THROUGH FLOORS, CEILINGS, OR WALLS THAT ARE RATED SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE FLOOR, CEILING, OR WALL.
7. EXISTING HOT WATER RISERS FEED BACK TO A COMMON HOT WATER RECIRCULATION LOOP IN THE SUB-BASEMENT.
8. LAVATORY AND SINK HOT / COLD DOMESTIC WATER PIPING DOWN WALL TO FIXTURE SHALL BE 1/2", UNLESS NOTED OTHERWISE.
9. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
10. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.
11. COORDINATE SHUTDOWN OF ANY EXISTING UTILITY SYSTEM WITH VA AND COR WITH ADVANCE NOTICE.

KEY NOTES (#)

1 MAKE NEW CONNECTION TO EXISTING HOT / COLD WATER PIPING IN RISE.

KEY PLAN



Revisions:	Date:

CONSULTANT

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ARCHITECT/ENGINEER OF RECORD

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3/27/2026
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REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRST FLOOR PLAN - DOMESTIC WATER

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: MH

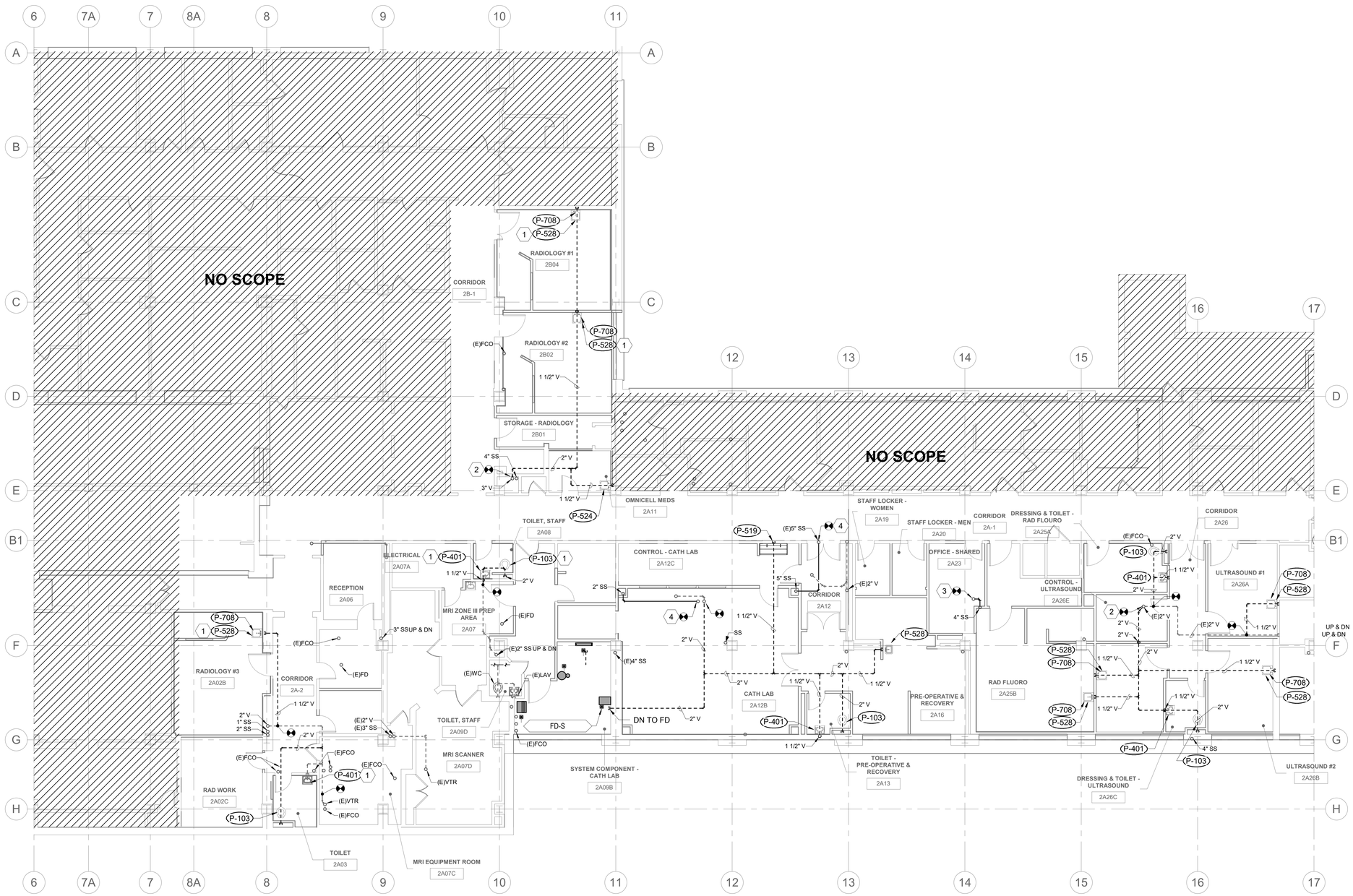
Drawn: AV

Project Number: 570-21-220

Building Number:

Drawing Number: P-102

VA FORM 08 - 6231



1 SECOND FLOOR PLAN - WASTE & VENT

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

1. FOR THE PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE DIAGRAMMATIC AND FOR DESIGN INTENT ONLY. CONTRACTOR MUST VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT BEFORE BEGINNING ANY FABRICATION OR CONSTRUCTION.
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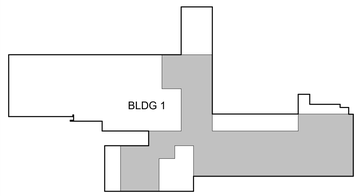
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.

KEY NOTES (#)

1. CONNECT NEW FIXTURE TO EXISTING VENT AND WASTE PIPING AT CURRENT LOCATION.
2. NEW CONNECTION TO EXISTING VENT PIPING IN RISE.
3. NEW CONNECTION TO EXISTING SANITARY PIPING IN RISE.
4. NEW CONNECTION TO SANITARY MAIN IN RISE AS HIGH AS POSSIBLE IN OR TO PROPERLY REROUTE AROUND NEW DOORWAY.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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SPEESDESIGNBUILD

STAMP

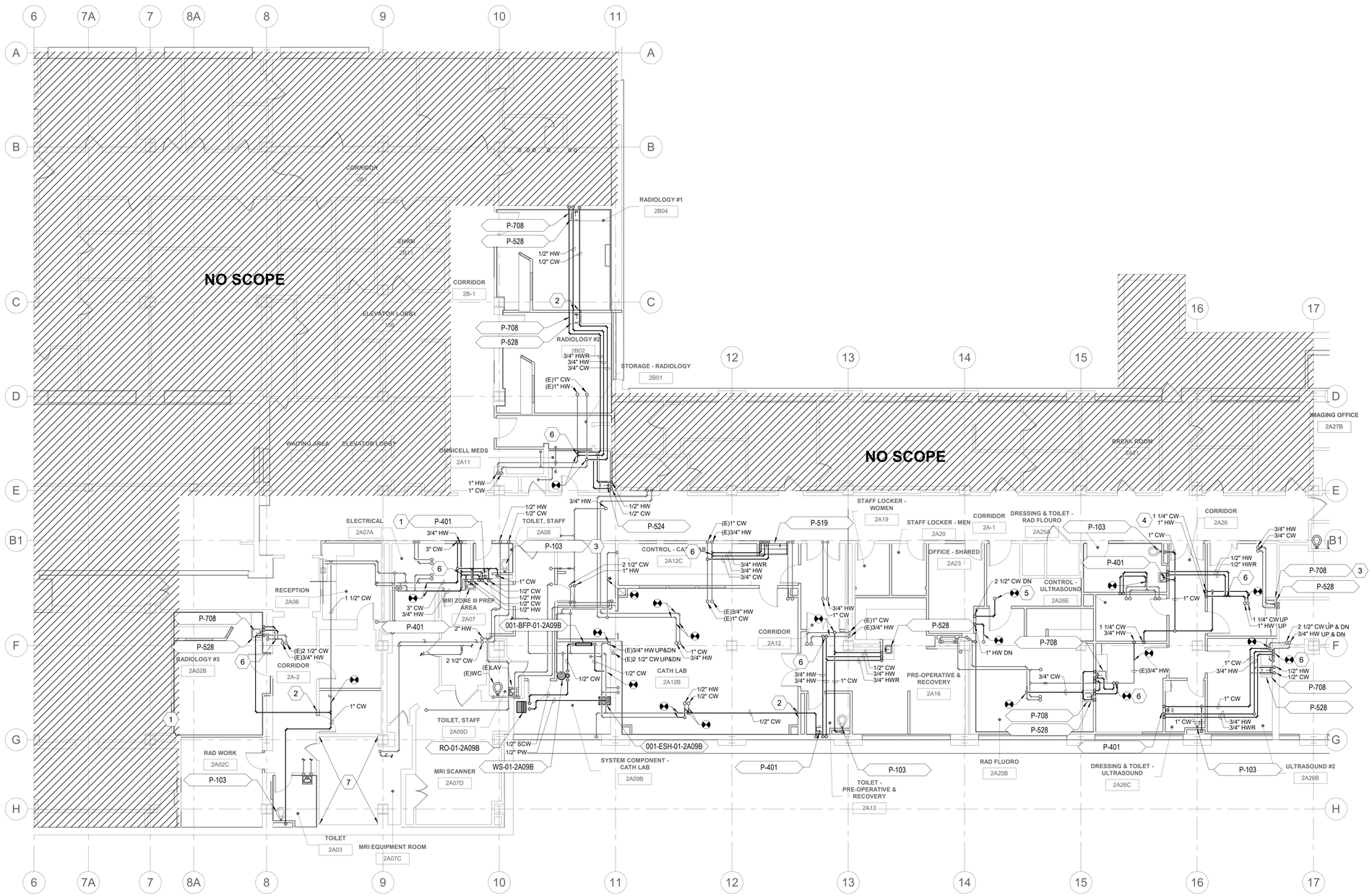
MICHAEL G. HUBBARD, STATE OF WASHINGTON, 39485, REGISTERED PROFESSIONAL ENGINEER, 3/27/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR PLAN - WASTE & VENT	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: P-103

VA FORM 08 - 6231



1 SECOND FLOOR PLAN - DOMESTIC WATER

SCALE: 1/8" = 1'-0"

PROJECT NORTH

GENERAL NOTES

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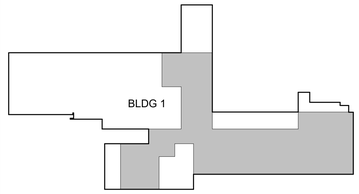
8. LAVATORY AND SINK HOT / COLD DOMESTIC WATER PIPING DOWN WALL TO FIXTURE SHALL BE 1/2", UNLESS NOTED OTHERWISE.
9. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
10. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.

KEY NOTES (#)

1. CONNECT NEW FIXTURE TO EXISTING HOT WATER AND COLD WATER PIPING AT CURRENT LOCATION.
2. PIPING THROUGH WALL PENETRATION AT THIS LOCATION, REFER TO DETAIL / SHEET LOCATION.
3. CONNECT NEW FIXTURE TO EXISTING COLD WATER PIPING AT CURRENT LOCATION.
4. ROUTE HOT / COLD WATER PIPING WITHIN WALL DOWN TO FLOOR BELOW TO RECONNECT RISER.
5. NEW CONNECTION TO EXISTING DOMESTIC HOT / COLD WATER PIPING IN RISE.
6. PROVIDE KEMPER 'FLOW SPLITTER' FITTING SAME SIZE AS IN-LINE HOT WATER PIPING.
7. DO NOT ROUTE PIPING IN/THROUGH SPACE.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ENGINEERING DISCIPLINE:

ARCHITECT/ENGINEER OF RECORD

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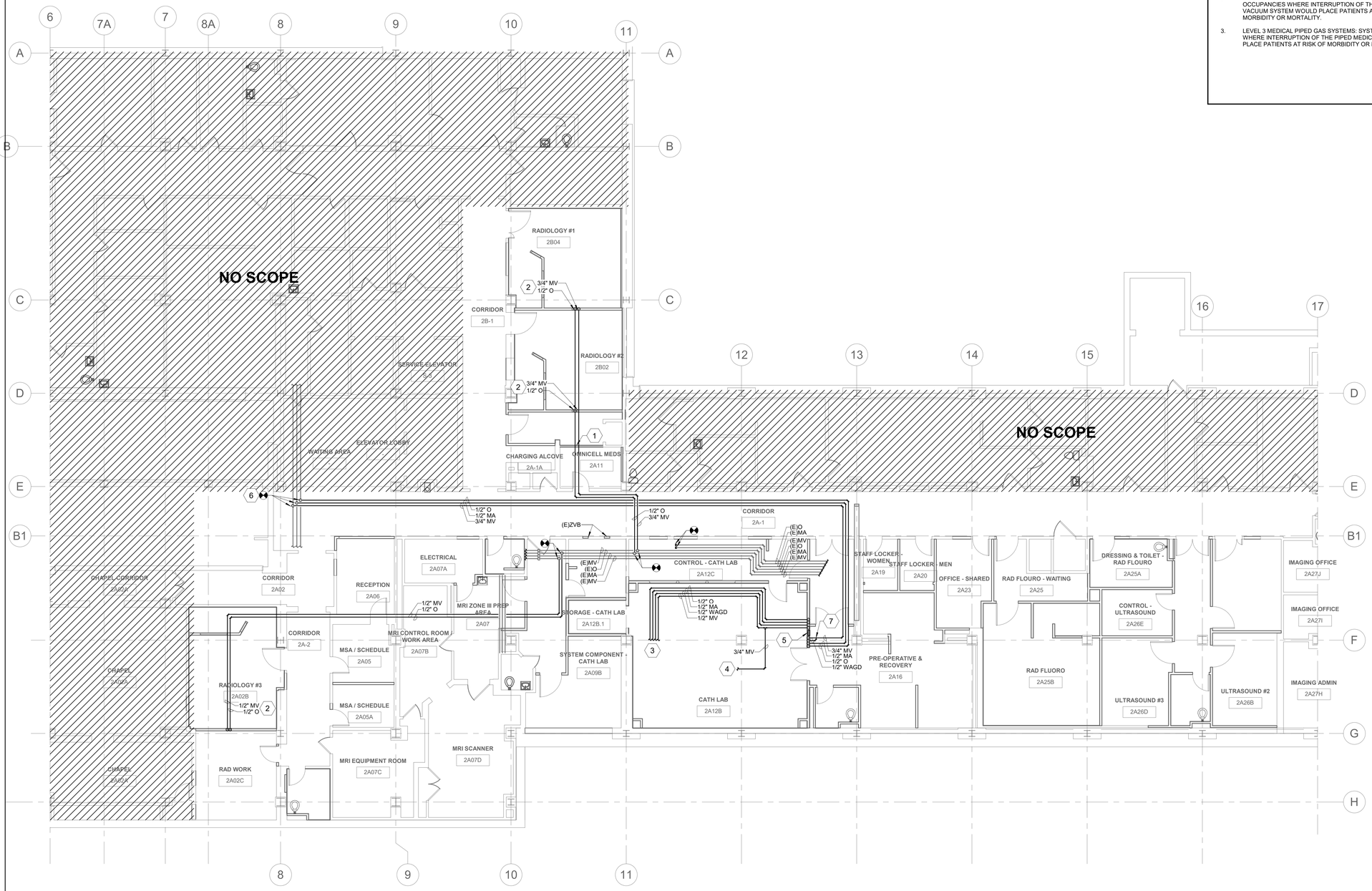
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SECOND FLOOR PLAN - DOMESTIC WATER	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: P-104

VA FORM 08 - 6231



1 SECOND FLOOR PLAN - MEDICAL GAS

SCALE: 1/8" = 1'-0"

PROJECT NORTH

DEFINITIONS PER NFPA-99

1. LEVEL 1 MEDICAL PIPED GAS AND VACUUM SYSTEMS: SYSTEMS SERVING OCCUPANTS WHERE INTERRUPTION OF THE PIPED MEDICAL GAS AND VACUUM SYSTEM WOULD PLACE PATIENTS IN IMMINENT DANGER OF MORBIDITY OR MORTALITY.
2. LEVEL 2 MEDICAL PIPED GAS AND VACUUM SYSTEMS: SYSTEMS SERVING OCCUPANCIES WHERE INTERRUPTION OF THE PIPED MEDICAL GAS AND VACUUM SYSTEM WOULD PLACE PATIENTS AT MANAGEABLE RISK OF MORBIDITY OR MORTALITY.
3. LEVEL 3 MEDICAL PIPED GAS SYSTEMS: SYSTEMS SERVING OCCUPANCIES WHERE INTERRUPTION OF THE PIPED MEDICAL GAS SYSTEM WOULD NOT PLACE PATIENTS AT RISK OF MORBIDITY OR MORTALITY.

GENERAL NOTES

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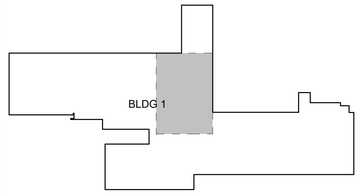
7. SEE MECHANICAL PIPING PLANS FOR ROOM SENSOR LOCATIONS.
8. SEE ARCHITECTURAL PLANS FOR CEILING TYPES AND ELEVATIONS.

KEY NOTES (#)

1 PIPING THRU WALL PENETRATION.
2 OXYGEN AND MEDICAL VACUUM PIPING OF SIZE INDICATED DOWN WITHIN WALL TO MEDICAL GAS OUTLETS. COORDINATE WITH ARCHITECTURAL FOR EXACT MOUNTING HEIGHTS.
3 COORDINATE EXACT CONNECTIONS FOR 'BOOM A' MEDICAL GAS CONNECTIONS: (2) MV, (1) MA, (2) O2, (1) NO2, AND (1) WAGD.
4 COORDINATE EXACT CONNECTIONS FOR 'BOOM C' MEDICAL GAS CONNECTIONS: (4) MV AND (1) N.
5 PROVIDE ZONE VALVE BOX EXCLUSIVE TO CATH LAB FOR (4) GASES: OXYGEN, MEDICAL AIR, MEDICAL VACUUM, AND WASTE ANESTHETIC GAS DISPOSAL. COORDINATE FINAL LOCATION SUCH THAT ZONE VALVE BOX CANNOT HAVE LINE-OF-SIGHT (FROM FACE OF UNIT) TO ANY OF THE OUTLETS WHICH IT SERVES.
6 MAKE NEW CONNECTIONS TO EXISTING MEDICAL GAS MAINS IN CORRIDOR. COORDINATE REQUIRED SHUT-DOWN(S) WITH VA AND COR TO MINIMIZE AREA-OF-SERVICE DOWNTIME.
7 PROVIDE VACUUM-RATED INLINE OXYGEN ANALYZER / TRANSMITTER WITHIN THE COMBINED MEDICAL VACUUM / WAGD BRANCH LINE. SENSOR SHALL BE INSTALLED VIA A VACUUM-TIGHT THREADED FITTING. SENSOR SHALL BE FULLY ACCESSIBLE FOR ROUTINE CALIBRATION. INTEGRATE WITH MEDICAL GAS MASTER ALARM SYSTEM TO SIGNAL AN ALARM CONDITION IF OXYGEN CONCENTRATION EXCEEDS 23.6% PER NFPA 99.

KEY PLAN



AREA OF WORK

PROJECT NORTH

Revisions:	Date:

CONSULTANT

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ARCHITECT/ENGINEER OF RECORD

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3/27/2026
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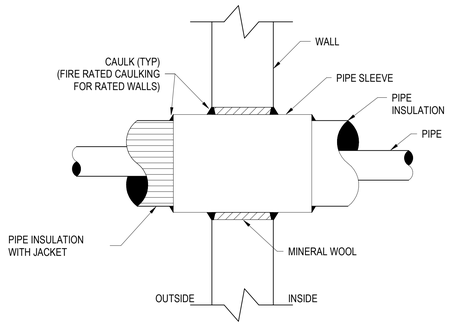
Office of Construction and Facilities Management

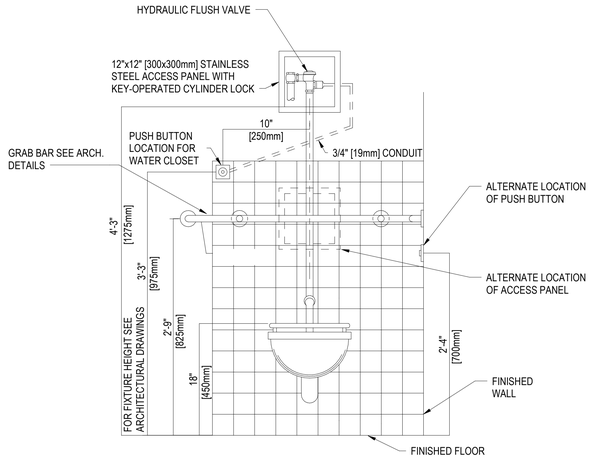
VA U.S. Department of Veterans Affairs

Drawing Title: SECOND FLOOR PLAN - MED GAS	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	Drawing Number: P-105

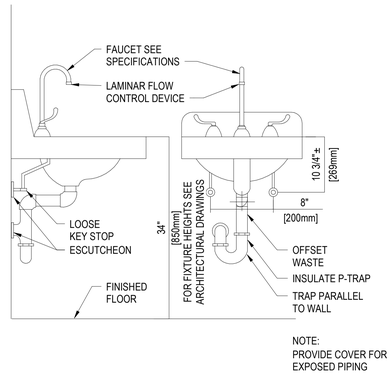
VA FORM 08 - 6231



1 PIPE THRU WALL DETAIL
NTS

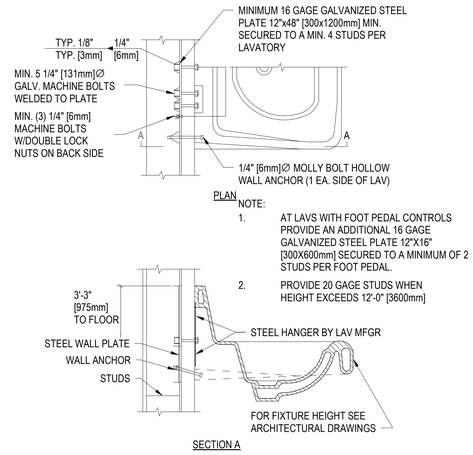


2 P-103 WATER CLOSET DETAIL
NTS



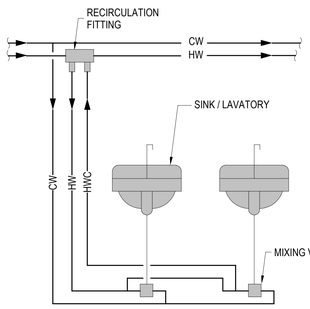
NOTE:
PROVIDE COVER FOR
EXPOSED PIPING

3 TYPICAL WALL HUNG LAVATORY DETAIL
NTS

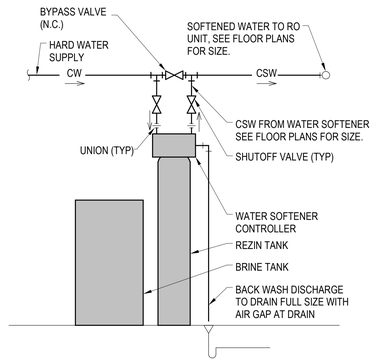


NOTE:
1. AT LAVS WITH FOOT PEDAL CONTROLS PROVIDE AN ADDITIONAL 16 GAGE GALVANIZED STEEL PLATE 12"X16" [300X600mm] SECURED TO A MINIMUM OF 2 STUDS PER FOOT PEDAL.
2. PROVIDE 20 GAGE STUDS WHEN HEIGHT EXCEEDS 12'-0" [3600mm]

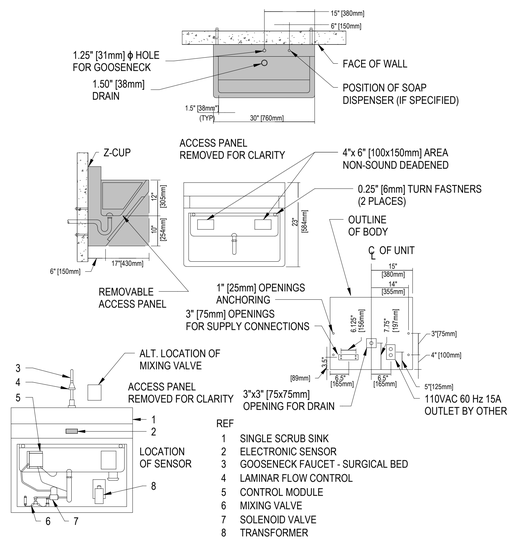
4 LAVATORY MOUNTING DETAIL
NTS



5 RECIRCULATION FITTING DETAIL
NTS



7 WATER SOFTENER DETAIL
NTS



REF
1 SINGLE SCRUB SINK
2 ELECTRONIC SENSOR
3 GOOSENECK FAUCET - SURGICAL BED
4 LAMINAR FLOW CONTROL
5 CONTROL MODULE
6 MIXING VALVE
7 SOLENOID VALVE
8 TRANSFORMER

8 SCRUB SINK - SINGLE COMPARTMENT
NTS

Revisions:	Date:

CONSULTANT
ENGINEERING DISCIPLINE:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PLUMBING DETAILS	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Drawing Number: P-501
		Issue Date: 3/27/2026 · Checked: MH · Drawn: AV	

VA FORM 08 - 6231

ABBREVIATIONS

1PH	SINGLE-PHASE
1P	SINGLE POLE
2/C	TWO-CONDUCTOR
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
4/C	FOUR-CONDUCTOR
4W	FOUR-WIRE
A/C	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AAP	ALARM ANNUNCIATOR PANEL
AC	ALTERNATING CURRENT OR ARMORED CABLE
ACC	ACCESSIBLE
ADDL	ADDITIONAL
ADJ	ADJACENT, ADJOINING
AF	AMPERE FRAME OR AMP FUSE
AFC	ABOVE FINISHED COUNTER, AUTOMATIC FREQUENCY CONTROL, OR AVAILABLE FAULT CURRENT
AFCI	ARC-FAULT CURRENT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AMPERE HOUR
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
AMB	AMBIENT
AMP	AMPERE
ARCH	ARCHITECT
ASC	AMPS SHORT CIRCUIT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BAT	BATTERY
BD	BOARD
BFF	BELOW FINISH FLOOR
BLDG	BUILDING
BRKR	BREAKER
BYP	BY PASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATE
CAP	CAPACITY
CAT	CATALOG
CATV	COMMUNITY ANTENNA TELEVISION
CCR	CONTROL CONTACTOR
CCTV	CLOSED CIRCUIT TELEVISION
CD	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED
CFE	CONTRACTOR FURNISHED EQUIPMENT
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CKT	CIRCUIT
CJB	CIRCUIT BREAKER
CL	CONNECTOR LIGHTING
CLF	CURRENT LIMITING FUSE
CLG	CEILING
CO	CONDUIT ONLY
COAX	COAX CABLE
COMM	COMMUNICATION
COMPT	COMPARTMENT
CONC	CONCRETE
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
CUR	CURRENT
DB	DECIBEL
DC	DIRECT CURRENT
DCP	DIMMER CONTROL PANEL
DDC	DIRECT DIGITAL CONTROLS
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO	DEMOLITION
DIAG	DIAGRAM
DISC	DISCONNECT
DP	DISTRIBUTION PANEL
DMR SW	DIMMER SWITCH
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DRSW	DOOR SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EL	ELEVATION OR EXISTING TO BE RELOCATED
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EMER/EM	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
EN	EXISTING IN NEW LOCATION
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
EPRF	EXPLOSION PROOF
ER	EXISTING TO REMAIN
ESMT	EASEMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST(E)	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FCIO	FURNISHED BY CONTRACTOR, INSTALLED BY OWNER
FOIC	FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FP	FIRE PROTECTION
FT	FEET OR FOOT
FU SW	FUSED SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	ELECTRICAL GROUND
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HZ	HERTZ
IG	ISOLATED GROUND
IESNA	ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA
IMC	INTERMEDIATE METAL CONDUIT
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAH	KILOVOLT AMPERE PER HOUR
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
KWHM	KILOWATT HOUR METER
LCP	LIGHTING CONTROL PANEL
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LP	LIGHT POLE
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LT	LIGHT
LTG	LIGHTING
LTG PNL	LIGHTING PANEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
MAX	MAXIMUM
MC	METAL-CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MLO	MAIN LUGS ONLY
MS	MOTOR STARTER
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
MVA	MEGAVOLT-AMPERE
MW	MEGAWATT
NA	NOT APPLICABLE
NAC	NOTIFICATION APPLIANCE CABINET
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT, N	NEUTRAL
NFC	NOT FOR CONSTRUCTION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL	OVERLOAD
OS	OCCUPANCY SENSOR
P	POLE
PB	PULL BOX
PED	PEDESTAL
PEND	PENDANT
PIV	POST INDICATOR VALVE
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PS	POWER SUPPLY
PVC	POLYVINYL CHLORIDE (PLASTIC)
PWR	POWER
R	EXISTING TO BE REMOVED
RCP	REFLECTED CEILING PLAN
REC	RECESSED
RECPT	RECEPTACLE
RM	ROOM
RMC	RIGID METAL CONDUIT
SD	SMOKE DETECTOR
SF	SQUARE FOOT (FEET)
SHT	SHEET
SPD	SURGE PROTECTIVE DEVICE
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VOLT	VOLTAGE
W	WATT/WEATHERPROOF (WHILE IN USE)
WH	WATER HEATER
WP/W	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

GENERAL NOTES

1. THESE "GENERAL NOTES" SHALL APPLY TO ALL DRAWINGS WITHIN THIS DRAWING SET.
2. BLACKENED OR BOLDED EQUIPMENT INDICATES THE EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. ITEMS NOT DIRECTLY FURNISHED BY THE CONTRACTOR SHALL HAVE A DESIGNATION SUCH AS OFCI (OWNER FURNISHED CONTRACTOR INSTALLED), OFOI(OWNER FURNISHED OWNER INSTALLED), OR NIC (NOT IN CONTRACT). GRAY OR GRAY-SCALED EQUIPMENT SHALL BE ASSUMED TO BE EXISTING OR SHOWN FOR EQUIPMENT LOCATION COORDINATION.
3. EXISTING CIRCUITS ASSOCIATED WITH THE PROJECT AREA OF WORK ARE TO BE DE-ENERGIZED DURING CONSTRUCTION.
4. ALL ELECTRICAL WORK SHALL BE COMPLETED WITH ALL PROXIMATE ELECTRICAL CIRCUITS DE-ENERGIZED (i.e. A NEW BREAKER OR CIRCUIT CANNOT BE ADDED TO A PANEL UNLESS THE PANEL IS COMPLETELY DE-ENERGIZED), OR THE CONTRACTOR MUST COMPLY WITH NFPA 70E FOR WORK ON ENERGIZED SERVICE. THE VA WILL DETERMINE IF THE ELECTRICAL SERVICE CAN BE SHUT DOWN OR IT WILL HAVE TO BE WORKED HOT DEPENDING ON THE CRITICALITY OF THE AREA BEING AFFECTED. IF THE WORK MUST BE DONE WITH THE SERVICE LIVE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL REQUIRED PROTECTIVE TOOLS, EQUIPMENT, AND CLOTHING, AND MUST FOLLOW THE JOB SPECIFIC WORK PLAN PREPARED BY THE CONTRACTOR AND APPROVED BY THE VA. WORK THAT REQUIRES SHUTTING DOWN ELECTRICAL SERVICE MAY HAVE TO BE ACCOMPLISHED DURING OTHER THAN NORMAL DUTY HOURS.
5. PROVIDE RACEWAYS AND CONDUCTORS/CABLING FROM LUMINAIRES TO THEIR CORRESPONDING CONTROL DEVICES AS INDICATED ON PLANS.
6. WHERE NOT SPECIFICALLY INDICATED ON DRAWINGS, BRANCH CIRCUIT CONDUCTORS SHALL BE 10 AWG MINIMUM. RACEWAYS AND CONDUCTORS SHALL BE SIZED AND QUANTIFIED TO SERVE AND CONTROL APPLICABLE EQUIPMENT WITH VOLTAGE DROP NO GREATER THAN THREE PERCENT. CONDUCTOR SIZE SHALL BE INCREASED TO COMPENSATE FOR DERATING REQUIRED PER NEC 310.15 WHERE MORE THAN THREE CURRENT CARRYING CONDUCTORS WITHIN ONE RACEWAY; CONDUCTOR AMPACITIES SHALL BE TAKEN FROM THE 75°C COLUMN. INDIVIDUAL CIRCUITS SHALL NOT SHARE NEUTRAL CONDUCTORS.
7. MINIMUM CONDUIT SIZE SHALL BE 1" FOR EXTERIOR AND UNDERGROUND CONDUIT. MINIMUM CONDUIT SIZE SHALL BE 3/4" FOR INTERIOR CONDUIT. ADDITIONAL CONDUCTORS FOR UNSWITCHED HOT CONDUCTOR TO LUMINAIRES WITH EMERGENCY BATTERY POWERED BACKUP UNITS OR TRANSFER DEVICES SHALL BE PROVIDED. ALL CONDUIT SHALL BE CONCEALED. THE ABOVE COMMENTS SHALL BE ADHERED TO UNLESS OTHERWISE NOTED ON THE DRAWINGS.
8. EMERGENCY LIGHTING OR EQUIPMENT CIRCUITS SHALL BE ROUTED INDEPENDENT FROM OTHER CIRCUIT TYPES; ENSURE NEC 700.10 REQUIREMENTS ARE MET.
9. PROVIDE ALL CONDUIT AND WIRE FOR ALL CIRCUITS INDICATED AND/OR NOTED ON THE DRAWINGS AND/OR SPECIFICATIONS. ALL AUXILIARY OR REQUIRED APPURTENANCES FOR PROVIDED EQUIPMENT SHALL BE PROVIDED WITH ALL CONNECTIONS AS REQUIRED.
10. ALL EQUIPMENT AND DEVICES INCLUDING, BUT NOT LIMITED TO, ELECTRICAL DISTRIBUTION EQUIPMENT, RECEPTACLES, DATA OUTLETS, AND SPECIAL SYSTEM DEVICES, SHALL HAVE THEIR EXACT LOCATION COORDINATED WITH ARCHITECTURAL DRAWINGS AND ALL TRADES PRIOR TO COMMENCING WORK.
11. ALL CONDUIT/SLEEVE FLOOR AND WALL PENETRATIONS SHALL BE SEALED WITH FIRE RATED ASSEMBLIES, CAULKING, AND APPURTENANCES. ELECTRICAL BOXES LOCATED IN FIRE RATED WALLS SHALL BE RATED FOR USE IN FIRE RATED WALLS.
12. ALL EQUIPMENT AND INSTALLATION METHODS SHALL BE LISTED AND LABELED PER NEC, UL LISTED, OR REVIEWED EQUAL.
13. FOR ALL EQUIPMENT, COORDINATE WITH ALL TRADES (ARCHITECTURAL, MECHANICAL, PLUMBING, ETC) FOR ELECTRICAL REQUIREMENTS AND INSTALLATION LOCATIONS PRIOR TO INSTALLATION.
14. ALL LOW-VOLTAGE SYSTEM CABLING NOT RAN IN CONDUIT TO WALL MOUNTED DEVICE SHALL HAVE A MINIMUM 1"C ROUTED FROM DEVICE THROUGH WALL INTO THE ACCESSIBLE CEILING SPACE; CABLING SHALL NOT BE ROUTED IN WALLS OR IN AN INACCESSIBLE LOCATION WITHOUT CONDUIT.
15. NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED, OR NOTCHED WITHOUT PRIOR WRITTEN CONSENT FROM THE STRUCTURAL ENGINEER OR ARCHITECT.
16. ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.
17. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.122. ALL WIRING IS BASED ON Cu COPPER PER NEC TABLE310.15(B)(16), USING 75°C AMPACITIES FOR FEEDERS.
18. FOR EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED, COMPLETELY CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA, DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
19. DISCONNECT ALL ABANDONED WIRING OF ALL TYPES AT THE OVERCURRENT PROTECTIVE DEVICE. COMPLETELY REMOVE ALL ABANDONED WIRING.
20. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.
21. DEMOLITION PLANS/NOTES ARE BASED ON SITE INVESTIGATIONS AND RECORD DRAWINGS. IF DISCREPANCIES ARE FOUND THAT MAY IMPACT WORK, PROMPTLY NOTIFY VA AND ENGINEER OF SAID DISCREPANCY.
22. CONTRACTOR SHALL DEMOLISH ALL ELECTRICAL EQUIPMENT, CONDUCTORS, AND RACEWAYS ASSOCIATED WITH WALLS BEING REMOVED AND IN ALL LOCATIONS WHERE JUNCTION BOXES WILL NOT REMAIN ACCESSIBLE AFTER INSTALLATION OF MILLWORK, UNLESS OTHERWISE NOTED.
23. CONTRACTOR SHALL DISPOSE OF THE REMOVED DEVICES. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES.
24. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES AND THE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.
25. CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
26. CONTRACTOR SHALL COORDINATE NORMAL/ESSENTIAL ELECTRICAL SYSTEM SHUTDOWNS AND PHASING WITH THE VA PRIOR TO PERFORMING REQUIRED EQUIPMENT UPGRADES. CONTRACTOR TO PROVIDE BACKUP EMERGENCY POWER AND DETERMINE TIE-IN/CONNECTION PLAN WITH EXISTING EQUIPMENT. POWER TO ALL EXISTING ESSENTIAL EQUIPMENT CANNOT BE INTERRUPTED AND SHALL REMAIN ACTIVE DURING CONSTRUCTION. BACKUP POWER AND TIE-IN SHALL CONFORM WITH VA STANDARDS.
27. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES AND THE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.
28. ALL CIRCUITS SERVING AND SERVED FROM ISOLATED POWER PANELS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NEC 517.160 AND NFPA 99 CHAPTER 6.

ELECTRICAL PHASING NOTES

ALL ELECTRICAL PHASING REQUIREMENTS SHALL BE RESPONSIBILITY OF CONTRACTOR. PHASING INFORMATION SHOWN ON DRAWINGS IS PROVIDED FOR REFERENCE ONLY AND REPRESENTS ONE POSSIBLE METHOD OF ACHIEVING DESIGN INTENT. CONTRACTOR SHALL VERIFY ALL PHASING, CONNECTIONS, AND COORDINATION REQUIREMENTS VIA A DETAILED PHASING PLAN WITH VA PRIOR TO COMMENCING ANY WORK.

PHASE Ia
- PART OF PREP AREA 2A07 & MRI ZONE II 2A09:
  - DEMOLISH LIGHT, RELOCATE LIGHTING CONTROLS TO THE DOOR BETWEEN PREP AREA 2A07 AND 2A09 TO CONTROL THE REMAINING LIGHTS.
  - DEMOLISH EXISTING RECEPTACLES, BRANCH CIRCUIT WIRING & CONDUIT, DATA COMMUNICATION DEVICES, CONDUIT & WIRING.
- OFFICE 2A09C
  - DEMOLISH LIGHTS & LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
  - DEMOLISH EXISTING RECEPTACLES, BRANCH CIRCUIT WIRING & CONDUIT, DATA COMMUNICATION DEVICES, CONDUIT & WIRING. MAINTAIN EXISTING RECEPTACLE BRANCH CIRCUITS FOR RECONNECTION TO NEW RECEPTACLES.
  - PROVIDE NEW DATA COMMUNICATION DEVICES, CONDUIT & WIRING.

PHASE Ib
- CLEAN SUPPLY 2A09A & STAFF TOILET 2A08
  - DEMOLISH LIGHTS, LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
  - DEMOLISH EXISTING RECEPTACLES, BRANCH CIRCUIT WIRING & CONDUIT, DATA COMMUNICATION DEVICES, CONDUIT & WIRING. MAINTAIN EXISTING BRANCH CIRCUIT FOR RECONNECTION TO NEW RECEPTACLES.
- ELECTRICAL ROOM 2A07A:
  - MAINTAIN EXISTING LIGHTING AND BRANCH CIRCUIT.
  - ELECTRICAL BRANCH PANELS, TRANSFORMERS, POWER FILTERS, ETC. AS INDICATED ON THE CONTRACT DOCUMENTS WORK TO BE PROVIDED.
- PROVIDE NEW WORK AS INDICATED ON THE CONTRACT DOCUMENTS.

PHASE IIa – VSO OFFICE 2A20, BREAK AREA, OFFICE 2A16F, ULTRASOUND 1 2A23, TOILET 2A23A, ULTRASOUND OFFICE 2A25, ULTRASOUND 2 2A25A
- DEMOLISH LIGHTS, LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
- PROVIDE NEW WORK AS INDICATED ON THE CONTRACT DOCUMENTS.

PHASE IIb – ULTRASOUND 2 2A09B, PARTIAL OF ROOM ULTRASOUND 1 2A09C, HSKPG 2A12, SPECIAL PROCEDURES PRE/POST OPERATIVE 2A13, CONTROL ROOM 2A13A, SPECIAL PROCEDURES O.R. 2A13B
- DEMOLISH LIGHTS, LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
- PROVIDE NEW WORK AS INDICATED ON THE CONTRACT DOCUMENTS.

PHASE IIIa – MECHANICAL 2A13B.1, IMAGING SUITE 2A16, ADMIN ASSIST 2A16A, CHIEF IMAGING 2A16B, CONFERENCE 2A16C, OFFICE 2A16D, OFFICE 2A16E, OFFICE 2A16G
- DEMOLISH LIGHTS, LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
- PROVIDE NEW WORK AS INDICATED ON THE CONTRACT DOCUMENTS.

PHASE IIIb – CORRIDOR 2A-2, LEAD CHAPLAIN 2A02B, STORAGE 2A02A.1, STORAGE 2A02B.1, DECENT AFFAIRS 2A02C, NURSING INFORMATIES OFFICE 2A02D, STORAGE 2A02D.1, STORAGE 2A03, IMAGING ROOM 4 2A05, TOILET 2A06
- DEMOLISH LIGHTS, LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
- PROVIDE NEW WORK AS INDICATED ON THE CONTRACT DOCUMENTS.

PHASE IV – IMAGE WAITING AREA 2B01, CHECK-IN, IMAGING DEPT STORAGE ROOM 2A11
- DEMOLISH LIGHTS, LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
- PROVIDE NEW WORK AS INDICATED ON THE CONTRACT DOCUMENTS.

PHASE V – FLUORO 2B04
- DEMOLISH LIGHTS, LIGHTING CONTROLS, BRANCH CIRCUIT CONDUIT & WIRING. MAINTAIN EXISTING LIGHTING BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING & CONTROLS.
- PROVIDE NEW WORK AS INDICATED ON THE CONTRACT DOCUMENTS.

SHEET INDEX

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DIV 26 - LEGEND

POWER

- DELTA CONNECTION
- MOTOR, SINGLE-PHASE
- MOTOR, THREE-PHASE
- TRANSFORMER
- WYE CONNECTION
- EARTH GROUND
- JUNCTION BOX
- PB — PULL BOX
- SWITCH, MULTIPOSITION
- SWITCH, SINGLE BREAK
- NORMALLY CLOSED RELAY CONTACT
- NORMALLY OPEN RELAY CONTACT
- FUSE WITH RATING
- CIRCUIT BREAKER
- DRAWOUT AIR CIRCUIT BREAKER
- 50 — RELAY; NUMBER INDICATES RELAY TYPE
  50 = INSTANTANEOUS OVER CURRENT OR RATE-OF-RISE
  51 = AC-TIME OVER CURRENT
  67 = AC-DIRECTIONAL OVER CURRENT
  86 = LOCKING OUT
- DISCONNECT SWITCH, FUSED
- DISCONNECT SWITCH, UNFUSED
- STARTER, COMBINATION WITH DISCONNECT SWITCH
- STARTER OR MOTOR CONTROLLER
- G — GENERATOR, POWER
- BATTERY
- CAPACITOR
- M — METER
- A — AMMETER
- V — VOLTMETER
- W — WATTMETER
- WH — WATT-HOUR METER
- MOTOR
- T — TRANSFORMER, PLAN
- JUNCTION BOX
- LADDER CABLE TRAY
- PB — PULL BOX
- PANELBOARD, FLUSH MOUNTED
- PANELBOARD, SURFACE MOUNTED
- RECEPTACLE, DUPLEX
- RECEPTACLE, DUPLEX ON EMERGENCY POWER
- RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER
- RECEPTACLE, QUADRUPLEX
- RECEPTACLE, SINGLE
- RECEPTACLE, DUPLEX FLOOR MOUNTED

- S — RECEPTACLE, SINGLE WITH SWITCH
- RECEPTACLE, SPECIAL PURPOSE
  A = 120V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 5-20R.
  B = 208V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R.
  C = 120V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 5-30R.
  D = 208V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 6-30R.
  E = 208V, 60A, 1 PHASE, 3-POLE, 4W, NEMA 14-60R.
  F = 208V, 30A, 3 PHASE, 3-POLE 4W, NEMA 15-30R.
  G = 208V, 50A, 3 PHASE, 3 POLE, 4W, NEMA 15-30R.
  H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15-60R.
- HARDWIRED EQUIPMENT CONNECTION; SHADED INDICATES EMERGENCY POWER
- X — S = RECEPTACLE, SWITCHED DUPLEX
  PGM = POWER AND GROUND MODULE
- DROP CORD, SINGLE CONVENIENCE OUTLET, 3-WIRE, GROUNDING TYPE, 20A, W/#12 CONDUCTORS IN FLEXIBLE CORD (CENTER LINE OF OUTLET: 6'-6" [1981mm] AFF. MINIMUM).
- ELECTRICAL STRIP MOLD (OUTLETS ON 2'-0" [610mm] CENTERS OR AS DESIGNATED ON DRAWINGS), MTD 3'-6" [1067mm] AFF OR AS INDICATED.
- $# — F = FUSED SWITCH; L = LOCK; M = MANUAL MOTOR STARTING; MP= MOTOR SNAP WITH PILOT LIGHT (THERMAL TYPE); PB= PUSH BUTTON STATION; WP= WEATHER PROOF; K = KEY OPERATED; LM= LOW VOLTAGE MASTER; MC= MOMENTARY CONTACT; P = WITH PILOT LIGHT; RC= REMOTE CONTROL; X = EXPLOSION PROOF

LIGHTING

- P — SWITCH, CEILING MOUNTED PULL
- $# — SWITCH (# SUBSCRIPT AS INDICATED BELOW):
  BLANK = SINGLE POLE; 3 = THREE-WAY; D = DIMMER; LV= LOW VOLTAGE; LM= LOW VOLTAGE MASTER; PB= PUSH BUTTON STATION; T = TIMER OPERATED; 2 = DOUBLE POLE; 4 = FOUR-WAY; K = KEY OPERATED; P = WITH PILOT LIGHT; RC= REMOTE CONTROL; WP= WEATHER PROOF; Mo= OCCUPANCY SENSOR
  x = LUMINAIRE SWITCH ZONE (ANY LOWER CASE LETTER APPLIES)

EMERGENCY	NORMAL	
X	X	X = DENOTES LUMINAIRE TAG NAME
		RECESSED DOWNLIGHT FIXTURE
X	X	LIGHT FIXTURE, 2'x4'
X	X	LIGHT FIXTURE, 1'x4'
X	X	LIGHT FIXTURE, 2'x2'
X X	X X	LIGHT FIXTURE, WALL MOUNTED
X	X	LIGHTING WALL PACK, EXTERIOR BUILDING

- EXIT SIGN, WALL MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
- EXIT SIGN, CEILING MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN
- EXIT SIGN, ABOVE DOOR, CEILING MOUNTED
- OS X — ALL INTERIOR AREAS TO HAVE MANUAL 0N/AUTO OFF LIGHTING CONTROL WITH THE USE OF DUAL TECHNOLOGY OCCUPANCY SENSORS. EXCEPT WHERE A WALL SWITCH OCCUPANCY SENSOR IS NOTED.
- PE X — PHOTO ELECTRIC SENSOR
- DS X — DAYLIGHT SENSOR FOR DAYLIGHT HARVESTING CONTROL. SENSOR SHALL BE CEILING MOUNTED.

THESE ARE GENERAL LEGENDS. NOT ALL SYMBOLS MAY BE SHOWN. REFERENCE PLANS FOR ALL UTILIZED SYMBOLS.

DIV 27 - LEGEND

DATA/COMMUNICATION

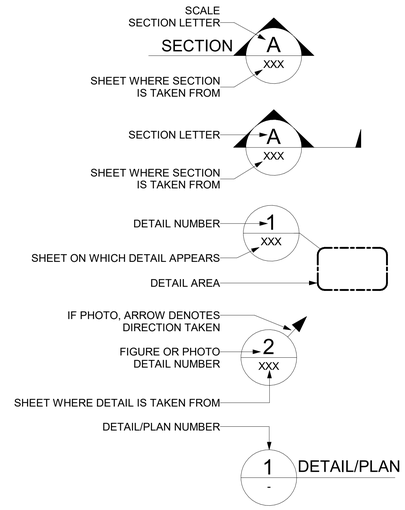
- OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION
- CATV — CABLE TELEVISION LINE = CATV
- CCTV — CLOSED CIRCUIT TELEVISION LINE = CCTV. MINIMUM 1" [25mm] CONDUIT
- FO — FIBEROPTICS LINE = FO
- T — TELEPHONE LINE = T
- I — INTERCOM LINE = I. MINIMUM 3/4" [19mm] CONDUIT.
- S — SOUND LINE = S
- NC — NURSE CALL LINE = NC. MINIMUM 3/4" [19mm] CONDUIT.
- R — RADIO CONDUIT RUN, MINIMUM 3/4" [19mm] CONDUIT.
- OUTLET TELEPHONE; LETTER INDICATES AS FOLLOWS:
  J = JACK TYPE; W = WALL TYPE
- X X X P — OUTLET DATA OR TELEPHONE, "X" INDICATES NUMBER OF OUTLET PORTS. BOX AROUND SYMBOL INDICATES FLOOR MOUNTED.
  P = POLE/PEDESTAL MOUNTED
- OUTLET; LETTER INDICATES AS FOLLOWS:
  A = AUDIO; V = VIDEO; I = INTERCOM
- S X — SPEAKER, CEILING MOUNTED, "X" INDICATES THE TYPE, PROVIDE SCHEDULE ON LEGEND
- S X — SPEAKER, WALL MOUNTED, "X" INDICATES THE TYPE, PROVIDE SCHEDULE ON LEGEND. MTD. 7'-6" [2286mm] AFF UNLESS OTHERWISE NOTED.
- X — OUTLET, TELEVISION
  BLANK = 4 11/16" [119mm] MASTER ANTENNA OUTLET BOX W/BLANK COVER, MTD. 18" [457mm] AFF UNLESS OTHERWISE NOTED.
  M = MONITOR (CTTV SYSTEM).
- NCS — NURSE'S CALL MASTER STATION MTD ON NURSE'S COUNTER TOP UNLESS OTHERWISE NOTED.
- NCT — NURSE CALL TERMINAL CABINET.
- N X — NURSE CALL STATION.
  1 = SINGLE PATIENT STATION. MTD 4'-0" AFF UNLESS OTHERWISE NOTED.
  2 = DUPLICATE FACILITIES FOR TWO BEDS (SEPARATE INDICATORS AT MASTER STATION) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
  D = DUTY STATION. MTD 5'-0" [1524mm] AFF UNLESS NOTED OTHERWISE.
  E = MTD 6'-0" [1829mm] AFF FOR SHOWER LOCATION, MTD 4'-6" [1372mm] AFF FOR TUB LOCATION, & MTD 3'-0" [914mm] AFF FOR TOILET LOCATION.
  P = PSYCHIATRIC CORRIDOR STATION WITH KEY SWITCH
  S = AUDIO VISUAL MALL STATION (STAFF) MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
  U = UTILITY CALL STATION, MTD 5'-0" [1524mm] AFF UNLESS OTHERWISE NOTED.
  3 = 3 - FUNCTION EMERGENCY STATION; FUNCTIONS SHALL INCLUDE "STAFF EMERGENCY", "CODE BLUE", AND "CANCEL". MTD 5'-0" AFF.
- WT VW — WIRELESS TRACKING MODULE, IR TECHNOLOGY
  VW - INDICATES VIRTUAL WALL TYPE.
- WAP X — WIRELESS ACCESS POINT.
  "S" = STAFF; "G" = GUEST. IF NOTED LIKE THIS "S,G", CONTRACTOR SHALL PROVIDE (2) SEPARATE WAPs, (1) WAP FOR EACH SERVICE.
- X N — NURSE CALL STATION.
  2 = NURSE'S CALL DOME LIGHT (SUFFIX INDICATES No OF LAMP) MTD 6" [152mm] ABOVE DOOR.
  D = CORRIDOR DOME LIGHT.
  I = AUXILIARY INTERSECTIONAL DOME LIGHT.
- INTERCOM STATION (REFER TO SPECS. FOR FUNCTIONAL OPERATION OF INSTRUMENT & TYPE REQUIRED).
- S — INTERCOM STAFF STATION.

DIV 28 - LEGEND

- C S — AUDIO DEVICE; LETTER INDICATES AS FOLLOWS:
  M=MOUNT
  C-CEILING, D-DESK, F-FLUSH, H-HIDDEN, M-MULLION, P-PEDESTAL, R-RACK, S-SURFACE, W-WALL
  T=TECHNOLOGY/TYPE
  B-BELL, C-CHIME, H-HORN, K-KLAXON, L-LISTEN-IN, M-MICROPHONE, S-SOUNDER, S-SPEAKER, Z-BUZZER
- M — CARD READER WITH KEYPAD; LETTER INDICATES AS FOLLOWS:
  M=MOUNT
  C-CEILING, D-DESK, F-FLUSH, H-HIDDEN, M-MULLION, P-PEDESTAL, R-RACK, S-SURFACE, W-WALL
- M T — INTERCOM; LETTER INDICATES AS FOLLOWS:
  M=MOUNT
  C-CEILING, D-DESK, F-FLUSH, H-HIDDEN, M-MULLION, P-PEDESTAL, R-RACK, S-SURFACE, W-WALL
  T=TECHNOLOGY/TYPE
  M-MASTER, S-SUBSTATION
- M — KEYPAD DEVICE; LETTER INDICATES AS FOLLOWS:
  M=MOUNT
  C-CEILING, D-DESK, F-FLUSH, H-HIDDEN, M-MULLION, P-PEDESTAL, R-RACK, S-SURFACE, W-WALL
- FAC — ALARM, FIRE, COMMUNICATOR
- FACP — ALARM, FIRE, PANEL; LETTERS INDICATE AS FOLLOWS:
  FACC = CENTRAL CONSOLE; FACP = CONTROL PANEL; MFACP= MASTER CONTROL PANEL; FAAP = ANNUNCIATOR PANEL
- BATT — ALARM, FIRE; LETTERS INDICATE AS FOLLOWS:
  BATT = BATTERIES; CHR = CHARGER; FAR = RECORDER
- ALARM, SPEAKER STROBE, ONE ASSEMBLY
- C — ALARM, SPEAKER STROBE, ONE ASSEMBLY, CEILING MOUNT
- ALARM, HORN/LIGHT
- ALARM, LAMP LIGHT, SIGNAL LIGHT, STROBE
- C — ALARM, LAMP LIGHT, SIGNAL LIGHT, STROBE, CEILING MOUNT

- EPO — DETECTION SWITCH, ABORT
- DETECTION SWITCH, VALVE TAMPER
- DETECTOR, FLAME FLICKER
- DETECTOR, FLOW SWITCH
- HD — DETECTOR, HEAT
- R/T HD — DETECTOR, HEAT; LETTER INDICATES AS FOLLOWS:
  R/T = COMBINATION; F = FIXED TEMPERATURE; R/C = RATE COMPENSATION; R = RATE OF RISE
- H — DETECTOR; LETTER INDICATES AS FOLLOWS:
  BLANK = SMOKE DETECTOR
  H = HEAT SMOKE
  I = IONIZATION SMOKE
  P = PHOTOELECTRIC SMOKE
  IH = IONIZATION AND HEAT SMOKE
  IP = IONIZATION AND PHOTOELECTRIC SMOKE
  PH = PHOTOELECTRIC AND HEAT SMOKE
  IPH = IONIZATION, PHOTOELECTRIC, AND HEAT
- DETECTOR, SMOKE, FOR DUCT
- FS — FIRE ALARM STATION, MANUAL PULL
- FA — FIRE ALARM LINE = FA
- DH — ELECTROMAGNETIC TYPE DOOR HOLDER OUTLET
- CITY FIRE ALARM MASTER STATION MTD 5'-6" [1676mm] AFF UNLESS NOTED.
- FAT 2-4-6 — FIRE ALARM TRANSMITTER (BASE LOOP) NUMERALS DENOTE CODE.
- FAT 2-4-6 — FIRE ALARM TROUBLE TRANSMITTER (BASE LOOP) NUMERALS DENOTE CODE.

GENERAL SYMBOL



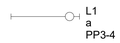
- XXX — CONDUIT & WIRE TAG (REFER TO CONDUIT AND WIRE SCHEDULE)
- XX — FAULT CURRENT TAG (3 PH, SYM AMPS)
- 1 — KEY NOTE
- 1 — LOAD METERING / DATA RETRIEVAL POINT NOTE
- CONDUIT OR EQUIPMENT TO BE REMOVED
- CONDUIT CONCEALED IN WALL, CEILING, UNDER FLOOR, IN FLOOR SLAB, OR ROUTED UNDERGROUND
- CONDUIT CONCEALED WHERE POSSIBLE, OTHERWISE EXPOSED
- EXTRA-HARD USAGE FLEXIBLE CORD
- FLEXIBLE CONDUIT
- CONDUIT / BONDING CONDUCTOR TURNED UP OR TOWARD
- CONDUIT / BONDING CONDUCTOR TURNED DOWN OR AWAY
- CONDUIT CAPPED
- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- SMOKE RATED WALL
- SMOKE & 1 HR FIRE RATED WALL
- BOLD DOT INDICATES CONDUCTOR BOND / TERMINATION
- CONDUCTORS; BOND / TERMINATION

CIRCUITING DESIGNATIONS

WHERE A PANEL NAME AND CORRESPONDING CIRCUIT ARE CALLED OUT ADJACENT TO RECEPTACLE, LUMINAIRE OR MISC LOAD., THAT LOAD SHALL BE CIRCUITED TO THE CORRESPONDING PANELBOARD CIRCUIT BREAKER, CONDUIT AND WIRE FOR CIRCUIT SHALL BE 3/4" CONDUIT WITH (2) 12 AWG AND (1) 12 AWG GND, UNLESS OTHERWISE NOTED; IF FURTHER THAN 70', PHASE AND GROUND WIRE SHALL BE UPSIZED TO 10 AWG TO ACCOUNT FOR VOLTAGE DROP. SEE EXAMPLE BELOW:

RECEPTACLE:
PANELBOARD OR POWER SOURCE NAME = "P1"
CIRCUIT NUMBER OF POWER SOURCE = "2"

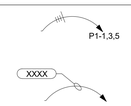
LUMINAIRE:
PANELBOARD OR POWER SOURCE NAME = "PP3"
CIRCUIT NUMBER OF POWER SOURCE = "4"
TYP LUMINAIRE TAG NAME, REFERENCE LUMINAIRE SCHEDULE = "L1"
LIGHTING CONTROL SWITCH LEG = "a"
ALL LUMINAIRES IN SAME ROOM ARE CIRCUITED TO SAME CIRCUIT = PP3-4



MISC LOAD:
PANELBOARD OR POWER SOURCE NAME = "PP"
CIRCUIT NUMBER OF POWER SOURCE = "7"

CONDUIT HOMERUN:
CONDUIT 3/4"C, 3#12 PHASE, 1#12 N. & 1#12 GND UNLESS SHOWN OTHERWISE. (EXAMPLE SHOWN: TO PANEL P1, CIRCUIT 1,3,5). LONG TICK FOR NEUTRAL WIRE; ONE SHORT TICK FOR EACH PHASE WIRE; GROUND SIZED PER NEC. NOTE THAT A SECOND SHORT TICK FOR LUMINAIRES IS FOR A TRAVELER WIRE.

CONDUIT HOME RUN - SEE CONDUIT AND WIRE SCHEDULE



Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL LEGENDS	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	Project Number: 570-21-220
			Building Number:
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Drawing Number: E-002
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	

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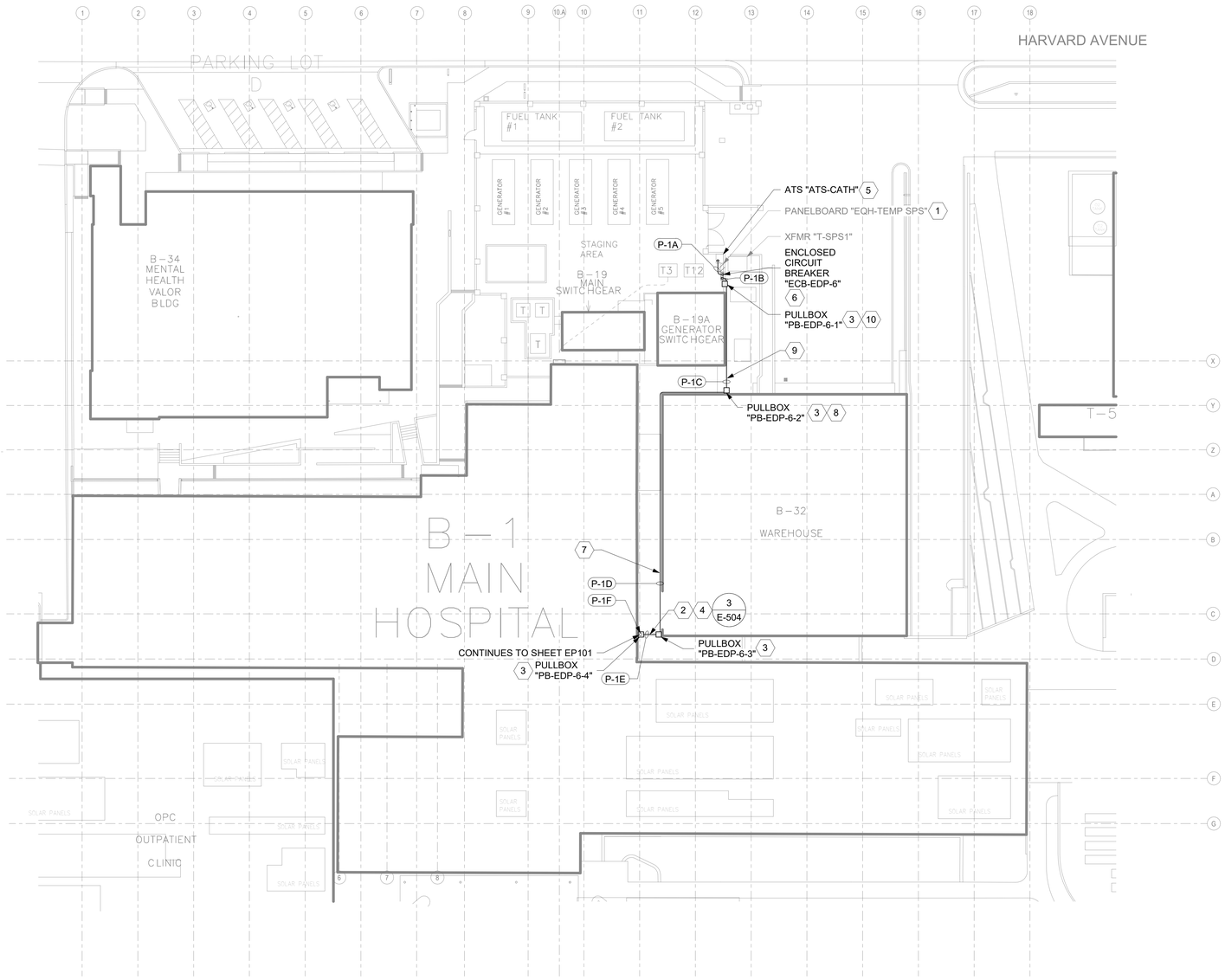


1 OVERALL ELECTRICAL SITE PLAN
1" = 20'-0"

0 10' 20' 40'

PROJECT NORTH

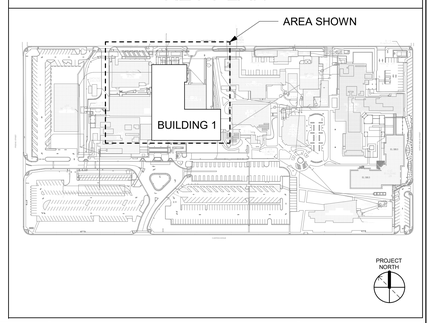
GENERAL NOTES

1. CONDUIT ROUTING IS DIAGRAMMATICAL; CONTRACTOR SHALL FIELD COORDINATE EXACT ROUTING WITH ALL OBSTRUCTIONS AND EXISTING EQUIPMENT TO REMAIN. COORDINATE WITH VA AS REQUIRED.
2. CONTRACTOR SHALL PERFORM UNDERGROUND LOCATES AND/OR GROUND PENETRATING RADAR TO IDENTIFY ALL UNDERGROUND OBSTRUCTIONS INCLUDING RACEWAYS PRIOR TO UNDERGROUND ELECTRICAL WORK.
3. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES
4. CONTRACTOR SHALL PROVIDE PULL BOXES FOR ALL FEEDERS WHERE FEEDER RUNS EXCEED 250FT OR HAVE MORE THAN 270 DEGREES OF TOTAL BEND. PULL BOX PLACEMENT AND SIZING BY CONTRACTOR. COORDINATE PULL BOX LOCATIONS WITH ALL OBSTRUCTIONS, TRADES, AND VA AS REQUIRED.

KEY NOTES

1. EQUIPMENT TO BE DEMOLISHED. SEE ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
2. PROVIDE 12" WIDE X 3" HIGH STAINLESS STEEL 304 LADDER TRAY, RATED AT 100 LBS PER FOOT, NEMA VE 1, CLASS 12C. TRAY MUST BE ABLE TO SPAN THE DISTANCE WITH ONLY SUPPORTS AT EACH END. PROVIDE ATTACHMENTS TO THE WALLS. ROUTE CONDUITS ON THE LADDER TRAY WITH CONDUIT STRAPS. UTILIZE FLEX CONDUITS ON EITHER END OF LADDER TRAY WHERE CONDUITS TRANSITION FROM LADDER TRAY TO WALL. PROVIDE STAINLESS STEEL FASTENING HARDWARE.
3. PROVIDE PULL BOX. SIZE PER NEC. COORDINATE MOUNTING LOCATION WITH EXISTING CONDITIONS.
4. PROVIDE UNISTRUT BRACKETS AT ANGLES EVERY 2 FEET CONNECTED TO THE LADDER TRAY. PROVIDE HEAVY DUTY BIRD NETTING OVER THE UNISTRUT BRACKETS, CONDUITS & LADDER TRAY. SEE DETAIL 3 ON SHEET E-504 FOR ADDITIONAL INFORMATION.
5. EXISTING EQUIPMENT RENAMED AS INDICATED. REFERENCE ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.
6. PROVIDE CONCRETE HOUSEKEEPING PAD FOR MOUNTING OF ENCLOSED CIRCUIT BREAKER.
7. ROUTE CONDUITS ALONG OUTSIDE EDGE OF BUILDING.
8. MOUNT PULL BOX HIGH ON WALL, AT SAME ELEVATION AS LADDER TRAY INDICATED IN KEY NOTE 2 ON THIS SHEET.
9. ROUTE CONDUITS ALONG GROUND.
10. MOUNT PULL BOX ON TOP OF WALL, ADJACENT TO EXISTING PULL BOX.

KEY PLAN



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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: OVERALL ELECTRICAL SITE PLAN

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: LRL/WNM

Drawn: JFO/JBB

Project Number: 570-21-220

Building Number: 001

Drawing Number: ES100

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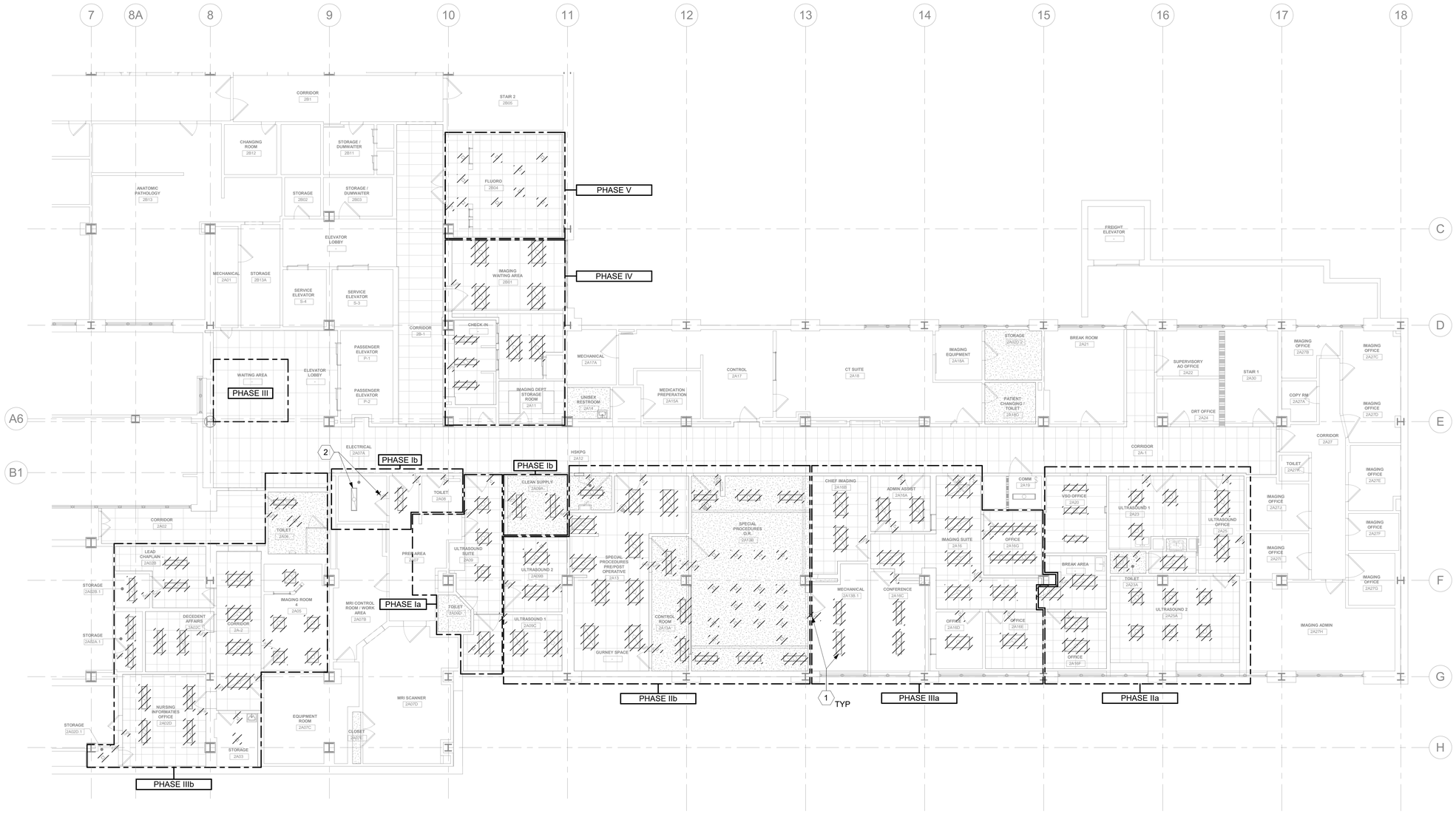


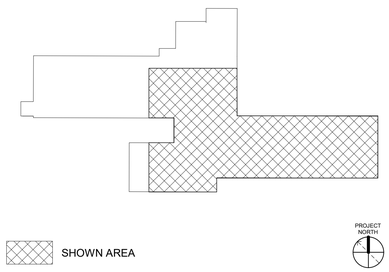
GENERAL NOTES

1. ALL EXISTING EQUIPMENT MAY NOT BE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL LIGHTING, CONTROLS, AND ASSOCIATED CIRCUITRY AS REQUIRED. ALL RACEWAYS AND CONDUCTORS ASSOCIATED WITH DEMOLISHED EQUIPMENT SHALL BE DEMOLISHED BACK TO THEIR SOURCE, UNLESS OTHERWISE NOTE.
2. ALL DEMOLITION OF ELECTRICAL SYSTEM SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. VERIFY DEMOLITION OF ELECTRICAL WITH ALL TRADES PRIOR TO START OF DEMOLITION.
3. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES AND THE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.
4. ALL CIRCUITS AND RELATED DEVICES THAT ARE TO REMAIN ARE TO STAY "ENERGIZED" IN THE DEMOLITION AND NEW CONSTRUCTION PHASES UNTIL THE COMPLETION OF THE WORK INDICATED IN THIS CONTRACT DOCUMENT SET.
5. THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL ASSOCIATED WITH WALLS BEING REMOVED, AND IN ALL LOCATIONS WHERE JUNCTION BOXES WILL NOT REMAIN ACCESSIBLE AFTER INSTALLATION OF MILLWORK.
6. CONTRACTOR SHALL DISPOSE OF THE REMOVED DEVICES. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES. REUSE EXISTING CONDUITS AND JUNCTION BOXES AS IS PRACTICAL.
7. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
8. CONTRACTOR SHALL ENSURE ALL EQUIPMENT INCLUDING, BUT NOT LIMITED TO LIGHT BALLASTS THAT CONTAIN PCBs, SHALL BE PROPERLY REMOVED AND DISPOSED.
9. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
10. THE CONTRACTOR SHALL REMOVE ALL ABANDONED ELECTRICAL ABOVE THE CEILINGS THAT ARE OBVIOUS WHILE PERFORMING WORK.
11. THE CONTRACTOR SHALL PROVIDE SUPPORT TO EXISTING ELECTRICAL CONDUITS, BACKBOXES & CABLING ABOVE EXISTING CEILINGS THAT DO NOT MEET NEC CODE AS THEY ENCOUNTER IT WHILE PERFORMING DEMOLITION & NEW WORK.

KEY NOTES

1. EXISTING LIGHTING EQUIPMENT SHALL BE DEMOLISHED INCLUDING FIELD DEVICES AND SWITCHES. DEMOLISH ALL ASSOCIATED CONDUITS AND CABLING BACK TO SOURCE.
2. EXISTING LIGHTING CIRCUIT SHALL BE MODIFIED. PRESERVE EXISTING CIRCUITRY FOR REUSE. REFERENCE SHEET EL101 FOR ADDITIONAL INFORMATION.

KEY PLAN



1 LEVEL 2 - LIGHTING DEMOLITION PLAN

1/8" = 1'-0"

0 4' 8' 16'

PROJECT NORTH

Revisions:	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: LEVEL 2 - LIGHTING DEMOLITION PLAN

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Project Number: 570-21-220

Building Number: 001

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

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Drawing Number: ED101

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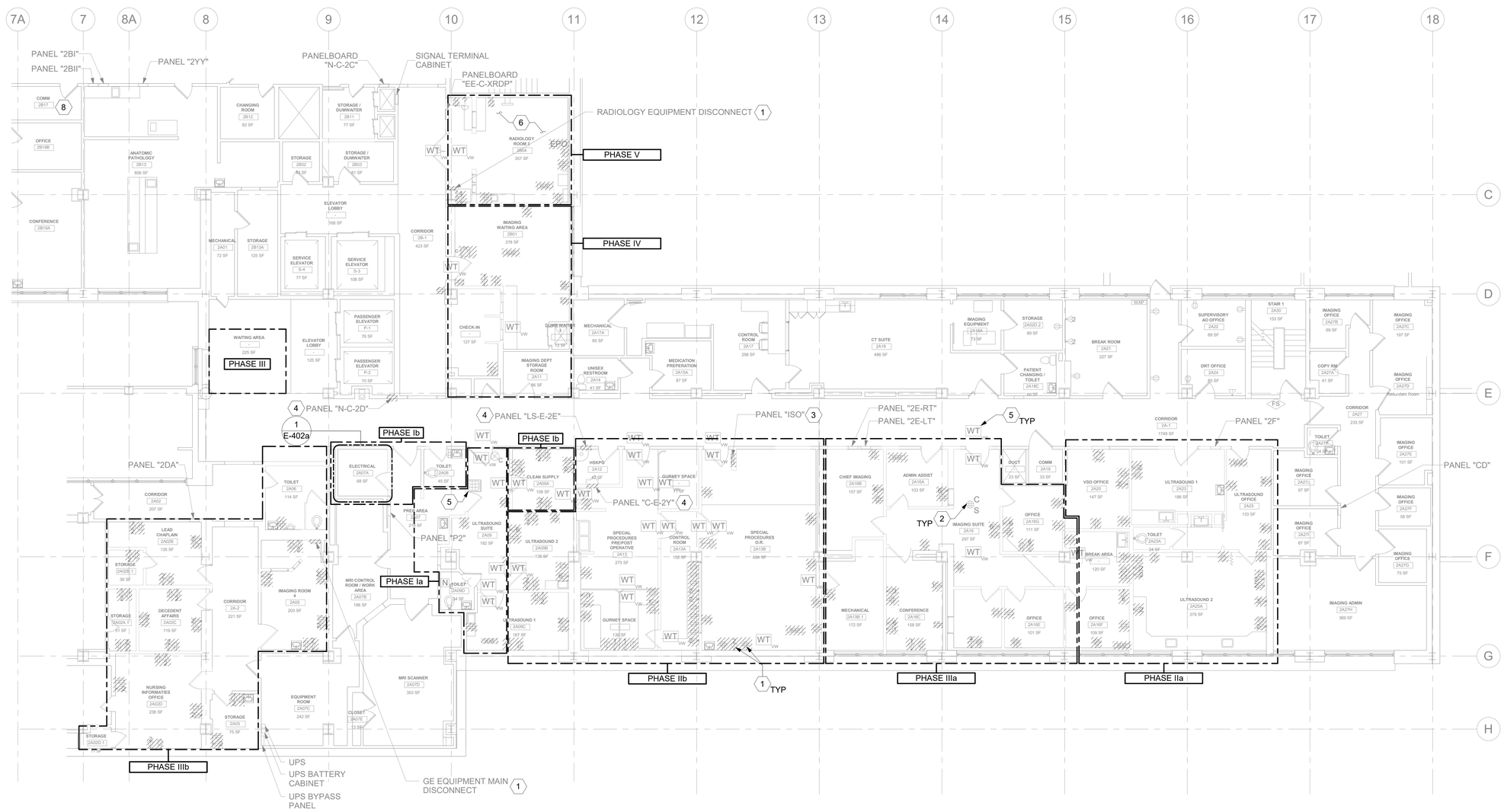


1 LEVEL 2 - POWER AND SPECIAL SYSTEMS DEMOLITION PLAN
1/8" = 1'-0"

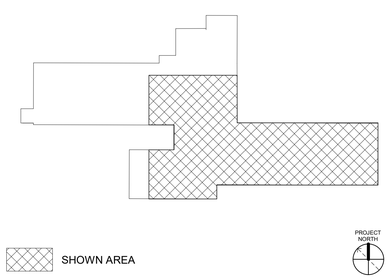
GENERAL NOTES

1. ALL EXISTING EQUIPMENT MAY NOT BE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL ELECTRICAL, LOW VOLTAGE DEVICES AND ASSOCIATED CIRCUITRY AS REQUIRED. ALL RACEWAYS AND CONDUCTORS ASSOCIATED WITH DEMOLISHED EQUIPMENT SHALL BE DEMOLISHED BACK TO THEIR SOURCE, UNLESS OTHERWISE NOTED.
2. ALL DEMOLITION OF ELECTRICAL SYSTEMS SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. VERIFY DEMOLITION OF ELECTRICAL WITH ALL TRADES PRIOR TO START OF DEMOLITION.
3. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES, AND THE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.
4. ALL CIRCUITS AND RELATED DEVICES THAT ARE TO REMAIN TO STAY "ENERGIZED" IN THE DEMOLITION AND NEW CONSTRUCTION AND NEW CONSTRUCTION PHASES UNTIL THE COMPLETION OF THE WORK INDICATED ON THESE PLANS.
5. THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL ASSOCIATED WITH WALLS BEING REMOVED, AND IN ALL LOCATIONS WHERE JUNCTION BOXES WILL NOT REMAIN ACCESSIBLE AFTER INSTALLATION OF MILLWORK.
6. CONTRACTOR SHALL DISPOSE OF THE REMOVED DEVICES. DISPOSAL OF DEVICES SHALL COMPLY WITH ALL APPROPRIATE CODES. REUSE EXISTING CONDUITS AND JUNCTION BOXES AS IS PRACTICAL.
7. THE CONTACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT
8. REMOVE ALL ABANDONED WIRING AND RACEWAYS TO SOURCE. COORDINATE WITH COR FOR REMOVING EXISTING TERMINATION.
9. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
10. THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN INTACT IN ALL AREAS NOT IN CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE VA FOR PLACING THE FIRE ALARM PANEL IN "TEST" MODE WHEN REMOVING & INSTALLING DEVICES. THE CONTRACTOR IS REQUIRED TO PROVIDE A FIRE WATCH WHEN THE FIRE ALARM CONTROL PANEL IS NOT FULLY FUNCTIONAL.
11. THE CONTRACTOR SHALL REMOVE ALL ABANDONED ELECTRICAL ABOVE THE CEILINGS THAT ARE OBVIOUS WHILE PERFORMING WORK.
12. THE CONTRACTOR SHALL PROVIDE SUPPORT TO EXISTING ELECTRICAL CONDUITS, BACKBOXES & CABLING ABOVE EXISTING CEILINGS THAT DO NOT MEET NEC CODE AS THEY ENCOUNTER IT WHILE PERFORMING DEMOLITION & NEW WORK.

KEY NOTES

1. EXISTING EQUIPMENT SHALL BE DEMOLISHED. ALL RACEWAYS AND CONDUCTORS ASSOCIATED WITH DEMOLISHED EQUIPMENT SHALL BE DEMOLISHED BACK TO ITS SOURCE, UNLESS OTHERWISE NOTED.
2. EXISTING EQUIPMENT SHALL BE RELOCATED. SEE SHEET ET101 AND ET102 FOR ADDITIONAL DETAILS.
3. EXISTING PANEL SHALL BE DEMOLISHED.
4. EXISTING PANEL SHALL BE DEMOLISHED, REPLACED, AND RELOCATED (WHERE INDICATED ON POWER PLANS). PRESERVE AND MAINTAIN EXISTING FEEDER AND BRANCH CIRCUITS FOR RETERMINATION INTO REPLACEMENT PANEL. REFERENCE ELECTRICAL PLANS, ONE-LINE DIAGRAMS, AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION. REFERENCE KEY NOTE 2 ON SHEET EP102 FOR REVISED LOCATION.
5. EXISTING EQUIPMENT SHALL BE RELOCATED. SEE SHEETS ET101 AND ET102 FOR ADDITIONAL DETAILS. ANY EQUIPMENT NOT REINSTALLED SHALL BE RETURNED TO THE VA.
6. REMOVE EXISTING IMAGING EQUIPMENT AND SALVAGE TO VA. DEMOLISH EXISTING ELECTRICAL RACEWAYS AND CONDUCTORS ASSOCIATED WITH IMAGING EQUIPMENT BACK TO SOURCE.
7. EXISTING PANEL SHALL BE MODIFIED. REFERENCE PANEL SCHEDULES AND ASSOCIATED REVISED ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
8. ALL TELECOMMUNICATIONS AND SYSTEMS EQUIPMENT TO BE DEMOLISHED SHALL HAVE THERE CABLING DEMOLISHED BACK TO COMM 2B17, UNLESS OTHER WISE DIRECTED BY VA.

KEY PLAN



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Drawing Title: LEVEL 2 - POWER AND SPECIAL SYSTEMS DEMOLITION PLAN
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
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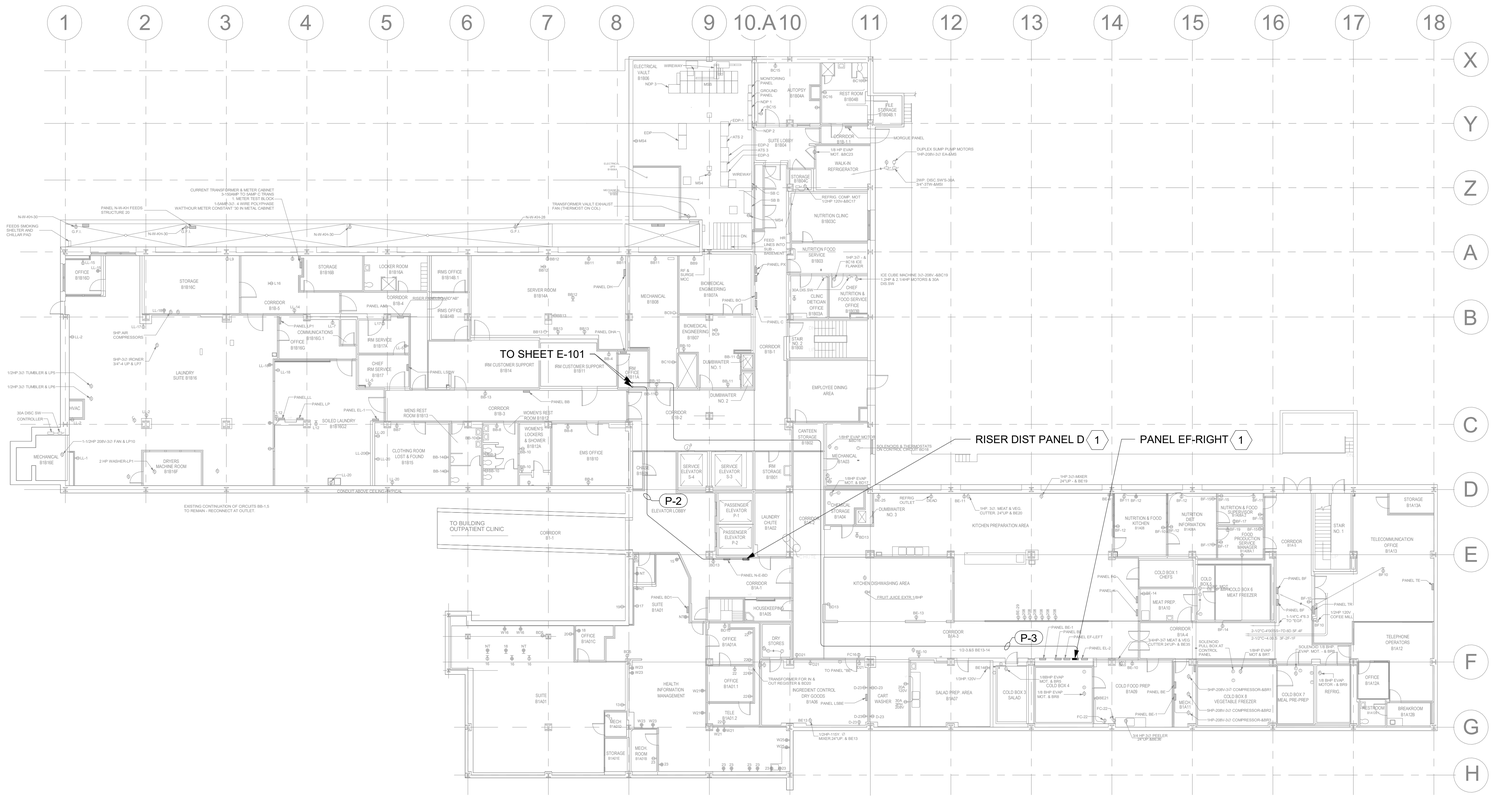
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: ED102

VA FORM 08 - 6231



1 LEVEL 0 - POWER PLAN
1/16" = 1'-0"

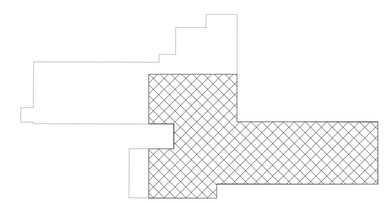
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
5. ELECTRICAL WORK ON THIS SHEET TO OCCUR IN PHASE IIb.
6. CONTRACTOR SHALL PROVIDE PULL BOXES FOR ALL FEEDERS WHERE FEEDER RUNS EXCEED 250FT OR HAVE MORE THAN 270 DEGREES OF TOTAL BEND. PULL BOX PLACEMENT AND SIZING BY CONTRACTOR. COORDINATE PULL BOX LOCATIONS WITH ALL OBSTRUCTIONS, TRADES, AND VA AS REQUIRED.

KEY NOTES

1. PANEL TO BE MODIFIED. REFERENCE ONE-LINE DIAGRAMS AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

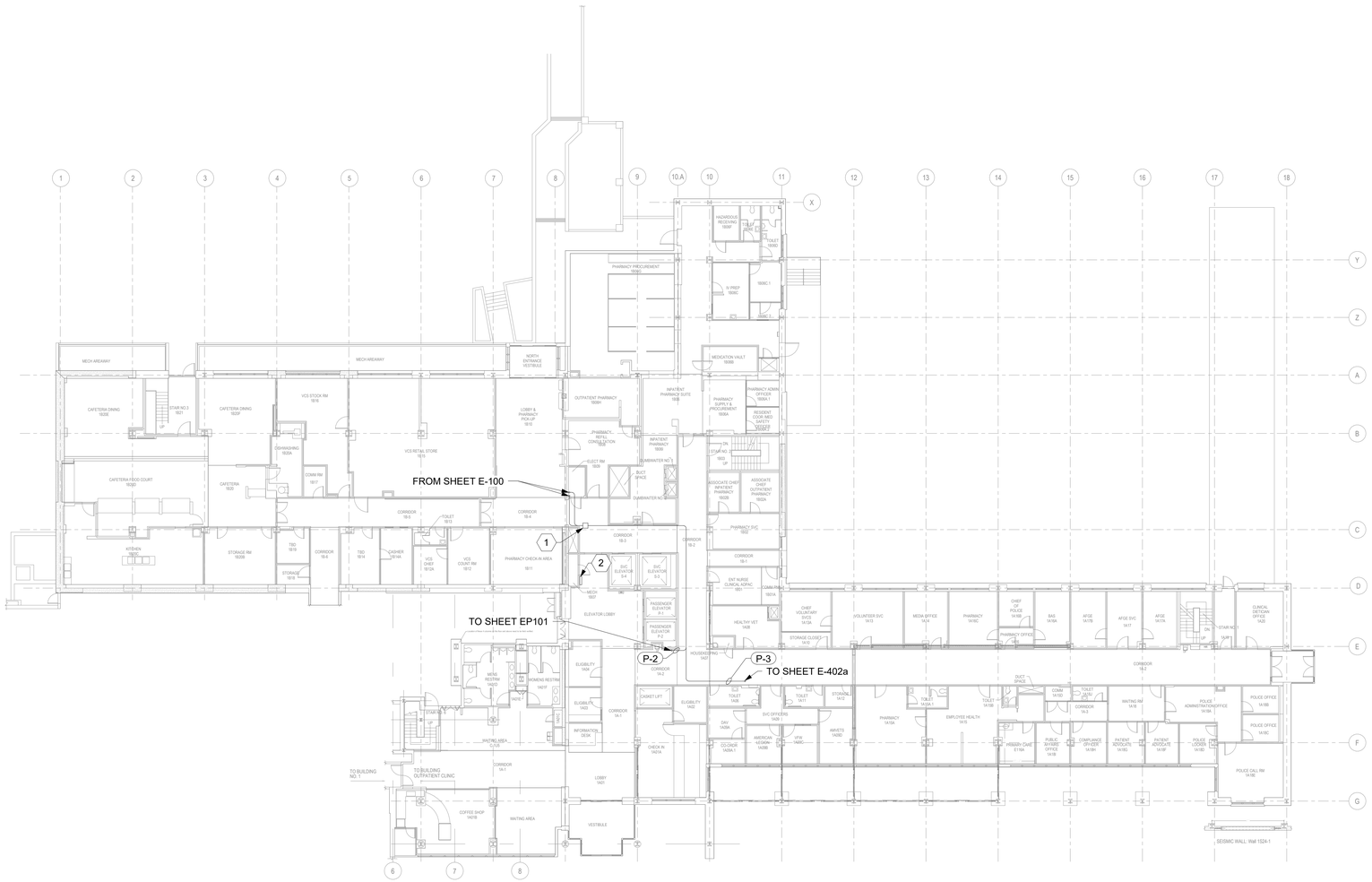
A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032
SDB SPEESDESIGNBUILD

STAMP
LOUIS R. LITZAO
STATE OF WASHINGTON
55681
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: LEVEL 0 - ELECTRICAL PLAN
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-100

VA FORM 08 - 6231



LEVEL 1 - ELECTRICAL PLAN

1/16" = 1'-0"

0 8' 16' 32'

PROJECT NORTH

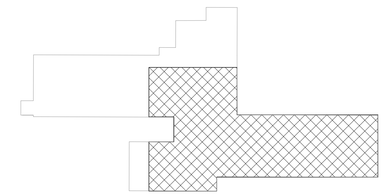
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
3. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT LABELING FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
4. ELECTRICAL WORK ON THIS SHEET TO OCCUR IN PHASE IIb.
5. CONTRACTOR SHALL PROVIDE PULL BOXES FOR ALL FEEDERS WHERE FEEDER RUNS EXCEED 250FT OR HAVE MORE THAN 270 DEGREES OF TOTAL BEND. PULL BOX PLACEMENT AND SIZING BY CONTRACTOR. COORDINATE PULL BOX LOCATIONS WITH ALL OBSTRUCTIONS, TRADES, AND VA AS REQUIRED.

KEY NOTES

1. PROVIDE PULL BOX AS INDICATED. SIZE PER NEC.
2. EXISTING FIRE ALARM CONTROL PANEL TO BE USED TO TERMINATE NEW FIRE ALARM FIELD DEVICES ADDED ON SECOND FLOOR. PROVIDE RACEWAYS AND CABLING TO FIRE ALARM FIELD DEVICES AS REQUIRED.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032

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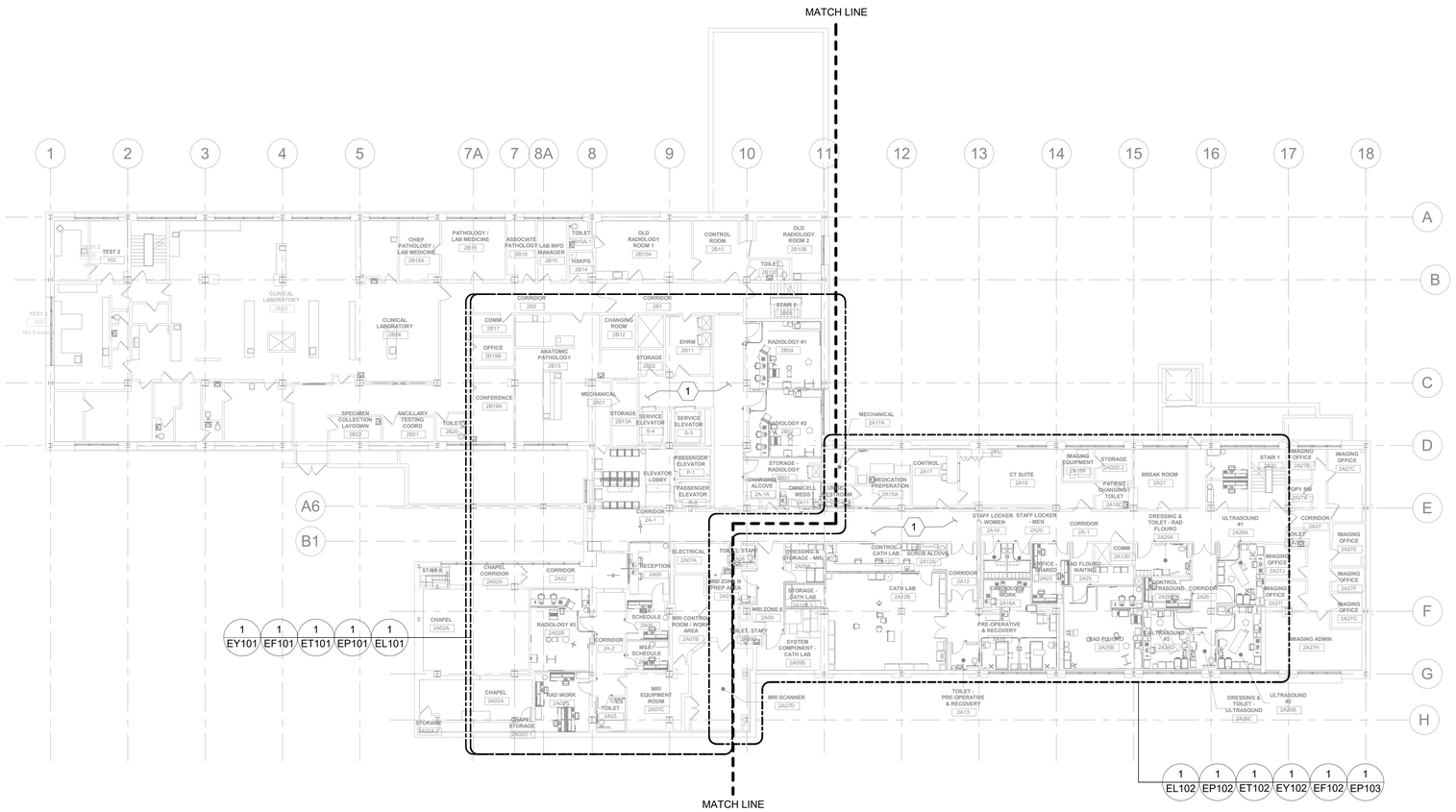
LOUIS R. LITZAO
STATE OF WASHINGTON
55681
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: LEVEL 1 - ELECTRICAL PLAN	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: E-101

VA FORM 08 - 6231



1 LEVEL 2 - ELECTRICAL PLAN
1/16" = 1'-0"

0 8' 16' 32'

PROJECT NORTH

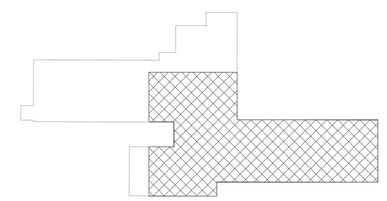
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
3. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT LABELING FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
4. THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN INTACT IN ALL AREAS NOT IN CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE VA FOR PLACING THE FIRE ALARM PANEL IN 'TEST' MODE WHEN REMOVING & INSTALLING DEVICES. THE CONTRACTOR IS REQUIRED TO PROVIDE A FIRE WATCH WHEN THE FIRE ALARM CONTROL PANEL IS NOT FULLY FUNCTIONAL.

KEY NOTES

1. REFERENCE ENLARGED PLANS AND ARCHITECTURAL SHEETS FOR PHASING INFORMATION.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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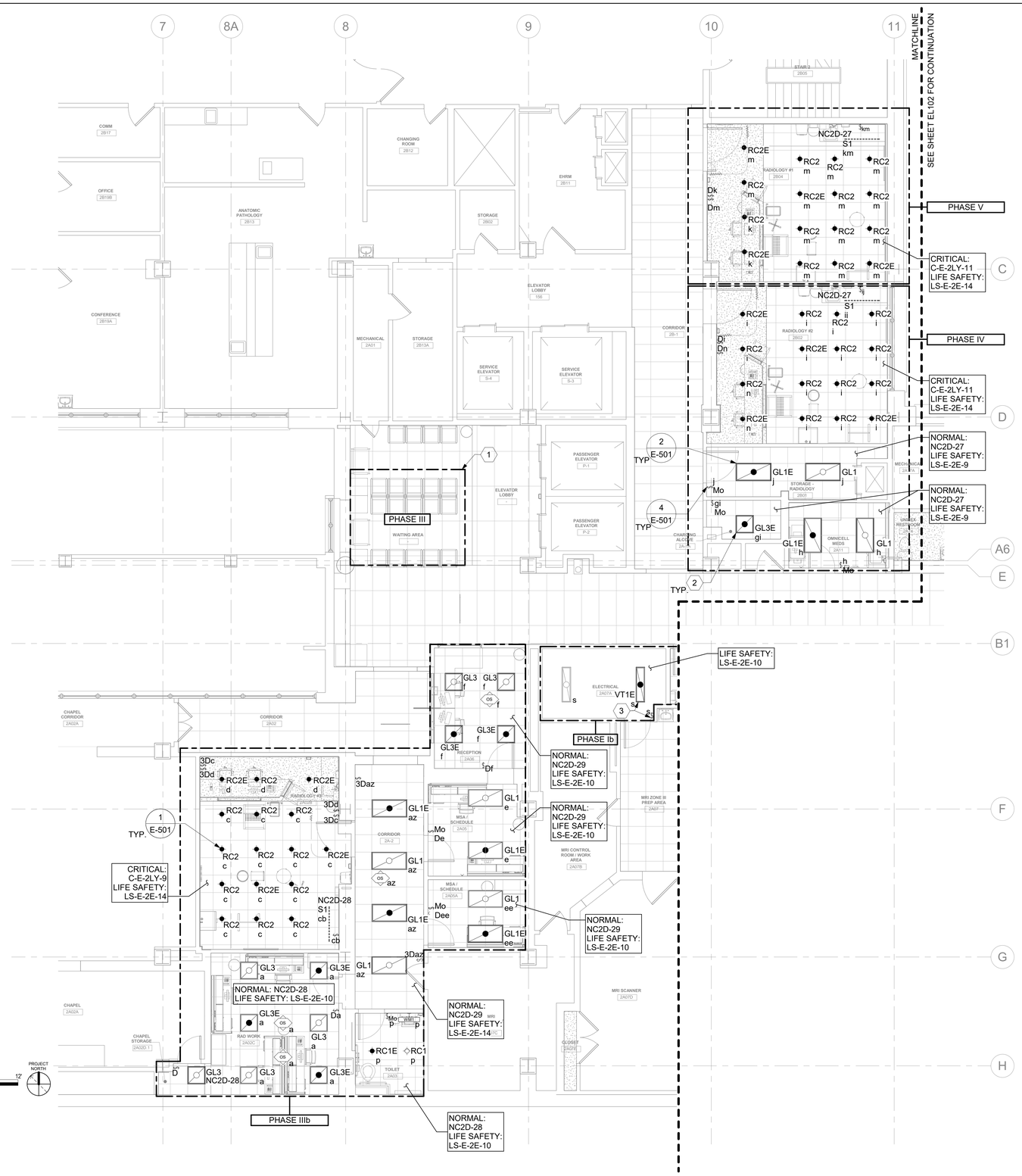
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - ELECTRICAL PLAN	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: E-102

VA FORM 08 - 6231



1 E-102 LEVEL 2 - LIGHTING PLAN AREA 1

3/16" = 1'-0"

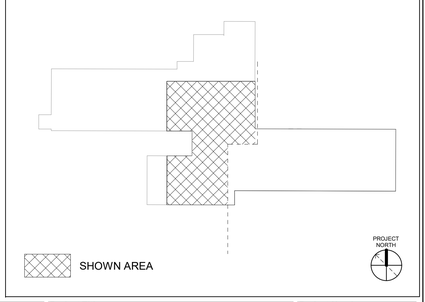
GENERAL NOTES

1. COORDINATE LIGHTING INSTALLATIONS WITH ALL OBSTRUCTIONS AND EQUIPMENT INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL FEATURES, MECHANICAL EQUIPMENT, AND MEDICAL EQUIPMENT.
2. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
3. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
4. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
5. CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
6. COORDINATE ALL UNDER CABINET LIGHTING WITH MILLWORK BEING INSTALLED AND ARCHITECTURAL ELEVATIONS. CONTRACTOR SHALL CONCEAL ALL CONDUIT.
7. ALL FINAL LOCATIONS AND ARRANGEMENTS OF CEILING LIGHTING FIXTURES SHALL BE COORDINATED WITH ALL OTHER TRADES.
8. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.

KEY NOTES

1. CONTRACTOR TO REINSTALL EXISTING LIGHTS IN INDICATED AREA.
2. LUMINAIRE SHALL BE PROVIDED WITH UL-924 TRANSFER SWITCH. PROVIDE UNSWITCHED CONDUCTOR FROM LUMINAIRE TRANSFER SWITCH TO LIFE SAFETY PANELBOARD AS INDICATED. REFERENCE LUMINAIRE SCHEDULE ON SHEET E-701 FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT AND WIRE TO EXTEND EXISTING ROOM LIGHTING CIRCUIT AS REQUIRED. LUMINAIRE SHALL BE PROVIDED WITH UL-924 TRANSFER SWITCH. PROVIDE UNSWITCHED CONDUCTOR FROM LUMINAIRE TRANSFER SWITCH TO LIFE SAFETY PANELBOARD AS INDICATED. REFERENCE LUMINAIRE SCHEDULE ON SHEET E-701 FOR ADDITIONAL INFORMATION.

KEY PLAN



Revisions:	Date:

CONSULTANT

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SPEES DESIGN BUILD
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KENT, WA 98032

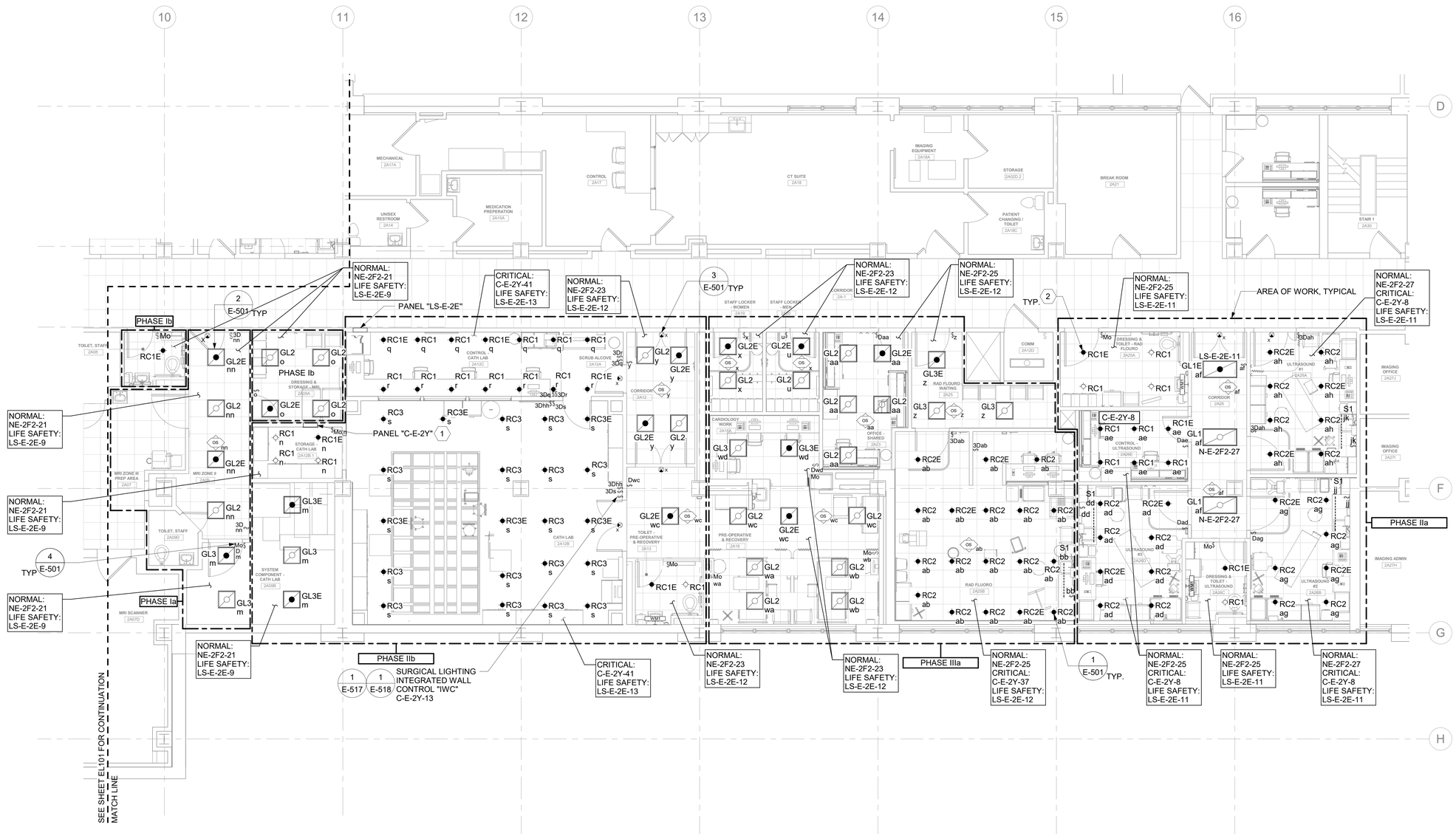
STAMP: LOUIS R. LITZENBERG, STATE OF WASHINGTON, 55681, 3-27-26, REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - LIGHTING PLAN - AREA 1	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: EL101

VA FORM 08 - 6231



1 E-102 LEVEL 2 - LIGHTING PLAN - AREA 2

3/16" = 1'-0"

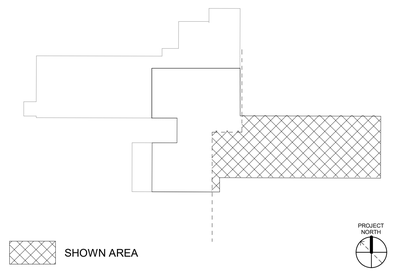
GENERAL NOTES

1. COORDINATE LIGHTING INSTALLATIONS WITH ALL OBSTRUCTIONS AND EQUIPMENT INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL FEATURES, MECHANICAL EQUIPMENT, AND MEDICAL EQUIPMENT.
2. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
3. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
4. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
5. CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
6. COORDINATE ALL UNDER CABINET LIGHTING WITH MILLWORK BEING INSTALLED AND ARCHITECTURAL ELEVATIONS. CONTRACTOR SHALL CONCEAL ALL CONDUIT.
7. ALL FINAL LOCATIONS AND ARRANGEMENTS OF CEILING LIGHTING FIXTURES SHALL BE COORDINATED WITH ALL OTHER TRADES.
8. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.

KEY NOTES

1. REFERENCE EQUIPMENT VENDOR DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. LUMINAIRE SHALL BE PROVIDED WITH UL-924 TRANSFER SWITCH. PROVIDE UNSWITCHED CONDUCTOR FROM LUMINAIRE TRANSFER SWITCH TO LIFE SAFETY PANELBOARD AS INDICATED. REFERENCE LUMINAIRE SCHEDULE ON SHEET E-701 FOR ADDITIONAL INFORMATION.

KEY PLAN



Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032
SPEESDESIGNBUILD

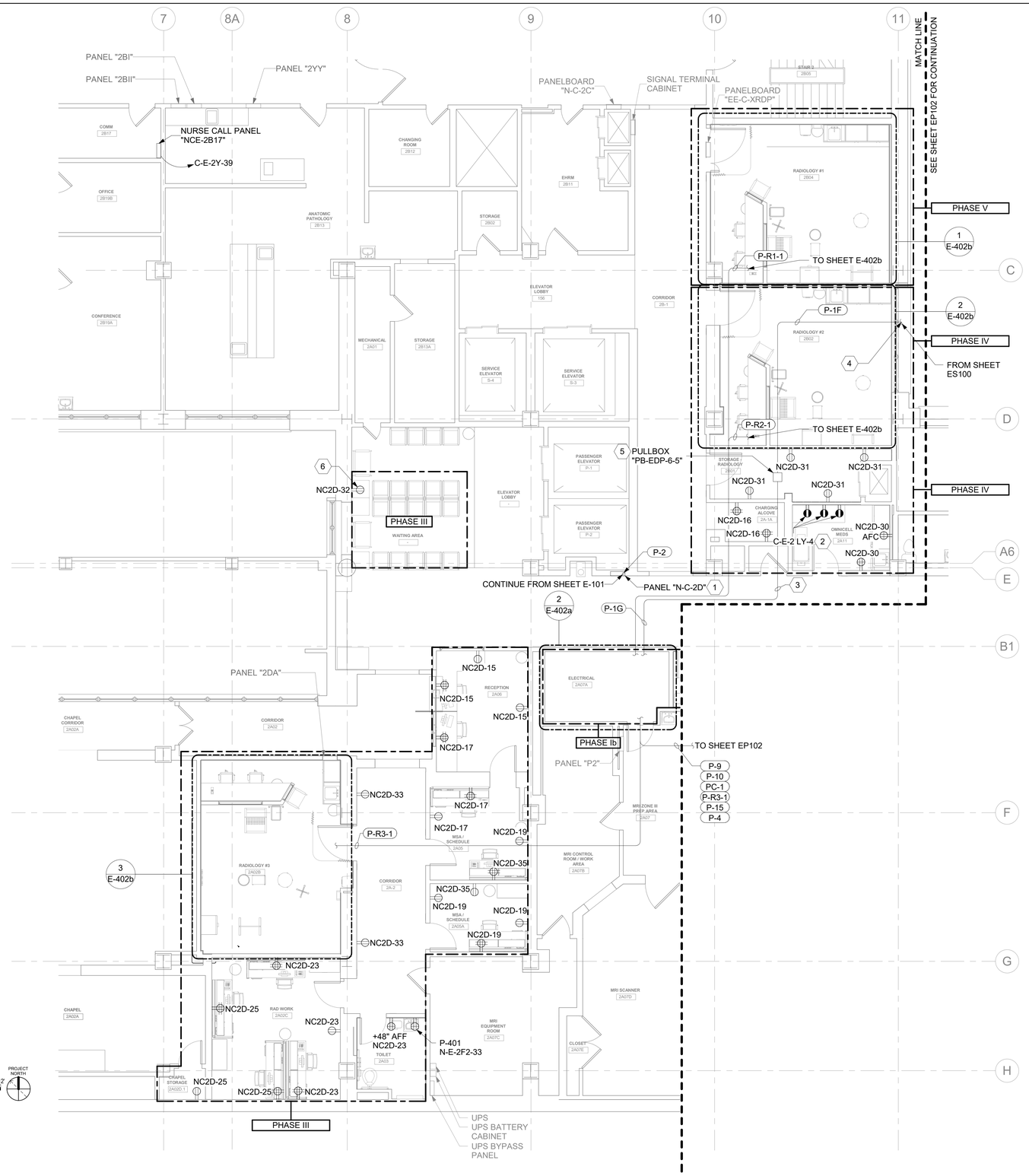
STAMP: LOUIS R. LITZAO, STATE OF WASHINGTON, 55681, 3-27-26, REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - LIGHTING PLAN - AREA 2	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: EL102

VA FORM 08 - 6231



1 E-102 LEVEL 2 - POWER PLAN AREA 1

3/16" = 1'-0"

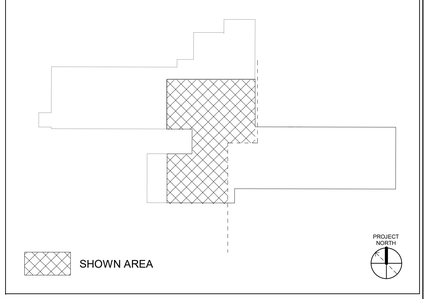
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. PROVIDE POWER RELAYS, LOW VOLTAGE TRANSFORMERS, CONDUIT AND JUNCTION BOXES FOR THE FOLLOWING SPECIAL SYSTEMS AS REQUIRED: AUTOMATIC DOORS, OVERHEAD PAGING, NURSE CALL, PHYSIOLOGY MONITORING, FIRE ALARM, ACCESS CONTROL, CCTV, VOICE/DATA, CATV, MEDICAL GAS ALARM, BUILDING AUTOMATION, SECURITY SYSTEM CONNECTIONS AND MECHANICAL CONTROLS.
5. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
6. COORDINATE WITH OWNERS AGENT FOR FINAL LOCATIONS OF ALL RECEPTACLES AND SPECIAL CONNECTIONS FOR EQUIPMENT PRIOR TO ROUGH-IN. COORDINATE RECEPTACLE INSTALLATION WITH MILLWORK AND BACKSPLASH INSTALLERS TO AVOID INTERFERENCES.
7. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
8. CONDUIT ROUTING IS DIAGRAMATICAL. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ROUTING PRIOR TO INSTALLATION AS REQUIRED.

KEY NOTES

1. REPLACEMENT PANEL. REFER TO SHEET ED102 AND ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.
2. RECEPTACLE FOR OMNICELL CABINETS; MOUNT 84" AFF. COORDINATE WITH EQUIPMENT LOCATION FOR EXACT OUTLET MOUNTING PLACEMENT.
3. ROUTE FEEDER ABOVE ACCESSIBLE CEILING, IN PHASE Ib.
4. ROUTE FEEDER THROUGH UPPER PORTION OF WINDOW AS CLOSE AS POSSIBLE TO WINDOW HEADER. COORDINATE WITH ARCHITECTURAL DRAWINGS AS REQRUIED.
5. PROVIDE PULL BOX AS INDICATED. SIZE PER NEC.
6. PROVIDE RECEPTACLE TO SERVE TV. COORDINATE MOUNTING HEIGHT WITH ARCHITECURE AS REQUIRED.

KEY PLAN



Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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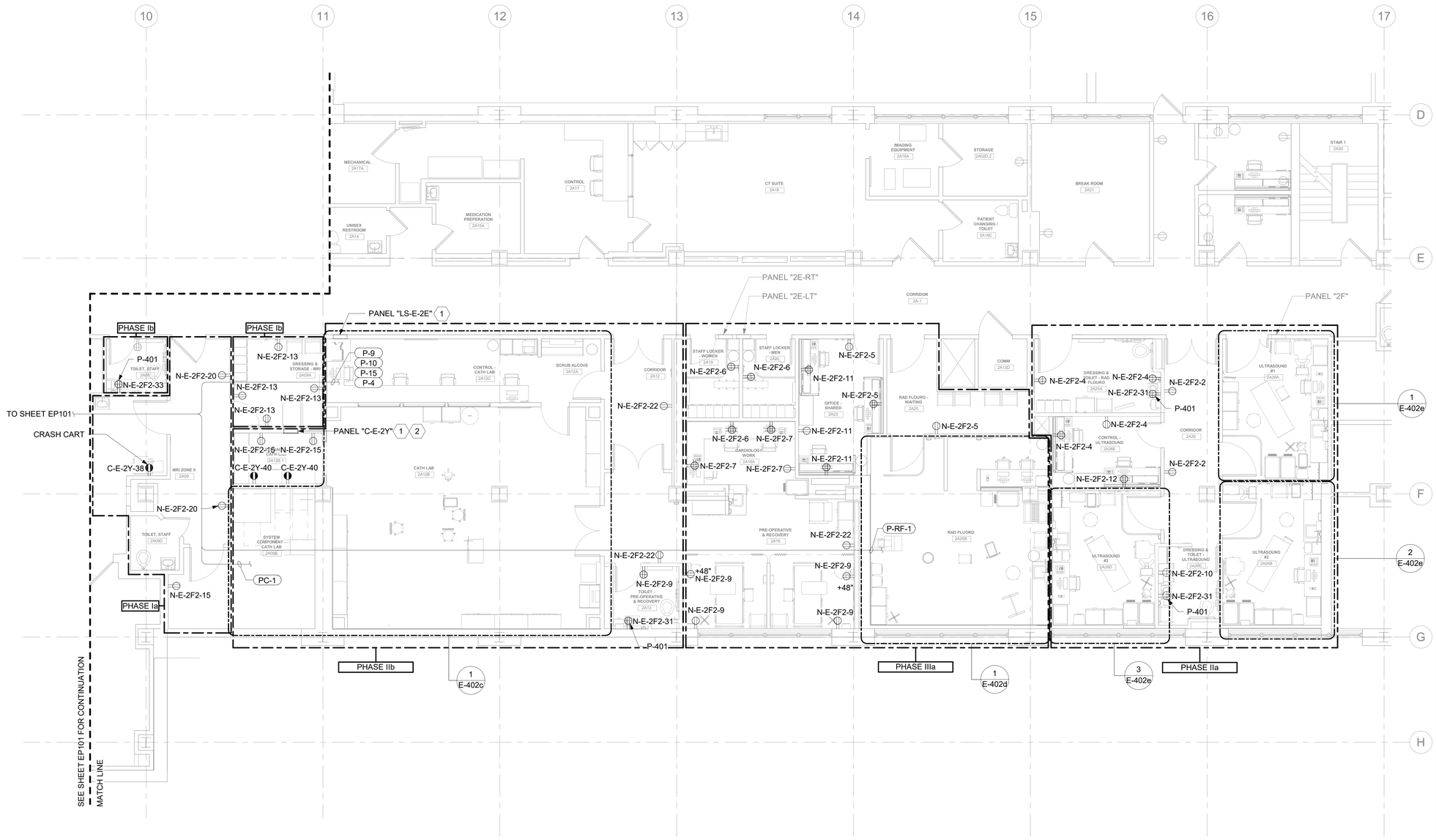
STAMP: LOUIS R. LITZAO, STATE OF WASHINGTON, 55681, 3-27-26, REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - POWER PLAN - AREA 1	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: EP101

VA FORM 08 - 6231



1 E-102 LEVEL 2 - POWER PLAN AREA 2

3/16" = 1'-0"

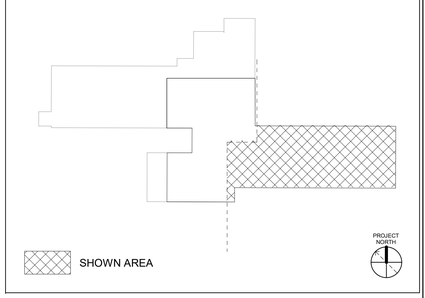
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. PROVIDE POWER RELAYS, LOW VOLTAGE TRANSFORMERS, CONDUIT AND JUNCTION BOXES FOR THE FOLLOWING SPECIAL SYSTEMS AS REQUIRED: AUTOMATIC DOORS, OVERHEAD PAGING, NURSE CALL, PHYSIOLOGY MONITORING, FIRE ALARM, ACCESS CONTROL, CCTV, VOICE/DATA, CATV, MEDICAL GAS ALARM, BUILDING AUTOMATION, SECURITY SYSTEM CONNECTIONS AND MECHANICAL CONTROLS.
5. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
6. COORDINATE WITH OWNERS AGENT FOR FINAL LOCATIONS OF ALL RECEPTACLES AND SPECIAL CONNECTIONS FOR EQUIPMENT PRIOR TO ROUGH-IN. COORDINATE RECEPTACLE INSTALLATION WITH MILLWORK AND BACKSPLASH INSTALLERS TO AVOID INTERFERENCES.
7. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
8. CONDUIT ROUTING IS DIAGRAMATICAL. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ROUTING PRIOR TO INSTALLATION AS REQUIRED.

KEY NOTES

1. PROVIDE REPLACEMENT PANELBOARD. RETERMINATE EXISTING FEEDER AND CIRCUITS INTO REPLACEMENT PANEL; EXTEND CONDUIT AND WIRE AS NECESSARY. REFERENCE ONE-LINE DIAGRAMS AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
2. REVISED PANELBOARD LOCATION. PROVIDE JUNCTION BOXES IN CEILING SPACE AND BELOW FLOOR SPACE AND EXTEND CONDUIT AND WIRE AS NEEDED TO REVISED LOCATION. REFERENCE KEY NOTE 4 ON SHEET ED102 FOR ADDITIONAL INFORMATION.

KEY PLAN



Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
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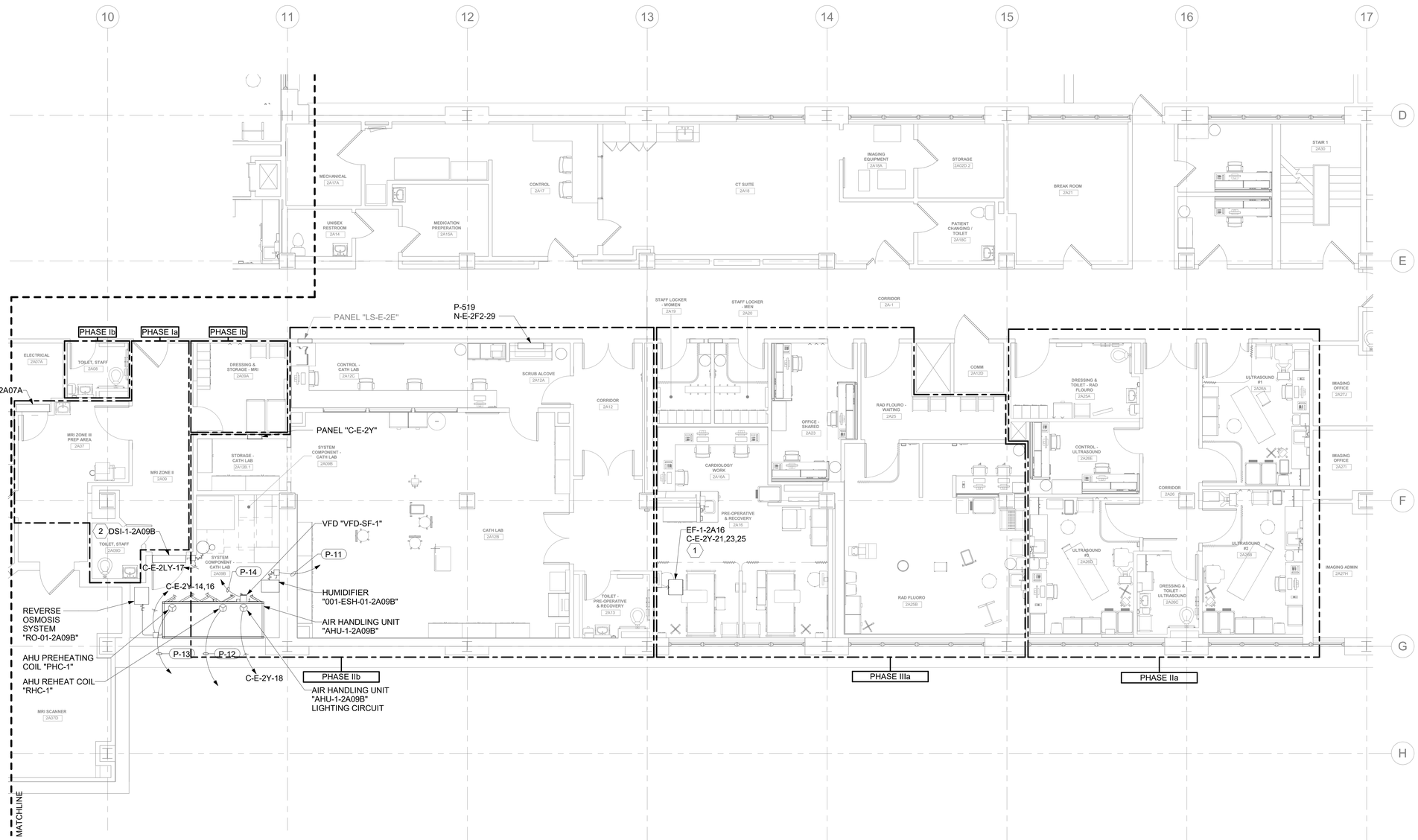
STAMP: LOUIS R. LITZAO, STATE OF WASHINGTON, 55681, 3-27-26, REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	LEVEL 2 - POWER PLAN - AREA 2
Approved:	
Phase	100% CD
	FULLY SPRINKLERED
Project Title	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Project Number	570-21-220
Building Number	001
Location	VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Drawing Number	EP102
Issue Date	3/27/2026
Checked	LRL/WNM
Drawn	JFO/JBB

VA FORM 08 - 6231



1 E-102 LEVEL 2 - PARTIAL POWER PLAN - EQUIPMENT

3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

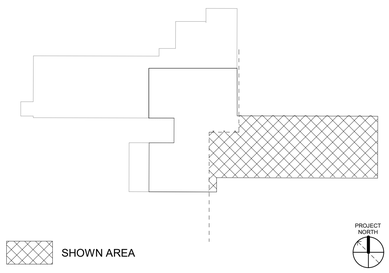
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. PROVIDE POWER RELAYS, LOW VOLTAGE TRANSFORMERS, CONDUIT AND JUNCTION BOXES FOR THE FOLLOWING SPECIAL SYSTEMS AS REQUIRED: AUTOMATIC DOORS, OVERHEAD PAGING, NURSE CALL, PHYSIOLOGY MONITORING, FIRE ALARM, ACCESS CONTROL, CCTV, VOICE/DATA, CATV, MEDICAL GAS ALARM, BUILDING AUTOMATION, SECURITY SYSTEM CONNECTIONS AND MECHANICAL CONTROLS.
5. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
6. COORDINATE WITH OWNERS AGENT FOR FINAL LOCATIONS OF ALL RECEPTACLES AND SPECIAL CONNECTIONS FOR EQUIPMENT PRIOR TO ROUGH-IN. COORDINATE RECEPTACLE INSTALLATION WITH MILLWORK AND BACKSPLASH INSTALLERS TO AVOID INTERFERENCES.
7. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
8. CONDUIT ROUTING IS DIAGRAMATICAL. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ROUTING PRIOR TO INSTALLATION AS REQUIRED.

KEY NOTES

1. COORDINATE INSTALLATION WITH MECHANICAL AND FIRE ALARM SYSTEM.
2. INTERIOR MECHANICAL UNIT POWERED FROM ASSOCIATED EXTERIOR UNIT. PROVIDE CONDUIT AND WIRE PER MANUFACTURER'S REQUIREMENTS. REFERENCE MECHANICAL DRAWINGS AND COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.

KEY PLAN



Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
KENT, WA 98032
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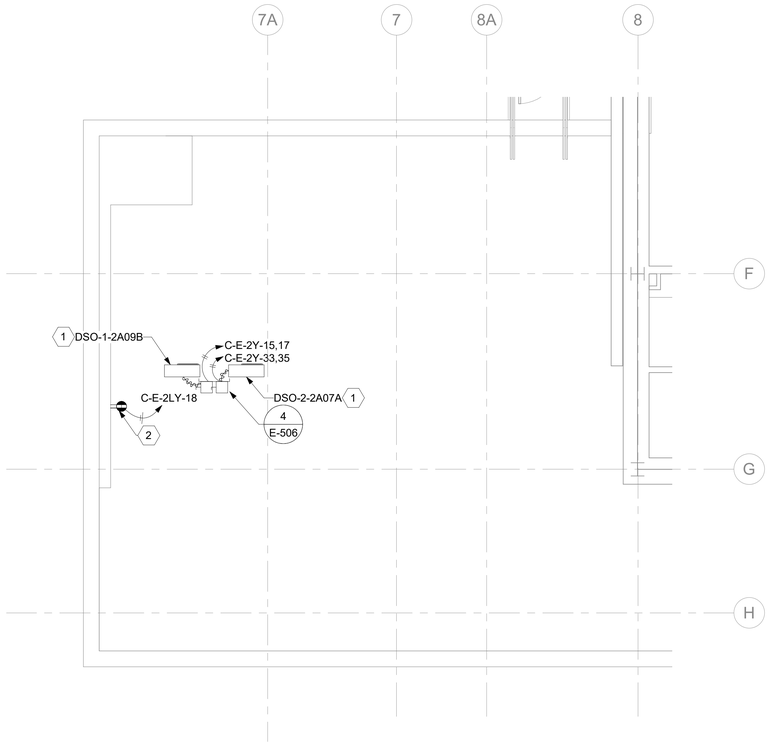
LOUIS R. LITZAO
STATE OF WASHINGTON
55681
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - PARTIAL POWER PLAN - EQUIPMENT	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: EP103

VA FORM 08 - 6231



1 ROOF - PARTIAL POWER PLAN - EQUIPMENT
3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

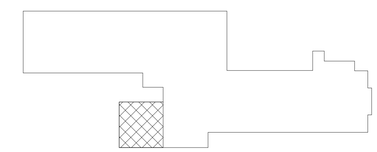
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
5. COORDINATE WITH OWNERS AGENT FOR FINAL LOCATIONS OF ALL RECEPTACLES AND SPECIAL CONNECTIONS FOR EQUIPMENT PRIOR TO ROUGH-IN. COORDINATE RECEPTACLE INSTALLATION WITH MILLWORK AND BACKSPLASH INSTALLERS TO AVOID INTERFERENCES.
6. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT.
7. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
8. CONDUIT ROUTING IS DIAGRAMATICAL. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ROUTING PRIOR TO INSTALLATION AS REQUIRED.

KEY NOTES

1. PROVIDE CONDUIT AND WIRE FROM EXTERIOR UNIT TO ASSOCIATED INTERIOR UNIT(S) AS REQUIRED PER MANUFACTURER'S INSTRUCTION. REFERENCE MECHANICAL DRAWINGS AND COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.
2. PROVIDE CONVENIENCE RECEPTACLE, 20A, 120V, GFCI, WR, WITH WHILE-IN-USE COVER.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ROOF - PARTIAL POWER PLAN - EQUIPMENT

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: LRL/WNM

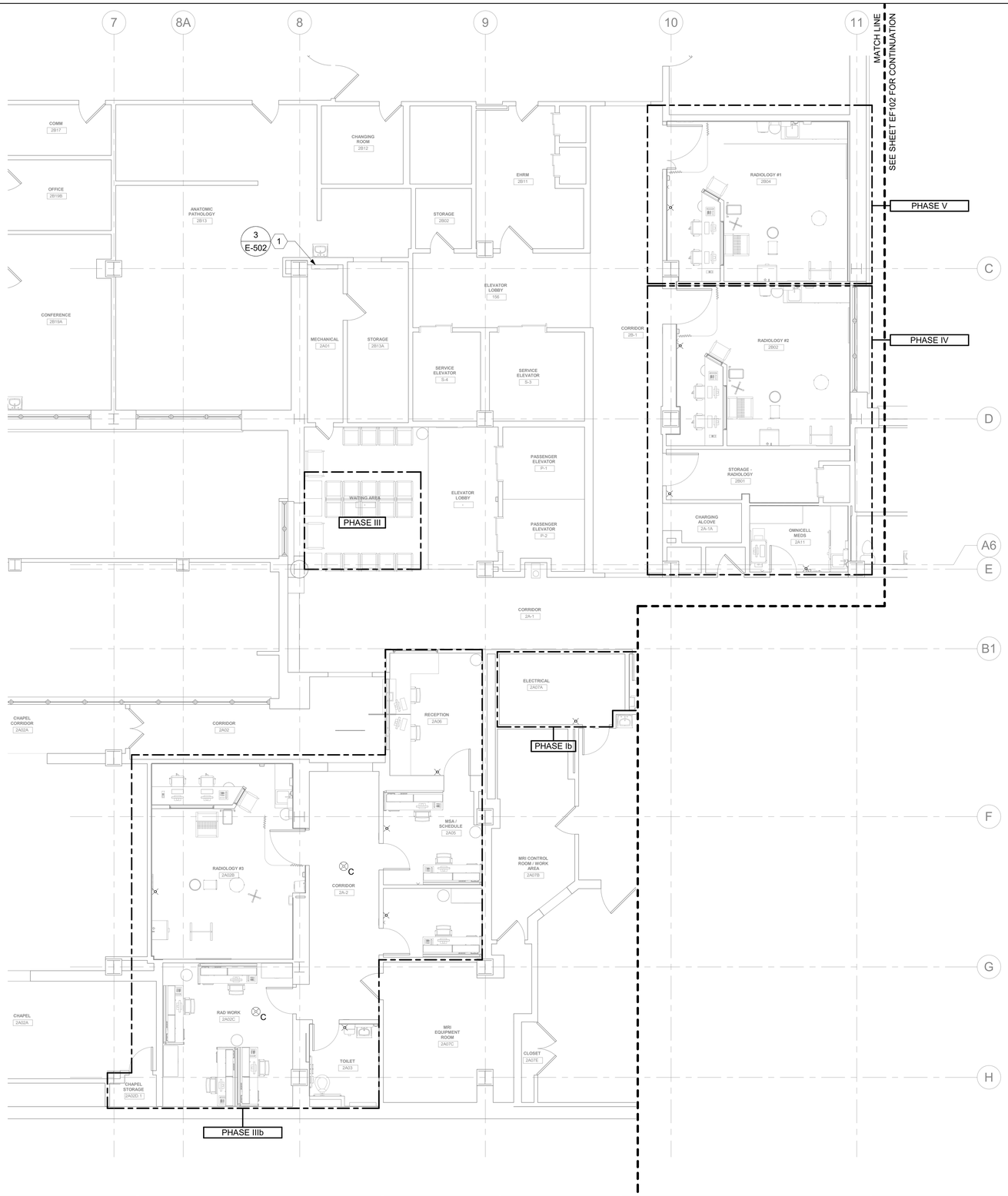
Drawn: JFO/JBB

Project Number: 570-21-220

Building Number: 001

Drawing Number: EP104

VA FORM 08 - 6231



1 E-102 LEVEL 2 - FIRE ALARM PLAN AREA 1

3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

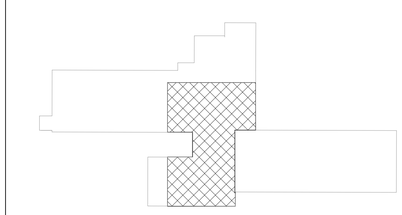
GENERAL NOTES

1. THE EXISTING FIRE ALARM SYSTEM IS SIMPLEX. THE CONTRACTOR SHALL CONTRACT WITH THE EXISTING FIRE ALARM SYSTEM SUPPLIER/INSTALLER FOR MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM.
2. THE CONTRACTOR SHALL CONNECT ALL NEW FIRE ALARM DEVICES TO THE EXISTING FIRE ALARM SYSTEM.
3. THE CONTRACTOR SHALL PROVIDE CONNECTION OF NEW NOTIFICATION APPLIANCES TO THE EXISTING NAC PANELS SERVING THIS AREA.
4. COORDINATE MOUNTING HEIGHTS AND ORIENTATION OF DEVICES IN MILLWORK WITH ARCHITECTURAL ELEVATIONS.
5. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
6. THE CONTRACTOR SHALL REUSE EXISTING FIRE ALARM DEVICES IN NEW LOCATIONS AS LONG AS THE EXISTING DEVICES ARE FULLY FUNCTIONAL. ANY NON-FUNCTIONAL DEVICE SHALL BE REPLACED WITH NEW.
7. THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN INTACT IN ALL AREAS NOT IN CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE VA FOR PLACING THE FIRE ALARM PANEL IN 'TEST' MODE WHEN REMOVING & INSTALLING DEVICES. THE CONTRACTOR IS REQUIRED TO PROVIDE A FIRE WATCH WHEN THE FIRE ALARM CONTROL PANEL IS NOT FULLY FUNCTIONAL.
8. CONTRACTOR SHALL PROVIDE ALL REQUIRED RACEWAYS, CONDUCTORS, CABLING, PROGRAMMING, TEMPORARY FIRE SYSTEM PANELS AND DEVICES, AND TESTING FOR RELOCATING AND MAINTAINING A FULLY FUNCTIONAL FIRE ALARM SYSTEM. CONTRACTOR SHALL PROVIDE PHASING PLANS FOR VA REVIEW AND APPROVAL PRIOR TO COMMENCING WORK; ALL PLANS SHALL BE SUBMITTED FOR REVIEW 30 DAYS PRIOR TO IMPLEMENTATION. ALL WORK REQUIRED TO RELOCATE EXISTING FIRE ALARM EQUIPMENT SHALL BE INCLUDED IN THE CONTRACTOR'S SOW.

KEY NOTES

1. EXISTING FACP TO BE USED TO TERMINATE FIRE ALARM FIELD DEVICES ADDED ON SECOND FLOOR. PROVIDE RACEWAYS AND CABLING TO FIRE ALARM FIELD DEVICES AS REQUIRED.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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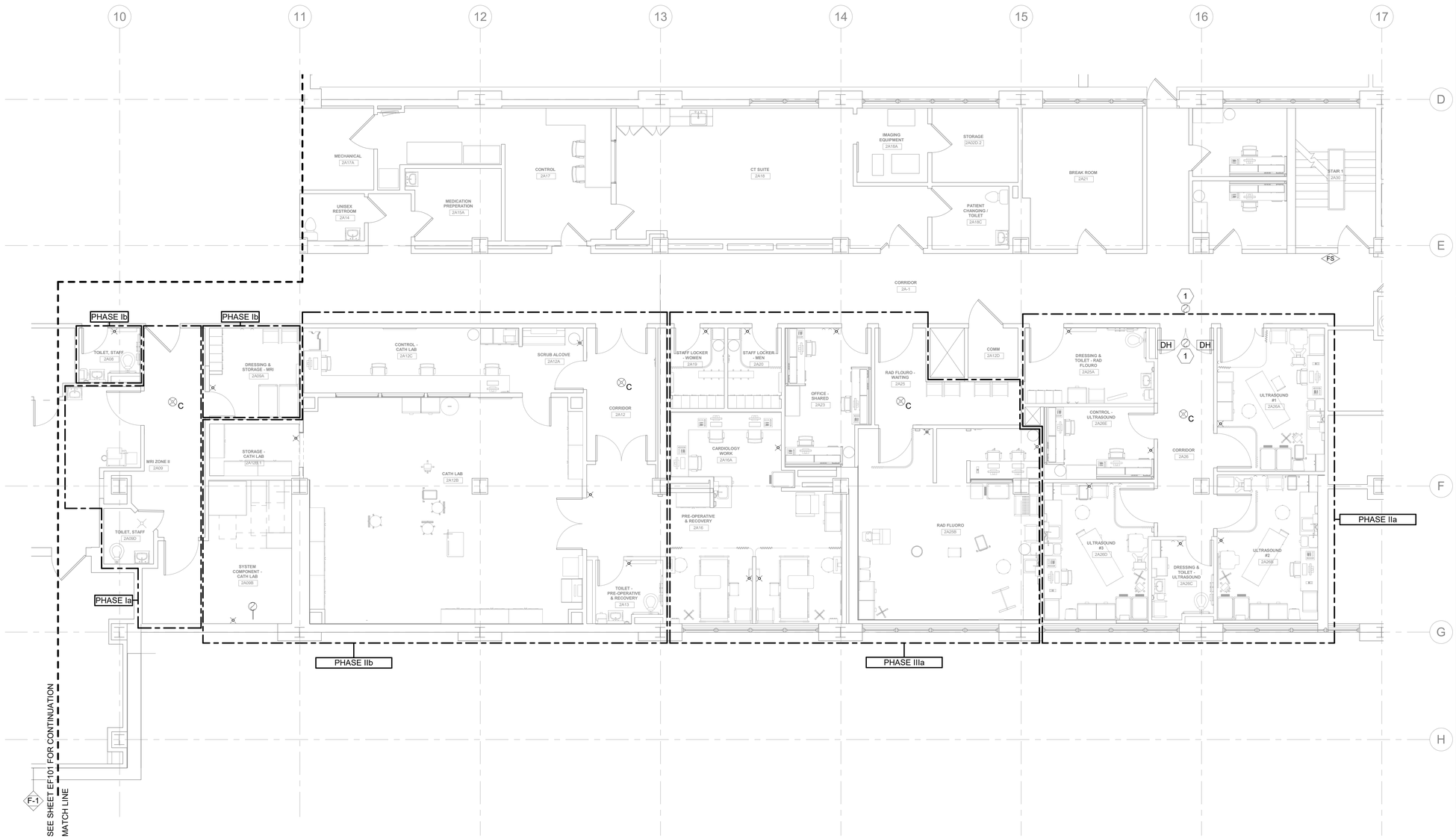
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - FIRE ALARM PLAN - AREA 1	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: EF101

VA FORM 08 - 6231



1 E-102 LEVEL 2 - FIRE ALARM PLAN AREA 2

3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

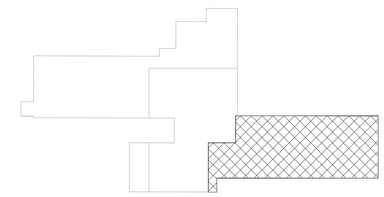
GENERAL NOTES

1. THE EXISTING FIRE ALARM SYSTEM IS SIMPLEX. THE CONTRACTOR SHALL CONTRACT WITH THE EXISTING FIRE ALARM SYSTEM SUPPLIER/INSTALLER FOR MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM.
2. THE CONTRACTOR SHALL CONNECT ALL NEW FIRE ALARM DEVICES TO THE EXISTING FIRE ALARM SYSTEM.
3. THE CONTRACTOR SHALL PROVIDE CONNECTION OF NEW NOTIFICATION APPLIANCES TO THE EXISTING NAC PANELS SERVING THIS AREA.
4. COORDINATE MOUNTING HEIGHTS AND ORIENTATION OF DEVICES IN MILLWORK WITH ARCHITECTURAL ELEVATIONS.
5. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
6. THE CONTRACTOR SHALL REUSE EXISTING FIRE ALARM DEVICES IN NEW LOCATIONS AS LONG AS THE EXISTING DEVICES ARE FULLY FUNCTIONAL. ANY NON-FUNCTIONAL DEVICE SHALL BE REPLACED WITH NEW.
7. THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN INTACT IN ALL AREAS NOT IN CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE VA FOR PLACING THE FIRE ALARM PANEL IN 'TEST' MODE WHEN REMOVING & INSTALLING DEVICES. THE CONTRACTOR IS REQUIRED TO PROVIDE A FIRE WATCH WHEN THE FIRE ALARM CONTROL PANEL IS NOT FULLY FUNCTIONAL.
8. CONTRACTOR SHALL PROVIDE ALL REQUIRED RACEWAYS, CONDUCTORS, CABLING, PROGRAMMING, TEMPORARY FIRE SYSTEM PANELS AND DEVICES, AND TESTING FOR RELOCATING AND MAINTAINING A FULLY FUNCTIONAL FIRE ALARM SYSTEM. CONTRACTOR SHALL PROVIDE PHASING PLANS FOR VA REVIEW AND APPROVAL PRIOR TO COMMENCING WORK; ALL PLANS SHALL BE SUBMITTED FOR REVIEW 30 DAYS PRIOR TO IMPLEMENTATION. ALL WORK REQUIRED TO RELOCATE EXISTING FIRE ALARM EQUIPMENT SHALL BE INCLUDED IN THE CONTRACTOR'S SOW.

KEY NOTES

1. CONTRACTOR TO PROVIDE DOOR HOLD OPENS. SMOKE DETECTOR SHALL RELEASE DOOR HOLD OPENS.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - FIRE ALARM PLAN - AREA 2	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: EF102

VA FORM 08 - 6231

1 E-102 LEVEL 2 - TELECOMMUNICATIONS PLAN AREA 1

3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

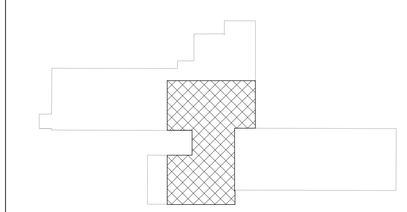
GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE THERMOSTAT LOCATION WITH MECHANICAL CONTRACTOR AND PROVIDE CONDUIT, BOX AND PULL STRING.
2. ALL TELECOMMUNICATIONS CABLING SHALL BE EXTENDED TO TR ROOM 'COMM 2B17'. UTILIZE EXISTING PATHWAYS; PROVIDE J-HOOKS AS REQUIRED.
3. THE VOICE/DATA SYSTEM INCLUDES CATEGORY 6A HORIZONTAL CABLING, TELECOMMUNICATION OUTLET LOCATIONS TO SUPPORT PHONE, COMPUTERS, WIRELESS DEVICES, DISTRIBUTED ANTENNA SYSTEM (DAS) AND OTHER UTILITY REMOTE CONTROLS AND MONITORING.
4. COORDINATE WITH OTHER TRADES TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM TO INCLUDE DOOR HARDWARE, ELECTRICAL POWER, LOW VOLTAGE CABLING, ACCESS CONTROL, VIDEO SURVEILLANCE, INTRUSION, DETECTION, COORDINATE ROUGH-IN.
5. ELECTRICAL POWER, TELECOMMUNICATIONS AND SECURITY CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW EACH OTHER'S DRAWINGS AND SUBMITTALS AND COORDINATE FOR FULLY OPERATIONAL SYSTEM. LOCATE TELECOMMUNICATIONS OUTLETS AND ELECTRICAL POWER CONNECTIONS WITHIN SECURITY AND FIRE ALARM ENCLOSURES.
6. COORDINATE MOUNTING HEIGHTS AND ORIENTATION OF DEVICES IN MILLWORK WITH ARCHITECTURAL ELEVATIONS.
7. THIS DRAWING INCLUDES SEVERAL LOW VOLTAGE ELECTRICAL CABLING SYSTEMS TO BE PROVIDED UNDER THE ELECTRICAL SCOPE OF WORK. ACCESS CONTROL, VOICE/DATA, AND TELECOMMUNICATIONS BONDING AND GROUNDING.
8. PROVIDE ACCESS CONTROL SYSTEM WITH DOOR CONTROLLERS, POWER SUPPLIES, CABLING, DOOR CONTACTS, CARD READERS, REQUEST TO EXIT, AND CONNECTIVITY TO THE EXISTING MONITORING STATION, ELECTRIC DOOR LATCHES ARE INCLUDED IN DOOR HARDWARE AND PROVIDED BY OTHERS.
9. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.

KEY NOTES

1. ALL NEW DATA/IT CABLING SHALL BE CAT6A AND SHALL BE EXTENDED TO EHRM ROOM 2B17. PROVIDE (1) 1-1/4" CONDUIT EXTENDING FROM OUTLET BACKBOX TO ABOVE THE CEILING TO FEED CABLING TROUGH. REUSE EXISTING CABLE TRAY; WHERE CABLE TRAY IS NOT PRESENT, PROVIDE J-HOOKS AS NEEDED.
2. TELEPHONE OUTLET, COORDINATE EXACT LOCATION WITH VA.
3. DATA OUTLET FOR OMNICELL CABINETS; MOUNT 84" AFF. COORDINATE WITH EQUIPMENT LOCATION FOR EXACT OUTLET MOUNTING PLACEMENT.
4. PROVIDE TELECOMMUNICATIONS PULLBOX IN LOCATION SHOWN FOR CABLE PULLING TO EXISTING TR ROOM 'COMM 2B17'. AT A FUTURE DATE, PULLBOX WILL BE UTILIZED TO REROUTE CABLING TO FUTURE TR ROOM '2B11'. SIZE PULLBOX PER NEC.
5. PROVIDE WAO TO SERVE TV. COORDINATE MOUNTING HEIGHT WITH ARCHITECURE AS REQUIRED.
6. FURNISH AND INSTALL POWER SUPPLY WITHIN JUNCTION BOX AS INDICATED ABOVE ACCESSIBLE CEILINGS. VERIFY LOCATIONS WITH ARCHITECT. PROVIDE (1) POWER SUPPLY FOR EACH DOOR OPENING. PROVIDE 120V POWER TO SERVE DOORS WITH ELECTRIFIED DOOR HARDWARE AND MAKE CONNECTIONS AS REQUIRED. SEE REQUIREMENTS IN 08 71 00 - DOOR HARDWARE. COORDINATE WITH ARCHITECT AND DOOR INSTALLER.
7. EXISTING DATA RACK. ALL TELECOMMUNICATIONS AND DATA CABLING SHALL BE TERMINTATED TO THIS DATA RACK. PROVIDE 48-PORT PATCH PANELS AS REQUIRED.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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STATE OF WASHINGTON · LOUIS R. LITZKE · 55681 · 3-27-26 · REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: LEVEL 2 - TELECOMMUNICATIONS PLAN - AREA 1

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

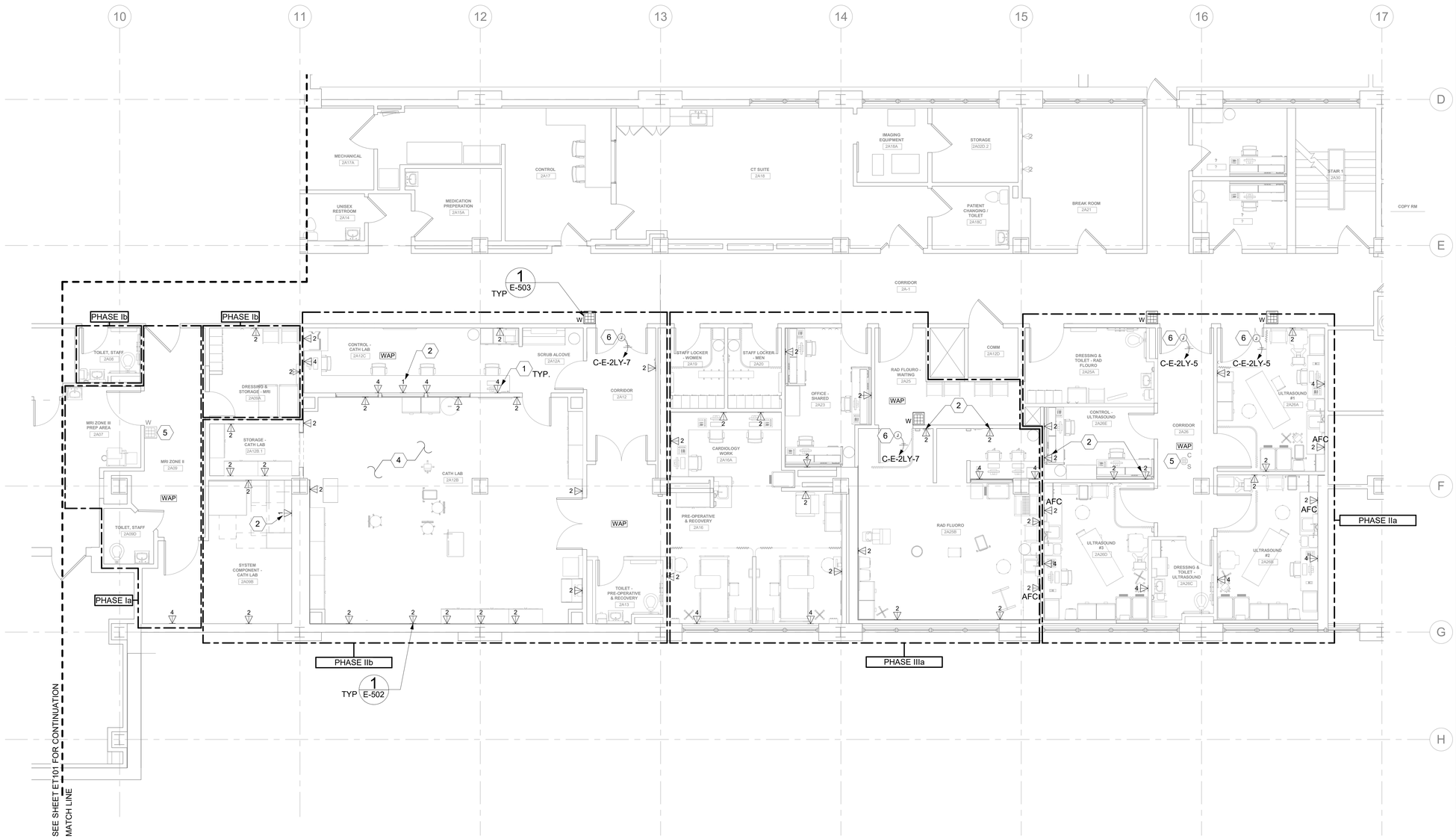
Issue Date: 3/27/2026 | Checked: LRL/WNM | Drawn: JFO/JBB

Project Number: 570-21-220

Building Number: 001

Drawing Number: ET101

VA FORM 08 - 6231



1 E-102 LEVEL 2 - TELECOMMUNICATIONS PLAN AREA 2

3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

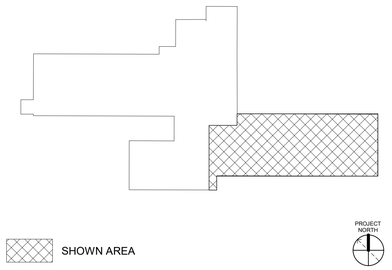
GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE THERMOSTAT LOCATION WITH MECHANICAL CONTRACTOR AND PROVIDE CONDUIT, BOX AND PULL STRING.
2. ALL TELECOMMUNICATIONS CABLING SHALL BE EXTENDED TO TR ROOM 'COMM 2B17'. UTILIZE EXISTING PATHWAYS; PROVIDE J-HOOKS AS REQUIRED.
3. THE VOICE/DATA SYSTEM INCLUDES CATEGORY 6A HORIZONTAL CABLING, TELECOMMUNICATION OUTLET LOCATIONS TO SUPPORT PHONE, COMPUTERS, WIRELESS DEVICES, DISTRIBUTED ANTENNA SYSTEM (DAS) AND OTHER UTILITY REMOTE CONTROLS AND MONITORING.
4. COORDINATE WITH OTHER TRADES TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM TO INCLUDE DOOR HARDWARE, ELECTRICAL POWER, LOW VOLTAGE CABLING, ACCESS CONTROL, VIDEO SURVEILLANCE, INTRUSION, DETECTION, COORDINATE ROUGH-IN.
5. ELECTRICAL POWER, TELECOMMUNICATIONS AND SECURITY CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW EACH OTHER'S DRAWINGS AND SUBMITTALS AND COORDINATE FOR FULLY OPERATIONAL SYSTEM. LOCATE TELECOMMUNICATIONS OUTLETS AND ELECTRICAL POWER CONNECTIONS WITHIN SECURITY AND FIRE ALARM ENCLOSURES.
6. COORDINATE MOUNTING HEIGHTS AND ORIENTATION OF DEVICES IN MILLWORK WITH ARCHITECTURAL ELEVATIONS.
7. THIS DRAWING INCLUDES SEVERAL LOW VOLTAGE ELECTRICAL CABLING SYSTEMS TO BE PROVIDED UNDER THE ELECTRICAL SCOPE OF WORK. ACCESS CONTROL, VOICE/DATA, AND TELECOMMUNICATIONS BONDING AND GROUNDING.
8. PROVIDE ACCESS CONTROL SYSTEM WITH DOOR CONTROLLERS, POWER SUPPLIES, CABLING, DOOR CONTACTS, CARD READERS, REQUEST TO EXIT, AND CONNECTIVITY TO THE EXISTING MONITORING STATION, ELECTRIC DOOR LATCHES ARE INCLUDED IN DOOR HARDWARE AND PROVIDED BY OTHERS.
9. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.

KEY NOTES

1. ALL NEW DATA/IT CABLING SHALL BE CAT6A AND SHALL BE EXTENDED TO EHRM ROOM 2B17. PROVIDE (1) 1-1/4" CONDUIT EXTENDING FROM OUTLET BACKBOX TO ABOVE THE CEILING TO FEED CABLING THROUGH. REUSE EXISTING CABLE TRAY; WHERE CABLE TRAY IS NOT PRESENT, PROVIDE J-HOOKS AS NEEDED.
2. TELEPHONE OUTLET, COORDINATE EXACT LOCATION WITH VA.
3. PROVIDE DATA FOR IMAGING EQUIPMENT. REFERENCE DETAIL SHEET E-513 FOR DATA CABLING ROUTING AND OTHER SPECIFIC REQUIREMENTS.
4. COORDINATE EXACT PYXIS DATA OUTLET REQUIREMENTS AND LOCATIONS. PROVIDE ALL OUTLETS AND CABLING REQUIRED.
5. EQUIPMENT SHALL BE REINSTALLED; COORDINATE EXACT LOCATION WITH VA. PROVIDE RACEWAYS AND CABLING AS REQUIRED. SEE SHEET ED102 FOR ADDITIONAL DETAILS.
6. FURNISH AND INSTALL POWER SUPPLY WITHIN JUNCTION BOX AS INDICATED ABOVE ACCESSIBLE CEILINGS. VERIFY LOCATIONS WITH ARCHITECT. PROVIDE (1) POWER SUPPLY FOR EACH DOOR OPENING. PROVIDE 120V POWER TO SERVE DOORS WITH ELECTRIFIED DOOR HARDWARE AND MAKE CONNECTIONS AS REQUIRED. SEE REQUIREMENTS IN 08 71 00 - DOOR HARDWARE. COORDINATE WITH ARCHITECT AND DOOR INSTALLER.

KEY PLAN



Revisions:	Date:

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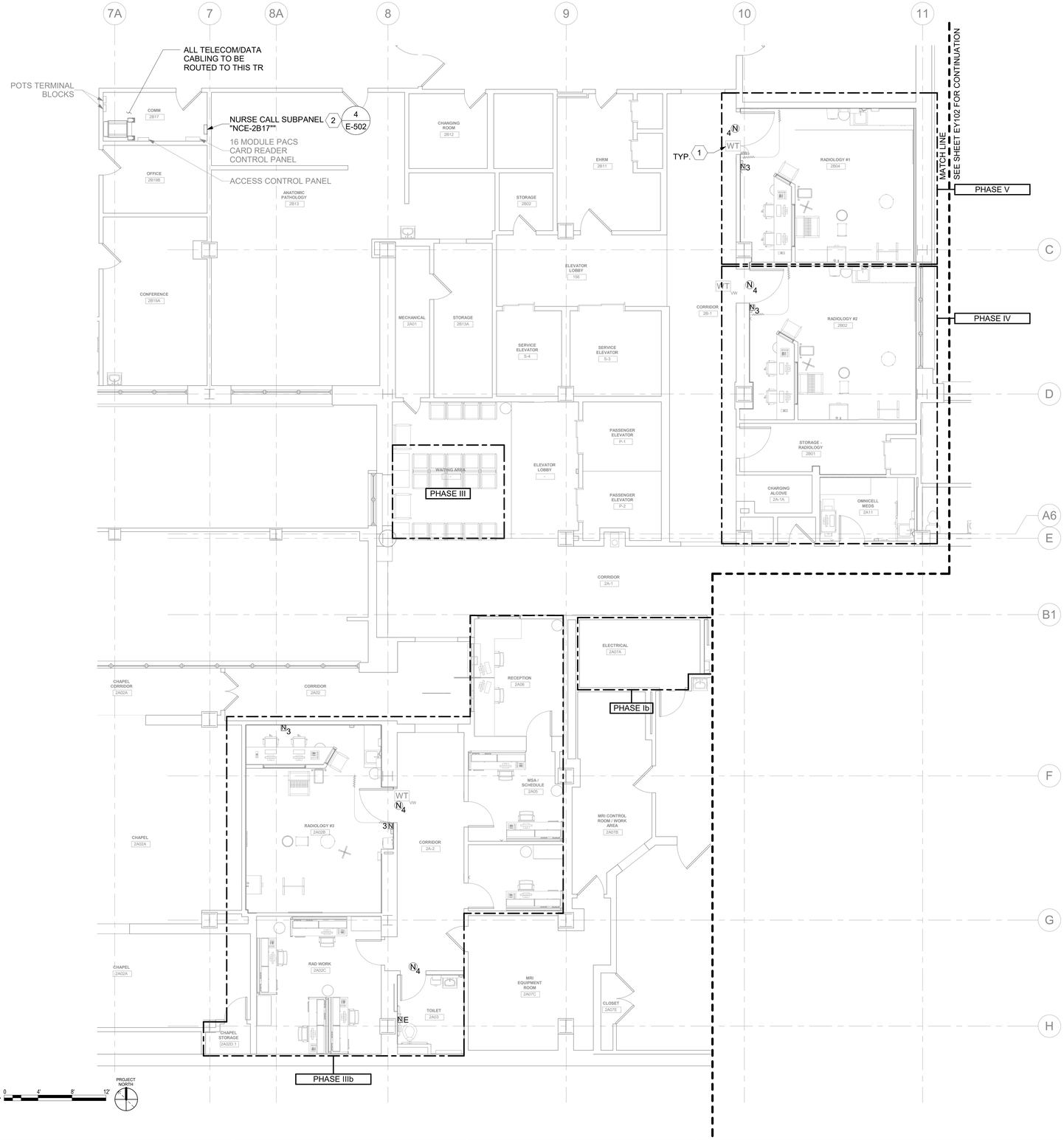
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - TELECOMMUNICATIONS PLAN - AREA 2	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: ET102

VA FORM 08 - 6231



1 E-102 LEVEL 2 - MEDICAL DEVICE PLAN AREA 1

3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

GENERAL NOTES

1. ALL SYSTEMS CABLING SHALL BE EXTENDED TO TR ROOM 'COMM 2B17'. UTILIZE EXISTING PATHWAYS; PROVIDE J-HOOKS AS REQUIRED.
2. COORDINATE WITH OTHER TRADES TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM TO INCLUDE DOOR HARDWARE, ELECTRICAL POWER, LOW VOLTAGE CABLING, ACCESS CONTROL, VIDEO SURVEILLANCE, INTRUSION, DETECTION, COORDINATE ROUGH-IN.
3. ELECTRICAL POWER AND SYSTEMS CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW EACH OTHER'S DRAWINGS AND SUBMITTALS AND COORDINATE FOR FULLY OPERATIONAL SYSTEM.
4. COORDINATE MOUNTING HEIGHTS AND ORIENTATION OF DEVICES IN MILLWORK WITH ARCHITECTURAL ELEVATIONS.
5. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
6. THE EXISTING NURSE CALL SYSTEM SHALL REMAIN OPERATIONAL IN AREAS NOT UNDER CONSTRUCTION. DEVICES IN CONSTRUCTION AREAS SHALL BE SALVAGED DURING DEMOLITION PHASE.

KEY NOTES

1. EQUIPMENT TO BE REINSTALLED; COORDINATE EXACT LOCATION WITH VA. PROVIDE RACEWAYS AND CABLING AS REQUIRED. SEE SHEET ED102 FOR ADDITIONAL DETAILS.
2. PROVIDE NURSE CALL PANEL TO ACCOMODATE ALL NURSE CALL FEILD DEVICES IN PROJECT. REFERENCE NURSE CALL RISER FOR ADDITIONAL INFORMATION. COORDINATE WITH VA FOR EXACT INSTALLATION LOCATION.

KEY PLAN

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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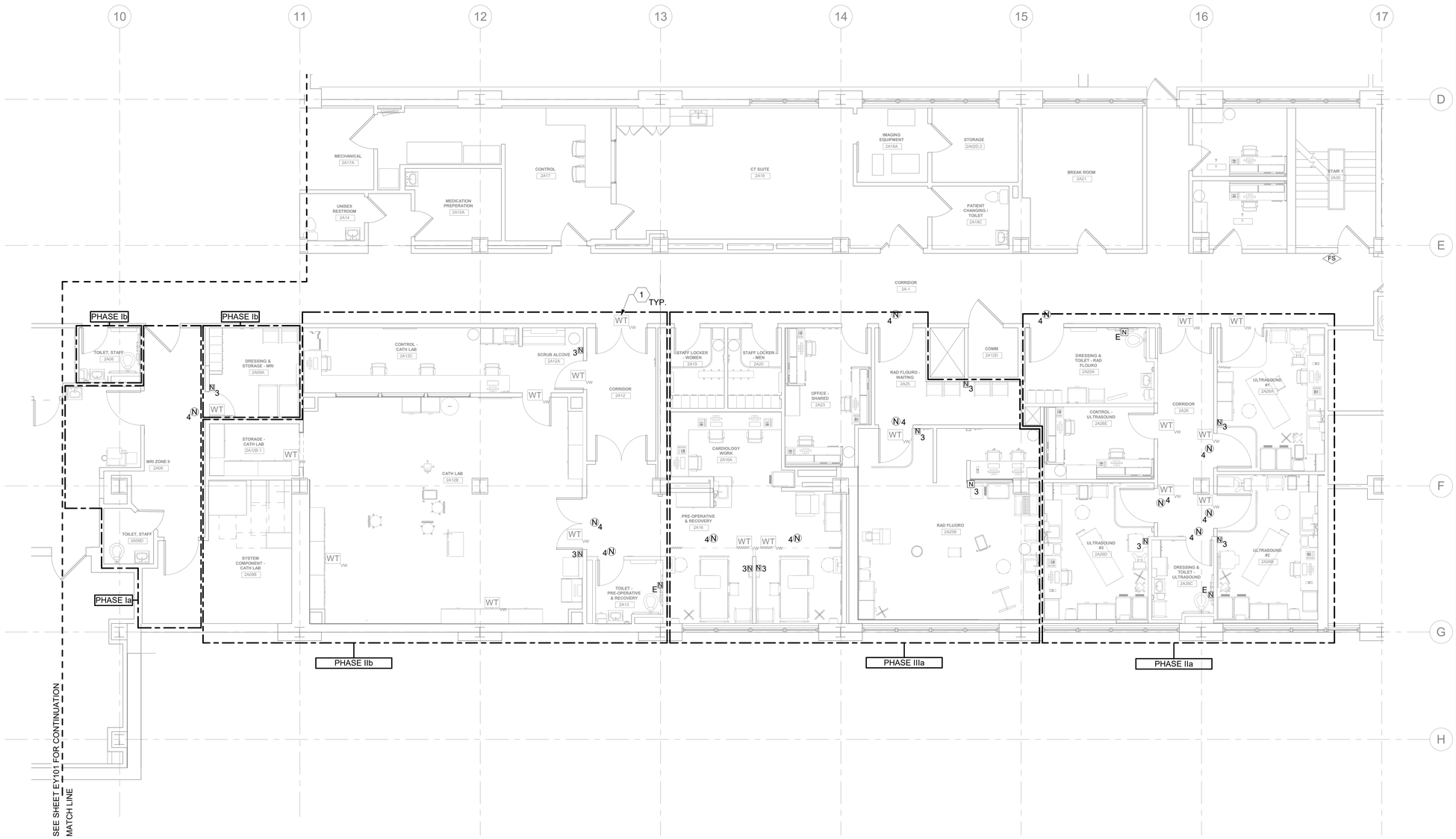
LOUIS R. LITZKO STATE OF WASHINGTON 55681 3-27-26 REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - MEDICAL DEVICES PLAN - AREA 1	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 / Checked: LRL/WNM / Drawn: JFO/JBB	Drawing Number: EY101

VA FORM 08 - 6231



1 E-102 LEVEL 2 - MEDICAL DEVICES PLAN AREA 2

3/16" = 1'-0"

0 4' 8' 12'

PROJECT NORTH

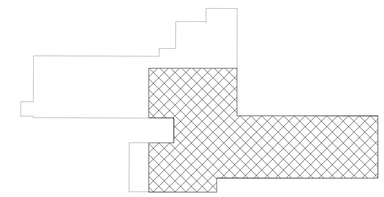
GENERAL NOTES

1. ALL SYSTEMS CABLING SHALL BE EXTENDED TO TR ROOM 'COMM 2B17'. UTILIZE EXISTING PATHWAYS; PROVIDE J-HOOKS AS REQUIRED.
2. COORDINATE WITH OTHER TRADES TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM TO INCLUDE DOOR HARDWARE, ELECTRICAL POWER, LOW VOLTAGE CABLING, ACCESS CONTROL, VIDEO SURVEILLANCE, INTRUSION, DETECTION, COORDINATE ROUGH-IN.
3. ELECTRICAL POWER AND SYSTEMS CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW EACH OTHER'S DRAWINGS AND SUBMITTALS AND COORDINATE FOR FULLY OPERATIONAL SYSTEM.
4. COORDINATE MOUNTING HEIGHTS AND ORIENTATION OF DEVICES IN MILLWORK WITH ARCHITECTURAL ELEVATIONS.
5. CONTRACTOR TO REFER TO PHASING PLANS FOR EACH AREA TO BE WORKED ON IN WHICH PHASE. ALL EXISTING DEVICES LOCATED IN ADJACENT AREAS IN DIFFERENT PHASES SHALL REMAIN FULLY OPERATIONAL.
6. THE EXISTING NURSE CALL SYSTEM SHALL REMAIN OPERATIONAL IN AREAS NOT UNDER CONSTRUCTION. DEVICES IN CONSTRUCTION AREAS SHALL BE SALVAGED DURING DEMOLITION PHASE.

KEY NOTES

1. EXISTING WIRELESS TRACKER TO BE REINSTALLED; COORDINATE EXACT LOCATION WITH VA. PROVIDE RACEWAYS AND CABLING AS REQUIRED. SEE SHEET ED102 FOR ADDITIONAL DETAILS.

KEY PLAN



SHOWN AREA

PROJECT NORTH

Revisions:	Date:

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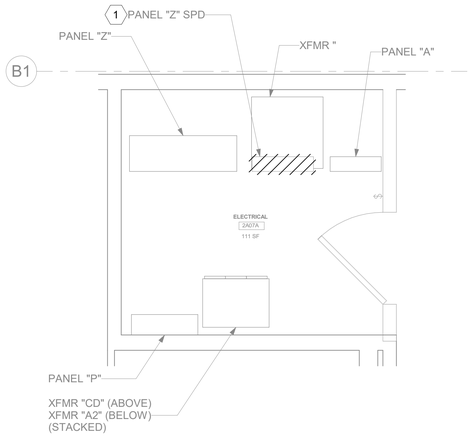
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

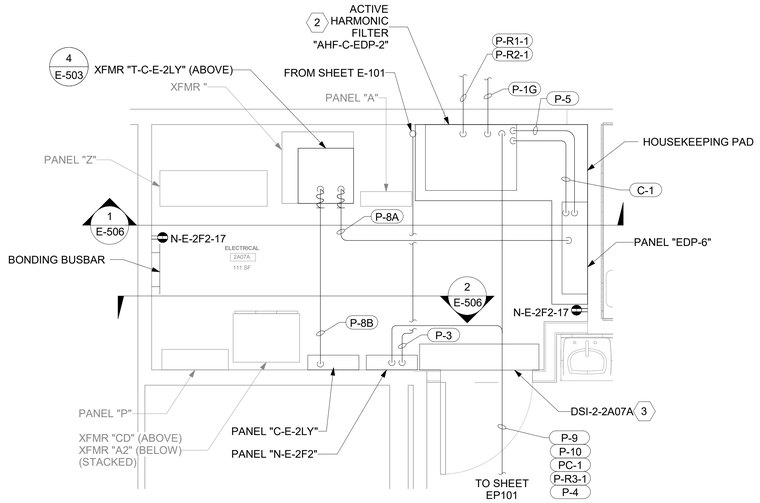
Drawing Title	Phase	Project Title	Project Number
LEVEL 2 - MEDICAL DEVICES PLAN - AREA 2	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: EY102

VA FORM 08 - 6231



1 ED102 ELECTRICAL ROOM 2A07A - ELECTRICAL DEMOLITION PLAN

1/2" = 1'-0"



2 EP101 ELECTRICAL ROOM 2A07A - ELECTRICAL PLAN

1/2" = 1'-0"

3 NOT USED

4 NOT USED

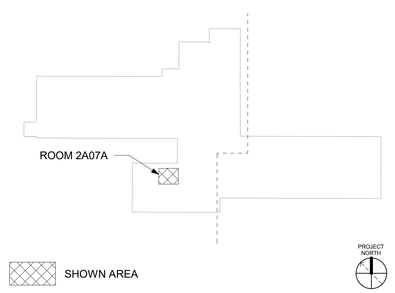
GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT.
2. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
5. ALL DEMOLITION OF ELECTRICAL SYSTEMS SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT, VERIFY DEMOLITION OF ELECTRICAL WITH ALL TRADES PRIOR TO START OF DEMOLITION.
6. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGED MATERIALS, SYSTEMS, COMPONENTS, FINISHES BE LIKE, SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE ACCEPTANCE OF THE OWNER.
7. ALL CIRCUITS AND RELATED DEVICES THAT ARE TO REMAIN ARE TO STAY "ENERGIZED" IN THE DEMOLITION AND NEW CONSTRUCTION PHASES UNTIL THE COMPLETION OF THE WORK INDICATED ON THESE PLANS.
8. ALL FEEDER SIZES ARE SHOWN ON ONE-LINE DIAGRAMS. REFERENCE SHEETS E-603 AND E-604.

KEY NOTES

1. EXISTING EQUIPMENT AND ALL ASSOCIATED CONDUIT AND WIRING TO BE DEMOLISHED AND REMOVED.
2. PRIOR TO EQUIPMENT PROCUREMENT, CONTRACTOR SHALL PROVIDE DETAILED AND DIMENSIONED SHOP DRAWINGS INDICATING PROPOSED ELECTRICAL DISTRIBUTION EQUIPMENT LAYOUT DURING THE SUBMITTAL PROCESS FOR VA AND ENGINEER REVIEW AND APPROVAL. LAYOUT SHALL INCLUDE COORDINATION WITH ALL EXISTING/RELOCATED EQUIPMENT, ARCHITECTURAL FEATURES, ETC.
3. INTERIOR MECHANICAL UNIT POWERED FROM ASSOCIATED EXTERIOR UNIT. PROVIDE CONDUIT AND WIRE PER MANUFACTURER'S REQUIREMENTS. REFERENCE MECHANICAL DRAWINGS AND COORDINATE WITH MECHANICAL CONTRACTOR AS REQUIRED.

KEY PLAN



Revisions:	Date:

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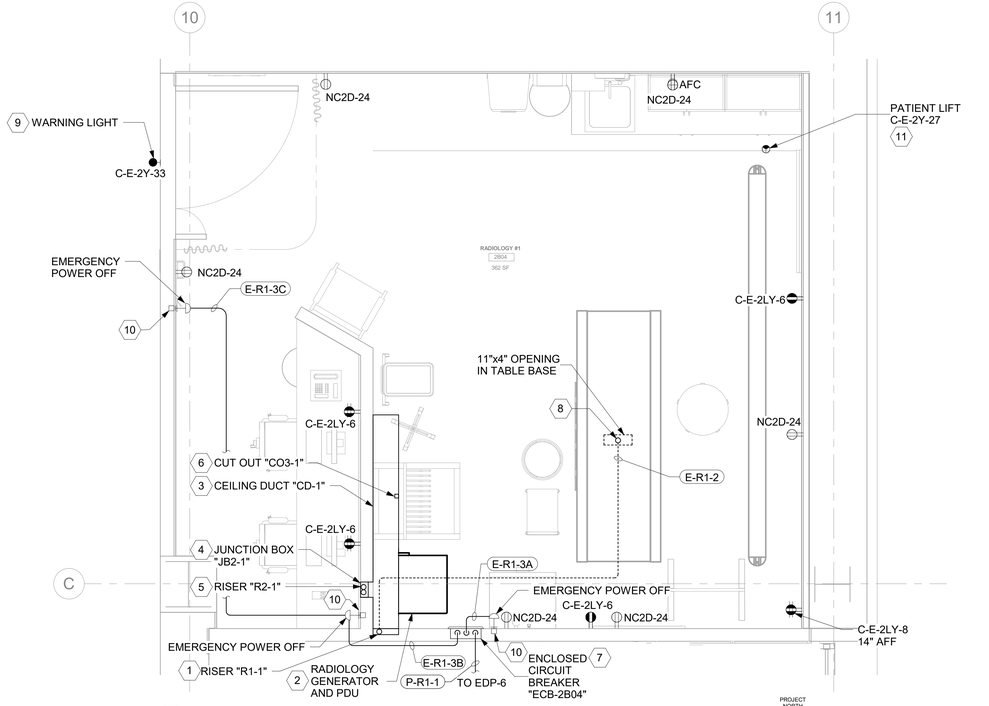
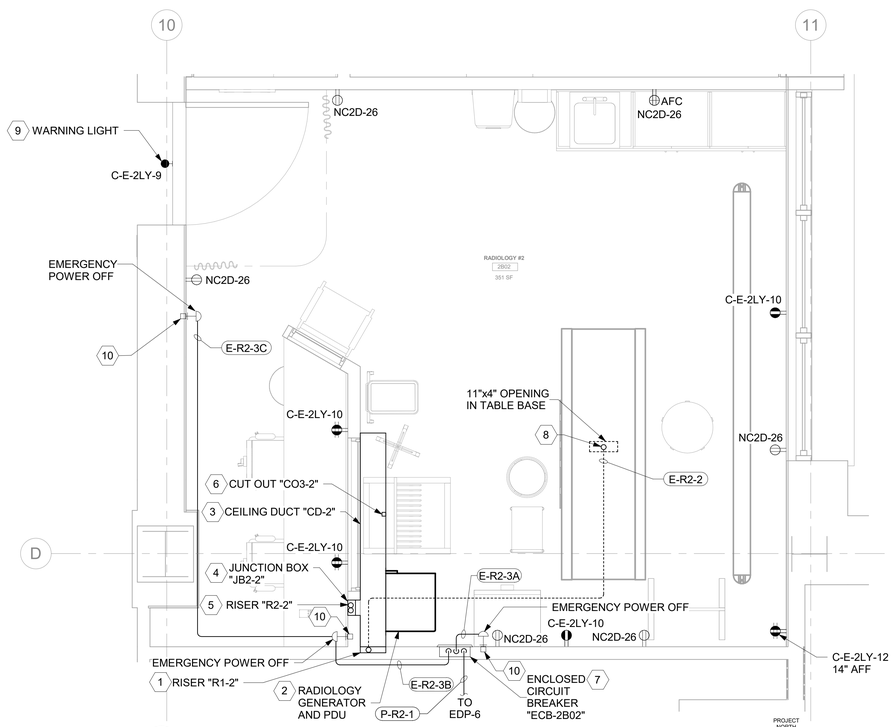
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED ELECTRICAL PLANS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-402a

VA FORM 08 - 6231

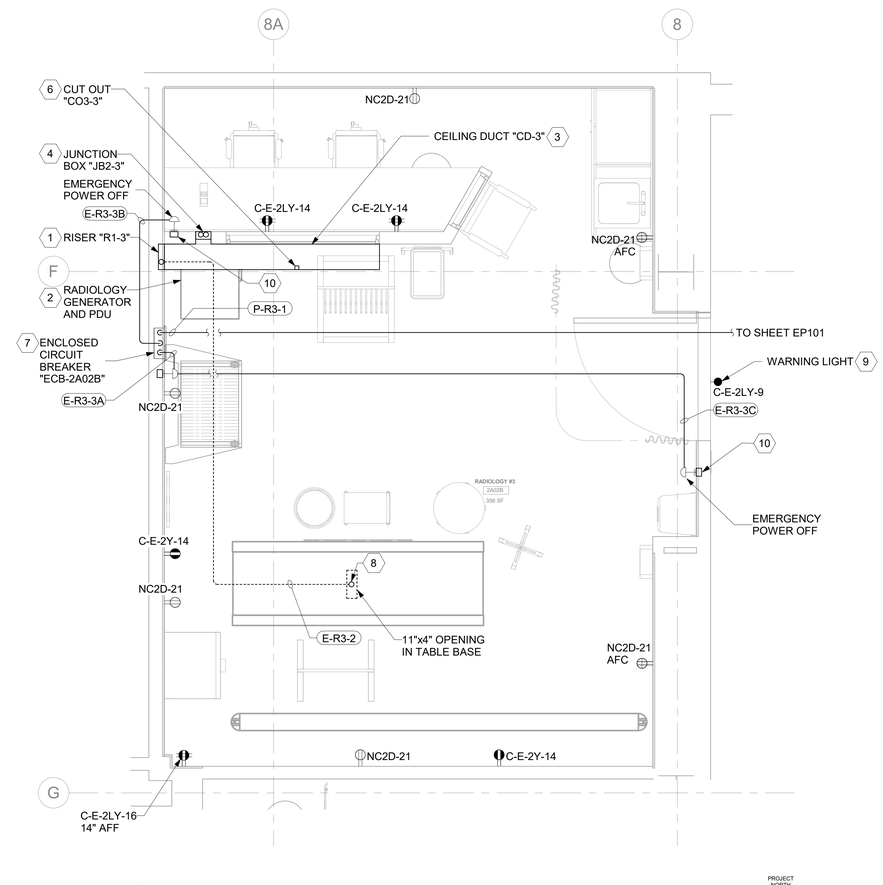


1 EP101 RADIOLOGY RM 2B04 - ELECTRICAL PLAN
1/2" = 1'-0"



2 EP101 RADIOLOGY RM 2B02 - ELECTRICAL PLAN
1/2" = 1'-0"

3 - NOT USED



4 EP101 RADIOLOGY RM 2A02B - ELECTRICAL PLAN
1/2" = 1'-0"

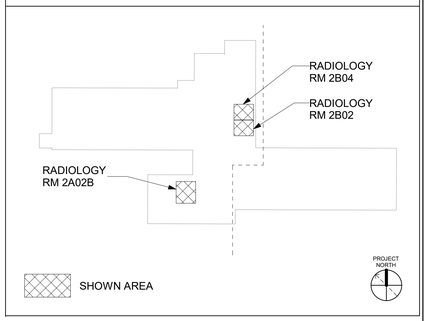
GENERAL NOTES

1. COORDINATE ALL EQUIPMENT JUNCTION BOXES, CONDUIT RUNS, CABLE LENGTHS/TYPES, AND EQUIPMENT CONNECTIONS WITH VENDOR PRIOR TO INSTALLATION. ALL EQUIPMENT SHALL BE PROVIDED BY CONTRACTOR UNLESS EXPLICITLY NOTED OTHERWISE.
2. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
5. COORDINATE WITH EQUIPMENT VENDOR AS REQUIRED.
6. FOR RECEPTACLE AND TELECOMMUNICATION REQUIREMENTS, REFERENCE SHEETS ET101.

KEY NOTES

1. PROVIDE 10"x3-1/2" PULL BOX, FLUSH MOUNTED WITH REMOVABLE COVER FROM "CD-1" TO FINISHED FLOOR. PROVIDE DIVIDERS AS NEEDED. PROVIDE CUT OUTS PER VENDOR REQUIREMENTS.
2. EQUIPMENT IS VENDOR PROVIDED, CONTRACTOR INSTALLED.
3. PROVIDE 10"x3-1/2" CEILING DUCT ABOVE FINISHED CEILING, WITH REMOVABLE COVERS FACING UP. PROVIDE DIVIDERS AS NEEDED.
4. PROVIDE 8"x8" JUNCTION BOX FLUSH MOUNTED IN CONTROL ROOM WALL, BOTTOM AT 14" ABOVE FINISHED FLOOR.
5. PROVIDE (2) 2-1/2" CONDUITS FROM CEILING DUCT "CD" TO JUNCTION BOX "JB2".
6. PROVIDE 3" DIAMETER CUT OUT ON BOTTOM FACE OF CEILING DUCT "CD-1". LOCATION SHOWN IN APPROXIMATE, COORDINATE EXACT LOCATION AND OTHER DETAILS PER VENDOR REQUIREMENTS.
7. PROVIDE ENCLOSED CIRCUIT BREAKER FLUSH MOUNTED IN WALL. ENCLOSED CIRCUIT BREAKER SHALL BE 480V, 3PH, FRONT-OPERATED, IN NEMA 1 ENCLOSURE WITH NEUTRAL AND GROUND. CIRCUIT BREAKER SHALL BE (1) 80A, 3-POLE THERMOMAGNETIC CIRCUIT BREAKER WITH SHUNT TRIP DEVICE. LUGS SHALL BE LARGE ENOUGH TO FACILITATE OVERSIZED INCOMING CABLES REQUIRED BY X-RAY EQUIPMENT. REFERENCE RADIOLOGY EQUIPMENT VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.
8. STUB UP CONDUIT FLUSH WITH FLOOR. LOCATION IS CRITICAL; COORDINATE PRECISE LOCATION WITH RADIOLOGY EQUIPMENT VENDOR AS REQUIRED.
9. PROVIDE 4"x4"x2" JUNCTION BOX FOR "X-RAY ON" WARNING SIGN. FLUSH MOUNT IN WALL OR CEILING. COORDINATE EXACT LOCATION WITH VA.
10. PROVIDE WALL BOX TO INSTALL EMERGENCY POWER OFF (EPO) PUSHBUTTON FLUSH MOUNTED IN WALL WHERE SHOWN. SIZE WALL BOX PER NEC. COORDINATE WITH VA AND ARCHITECT FOR EXACT INSTALLATION LOCATION. EPO SHALL HAVE RED MUSHROOM HEAD AND "EMERGENCY OFF" NAME PLATE. PROVIDE CLEAR POLYCARBONATE PLASTIC PROTECTIVE LIFT COVER FOR EPO PUSHBUTTON. COORDINATE WITH EQUIPMENT VENDOR FOR ADDITIONAL REQUIREMENTS.
11. PATIENT LIFT RECEPTACLE. COORDINATE EXACT INSTALLATION LOCATION WITH MANUFACTURER.

KEY PLAN



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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED ELECTRICAL PLANS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-402b

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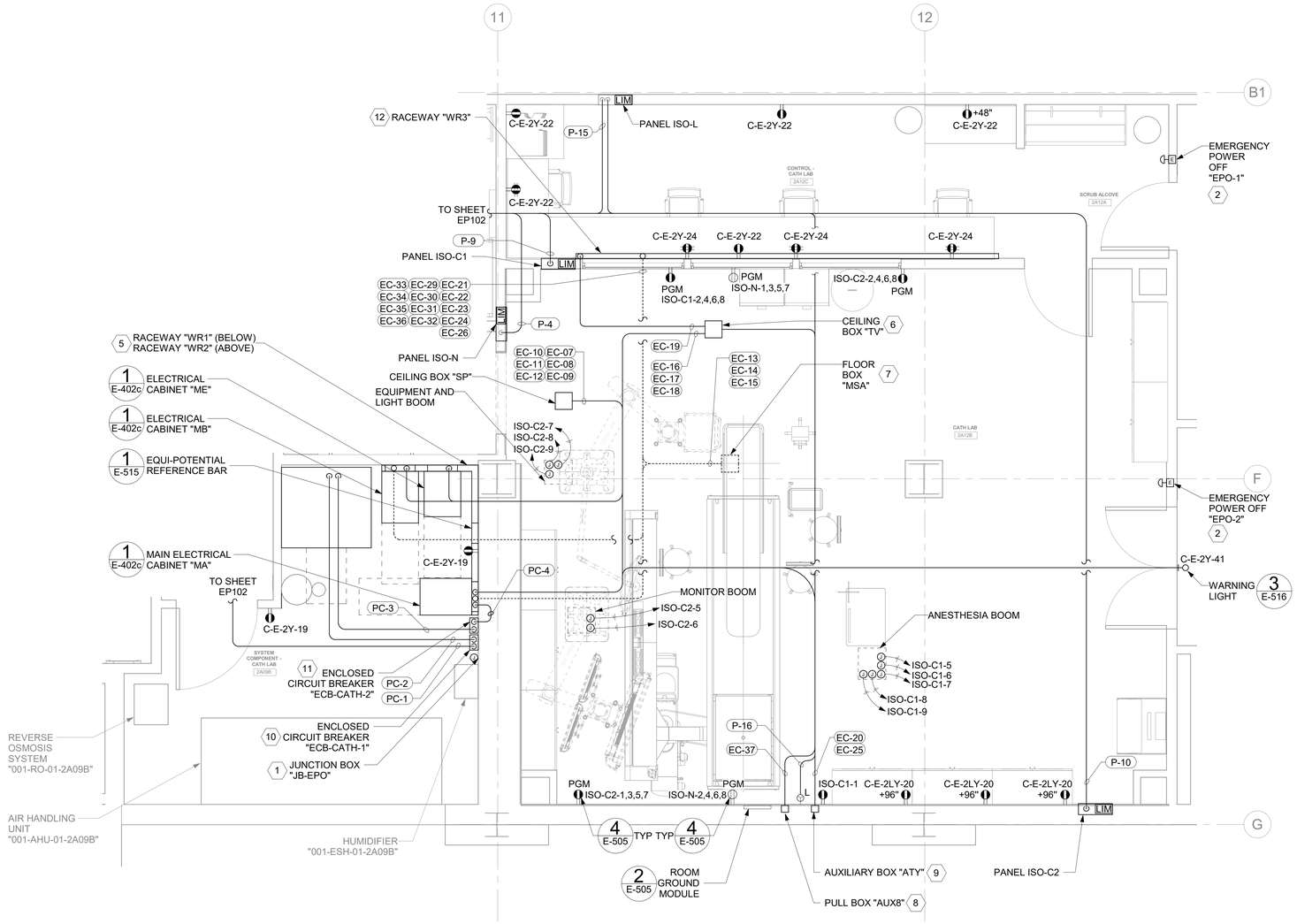


1 EP102 CATHETERIZATION LAB - ELECTRICAL PLAN

3/8" = 1'-0"

PROJECT NORTH

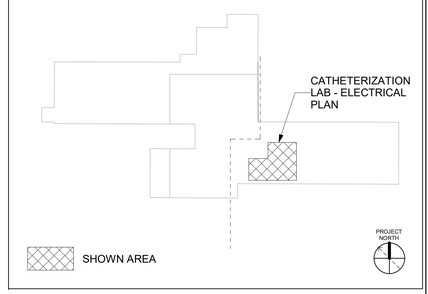
KEY NOTES

1. PROVIDE EPO JUNCTION BOX "JB-EPO" TO HOUSE EMERGENCY POWER OFF SWITCH / SHUNT TRIP RELAY CONTROLS. SIZE JUNCTION BOX 8"x8"x4" (MINIMUM). REFERENCE DETAIL '4' ON SHEET E-504 AND CONDUIT AND WIRE SCHEDULE FOR CIRCUITING INFORMATION.
2. PROVIDE WALL BOX TO INSTALL EMERGENCY POWER OFF (EPO) PUSHBUTTON FLUSH MOUNTED IN WALL WHERE SHOWN. SIZE WALL BOX PER NEC. COORDINATE WITH VA AND ARCHITECT FOR EXACT INSTALLATION LOCATION. EPO SHALL HAVE RED MUSHROOM HEAD AND "EMERGENCY OFF" NAME PLATE. PROVIDE CLEAR POLYCARBONATE PLASTIC PROTECTIVE LIFT COVER FOR EPO PUSHBUTTON. COORDINATE WITH EQUIPMENT VENDOR FOR ADDITIONAL REQUIREMENTS.
3. PROVIDE 4"x4" JUNCTION BOX FOR "IN-USE" WARNING SIGN. FLUSH MOUNT IN WALL OR CEILING. COORDINATE EXACT LOCATION WITH VA. PROVIDE CONNECTIONS PER VENDOR REQUIREMENTS. REFERENCE VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.
4. LIGHT CONTROL BOX. PROVIDE AND SIZE PER MANUFACTURER'S REQUIREMENTS. PROVIDE ALL RELAYS, TERMINATIONS, AND CONNECTIONS AS REQUIRED TO PROVIDE A FULLY FUNTIONAL WARNING LIGHT SYSTEM.
5. WALL RACEWAYS "WR1" AND "WR2". PROVIDE 10"W x 4"D WALL RACEWAYS, SURFACE MOUNTED WITH REMOVABLE SCREW-TYPE COVER PLATES. "WR1" IS AT 5" AFF TO BOTTOM OF RACEWAY. "WR2" IS AT 82" AFF TO BOTTOM OF RACEWAY.
6. CEILING BOX "TV". PROVIDE 18"W x 18"L x 6"D CEILING BOX, ABOVE FINISHED CEILING WITH REMOVABLE SCREW-TYPE COVER PLATE. PROVIDE A 2-1/2" ROUND CUTOUT.
7. FLOOR BOX "MSA". PROVIDE 10"W x 6"D FLOOR BOX, UNDER THE FLOOR WITH A 5" CORE DRILL UP TO THE UNDERSIDE OF "AD7" UNIVERSAL FLOOR PLATE. CONTRACTOR TO PROVIDE PROTECTION AROUND CORE DRILL HOLE SO THAT THERE ARE NO SHARP EDGES FOR PROTECTION OF CABLES.
8. PULL BOX "AUX8". PROVIDE 4"W x 4"D PULL BOX WITH REMOVABLE SCREW-TYPE COVER PLATE, FLUSH MOUNTED.
9. AUXILIARY BOX "ATY". PROVIDE 6"W x 4"D WALL BOX, FLUSH MOUNTED WITH REMOVABLE SCREW-TYPE COVER PLATE. MOUNT 6" BELOW FINISHED CEILING TO THE TOP OF BOX.
10. PROVIDE 125A/3P ENCLOSED CIRCUIT BREAKER, WITH SHUNT TRIP, PER VENDOR REQUIREMENTS.
11. PROVIDE 80A/3P ENCLOSED CIRCUIT BREAKER, WITH SHUNT TRIP, PER VENDOR REQUIREMENTS.
12. WALL RACEWAY "WR3". PROVIDE 10"W x 4"D WALL RACEWAY, SURFACE MOUNTED WITH REMOVABLE SCREW-TYPE COVER PLATE. INSTALL AT FINISHED FLOOR.

GENERAL NOTES

1. COORDINATE ALL EQUIPMENT JUNCTION BOXES, CONDUIT RUNS, CABLE LENGTHS/TYPES, AND EQUIPMENT EQUIPMENT SHALL BE PROVIDED BY CONTRACTOR UNLESS EXPLICITLY NOTED OTHERWISE.
2. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESIBLE CEILINGS WHERE AVAILABLE.
4. CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
5. CONTRACTOR SHALL PROVIDE PULL BOXES FOR ALL FEEDERS WHERE FEEDER RUNS EXCEED 250FT OR HAVE MORE THAN 270 DEGREES OF TOTAL BEND. PULL BOX PLACEMENT AND SIZING BY CONTRACTOR. COORDINATE PULL BOX LOCATIONS WITH ALL OBSTRUCTIONS, TRADES, AND VA AS REQUIRED.
6. NOT ALL CONDUIT MAY BE SHOWN FOR CLARITY REASONS. REFERENCE CONDUIT AND WIRE SCHEDULE AND DETAIL SHEETS FOR ADDITIONAL INFORMATION.
7. REFERENCE DETAIL SHEETS E-511 TO E-516 FOR SPECIFIC VENDOR EQUIPMENT REQUIREMENTS.
8. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
9. CONTRACTOR SHALL REFER TO EQUIPMENT VENDOR INSTALLATION SHOP DRAWINGS FOR ADDITIONAL INFORMATION AND ADDITIONAL WORK REQUIRED FOR INSTALLATION TO ACCOMMODATE SPECIALTY EQUIPMENT.
10. FOR RECEPTACLE AND TELECOMMUNICATION REQUIREMENTS, REFERENCE SHEET ET102.
11. PULL BOX SIZES INDICATED ARE MINIMUM. PROVIDE PULL BOXES SIZED AS REQUIRED BY EQUIPMENT VENDOR. COORDINATE WITH EQUIPMENT VENDOR AS REQUIRED.
12. CONTRACTOR SHALL ADHERE TO NFPA 99 CHAPTER 6 AND NEC 517.
13. CONDUIT RUNS FOR ISOLATED BRANCH CIRCUITS SHALL BE AS SHORT AND DIRECT AS POSSIBLE TO MINIMIZE ACCUMULATED LEAKAGE CURRENT IN CIRCUIT CONDUCTORS; AVOID UNNECESSARY BENDS AND JUNCTIONS. CONTRACTOR SHALL ENSURE TOTAL BRANCH CIRCUIT LENGTH FROM EACH IPU PANEL DOES NOT EXCEED 500-FT.
14. ALL EQUIPMENT WITHIN OPERATING ROOM INCLUDING, BUT NOT LIMITED TO, RECEPTACLES, PANELBOARDS, HARDWIRED DEVICES, AND OTHER CONDUCTIVE SURFACES, SHALL BE BONDED TO REFERENCE GROUNDING POINT PER NEC 517 AND NFPA 99. ALL LOADS SHALL BE BONDED TO THEIR RESPECTIVE IPU PANELBOARD. ALL PANELBOARDS AND OTHER ITEMS REQUIRED TO BE BONDED SHALL UTILIZE ROOM GROUND MODULE AS NECESSARY.

KEY PLAN



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Drawing Title	Phase	Project Title	Project Number
ENLARGED ELECTRICAL PLANS	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: E-402c

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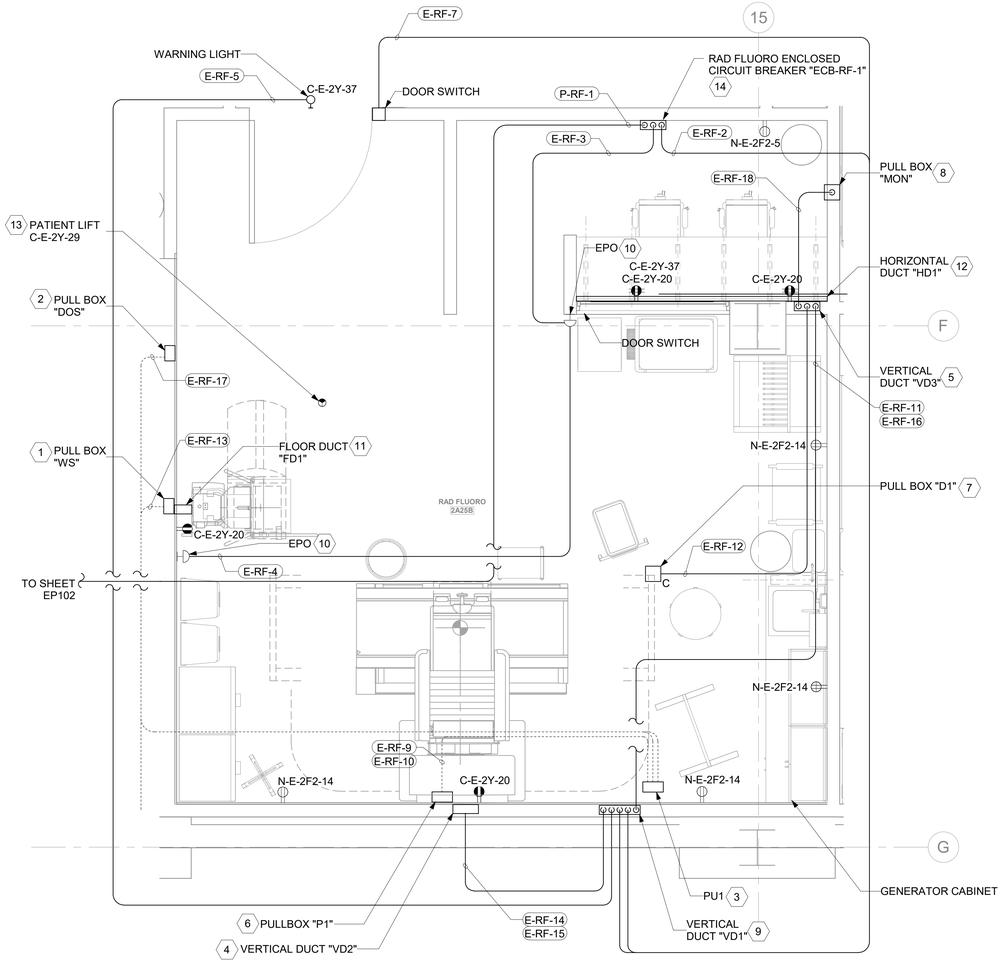


1 EP102 RAD FLUORO RM 2A25B - ELECTRICAL PLAN

1/2" = 1'-0"

PROJECT NORTH

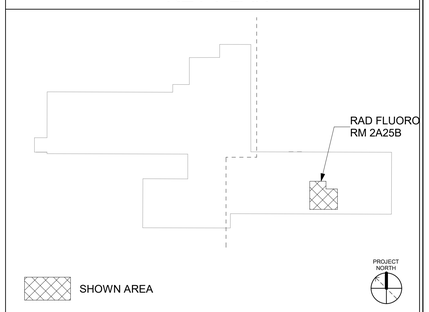
GENERAL NOTES

1. COORDINATE ALL EQUIPMENT JUNCTION BOXES, CONDUIT RUNS, CABLE LENGTHS/TYPES, AND EQUIPMENT CONNECTIONS WITH VENDOR PRIOR TO INSTALLATION. EQUIPMENT SHALL BE PROVIDED BY CONTRACTOR UNLESS EXPLICITLY NOTED OTHERWISE.
2. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.
4. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
5. COORDINATE WITH EQUIPMENT VENDOR AS REQUIRED.
6. FOR RECEPTACLE AND TELECOMMUNICATION REQUIREMENTS, REFERENCE SHEET ET102.
7. PULL BOX SIZES INDICATED ARE MINIMUM. PROVIDE PULL BOXES SIZED AS REQUIRED BY EQUIPMENT VENDOR. COORDINATE WITH EQUIPMENT VENDOR AS REQUIRED.

KEY NOTES

1. PULL BOX "WS", FOR WALL STAND. PROVIDE 6"x6"x4" PULL BOX MOUNTED FLUSH WITH FINISHED WALL AT FLOOR LINE AND FITTED WITH REMOVABLE COVER.
2. PULL BOX "DOS", FOR DOCKING STATION. PROVIDE 6"x6"x4" PULL BOX MOUNTED FLUSH WITH FINISHED WALL CENTERLINE 12" ABOVE THE FINISHED FLOOR.
3. PULL BOX "PU1". PROVIDE 8"x8"x4" (MINIMUM) PULL BOX MOUNTED UNDER FLOOR SLAB WITH 4" DIAMETER CONDUIT RUNNING THROUGH FLOOR SLAB AND END FLUSH WITH FINISHED FLOOR UNDER POLYDOROS GENERATOR. SIZE AS REQUIRED.
4. VERTICAL DUCT "VD2", FOR CEILING TUBE STAND. PROVIDE 10" x 3-1/2" VERTICAL DUCT MOUNTED FLUSH WITH FINISHED WALL FROM ABOVE THE FINISHED CEILING TO END AT THE FLOOR LINE. DUCT SHALL BE DIVIDED INTO (3) SECTIONS: (1) 4" AND (2) 3" TO PROVIDE FOR SEPARATION OF CABLES.
5. VERTICAL DUCT "VD3". FOR CONTROL EQUIPMENT. PROVIDE 10" x 3-1/2" VERTICAL DUCT MOUNTED FLUSH WITH FINISHED WALL FROM ABOVE THE FINISHED CEILING TO END AT THE FLOOR LINE. DUCT SHALL BE DIVIDED INTO (3) SECTIONS: (1) 4" AND (2) 3" TO PROVIDE FOR SEPARATION OF CABLES.
6. PULL BOX "P1". PROVIDE 8"x8"x4" (MINIMUM) PULL BOX MOUNTED UNDER FLOOR SLAB WITH 4" DIAMETER CONDUIT RUNNING THROUGH FLOOR SLAB THAT ENDS FLUSH WITH FINISHED FLOOR UNDER THE TABLE BASE. SIZE AS REQUIRED.
7. PULL BOX "D1", FOR DCS CEILING MONITOR. PROVIDE 6"x6"x6" PULL BOX MOUNTED FLUSH WITH FINISHED CEILING, WITH REMOVABLE COVER. COORDINATE EXACT LOCATION WITH VA AND EQUIPMENT VENDOR.
8. PULL BOX "MON", FOR DVI CONNECTION IN EXAM ROOM. PROVIDE 6"x6"x6" (MINIMUM) PULL BOX FOR VIDEO TO DVI COMPATIBLE MONITOR. COORDINATE EXACT LOCATION WITH VA AND EQUIPMENT VENDOR.
9. VERTICAL DUCT "VD1", FOR GENERATOR. PROVIDE 18"x3-1/2" VERTICAL DUCT MOUNTED FLUSH WITH FINISHED WALL FROM ABOVE THE FINISHED CEILING TO END AT THE FLOOR LINE. DUCT SHALL BE DIVIDED INTO (3) EQUAL SECTIONS TO PROVIDE FOR SEPARATION OF CABLES.
10. EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER, MOUNTED 5'-0" ABOVE FINISHED FLOOR.
11. FLOOR DUCT "FD1", FOR WALL STAND. PROVIDE 4-3/4"x1-3/4" FLOOR DUCT (6" LONG WIREMOLD 4000 OR EQUIVALENT) SURFACE MOUNTED ON FLOOR FROM PULL BOX "WS" TO REAR OF WALL STAND BASE, TO PROVIDE COVER FOR CABLES.
12. HORIZONTAL DUCT "HD1", FOR CONTROL EQUIPMENT. PROVIDE 6"x3-1/2" HORIZONTAL DUCT SURFACE MOUNTED ON WALL JUST BELOW THE CONTROL COUNTER AND CONNECTED TO VERTICAL DUCT "VD3".
13. PATIENT LIFT RECEPTACLE. COORDINATE EXACT INSTALLATION LOCATION WITH MANUFACTURER.
14. PROVIDE ENCLOSED CIRCUIT BREAKER, PER VENDOR REQUIREMENTS.

KEY PLAN



Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
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KENT, WA 98032

SDB SPEESDESIGNBUILD

STAMP

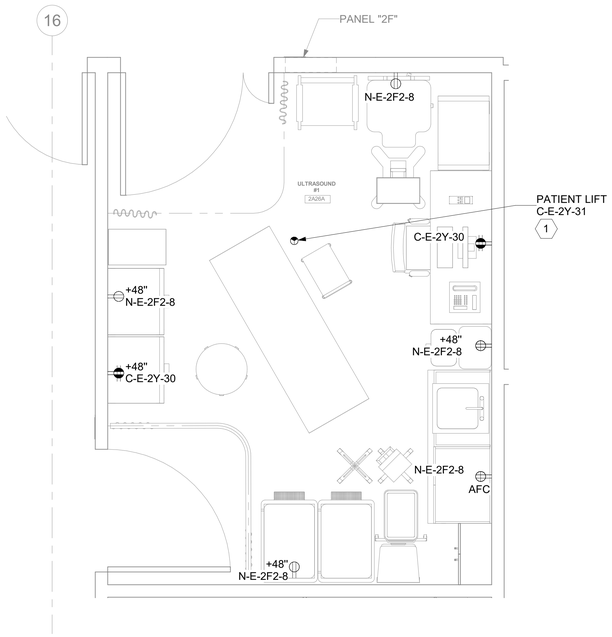
LOUIS R. LITZKA, STATE OF WASHINGTON, 55681, 3-27-26, REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

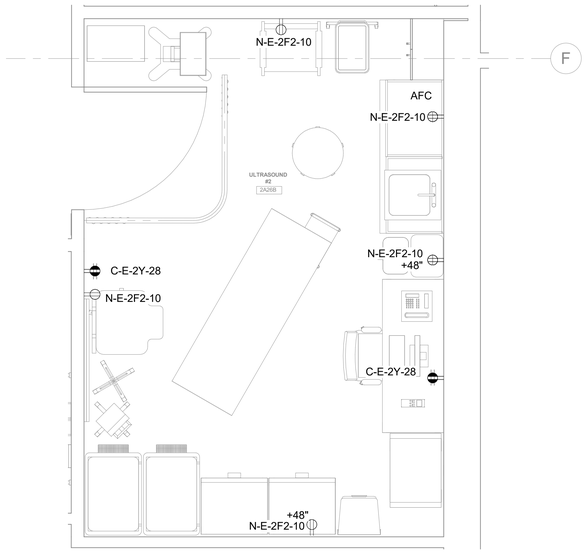
Drawing Title	Phase	Project Title	Project Number
ENLARGED ELECTRICAL PLANS	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: E-402d

VA FORM 08 - 6231



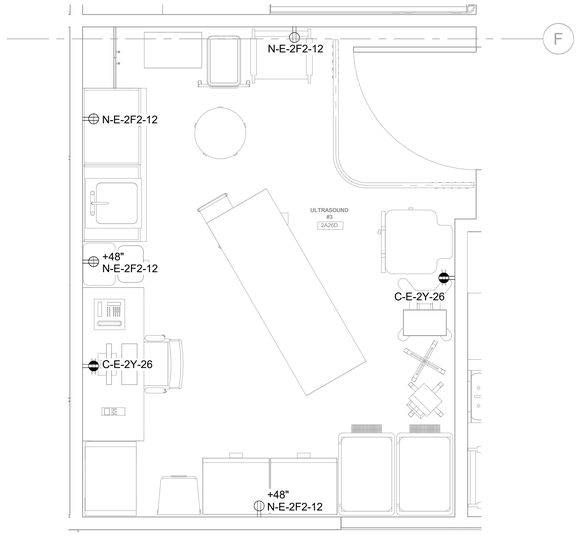
1 EP102 ULTRASOUND #1 RM2A26A - ELECTRICAL PLAN

1/2" = 1'-0"



2 EP102 ULTRASOUND #2 RM2A26B - ELECTRICAL PLAN

1/2" = 1'-0"



3 EP102 ULTRASOUND #3 RM2A26D - ELECTRICAL PLAN

1/2" = 1'-0"

4 - NOT USED

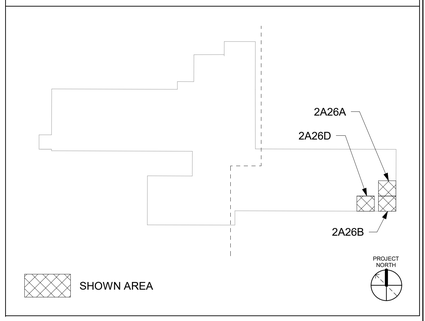
GENERAL NOTES

1. 1. COORDINATE ALL EQUIPMENT JUNCTION BOXES, CONDUIT RUNS, CABLE LENGTHS/TYPES, AND EQUIPMENT EQUIPMENT SHALL BE PROVIDED BY CONTRACTOR UNLESS EXPLICITLY NOTED OTHERWISE.
2. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTOR'S PHASING OF THE PROJECT. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
3. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESIBLE CEILINGS WHERE AVAILABLE.
4. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
5. COORDINATE WITH EQUIPMENT VENDOR AS REQUIRED.
6. FOR RECEPTACLE AND TELECOMMUNICATION REQUIREMENTS, REFERENCE SHEET ET102.

KEY NOTES

1 PATIENT LIFT RECEPTACLE. COORDINATE EXACT INSTALLATION LOCATION WITH MANUFACTURER.

KEY PLAN



Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED ELECTRICAL PLANS

Approved:

Phase: 100% CD

FULLY SPRINKLERED

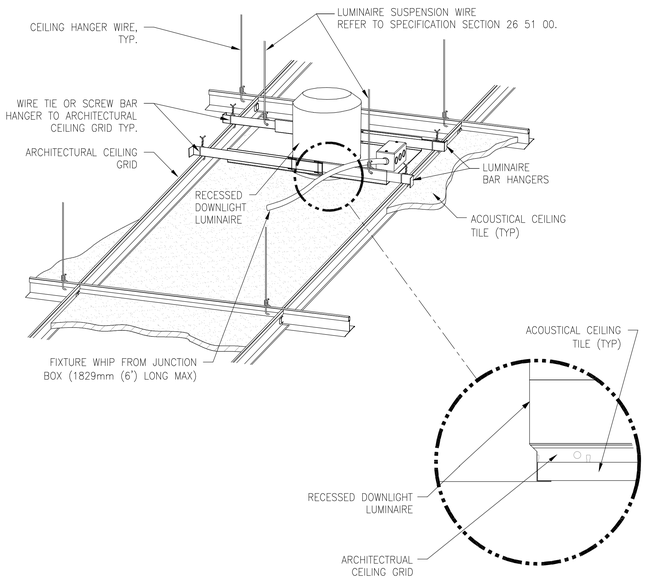
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB

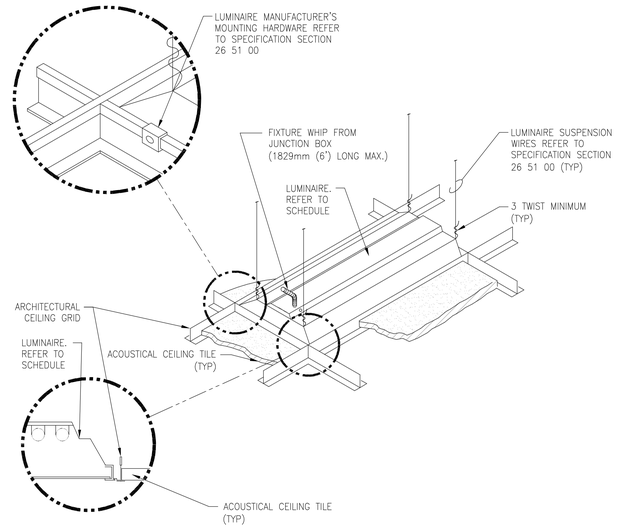
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-402e

VA FORM 08 - 6231



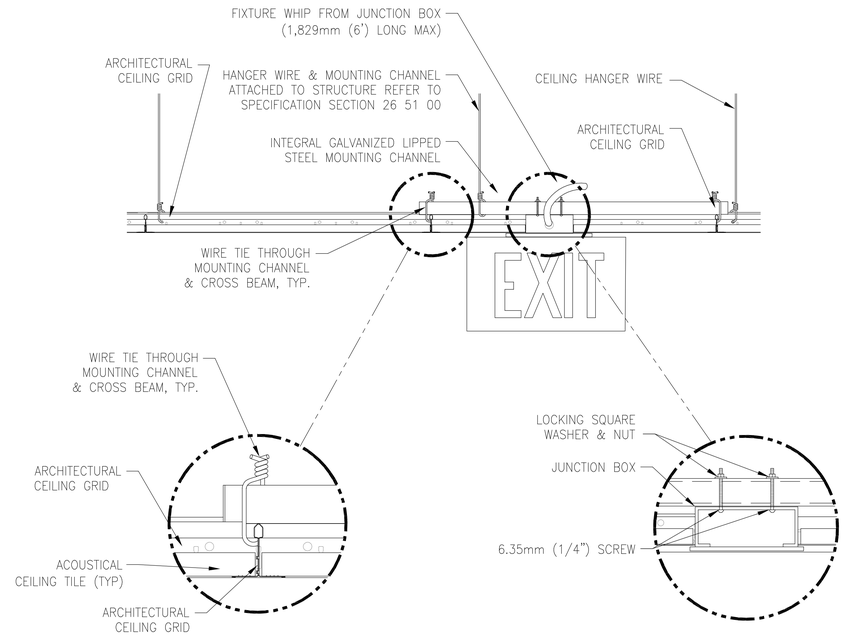
1 EL101/EL102 TYPICAL DOWNLIGHT INSTALLATION

NTS



2 EL101/EL102 TYPICAL RECESSED LIGHTING INSTALLATION

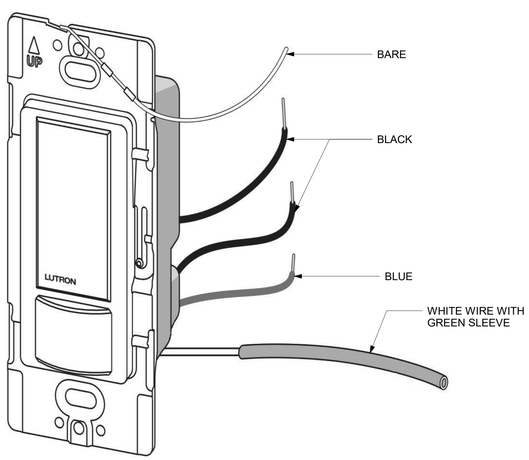
NTS

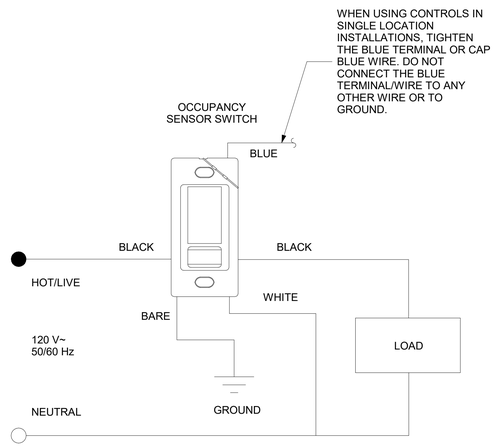


3 EL101/EL102 TYPICAL EXIT SIGN INSTALLATION

NTS

DETAILS NOTE(S):
1. WHERE INDICATED ON PLANS, OCCUPANCY SWITCH SHALL HAVE DIMMING AND/OR 3-WAY CONTROLS.

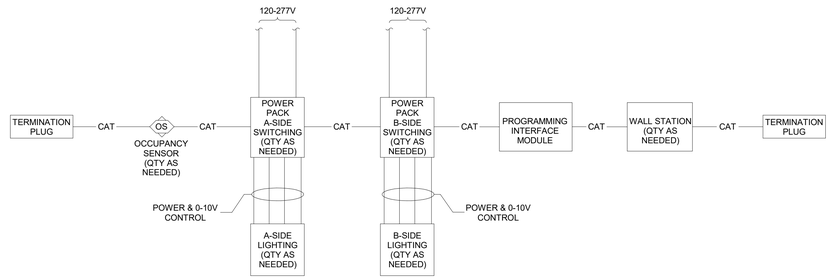




4 EL101/EL102 WALL SWITCH OCCUPANCY SENSOR

NTS

DETAIL NOTE(S):
1. REFERENCE PLANS FOR FIELD DEVICE QUANTITIES. PROVIDE CONTROL CABLING AND WIRING AS REQUIRED.
2. PROVIDE A COMPLETE AND FULLY FUNCTIONAL LIGHTING SYSTEM.



5 EL101/EL102 TYPICAL LOW-VOLTAGE SENSOR LIGHTING WIRING DIAGRAM

NTS

Revisions:	Date:

CONSULTANT

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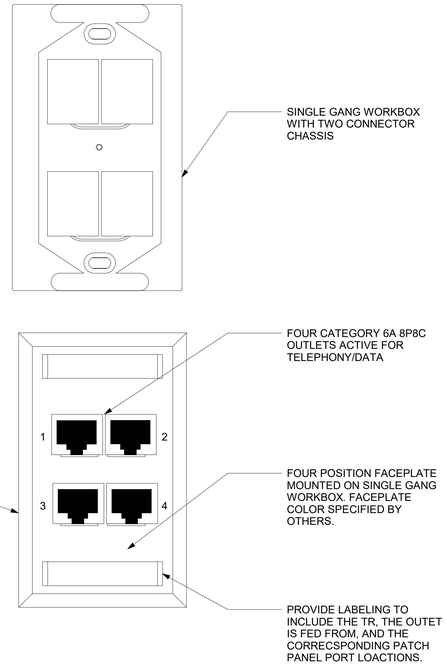
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-501

VA FORM 08 - 6231

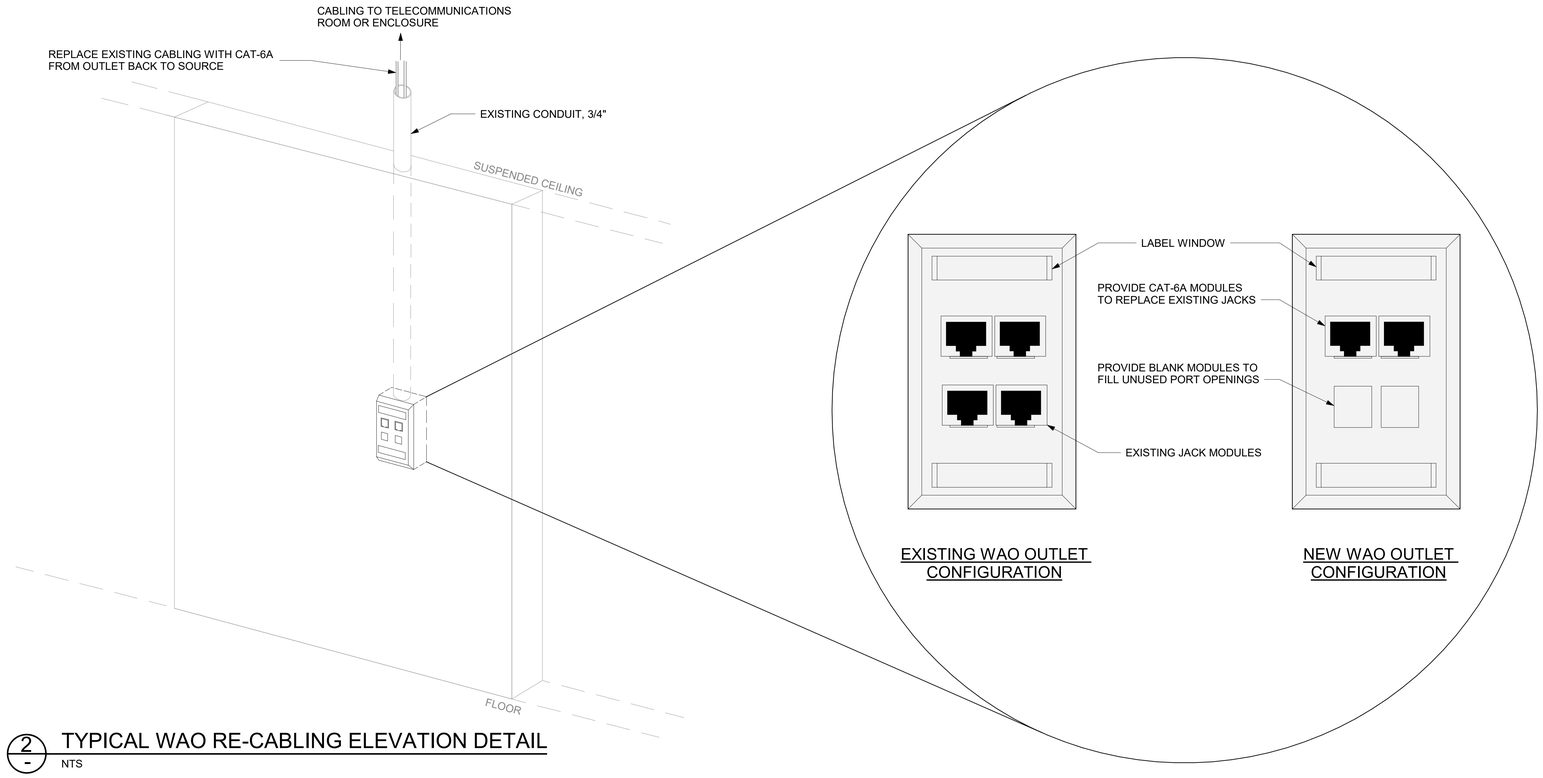
DETAIL NOTES:

1. ALL LABELING SHALL BE ANSI/TIA/EIA/606C COMPLIANT. BLACK LETTERING ON WHITE FIELD. MACHINE PRINTED. FURTHER GUIDANCE ON ADMINISTRATION MAY BE SPECIFIED IN OTHER SECTIONS OF THIS DESIGN PACKAGE.
2. TYPICAL WORK AREA OUTLET FACEPLATE WILL BE INSTALLED WITH CATEGORY 6A COMPONENT -COMPLIANT 8P8C MEDIA INTERFACE CONNECTORS (RJ45). EACH CONNECTOR WILL BE TERMINATED TO HIGH QUALITY CATEGORY 6A HORIZONTAL CABLING WHICH WILL TERMINATE IN THE TELECOMMUNICATIONS ROOM AS SPECIFIED ELSEWHERE IN THIS DESIGN PACKAGE. ALL HORIZONTAL UTP SHALL BE CATEGORY 6A AND TERMINATED TO T568B.
3. TYPICAL FACEPLATE WILL BE INSTALLED WITH TWO (2) RJ45s. HIGH DENSITY FACEPLATES WILL BE INSTALLED WITH FOUR (4) RJ45s.
4. FACEPLATE MATERIAL AND COLOR DETERMINED BY OTHERS.



1 TYPICAL WALL MOUNTED WORK AREA OUTLET CONFIGURATION

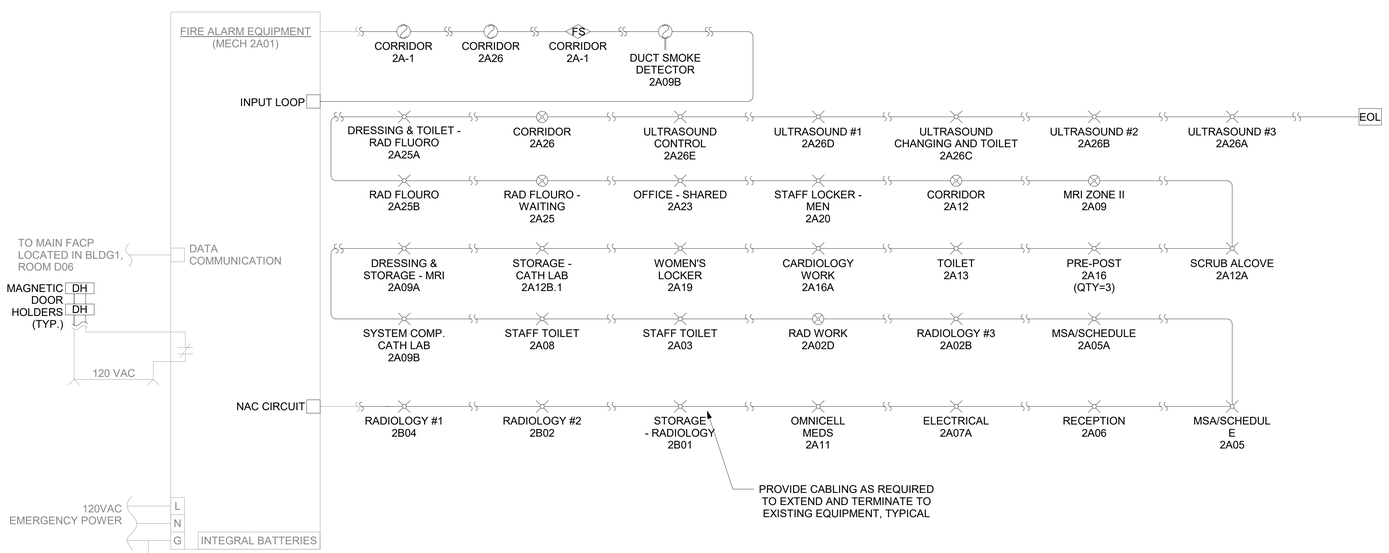
ET101/ET102 NTS



2 TYPICAL WAO RE-CABLING ELEVATION DETAIL

NTS

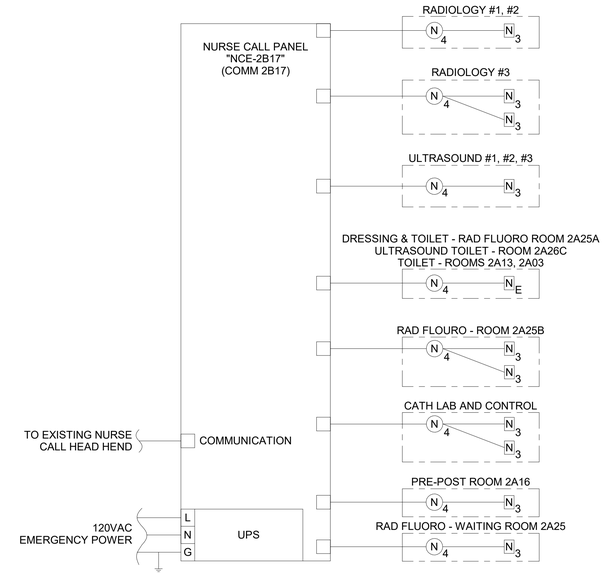
DETAIL NOTE(S):
1. REFERENCE SHEETS EF101 AND EF102 FOR EXACT DEVICE QUANTITIES AND LOCATIONS.
2. FIRE ALARM RISER DIAGRAM SHOWN FOR INFORMATIONAL PURPOSES ONLY. COORDINATE WITH EXISTING FACILITY INFRASTRUCTURE, EQUIPMENT, NATIONAL/LOCAL CODES AND MANUFACTURE TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL SYSTEM AS REQUIRED.
3. PROVIDE FIRE ALARM DEVICES IN FIELD AS REQUIRED. COORDINATE FIELD CONNECTIONS WITH NEW AND EXISTING EQUIPMENT; PROVIDE CONNECTIONS, CABLING AND TERMINATIONS AS REQUIRED.
4. PROVIDE 3/4" CONDUIT FOR ALL NEW CABLE AS REQUIRED CONDUIT SHALL BE COLORED RED.



3 FIRE ALARM RISER DIAGRAM

EF101 NTS

DETAIL NOTE(S):
1. REFERENCE SHEETS EY101 AND EY102 FOR EXACT DEVICE QUANTITIES AND LOCATIONS.
2. NURSE CALL RISER DIAGRAM SHOWN FOR INFORMATIONAL PURPOSES ONLY. COORDINATE WITH EXISTING FACILITY INFRASTRUCTURE, EQUIPMENT, AND MANUFACTURE TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL SYSTEM AS REQUIRED.
3. PROVIDE NURSE CALL DEVICES IN FIELD AS REQUIRED. COORDINATE FIELD CONNECTIONS WITH NEW AND EXISTING EQUIPMENT; PROVIDE CONNECTIONS, CABLING AND TERMINATIONS AS REQUIRED.
4. PROVIDE 3/4" CONDUIT FOR ALL NEW CABLE AS REQUIRED.



4 NURSE CALL AND CODE BLUE RISER

EY101 NTS

Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ELECTRICAL DETAILS	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
			Building Number: 001
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Drawing Number: E-502
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	

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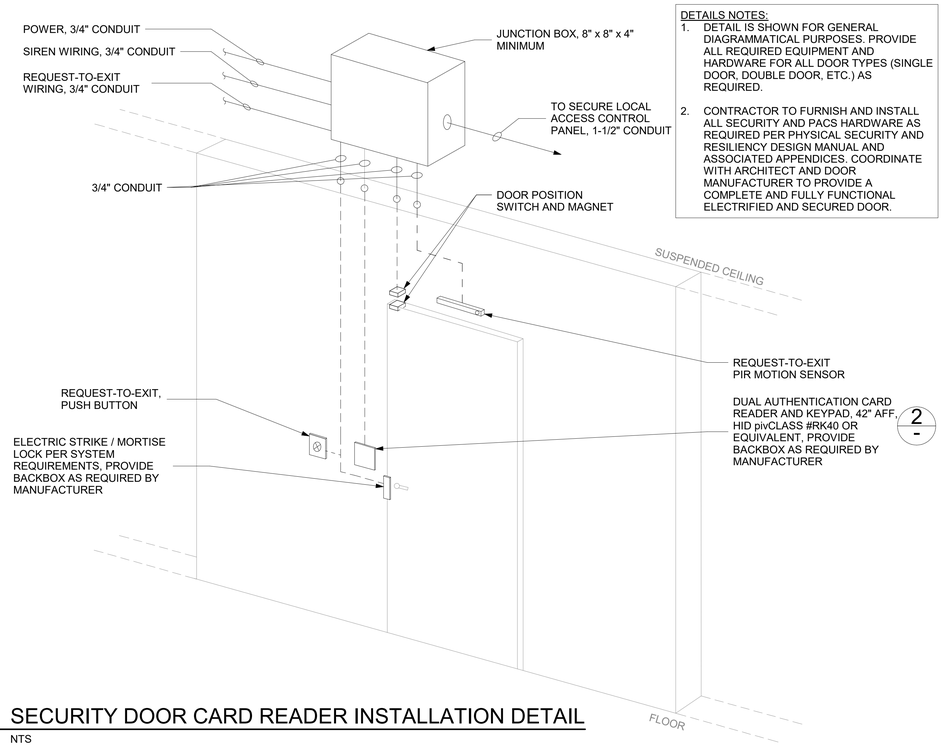


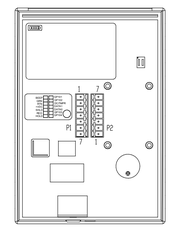
DETAILS NOTES:
1. DETAIL IS SHOWN FOR GENERAL DIAGRAMMATICAL PURPOSES. PROVIDE ALL REQUIRED EQUIPMENT AND HARDWARE FOR ALL DOOR TYPES (SINGLE DOOR, DOUBLE DOOR, ETC.) AS REQUIRED.
2. CONTRACTOR TO FURNISH AND INSTALL ALL SECURITY AND PACS HARDWARE AS REQUIRED PER PHYSICAL SECURITY AND RESILIENCY DESIGN MANUAL AND ASSOCIATED APPENDICES. COORDINATE WITH ARCHITECT AND DOOR MANUFACTURER TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL ELECTRIFIED AND SECURED DOOR.

1 SECURITY DOOR CARD READER INSTALLATION DETAIL

ET101
ET102

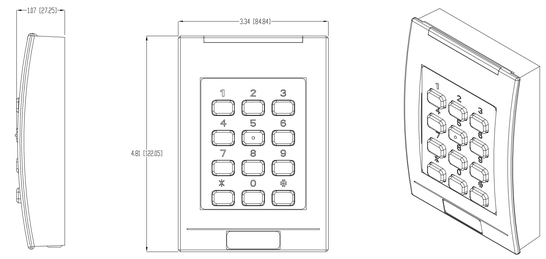
NTS

PIV ENABLED TWO-FACTOR AUTHENTICATION KEY PAD AND CONTACTLESS AUTHENTICATION, HID pivCLASS #RK40 OR EQUIVALENT



WIRING TABLE

PIGTAIL-WIRE COLOR	TERM STRIP - CONNECTION	CIRCUIT FUNCTION
YELLOW	P1-1	NO CONNECT
ORANGE	P1-2	NO CONNECT
BLACK	P1-3	RTN
RED	P1-4	+VDC
DRAIN	P1-5	NO CONNECT
BROWN	P1-6	NO CONNECT
BLUE	P1-7	NO CONNECT
GRAY	P2-1	RS485 / TXA
PINK	P2-2	RS485 / TXB
GREEN	P2-3	NO CONNECT
WHITE	P2-4	NO CONNECT
VIOLET	P2-5	NO CONNECT
TAN	P2-6	RS485 / RXB
RED/GREEN	P2-7	RS485 / RXA



2 SECURITY DOOR CARD READER INSTALLATION DETAIL

NTS

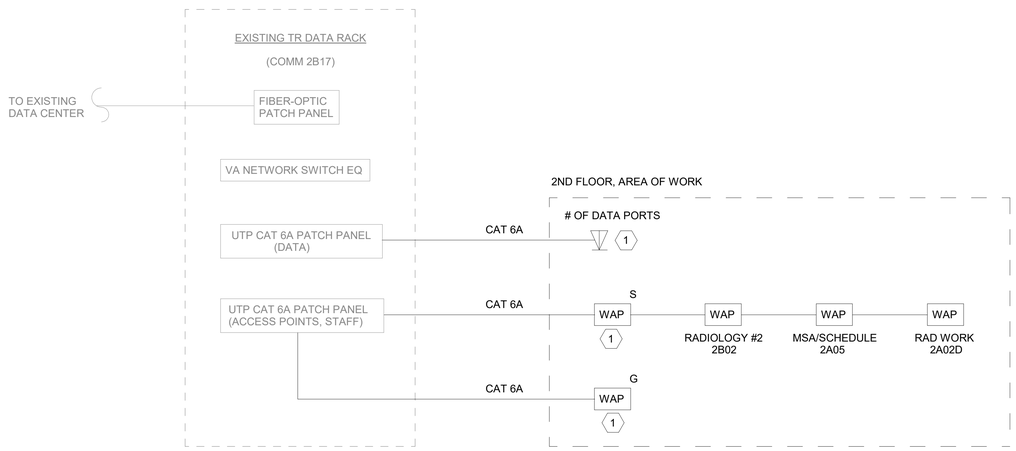
GENERAL NOTES

1. REFERENCE SHEETS ET101 AND ET 102 FOR EXACT DEVICE QUANTITIES AND LOCATIONS.
2. NETWORK DIAGRAM SHOWN FOR INFORMATIONAL PURPOSES ONLY. COORDINATE WITH EXISTING FACILITY INFRASTRUCTURE, EQUIPMENT, AND MANUFACTURE TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL SYSTEM AS REQUIRED.
3. PROVIDE FIELD DEVICES AS REQUIRED. COORDINATE FIELD CONNECTIONS WITH NEW AND EXISTING EQUIPMENT; PROVIDE CONNECTIONS, CABLING AND TERMINATIONS AS REQUIRED.

KEY NOTES

1 REFERENCE DRAWINGS FOR EXACT QUANTITY AND LOCATIONS.

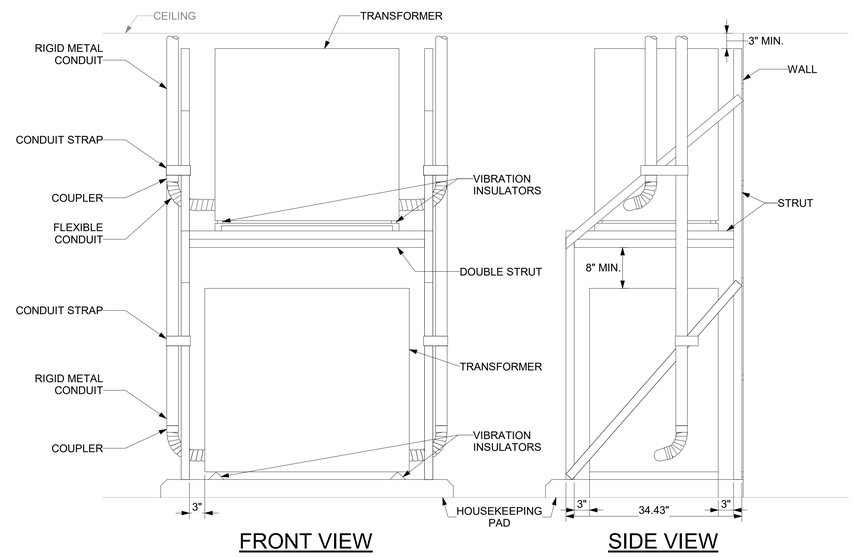
DETAIL NOTE(S):
1. REFERENCE SHEETS ET101 AND 102 FOR EXACT DEVICE QUANTITIES AND LOCATIONS.
2. NETWORK DIAGRAM SHOWN FOR INFORMATIONAL PURPOSES ONLY. COORDINATE WITH EXISTING FACILITY INFRASTRUCTURE, EQUIPMENT, AND MANUFACTURE TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL SYSTEM AS REQUIRED.
3. PROVIDE FEILD DEVICES AS REQUIRED. COORDINATE FIELD CONNECTIONS WITH NEW AND EXISTING EQUIPMENT; PROVIDE CONNECTIONS, PATCH PANELS, CABLING AND TERMINATIONS AS REQUIRED.
4. COORDINATE WITH VA FOR EXACT EQUIPMENT LOCATION(S).



3 TELECOMMUNICATIONS DATA RISER DIAGRAM

NTS

DETAIL NOTE(S):
1. TYPICAL DETAIL SHALL BE USED FOR CONSTRUCTABILITY REFERENCE. EXACT DIMENSIONS, MOUNTING SUPPORTS, AND FASTENING HARDWARE MAY DIFFER FROM FIELD INSTALLATION.
2. ALL CONDUIT NOT SHOWN FOR CLARITY.



4 TYPICAL TRANSFORMER STACKING MOUNTING DETAIL

E-402a

NTS

Revisions:	Date:

CONSULTANT

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3-27-26
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: LRL/WNM

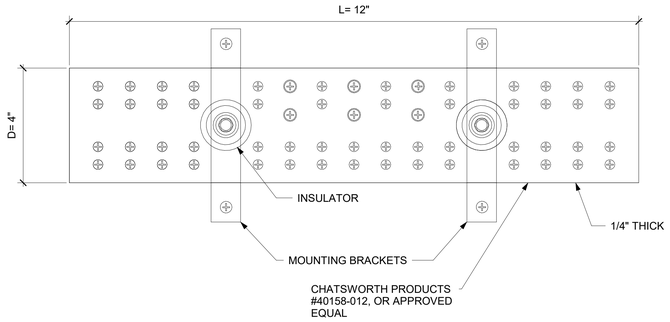
Drawn: JFO/JBB

Project Number: 570-21-220

Building Number: 001

Drawing Number: E-503

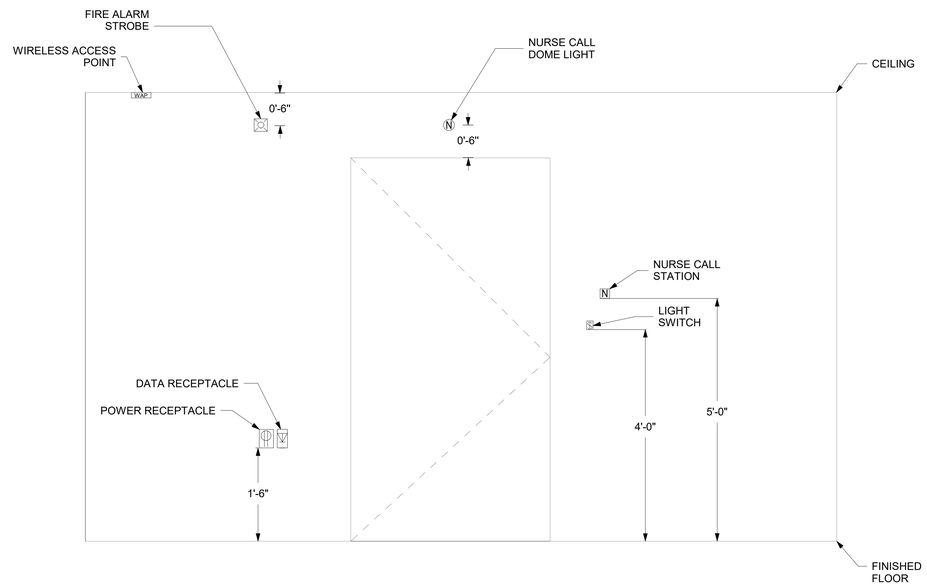
VA FORM 08 - 6231



1 (E-402a) TYPICAL GROUNDING BUSBAR DETAIL

NTS

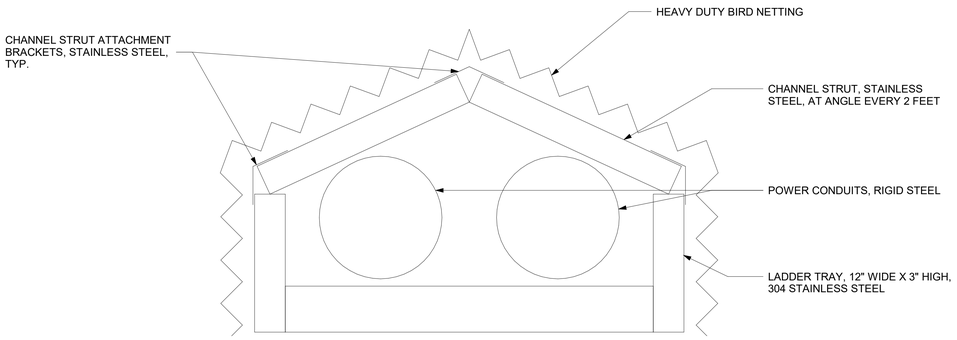
DETAIL NOTE(S):
1. DETAIL SHOWS GENERAL MOUNTING HEIGHTS UNLESS OTHERWISE NOTED.
2. EXACT LOCATION FOR DEVICES ARE SHOWN ON PLANS.



2 (-) MOUNTING HEIGHT DETAILS

NTS

DETAIL NOTE(S):
1. PROVIDE UV RESISTANT NYLON TIES TO AFFIX THE BIRD NETTING.
2. PROVIDE STAINLESS STEEL FASTENING HARDWARE.



3 (ES100) LADDER RACK SECTIONAL DETAIL

NTS

4 (-) NOT USED

GENERAL NOTES

KEY NOTES

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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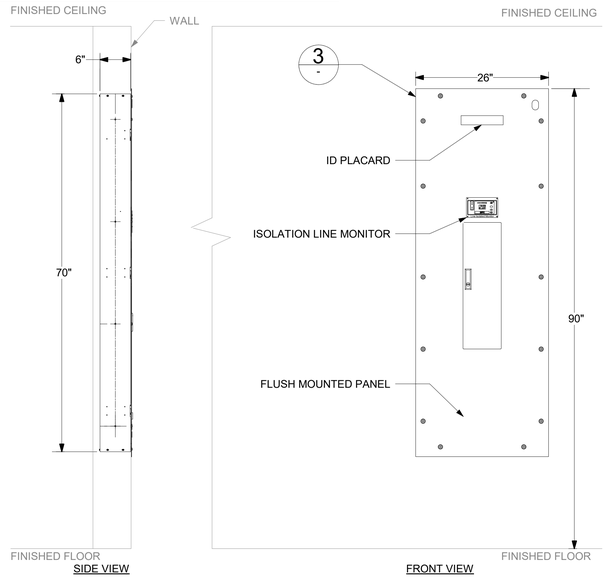
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-504

VA FORM 08 - 6231

DETAIL NOTE(S):
1. DETAIL IS PROVIDED FOR INSTALLTION PURPOSES. REFERENCE FLOOR PLANS FOR EXACT EQUIPMENT INSTALLATION LOCATIONS.
2. PROVIDE PG LIFELINK ISOLATED POWER PANEL PLUS, OR APPROVED EQUAL.
3. COORDINATE RECESSED INSTALLATION WITH ARCHITECTURE.

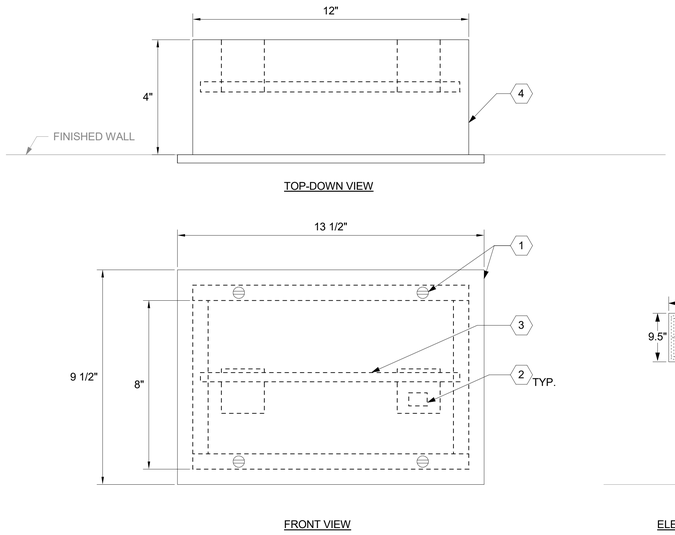


1 E-402c TYPICAL ISOLATED POWER UNIT INSTALLATION ELEVATION DETAIL
NTS

DETAIL NOTE(S):
1. PROVIDE BENDER ROOM GROUND MODULE, OR APPROVED EQUAL. MANUFACTURER PROVIDED DETAIL. COORDINATE AND COMPLY WITH ALL MANUFACTURER'S INSTALLATION REQUIREMENTS. DIMENSIONS MAY VARY BASED ON MANUFACTURER.
2. ALL PANELBOARDS AND OTHER ITEMS REQUIRED TO BE BONDED PER NEC 517 AND NFPA 99 SHALL UTILIZE ROOM GROUND MODULE AS NECESSARY.

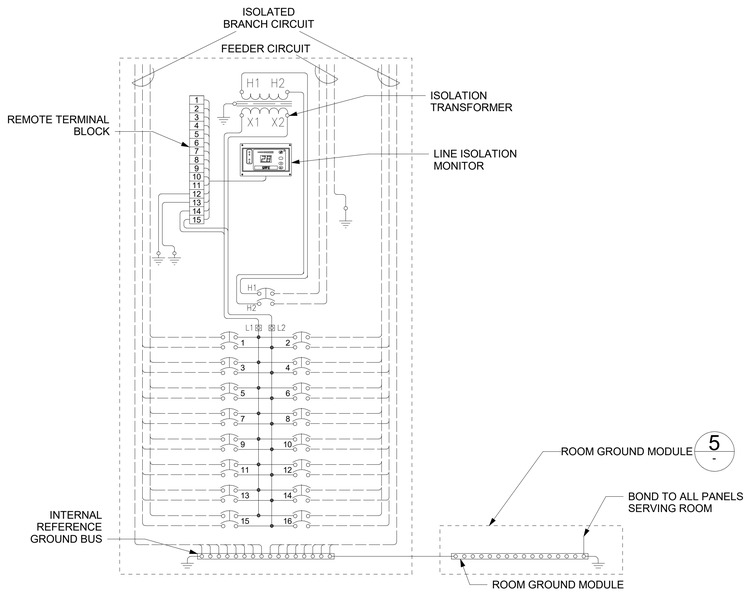
KEY NOTES (FOR THIS DETAIL ONLY)

1. FRONT FACE COMPRISED OF TYPE 304 STAINLESS STEEL WITH A #4 BRUSHED FINISH. FRONT FACE SHALL BE SCREWED TO BACKBOX. ENTIRE ASSEMBLY SHALL BE INSTALLED FLUSH WITH FINISHED WALL.
2. MAIN LUG WIRE TERMINATION POINT. VALID FOR 14 AWG - 1/0 AWG WIRE.
3. 24 CKT GROUND BUS - VALID FOR 14 AWG - 6 AWG WIRE.
4. UL 50 GALVANIZED BACK BOX.



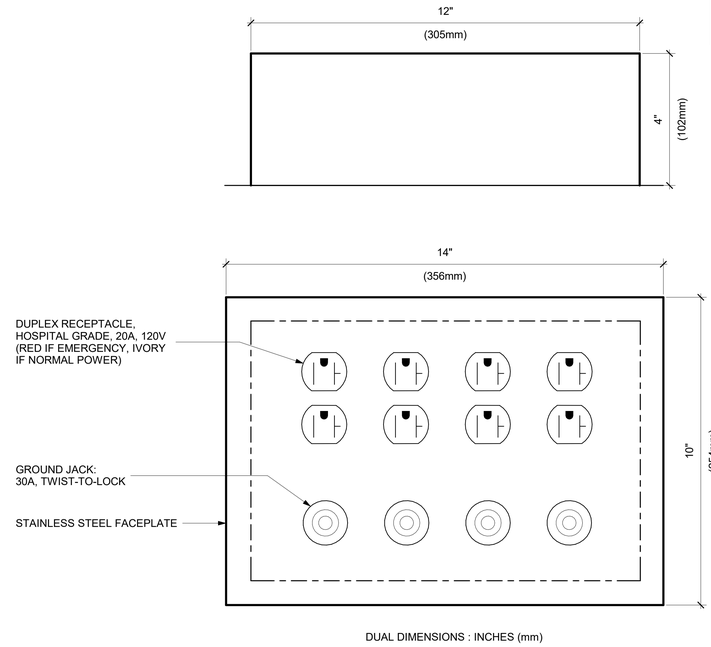
2 E-402c TYPICAL ROOM GROUND MODULE DIAGRAM
NTS

DETAIL NOTE(S):
1. DIAGRAM SUPPLIED VIA EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S INSTALLATION REQUIREMENTS.
2. PROVIDE PG LIFELINK ISOLATED POWER PANEL PLUS OR APPROVED EQUAL; TYPICAL ISOLATED CIRCUIT WIRING FIGURE (SOURCE: PG LIFELINK'S "IPS PLUS SERIES OPERATION AND MAINTENANCE MANUAL", 2023).



3 - TYPICAL ISOLATION PANEL WIRING DIAGRAM
NTS

DETAIL NOTE(S):
1. EACH CIRCUIT SHALL HAVE ITS OWN RACEWAY. REFERENCE FLOOR PLANS AND PANEL SCHEDULES FOR ADDITIONAL CIRCUITING INFORMATION.
2. POWER AND GROUND MODULE SHALL BE INSTALLED FLUSH IN WALL.



DUAL DIMENSIONS : INCHES (mm)

4 E-402c TYPICAL POWER AND GROUND MODULE DETAIL
NTS

Revisions:	Date:

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3-27-26

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 / Checked: LRL/WNM / Drawn: JFO/JBB	Drawing Number: E-505

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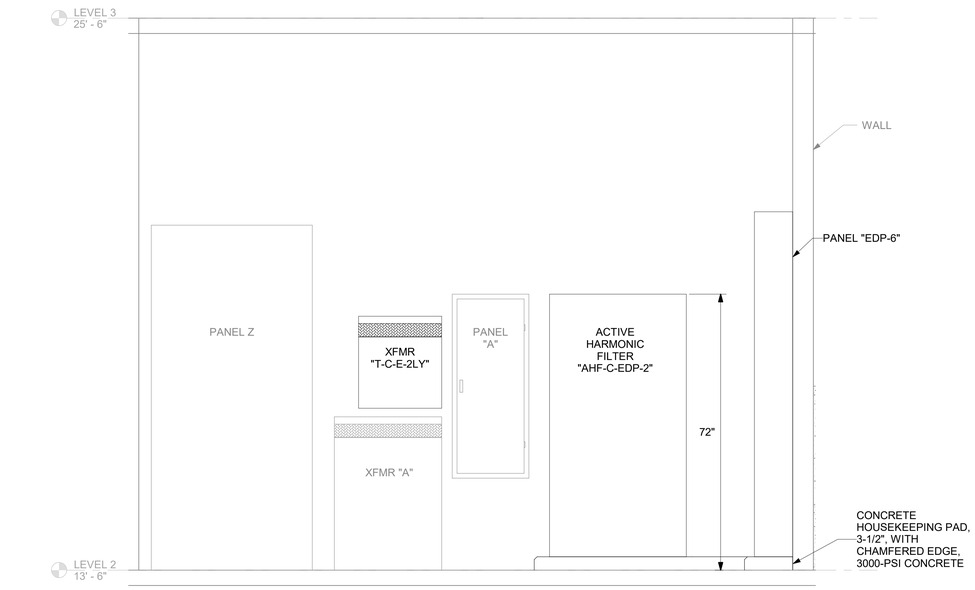
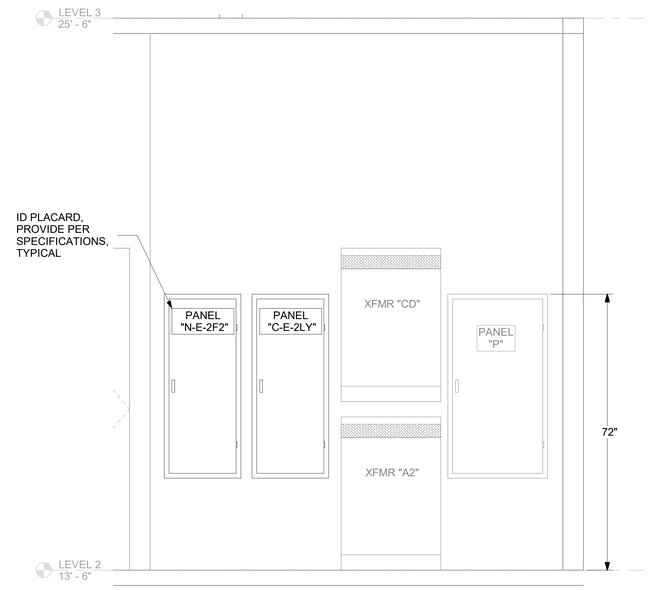


1 E-402a ELECTRICAL ROOM 2A07A - NORTH WALL ELEVATION

3/4" = 1'-0"



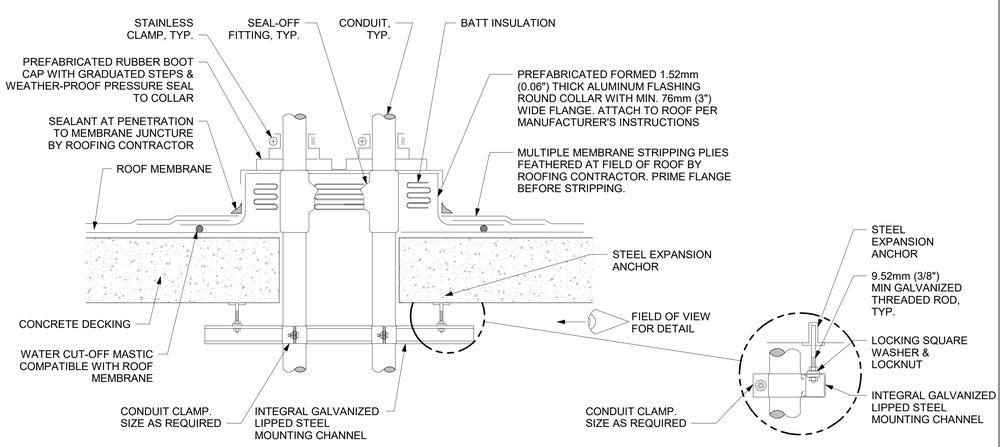
2 E-402a ELECTRICAL ROOM 2A07A - SOUTH WALL ELEVATION

3/4" = 1'-0"

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE CLOSELY COORDINATED WITH THE CONTRACTORS PHASING OF THE PROJECT. COORDINATED ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
2. MAKE ALL CONNECTIONS TO EQUIPMENTS PER MANUFACTURER'S REQUIREMENTS.
3. PRIOR TO EQUIPMENT PROCUREMENT, CONTRACTOR SHALL PROVIDE DETAILED AND DIMENSIONED SHOP DRAWINGS INDICATING PROPOSED ELECTRICAL DISTRIBUTION EQUIPMENT LAYOUT FOR ALL ELECTRICAL EQUIPMENT INSTALLATIONS DURING THE SUBMITTAL PROCESS FOR VA AND ENGINEER REVIEW AND APPROVAL.
4. CONDUIT AND WIRE IS NOT SHOWN ON DETAILS FOR CLARITY PURPOSES.

KEY NOTES



GENERAL NOTES:

1. MAINTAIN A MINIMUM CLEARANCE OF 305mm (12") ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

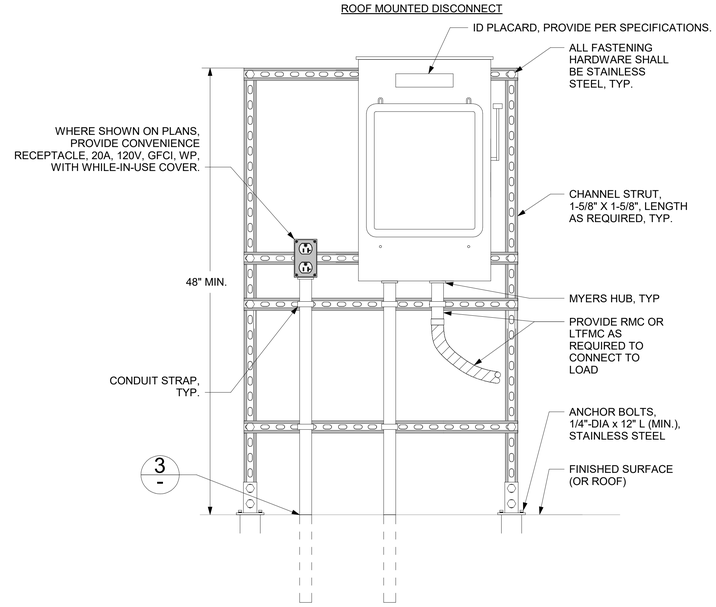
3 - CONDUIT ROOF PENETRATION DETAIL

NTS

DETAIL NOTES:

1. ALL CHANNEL STRUT, POST BASES AND ACCESSORIES SHALL BE HOT-DIPPED GALVANIZED, UNLESS SPECIFICALLY NOTED OTHERWISE.
2. DETAIL INDICATES GENERAL LAYOUT REQUIREMENTS. CONTRACTOR SHALL SIZE RACK ACCORDINGLY TO MOUNT ALL REQUIRED EQUIPMENT AS SHOWN ON PLANS; ADDITIONAL HORIZONTAL AND/OR VERTICAL STRUCTURAL MEMBERS MAY BE REQUIRED.
3. WHERE SHOWN ON PLANS, PROVIDE RACK MOUNTED CONVENIENCE RECEPTACLE, 20A, 120V, GFCI, WP, WITH WHILE-IN-USE COVER. PROVIDE ALL REQUIRED CONDUIT, STRUT, AND FASTENING HARDWARE AS REQUIRED. ALL EQUIPMENT SHALL BE OUTDOOR RATED, NEMA 3R MINIMUM.

ROOF MOUNTED DISCONNECT



4 EP104 UNISTRUT RACK MOUNTED DISCONNECT

1 1/2" = 1'-0"

Revisions:	Date:

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3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

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Drawing Title	Phase	Project Title	Project Number
ELECTRICAL DETAILS	100% CD	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number
		Issue Date: 3/27/2026 / Checked: LRL/WNM / Drawn: JFO/JBB	Drawing Number: E-506

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EMERGENCY POWER

PHILIPS DOES NOT REQUIRE EQUIPMENT TO BE ON EMERGENCY POWER. IF THE CUSTOMER DEEMS IT NECESSARY FOR THE EQUIPMENT TO BE SUPPLIED WITH EMERGENCY POWER, THE FOLLOWING SPECIFICATIONS MUST BE APPLIED:

THE MAINS 40E CABINET FEEDING AN AZURION SYSTEM WILL HAVE AN ABSOLUTE PEAK CURRENT OF <=300A @ 480V. MAXIMUM MOMENTARY CURRENT <=80A PER PHASE WHEN AVERAGED OVER A 5-SECOND WINDOW. NOTE THAT DURING ACQUISTION, THE CURRENT HARMONICS (INCLUDING SUB- AND INTER-HARMONICS) UP TO 1 KHZ CAN BE SUBSTANTIAL. ACCOUNT FOR: 30% FOR THE MAINS FREQUENCY +/- THE FRAME SPEED, UP TO 20% FOR THE 5TH HARMONICS, UP TO 10% FOR THE 7TH HARMONICS.

MAXIMUM DIFFERENTIAL MODE INDUCED DISTURBANCE VOLTAGE ON THESE WIRES SHALL BE A <3V PEAK AT ALL FREQUENCIES. MAXIMUM COMMON MODE CURRENT ON THESE WIRES SHALL BE LESS THAN 3 MICRO-AMP AT FREQUENCIES BETWEEN 30-1000MHZ TO MEET EMC REGULATIONS.

FOR SYSTEMS DELIVERED TO SITE BEFORE JAN 2016 OR WITH SIB (SYSTEM INTERFACE BOX) 4522163320978. WHEN THIS INTERFACE IS USED A SUB-D CAPACITIVE FILTER ADAPTER WITH 5.6NF BETWEEN PINS AND CHASSIS SHALL BE PLACED ON X14 OF THE SIB INPUT IN THE MA-CABINET (E.G. AMPHENOL FCE17B25AD290).

ELECTRICAL REQUIREMENT NOTES FOR SYSTEMS WITH MA CABINET

ELECTRICAL POWER DISTRIBUTION AT THE FACILITY SHALL COMPLY WITH:

UTILIZATION VOLTAGES PER ANSI C84.1 - 2006 RANGE A.

VOLTAGE TO BE SUPPLIED IS 3-PHASE, WYE OR SYMMETRIC DELTA 3-LINE +PE.

PHASE CONDUCTORS TO BE SIZED FOR INSTANTANEOUS VOLTAGE DROP PER NEC 517.73 AND PHILIPS RECOMMENDATIONS.

ALL PHILIPS EQUIPMENT IS GROUNDED VIA THE EQUIPMENT INSULATED GROUND WIRE. METAL RACEWAY BONDING SHALL BE USED AS A SECONDARY GROUND FAULT RETURN PATH ONLY FOR THE SUPPLY MAINS TO THE EQUIPMENT. THE RACEWAY SYSTEM GROUND AND ISOLATED EQUIPMENT GROUND SHALL BE BONDED TOGETHER VIA THE ERB TERMINAL JUMPERS.

THE PHILIPS SYSTEM HAS A PRIVATE GROUND DOMAIN PER CLAUSE 250.96B OF THE NEC. THE RACEWAY FROM THE X-RAY BREAKER (CB) TO THE MAINS 40E CABINET SHALL BE SUPPLEMENTED BY AN INTERNAL INSULATED EQUIPMENT GROUNDING CONDUCTOR INSTALLED IN ACCORDANCE WITH CLAUSE 250.146(D) OF THE NEC. THE AZURION EQUIPMENT GROUND DOMAIN AND THE BRANCH CIRCUIT GROUND DOMAIN ARE BONDED TOGETHER IN THE ERB VIA A GROUND BONDING JUMPER.

ANSI / NFPA 70 - NATIONAL ELECTRICAL CODE
ARTICLE 250 - GROUNDING
ARTICLE 517 - HEALTHCARE FACILITIES
ANSI / NFPA 99 - HEALTHCARE FACILITIES

POWER QUALITY GUIDELINES

1. POWER SUPPLIED TO MEDICAL IMAGING EQUIPMENT MUST BE SEPARATE FROM POWER FEEDS TO AIR CONDITIONING, ELEVATORS, OUTDOOR LIGHTING, AND OTHER FREQUENTLY SWITCHED OR MOTORIZED LOADS. SUCH LOADS CAN CAUSE WAVEFORM DISTORTION AND VOLTAGE FLUCTUATIONS THAT CAN HINDER HIGH QUALITY IMAGING.

2. EQUIPMENT THAT UTILIZES THE FACILITY POWER SYSTEM TO TRANSMIT CONTROL SIGNALS (ESPECIALLY CLOCK SYSTEMS) MAY INTERFERE WITH MEDICAL IMAGING EQUIPMENT, THUS REQUIRING SPECIAL FILTERING.

3. THE FOLLOWING DEVICES PROVIDE A HIGH IMPEDANCE, NONLINEAR VOLTAGE SOURCE, WHICH MAY AFFECT IMAGE QUALITY: STATIC UPS SYSTEMS, SERIES FILTERS, POWER CONDITIONERS, AND VOLTAGE REGULATORS.
DO NOT INSTALL SUCH DEVICES IN THE SUPPLY MAINS BRANCH CIRCUIT OF THE AZURION SYSTEM WITHOUT CONSULTING PHILIPS INSTALLATION OR SERVICE PERSONNEL.

4. LINE IMPEDANCE IS THE COMBINED RESISTANCE AND INDUCTIVE REACTANCE OF THE ELECTRICAL SYSTEM AND INCLUDES THE IMPEDANCE OF THE POWER SOURCE, THE FACILITY DISTRIBUTION SYSTEM, AND ALL PHASE CONDUCTORS BETWEEN THE SOURCE AND THE IMAGING EQUIPMENT. THE MINIMUM CONDUCTOR SIZE IS BASED ON THE TOTAL LINE IMPEDANCE AND NEC REQUIREMENTS. IMPEDANCE CALCULATIONS ARE TO BE PERFORMED BY AN ELECTRICAL ENGINEER.

POWER QUALITY REQUIREMENTS (MAINS 40E CABINET)	
MAXIMUM RATED POWER	100KW
SUPPLY CONFIGURATION	3-PHASE, EQUALLY SIZED INSULATED POWER CONDUCTORS AND AN INSULATED EQUIPMENT GROUNDING CONDUCTOR. INSULATED GROUNDING CONDUCTOR SHALL HAVE THE SAME OR LARGER SIZE THAN LINE CONDUCTORS. LINE WIRES SHALL BE NO SMALLER THAN 6 AWG, 90°C TEMPERATURE OR HIGHER TEMPERATURE RATING. THE CONDUCTOR SIZE IS DEPENDANT ON THE UPSTREAM CIRCUIT BREAKER RATING: MINIMUM 4 AWG FOR 80A CIRCUIT BREAKER RATING.
NOMINAL LINE VOLTAGE	480 VAC, 60 HZ
LINE VOLTAGE VARIATION	VOLTAGE VARIATIONS ARE NEVER TO EXCEED ±10% WHEN MEASURED USING 10-MINUTE MEAN RMS VALUES WITH A MEASUREMENT WINDOW OF 1 WEEK. AT LEAST 95% OF ALL MEASURED 10-MINUTE MEAN RMS VALUES SHALL BE WITHIN ±5% OF THE CONFIGURED NOMINAL VOLTAGE.
LINE VOLTAGE BALANCE	2% MAXIMUM OF NOMINAL VOLTAGE BETWEEN PHASES
FREQUENCY VARIATION	± 1.0 HZ
VOLTAGE SURGES	TO 110% OF STEADY-STATE VOLTAGE 100 MSECS. MAXIMUM DURATION, 6 PER HOUR MAX.
VOLTAGE SAGS	TO 90% OF STEADY-STATE VOLTAGE 100 MSECS. MAXIMUM DURATION, 6 PER HOUR MAX.
LINE IMPULSES	1000 VPK ABOVE PHASE-NEUTRAL RMS ABSOLUTE MAXIMUM. NO MORE THAN 1 IMPULSE PER HOUR TO EXCEED 500 VPK.
NEUTRAL-GROUND VOLTAGE	2.0V MAXIMUM RMS VALUE
NEUTRAL-GROUND IMPULSES	NO MORE THAN 1 PER HOUR THAT EXCEEDS 25V AND 1 MILLI-JOULE
HIGH FREQUENCY NOISE	3.0V STEADY-STATE MAXIMUM. OVER 3.0V PERMITTED FOR 100 MSEC. MAXIMUM, 1 PER HOUR MAX.
GROUNDED CONDUCTOR IMPEDANCE	0.1 OHMS @ 60 HZ MAXIMUM

1 - CATH LAB EQUIPMENT ELECTRICAL REQUIREMENTS

GENERAL ELECTRICAL INFORMATION

1. GENERAL:
THE CUSTOMER SHALL BE SOLELY RESPONSIBLE, AT ITS EXPENSE, FOR PREPARATION OF THE SITE, INCLUDING ANY REQUIRED ELECTRICAL ALTERATIONS. THE SITE PREPARATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS, THE ARCHITECTURAL/CONSTRUCTION DRAWINGS AND IN COMPLIANCE WITH ALL SAFETY AND ELECTRICAL CODES, THE CUSTOMER SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ALL ELECTRICAL PERMITS FROM JURISDICTIONAL AUTHORITY.

2. MATERIALS AND LABOR:
THE CUSTOMER SHALL BE SOLELY RESPONSIBLE, AT ITS EXPENSE, TO PROVIDE AND INSTALL ALL ELECTRICAL DUCTS, BOXES, RACEWAYS (CONDUITS, WIREWAYS, AUXILIARY GUTTERS ETC.), FITTINGS, BUSHING, ETC., AS SEPARATELY SPECIFIED HEREIN.

3. ELECTRICAL DUCTS AND BOXES:
ELECTRICAL DUCTS AND BOXES SHALL BE ACCESSIBLE AND HAVE REMOVABLE COVERS. FLOOR DUCTS AND BOXES SHALL HAVE WATERTIGHT COVERS. DUCTS SHALL BE DIVIDED INTO AS MANY AS FOUR SEPARATE CHANNELS BY METAL DIVIDERS, SEPARATELY SPECIFIED HEREIN, TO SEPARATE WIRING AND/OR CABLES INTO GROUPS AS FOLLOWS: GROUP A: BRANCH CIRCUIT EQUIPMENT SUPPLY MAINS POWER WIRES TOGETHER WITH THE BRANCH CIRCUIT ISOLATED EQUIPMENT BONDING WIRE. GROUP B: EQUIPMENT SECONDARY CIRCUIT AC SUPPLY AND ASSOCIATED ISOLATED GROUND CABLE/WIRE HARNESSES. GROUP C: EQUIPMENT SIGNAL WIRES AND CABLE HARNESSES PLUS EQUIPMENT LOW-VOLTAGE DC SUPPLY CABLE/WIRE HARNESSES. GROUP D: X-RAY HIGH-VOLTAGE CABLES, THE USE OF 90 DEG. ELLS IS NOT ACCEPTABLE. ON CEILING DUCT AND WALL DUCT USE 45 DEG. BENDS AT ALL CORNERS. ALL INTERSECTING POINTS IN DUCT TO HAVE CROSS OVER TUNNELS SUPPLIED AND INSTALLED BY CONTRACTOR TO MAINTAIN SEPARATION OF CABLES BASED ON 725.136 FOR LOW VOLTAGE SIGNALING CABLES AND CONDUCTORS AND 517.80 FOR COMMUNICATIONS AND SIGNALING CABLES IN HEALTHCARE APPLICATIONS. SECONDARY CIRCUITS OF TRANSFORMER POWERED COMMUNICATIONS AND SIGNALING SYSTEMS ARE NOT REQUIRED TO BE ENCLOSED IN RACEWAYS UNLESS OTHERWISE SPECIFIED BY CHAPTER 7 OR CHAPTER 8. ALL WIRE HARNESSES OF THE AZURION SYSTEM ARE REQUIRED TO BE RUN IN A RACEWAY (WIREWAY) DEDICATED TO AZURION WIRE HARNESSES. NO FOREIGN WIRING SHALL BE RUN IN THE SAME WIREWAY TOGETHER WITH THE AZURION WIRE HARNESSES. SEPARATION BETWEEN GROUP A AND OTHER GROUPS IS MANDATORY ALONG THE FULL RUN OF GROUP A WIRES. SEPARATION BETWEEN GROUPS B, C, AND D IS RECOMMENDED FOR THE FIRST 3 METERS BEHIND THE EQUIPMENT CABINETS AND FOR THE LOCATIONS WHERE WIRE-HARNESS OVER-LENGTH IS SUSPENDED.

4. RACEWAYS (CONDUIT)
RACEWAY (CONDUIT) POINT - TO - POINT RUNS SHALL BE AS DIRECT AS POSSIBLE. EMPTY CONDUIT RUNS USED FOR CABLES MAY REQUIRE PULL BOXES LOCATED ALONG THE RUN. CONSULT WITH PHILIPS. A PULL WIRE OR CORD SHALL BE INSTALLED IN EACH CONDUIT RUN. BEST PRACTICE TO NAME THE PHYSICAL CONDUIT. ALL CONDUITS WHICH ENTER DUCT PRIOR TO THEIR TERMINATION POINT MUST MAINTAIN SEPARATION FROM OTHER CABLES VIA USE OF DIVIDERS, CROSS OVER TUNNELS, OR CONDUIT SUPPLIED AND INSTALLED BY CONTRACTOR FROM ENTRANCE INTO DUCT TO EXIT FROM DUCT. DO NOT USE FLEX CONDUIT UNLESS APPROVED BY PHILIPS SERVICE.

5. CONDUCTORS
ALL CONDUCTORS, SEPARATELY SPECIFIED, SHALL BE 90°C STRANDED COPPER, RUNG OUT AND MARKED.

6. DISCONNECTING MEANS
A DISCONNECTING MEANS SHALL BE PROVIDED AS SEPARATELY SPECIFIED.

7. WARNING LIGHTS AND DOOR SWITCHES
"X-RAY ON" WARNING LIGHTS AND X-RAY TERMINATION DOOR SWITCHES SHOULD BE PROVIDED AT ALL ENTRANCES TO X-RAY ROOMS AS REQUIRED BY CODE.

8. DIMMER SWITCHES
X-RAY ROOM LIGHTS SHOULD BE PROVIDED WITH DIMMER SWITCHES

ELECTRICAL NOTES

1. ELECTRICAL BOXES DISPLAYED ON E1 ARE THE MINIMUM SIZES.

2. PHILIPS EQUIPMENT MUST BE ELECTRICALLY ISOLATED FROM CONDUITS, RACEWAYS, DUCTS, SEISMIC ANCHORING, FLOOR ANCHORING, ETC.

3. PHILIPS CABLES ARE NOT PLENUM RATED.

4. PROVIDE AND INSTALL 2" DIAMETER CHASE NIPPLES BETWEEN ADJACENT WALL BOXES.

5. INSTALL AN INSULATED STRANDED GROUND WIRE PER FEEDER/CONDUCTOR SIZE FROM THE MAIN GROUND BUS TO THE ERB AND FROM THE ERB TO THE MA CABINET (MINIMUM SIZE 4 AWG).

6. THE CONTRACTOR WILL SUPPLY & INSTALL ALL BREAKERS, SHUNT TRIP AND INCOMING POWER TO THE BREAKERS. THE EXACT LOCATION OF THE BREAKERS AND SHUNT TRIPS WILL BE DETERMINED BY THE ARCHITECT OR CONTRACTOR.

7. THE CONTRACTOR SHALL SUPPLY & INSTALL ALL PULL BOXES, RACEWAY RUNS, STAINLESS STEEL COVERS, ETC. CONDUIT/RACEWAYS MUST BE FREE FROM BURRS AND SHARP EDGES OVER ITS ENTIRE LENGTH. A GREENLEE PULL STRING/MEASURING TAPE (PART NO. 435, OR EQUIVALENT) MUST BE PROVIDED WITH RACEWAY RUNS TO VALIDATE RUNS ARE WITHIN LENGTH RESTRICTIONS.

8. ELECTRICAL RACEWAY DUCTS SHALL BE INSTALLED WITH REMOVABLE COVERS. THE RACEWAY SHOULD BE ACCESSIBLE FOR THE ENTIRE LENGTH. IN CASE OF NON - ACCESSIBLE FLOORS, WALLS AND CEILINGS, AN ADEQUATE NUMBER OF ACCESS HATCHES SHOULD BE SUPPLIED TO ENABLE INSTALLATION OF CABLING. ALL RACEWAYS WILL BE DESIGNED IN A MANNER THAT WILL NOT ALLOW CABLES TO FALL OUT OF THE RACEWAY WHEN THE COVERS ARE REMOVED. IN MOST CASES, THIS WILL REQUIRE ABOVE - CEILING RACEWAY TO BE INSTALLED WITH THE COVERS REMOVABLE FROM THE TOP.

9. RACEWAY SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL ELECTRICAL CODE, WHICHEVER GOVERN.

10. ELECTRICAL CONTRACTOR SHALL INSTALL GROUNDING AND BONDING CONDUCTORS AT RACEWAY OPENINGS WITHIN WALL BOXES AS REQUIRED BY NATIONAL AND LOCAL ELECTRICAL CODES. GROUND BOND WIRES AND LUGS SHALL BE INSTALLED IN SUCH A WAY TO PREVENT THE INADVERTENT CONTACT WITH THE INSTALLED PHILIPS EQUIPMENT TO MAINTAIN PHILIPS ISOLATED GROUND SCHEME AND MAINTAIN PATIENT SAFETY.

11. CONVENIENCE OUTLETS ARE NOT SHOWN ON THE PLANS. THEIR NUMBER AND LOCATION ARE TO BE SPECIFIED BY THE CUSTOMER/ARCHITECT.

BRANCH CIRCUIT AND WIRE GAUGE REQUIREMENTS (MAINS 40E CABINET)	
BRANCH POWER	100 KVA (SYSTEM ONLY; VERIFY UPS POWER REQUIREMENTS)
MAX. STANDBY CURRENT	8A PER PHASE
CIRCUIT BREAKER (CB)	3 PHASE, TYPE D 80A WITH LONG-TIME DELAY AND SHUNT TRIP.
FOR INFORMATION ONLY. TERMINAL BLOCK ACCOMMODATES AWG 00 TO AWG 4 IN MAINS CABINET. ENGINEER OF RECORD RESPONSIBLE FOR CALCULATING PHASE CONDUCTOR AND EQUIPMENT GROUND SIZES. RECOMMENDED PHASE CONDUCTOR AND EQUIPMENT GROUND CONDUCTOR SIZES FOR 1% IMPEDANCE OF SUPPLY CONDUCTORS TO CIRCUIT BREAKER (CB).	
MAX. INSTANTANEOUS POWER (AT X-RAY TUBE POWER 100 KV 1000mA CURRENT)	100 KW
MAX. INST. CURRENT @ CB (RMS VALUE OVER HALF-CYCLE)	300A @ 480V
MAX. PHASE-PHASE IMPEDANCE @ CRC	0.455 Ω
LONG TERM RATING	63A AT 480V
MOMENTARY RATING (USING A WINDOW OF 5 SECONDS)	125A AT 480V

GENERAL NOTES

1. DETAILS SUPPLIED VIA CATH LAB EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.

Revisions:	Date:

CONSULTANT

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3-27-26
REGISTERED PROFESSIONAL ENGINEER

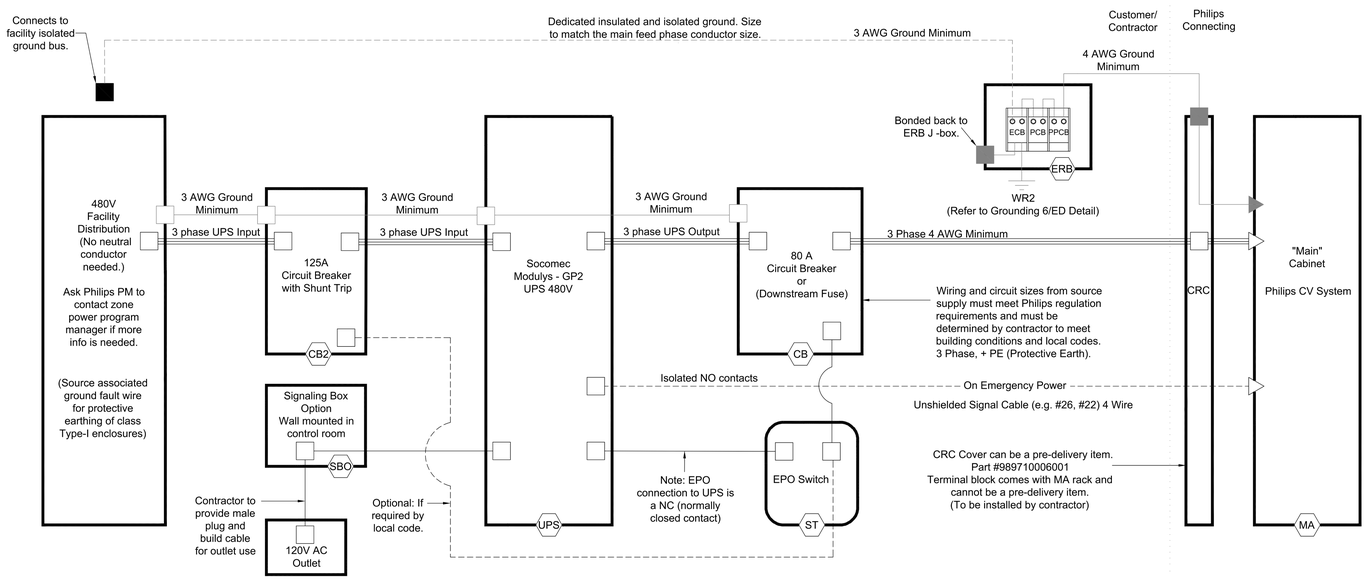
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL CATH LAB DETAILS (1 of 8)
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-511

VA FORM 08 - 6231

GENERAL NOTES

1. DETAILS SUPPLIED VIA CATH LAB EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. SHEET SHALL BE PRINTED IN COLOR TO CONVEY ALL INFORMATION.
3. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
4. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.



Legend

- Wiring and Connections made by Contractor to facility isolated ground bus.
- Wiring and Connections made by Contractor for 480V power feeders.
- Wiring and Connections made by Contractor. PE wiring connections that are connected to metal casing (e.g. outer housing, busbar).
- Wiring and Connections made by Contractor for safety ground.
- Wiring Connection made by Philips
- Wiring Connection made by Philips

Note:
All Power Cables shall be in separate conduits from control and communication cables.

Notes

- Final terminal block solution to be determined per electrical engineer of record.
- SBO is mounted to the wall and an 8-conductor, Cat-6 cable from the SBO to the Comm Card in Option Slot #1 of the UPS.
- Wire sizes will be dependent on:
  1. Lug size of UPS and MA terminal block
  2. 1% impedance of supply conductors to circuit breaker (CB).
  3. Maintain voltage (no voltage drop)
- Full UPS assembly, all wiring, installation (including battery connections), Power Module insertion (for modular systems), and startup in bypass is the responsibility of the electrician unless it is specifically stated otherwise. If electrical work is not completed when commissioning is scheduled there may be a second visit scheduled resulting in delay of timeline.

(24.0)

1 - CATH LAB EQUIPMENT ELECTRICAL CONNECTION DIAGRAM

Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL CATH LAB DETAILS (2 OF 8)
Approved:
Phase: 100% CD
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Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-512

VA FORM 08 - 6231

GENERAL NOTES

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2. SHEET SHALL BE PRINTED IN COLOR TO CONVEY ALL INFORMATION.
3. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
4. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.

Point to Point Run Lengths

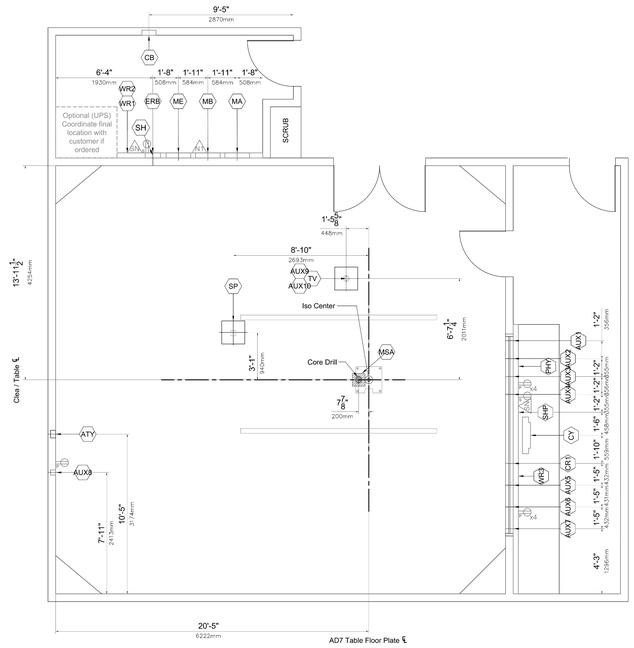
Electrician Requirements and Notes

1. A Greenlee measuring tape (part no. 435, or equivalent) must be provided with raceway (conduit) runs
2. All raceway (conduit) runs must take most direct route point to point.
3. All conduits shall be labeled and identified at each end by run number/destination.
4. For conduit use the minimum bending radius specific to the conduit diameter. All conduit and raceway shall be sweeps.
5. Conduit may be combined if the local authority allows.
6. Conduit combination apply to equipment room where the M cabinets are side by side. See E1/1 Detail.
7. Up to (4) AUX runs can be combined in a 2" where applicable.

A Raceway (Conduit) supplied/installed by contractor - Philips cables installed by Philips
B Raceway (Conduit) supplied/installed by contractor - Philips cables installed by contractor
C Raceway (Conduits) and cables supplied and installed by contractor
D Raceway (Conduit) existing - cables supplied and installed by Philips
E Raceway (Conduit) existing - cables supplied by Philips and installed by contractor
F Raceway (Conduit) existing - cables supplied and installed by contractor
G Optional equipment, verify with local Philips Service

P Power (AC)
Q Power (DC)
G Ground
S Signal
T Sign Tension
C Cooling Hose
A Air Supply Hose

Minimum Raceway (Conduit) Size for combined conduit runs	Raceway (Conduit) Run No.	From	To	Raceway (Conduit) Quantity	Cable Type (*)	Minimum Raceway (Conduit) Size	Maximum Point to Point Run Length	Special Requirements	(REQUIRED) Electrician to document point to point measurements
	C 1	Power Panel	CB	1	P	Per N.E.C.	Per N.E.C.	-	
	C 2	CB	MA	1	P	2 1/2"	50'	MA CRC Terminal Block can only accept 4 AWG.	
	C 3	CB	ST	1	P	3/4"	50'	-	
	C 4	ERB	Third Party Room Outlets	-	G	-	-	For Injector, Auxiliary Box, Patient Monitoring, Video Networking, etc.	
	C 5	ERB	GP	1	G	3/4"	-	See Sheet "ED2" for details.	
	C 6	ERB	GP	1	G	3/4"	6'	-	
	A 7	SP	ME	1	C	2 1/2"	41'	Tube Cooling Hoses.	
	A 8	SP	ME	1	H	2"	41'	X-Ray high-voltage cables, the use of 90 deg. ells is not acceptable.	
2 1/2"	A 9	SP	MA	1	P/G	1 1/2"	41'		
	A 10	SP	ME	1	P/G	1 1/2"	41'	Standard/Open Cable Duct	
2 1/2"	A 11	SP	ME	1	S	1"	41'		
	A 12	SP	MA	1	S	2"	41'		
	A 13	MSA	MA	1	P/G	2"	44'	-	
3"	A 14	MSA	MA	1	S	3"	44'	-	
	A 15	MSA	MB	1	S	1"	44'	-	
	A 16	TV	MA	1	P	1 1/2"	60'	-	
2"	A 17	TV	MB	1	P/G	1 1/2"	60'	-	
	A 18	TV	MB	1	S	1 1/2"	60'	For FlexVision XL.	
	A 19	TV	CY	1	S	3/4"	60'	-	
	A 20	ATY	TV	1	S	1"	60'	-	
	A 21	CY	MA	1	S	3"	60'	Conduits to land on wall raceway adjacent to CY.	
3"	A 22	CY	MB	1	S	1 1/2"	60'	Conduits to land on wall raceway adjacent to CY.	
	A 23	CY	MA	1	P/G	2"	60'	Conduits to land on wall raceway adjacent to CY.	
	A 24	CY	MB	1	S	2"	86'	Conduits to land on wall raceway adjacent to CY. For Philips Workstations.	
	A 25	ATY	MA	1	S	2"	40'	-	
	A 26	SH	SHP	1	S	1"	-	For Service Hub. Dedicated conduit and CAT 6 network connection terminated at each end (not allowed with x-ray system cabling).	
	C 27	WL	MA	1	P	PER NEC	PER NEC	X-ray Warning Light Refer to Detail 2-ED	
	A 28	RL	MA	1	P	PER NEC	PER NEC	Exam Room Light Refer to Detail 2-ED	
	C 29	MSA	PHY	1	S	3"	-	For future options (Patient Monitoring). Verify with local Philips Service if auxiliary box should be used.	
	A 30	AUX	MB	1	S	1 1/2"	86'	-	
2"	A 31	AUX	MB	1	S	1 1/2"	86'	-	
	A 32	AUX	MB	1	S	1 1/2"	86'	-	
	A 33	AUX	MB	1	S	1 1/2"	86'	-	
	A 34	AUX	MB	1	S	1 1/2"	86'	-	
	A 35	AUX	MB	1	S	1 1/2"	86'	-	
	A 36	AUX	MB	1	S	1 1/2"	86'	-	
	A 37	AUX	MB	1	S	1 1/2"	86'	-	
	G 38	MSA	Med Gas Box	1	-	2"	-	Optional for med gas box.	
	G 39	IntraSight	MSA	1	P	1 1/2"	75'	Conduit opening must be covered if the IntraSight system is planned for future installation.	
	G 40	IntraSight	MSA	1	S	1 1/2"	75'	Conduit opening must be covered if the IntraSight system is planned for future installation.	



1 E1 ELECTRICAL PLAN

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

Required Unistrut Height: 9' - 6 1/2", ±1/8" (2908mm, ±3mm) Unistrut height measured from finished floor to bottom of Unistrut.

Important Notes:

* The Iso Center is the initial and most crucial control point in the construction of a procedure room. Once established, it guides the placement of all imaging equipment, third-party devices, mechanical, electrical, and plumbing systems (MEPs), as well as the overall construction. These are positioned relative to the Iso Center's X, Y, and Z coordinates to avoid operational issues and clinical limitations.

Electrical Legend

A Furnished and installed by Philips
B Furnished by customer/contractor and installed by customer/contractor
C Installed by customer/contractor
D Furnished by Philips and installed by contractor
E Existing
F Future
G Optional

Item Number | Detail Sheet | Description

Wall

- B CB — 480V, 3 phase, Type D 80 A circuit breaker with long-time delay and shunt trip (e.g. Square D HDL36080 or equivalent). Run power from breaker to "MA", leaving an 8' (2440mm) tail at "MA". See Sheet "ED" for power quality requirements. Location per local code or owner requirements. — ED
- B ST — Shunt Trip (emergency off) - Large mushroom-head button on remote control station with contacts to operate feature of "CB" (if required by local code or owner, and mandatory for VA and D.O.D installations). (Not shown on plan)
- B GP — Dedicated insulated and isolated ground. Size to match the main feed phase conductor size. (Not shown)
- B ERB — Equi-Potential Reference Bar mounted in a 12" (305mm) W x 12" (305mm) H x 4" (105mm) D pull box with hinged cover, surface mounted to the bottom of "WR2" when possible. — ED
- B MA, ME, MB — **Customer/Contractor** procures and installs Philips Back Boxes from Distinctive Manufacturing Group. Please see ED/4 for ordering instructions for back boxes. Part # 9898/1220367. — ED
- B CY, SHP, CR1, AUX3, AUX2, AUX3, AUX9, AUX3, AUX8, AUX7 — 2" grommet opening in WR3. Align with grommet opening on countertop.
- B AUX8 — 4" (105mm) W x 4" (105mm) H x 4" (105mm) D pull box with removable screw-type cover plate, flush mounted. Exact height to be determined. Verify location with local Philips Service.
- B WR1, WR2 — 10" (255mm) W x 4" (105mm) D wall raceway, surface mounted with removable screw-type cover plate. "WR1" is at 5" (130mm) A.F.F. to bottom of raceway. "WR2" is at 82" (2085mm) A.F.F. to bottom of raceway. — ED
- B WR3 — 10" (255mm) W x 4" (105mm) D wall raceway, surface mounted with removable screw-type cover plate. "WR3" is at finished floor. — ED
- B PHY — Stub up point for physiological monitoring cables. Run raceway (conduit) to customer's physiological console location. Contact manufacturer for power requirements, etc.
- B ATY — Auxiliary Box - 6" (155mm) W x 6" (155mm) H x 4" (105mm) D wall box, flush mounted with removable screw-type cover plate. Mount 6" below finished ceiling to the top of box. ATY to be clearly visible. Location shown is recommended and customer may change location to meet clinical needs.
- B WL — Warning Light - Provide a surface or flush mounted light fixture above door to indicate when X-ray is on, if required by local code or physicist of record. (Not shown on plan) — ED
- B SH — Grommet opening on "WR1". Approximate location shown is recommended and may be changed - verify relocation with local Philips Service.
- B RL — Exam Room Light Refer to Detail 2-ED. (Not shown on plan)

Floor

- B MSA — 10" (255mm) W x 10" (255mm) L x 6" (155mm) D floor box, under the floor with a 5" (130mm) core drill up to the underside of AD7 universal floor plate. Contractor to provide protection around core drill hole so that there are no sharp edges for protection of cables. Consult with local Philips Service.

Ceiling

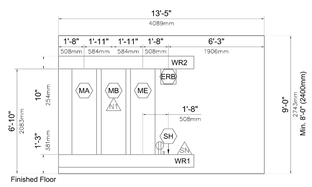
- B SP — 18" (460mm) W x 18" (460mm) L x 6" (155mm) D ceiling box, flush mounted with removable screw-type cover plate. Provide one 3" (80mm) diameter knockout.
- B TV, AUX9, AUX10 — 18" (460mm) W x 18" (460mm) L x 6" (155mm) D ceiling box, above finished ceiling with removable screw-type cover plate. Provide a 2 1/2" (65mm) round cutout (Two 2 1/2" (65mm) round cutouts are required for systems with two monitor carriages - verify with local Philips Service). "AUX9" and "AUX10" to be mounted on back of FlexVision Monitor.

Duplexes

- B IS — 120V/20A dedicated duplex outlet for service.
- B IP — 120V/20A dedicated duplex outlet for Philips equipment.
- G 250 — NEMA L6-30R, Hubbell Part# HBL2620, 250VAC, 30A, wall mount twist lock outlet for Spectranetics Laser. (Not shown)

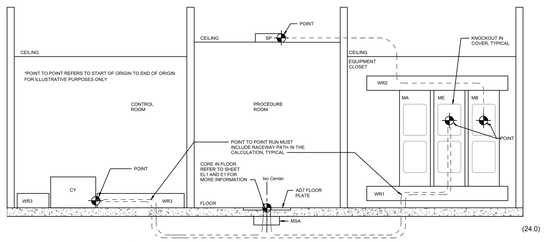
Network Connectors

- B N1 — RJ45 type Ethernet 10/100/1000 Mbit network connector with access to customer's network. Locate within 10' (3050mm) of network card. Network fiber optic and Ethernet cabling, connectors, wall boxes, patch panels, etc. are the responsibility of the purchaser. Philips assumes no responsibility for procurement, installation, or maintenance of these components.
- B SN — RJ45 type Ethernet 10/100/1000 Mbit network connector. For Service Hub. Dedicated conduit and CAT 6 network connection terminated at each end (not allowed with x-ray system cabling).



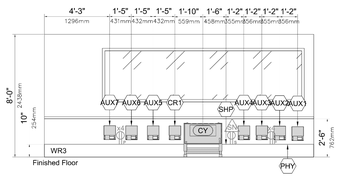
2 E1 EQUIPMENT ROOM ELEVATION

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



3 E1 ELECTRICAL POINT TO POINT DETAIL

SCALE: N.T.S.



4 E1 CONTROL ROOM ELEVATION

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

Important Notes:

Minimal clear countertop - 30".

Grommets to be placed 2' on center throughout the length on countertop.

Architect to coordinate with end users/technicians to determine final placement of control desk components prior to installation in order to avoid rework. Architect to coordinate with Philips Project Manager to reflect final placement on Philips drawings.

Site Specific Only under counter equipment refer. A1/2 for final placement of equipment.

1 - TYPICAL CATH LAB ELECTRICAL LAYOUT

NTS

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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23830 PACIFIC HIGHWAY S. SUITE 300
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SDB SPEESDESIGNBUILD

STAMP
LOUIS R. LITZAO
STATE OF WASHINGTON
55681
3-27-26
REGISTERED PROFESSIONAL ENGINEER

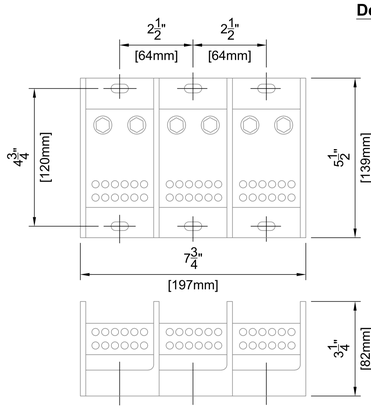
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL CATH LAB DETAILS (3 OF 8)
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-513

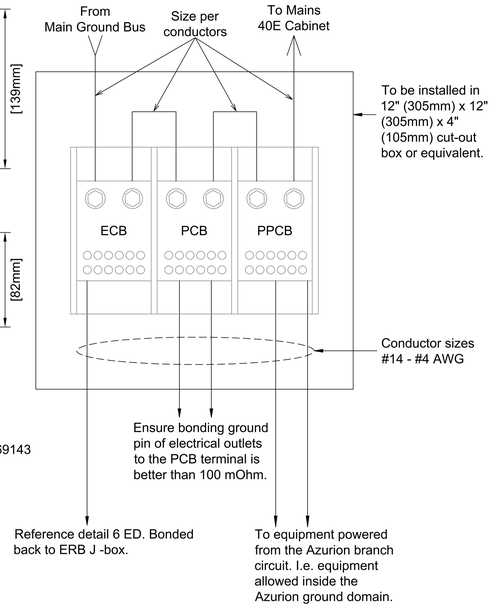
VA FORM 08 - 6231

Detail - Equi-Potential Reference Bar Application

(Not to scale)



1. Furnished and installed by Contractor
2. Purchase from local Mersen distributor, https://ep-us.mersen.com/ Catalog #MPDB69143
3. MPDB Series UL 1953 Open-Style Power Distribution Blocks https://ep-us.mersen.com/products/product/mpdb69143



Invasive Procedures

This equipment may be used for invasive procedures; therefore, the area to be installed is classified as critical care area per NFPA-99 and NFPA-70 (NEC). These documents specify maximum touch voltages and ground impedance in these areas.

Test performed by GSSNA service require that these specifications are met by the GSSNA equipment. It is the facility's responsibility to ensure that these specifications are met by the wall outlet, facility structure, and other equipment not installed by GSSNA.

The GSSNA specified "Equi-Potential Reference Bar (ERB)" serves as a ground reference for GSSNA equipment. It may also serve as the "Reference Grounding Point" of the room as defined in NFPA 99-3.3.140 for non-Philips Healthcare equipment.

Equi-Potential Reference Bar (ERB)
A) Equip-Potential Conductor Bar (ECB)
B) Protective Conductor Bar (PCB)
C) Philips Protective Conductor Bar (PPCB)

(24.0)

1 E-402c CATH LAB EQUI-POTENTIAL REFERENCE BAR DETAIL

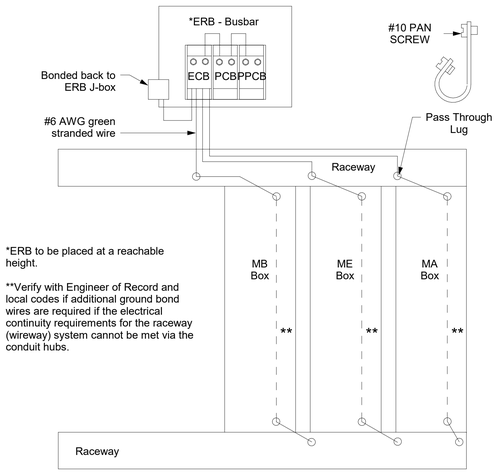
NTS

GENERAL NOTES

1. DETAILS SUPPLIED VIA CATH LAB EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. SHEET SHALL BE PRINTED IN COLOR TO CONVEY ALL INFORMATION.
3. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
4. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.

Detail - Grounding

(Not to scale / Not site specific)



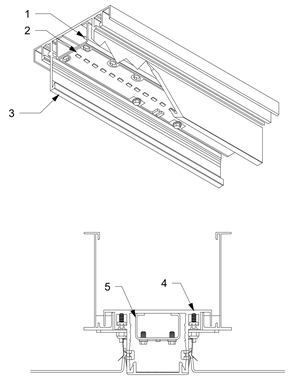
*ERB to be placed at a reachable height.

**Verify with Engineer of Record and local codes if additional ground bond wires are required if the electrical continuity requirements for the raceway (wireway) system cannot be met via the conduit hubs.

2 E-402c CATH LAB EQUIPMENT GROUNDING DETAIL

NTS

DETAIL NOTE(S):
1. DETAIL SUPPLIED VIA MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.



1	LED LIGHT FIXTURE
2	LED STRIP
3	LENS CLIP IN EXTRUSION
4	2.6 BOTTOM LOAD POWDER COATED GRID EXTRUTION
5	LED MOUNTING STRUT
6	LIGHT FIXTURE LENS

3 EL102 CATH LAB CLEAN SUITE LED STRIP LIGHT INSTALLATION DETAIL

NTS

Revisions:	Date:

CONSULTANT

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STAMP
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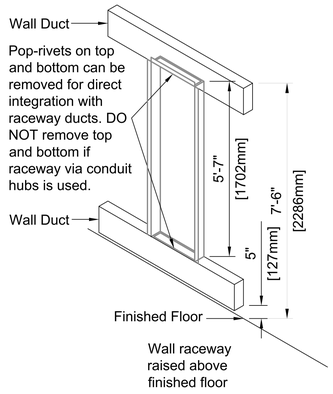
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL CATH LAB DETAILS (4 OF 8)
Phase	100% CD
Project Title	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Project Number	570-21-220
Building Number	001
Approved:	
	FULLY SPRINKLERED
Location	VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date	3/27/2026
Checked	LRL/WNM
Drawn	JFO/JBB
Drawing Number	E-514

VA FORM 08 - 6231



Required:
Back Box Ordering Details

Distinctive Manufacturing Group Method of Business
Transactions for Philips Customers

Part# 989801220367 Philips Xray Back Box

1) Three ordering methods:
   -Email: backbox@thedmgusa.com
   -Phone: 260-495-1818
   -Fax: 260-495-1822

2) Payment Terms - Credit Card Only
   -MasterCard
   -Visa
   -Discover
   -American Express

3) Lead Time
   -3 Week Lead time

4) Freight
   -All shipments will be shipped on skid
   -Freight will be Pre-paid and added (PP+) to the invoice at time of shipment

(24.0)

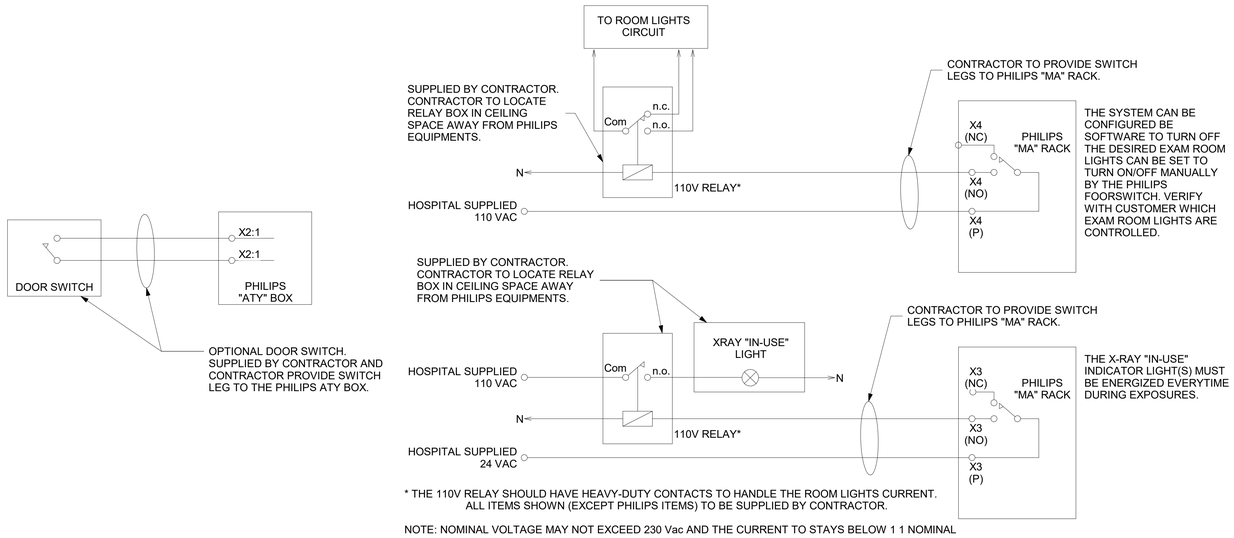
1 (E-402c) CATH LAB EQUIPMENT BACKBOX MOUNTING DETAIL
NTS

2 NOT USED
NTS

GENERAL NOTES

1. DETAILS SUPPLIED VIA CATH LAB EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.

DIAGRAM - TYPICAL CONNECTION OF
X-RAY IN-USE LIGHT, EXAM ROOM LIGHTS, & DOOR SWITCH.

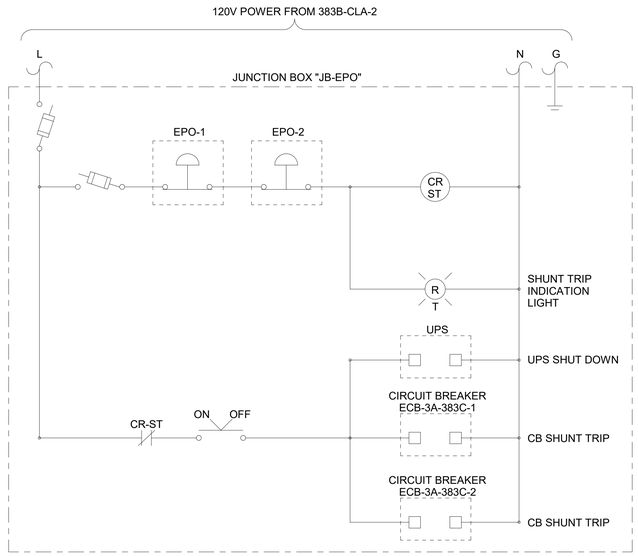


* THE 110V RELAY SHOULD HAVE HEAVY-DUTY CONTACTS TO HANDLE THE ROOM LIGHTS CURRENT.
ALL ITEMS SHOWN (EXCEPT PHILIPS ITEMS) TO BE SUPPLIED BY CONTRACTOR.

NOTE: NOMINAL VOLTAGE MAY NOT EXCEED 230 Vac AND THE CURRENT TO STAYS BELOW 1 1 NOMINAL

3 (E-402c) CATH LAB EQUIPMENT WARNING LIGHTING CONNECTION DETAIL
NTS

DETAIL NOTE(S):
1. WHEN EITHER EMERGENCY POWER OFF SWITCH "EPO-1" OR"EPO-2" ARE PRESSED, SHUNT TRIP IS INITIATED FOR CIRCUITBREAKERS "ECB-3A-383C-1" AND "ECB-3A-383C-2".
2. RESET OF CIRCUIT BREAKERS AND EMERGENCY POWER OFF SWITCHES REQUIRE MANUAL DISENGAGEMENT FOR RESTORATION OF POWER.
3. REFERENCE DETAIL 1 ON SHEET E-512 FOR ADDITIONAL INFORMATION.
4. REFERENCE SHEET EP402 FOR EPO AND JUNCTION BOX LOCATIONS.
5. CONTRACTOR SHALL COORDINATE WITH IMAGING EQUIPMENT VENDOR FOR ALL REQUIREMENTS.



4 (-) EPO JUNCTION BOX "JB-EPO" WIRING DIAGRAM
NTS

Revisions:	Date:

CONSULTANT

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SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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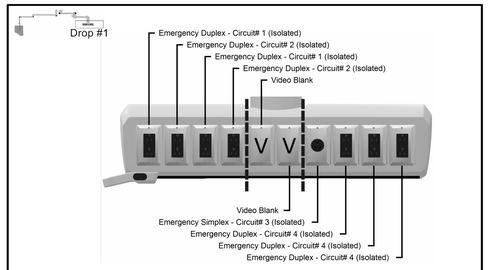
SPEESDESIGNBUILD

STAMP
LOUIS R. LITZKO STATE OF WASHINGTON 55681 3-27-26 REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL CATH LAB DETAILS (5 OF 8)
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-515

VA FORM 08 - 6231



Electrical Divider Plate

Electric	Qty	Type	Isolated	Total
Emergency Simplex	1	Emergency	Yes	1
Emergency Duplex	7	Emergency	Yes	7

DATA	Qty...
Video Blank	2

EMS CIRCUIT TYPE	AMP	QTY
EMS (FIXED ARM) BRAKES - ELECTRO/MECHANICAL (EM)	2	
EMS SPRING ARM BRAKES - (EM)	6	1
EMS MOTORIZED ARM BRAKES - (EM)	10	
STANDARD - NORMAL	20	
STANDARD - ISOLATED	20	
EMERGENCY - NORMAL	20	
EMERGENCY - ISOLATED	20	4
LASER OUTLET (NEMA L6-30R)	30	
AC SURGICAL MONITOR(s)	30	

TITLE:
SIGNATURE:
DATE:

Circuit identification engraving and/or plates are provided and installed by others on site

ALL DIMENSIONS ARE IN INCHES
ALSO REFER TO GENERAL NOTES
APPLICABLE TO EQUIPMENT DRAWINGS

STERIS®
STERIS Corporation
Mentor, OH

ELECTRICAL OUTLET CONFIGURATION

Tandem HarmonyAIR Adj Arm Spring - A Series -Anesthesia, Accessory Arm(s)

H-number: Item no: C1

ACCOUNT NAME: VA Fresno
ACCOUNT LOCATION: Fresno, CA
FILE NAME:
PRINTED DATE: 10/13/2024
SHEET 4 of 21

1 E-402c ANESTHESIA BOOM ELECTRICAL INFORMATION

NTS

HarmonyAIR Monitor Carrier Electrical Circuit(s)

EMS CIRCUIT TYPE	AMP	QTY
EMS (MONITOR CARRIER) SPRING ARM UP/DOWN CONTROLS AND E/M BRAKES	6	1
EMS (MONITOR CARRIER) MONITOR(S) POWER - (EM) - 4x IEC320-C13	20	1

TITLE:
SIGNATURE:
DATE:

Circuit identification engraving and/or plates are provided and installed by others on site

ALL DIMENSIONS ARE IN INCHES
ALSO REFER TO GENERAL NOTES
APPLICABLE TO EQUIPMENT DRAWINGS

STERIS®
STERIS Corporation
Mentor, OH

ELECTRICAL OUTLET CONFIGURATION

HarmonyAIR Monitor Carrier-Monitor Carrier

H-number: Item no: C3

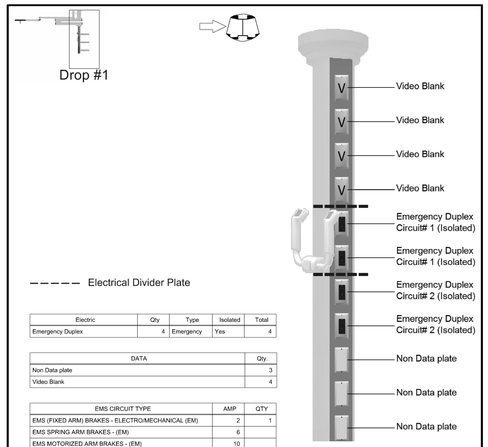
ACCOUNT NAME: VA Fresno
ACCOUNT LOCATION: Fresno, CA
FILE NAME:
PRINTED DATE: 10/13/2024
SHEET 4 of 16

2 E-402c MONITOR BOOM ELECTRICAL INFORMATION

NTS

GENERAL NOTES

1. DETAILS SUPPLIED VIA CATH LAB EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.



Electrical Divider Plate

Electric	Qty	Type	Isolated	Total
Emergency Duplex	4	Emergency	Yes	4

DATA	Qty...
Non Data plate	3
Video Blank	4

EMS CIRCUIT TYPE	AMP	QTY
EMS (FIXED ARM) BRAKES - ELECTRO/MECHANICAL (EM)	2	1
EMS SPRING ARM BRAKES - (EM)	6	
EMS MOTORIZED ARM BRAKES - (EM)	10	
STANDARD - NORMAL	20	
STANDARD - ISOLATED	20	
EMERGENCY - NORMAL	20	
EMERGENCY - ISOLATED	20	2
LASER OUTLET (NEMA L6-30R)	30	
AC SURGICAL MONITOR(s)	30	

TITLE:
SIGNATURE:
DATE:

Circuit identification engraving and/or plates are provided and installed by others on site

ALL DIMENSIONS ARE IN INCHES
ALSO REFER TO GENERAL NOTES
APPLICABLE TO EQUIPMENT DRAWINGS

STERIS®
STERIS Corporation
Mentor, OH

ELECTRICAL OUTLET CONFIGURATION

Tandem HarmonyAIR Fixed - A Series-Equipment, Surgical Light(s) & Accessory Arm(s)

H-number: Item no: C2

ACCOUNT NAME: VA Fresno
ACCOUNT LOCATION: Fresno, CA
FILE NAME:
PRINTED DATE: 10/13/2024
SHEET 4 of 20

3 E-402c EQUIPMENT AND LIGHT BOOM ELECTRICAL INFORMATION

NTS

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL CATH LAB DETAILS (6 OF 8)

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB

Project Number: 570-21-220
Building Number:
Drawing Number: E-516

VA FORM 08 - 6231

GENERAL NOTES

1. DETAILS SUPPLIED VIA CATH LAB EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. IWC IS THE "INTEGRATED WALL CONTROL WITH INTEGRATED POWER SUPPLIES", ALSO KNOWN AS THE CONTROL CENTER.
2. RECOMMENDED HEIGHT OF ROUGH-IN BOX 60" MIN. ABOVE FINISHED FLOOR TO COMPLY WITH NFPA REQUIREMENT FOR FLAMMABLE ANESTHETICS. CONTROL BOX MAY BE MOUNTED BELOW 60" IF NO FLAMMABLE ANESTHETICS ARE UTILIZED.
3. OPENING IN WALL TO RECEIVE ROUGH-IN BOX MUST BE 10" SQUARE AND 3 1/2" MIN. TO 3 7/8" MAX. 3 5/8 NOMINAL DEPTH. DEPTH IS MEASURED FROM FRONT SURFACE OF WALL. (254mm SQ. & 89mm TO 99mm, 92mm NOMINAL DEPTH) ROUGH-IN BOX MUST BE INSTALLED LEVEL WITH OUTSIDE SURFACE FLUSH WITH FINISHED WALL.
4. ROUGH-IN BOX MUST BE SECURELY MOUNTED WITHIN WALL. ENTIRE ROUGH-IN BOX AND IWC WEIGHS APPROXIMATELY 10 LBS (4.5 KGS). 1/4-20 CORNER HOLES ARE NOT FOR MOUNTING ROUGH-IN BOX TO THE WALL. THEY ARE FOR MOUNTING THE IWC TO THE ROUGH-IN BOX.
5. LABEL THE ENDS OF ALL WIRES FOR FUTURE IDENTIFICATION.
6. GROUNDING IS CRITICAL FOR SAFETY & EFFICACY OF THE SYSTEM. SEE SYSTEM GROUNDING ON PAGE 3.
7. EQUIPMENT MUST BE INSTALLED PER NATIONAL AND LOCAL CODES.
8. FOR RECOMMENDED CONDUIT AND WIRE LENGTHS, REFER TO IWC CABLE AND CONDUIT REQUIREMENTS CHARTS IN THIS DOCUMENT.
9. CEILING ACCESS PANEL HIGHLY RECOMMENDED, AND LOCATED WITHIN ARMS REACH OF THE HUB LOCATION FOR SERVICE ACCESSIBILITY.
10. JUNCTION BOX (NOT SUPPLIED BY STERIS) MUST BE MOUNTED WITHIN 18" OF CEILING PLATE CENTER FOR AC & DC CONNECTIONS. SEPARATE JUNCTION BOXES ARE REQUIRED FOR AC & DC CONNECTIONS.
11. THIS DOCUMENT IS FOR THE HARMONYAIR SURGICAL LIGHTING SYSTEM A-SERIES MOUNTING ONLY. THIS DOCUMENT MUST BE COMBINED WITH INSTALLATION INSTRUCTIONS AND MECHANICAL EQUIPMENT DRAWINGS IN ORDER TO UNDERSTAND ALL INSTALLATION REQUIREMENTS.
12. ALLOWABLE EARTH LEAKAGE CURRENT IS 5 MILLIAMPS.
13. STERIS ASSUMES NO RESPONSIBILITY FOR CHANGES MADE THROUGH FAILURE TO OBSERVE THESE INSTRUCTIONS.
14. IT IS RECOMMENDED TO HAVE A DEDICATED BREAKER AS WELL AS A DEDICATED GROUND FOR THE IWC & CEILING PLATE.
15. THE NOMINAL POWER CONSUMPTION IS LISTED FOR THE HARMONYAIR SURGICAL LIGHTING SYSTEM "A-SERIES" FAMILY OF LIGHTING.

	WATTS	BTU/HR
LIGHTHEAD	40*	136*
LED AMBIENT LIGHT	10	34

THE INCOMING POWER RATING FOR A FOUR LIGHTHEAD SYSTEM INCLUDING AN AMBIENT LIGHT IS 120-240 VAC, 7-3A, 50/60 Hz.

16. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
17. COMPLETE ROUGH-IN BOX 10101691 FOR IWC (REF. LAS0034) FURNISHED BY STERIS.
18. A 3/4" CONDUIT CAN FIT UP TO 2 STERIS SUPPLIED DC POWER CABLES (12 AWG, 2 CONDUCTOR); IF LARGER AWG CABLES ARE NEEDED DUE TO RUNS LONGER THAN 75ft. THEN A LARGER CONDUIT MAY BE REQUIRED (CUSTOMER DETERMINED AND SUPPLIED), SEE TABLE 1 ON PAGE 3.

*LIGHTHEAD RANGES FROM 20-140 WATTS (68-478 BTU/HR) BECAUSE OF AUTO-INTENSITY ADJUSTMENTS

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
STERIS® STERIS Corporation Mentor, OH
ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 2 of 12

SYSTEM GROUNDING NOTES

1. NEC GROUNDING BASIC PRINCIPLES -- NATIONAL ELECTRICAL CODE SPECIFICALLY STATES THAT SYSTEMS WILL BE GROUNDED FOR THREE REASONS:
   1.) TO PROTECT FROM LIGHTNING AND OVER-VOLTAGE BY ACCIDENTAL CONTACT
   2.) TO REFERENCE THE VOLTAGE AND STABILIZE IT WITH RESPECT TO GROUND (EMI/EMC)
   3.) TO FACILITATE FUSING AND GROUND FAULT DEVICES
2. GROUNDING METHOD - A REDUNDANT GROUND METHOD IS USED FOR IWC IN ORDER TO MAKE SURE THAT TOUCH LEAKAGE CURRENT IS MAINTAINED BELOW 500 MICRO-AMPS. AN EARTH GROUND SHALL BE RUN WITH AC MAINS CONNECTION TO THE ROUGH-IN BOX. A GROUND WIRE OR CONDUIT CONNECTION SHALL BE RUN FROM ROUGH-IN BOX TO THE CEILING PLATE. AN EARTH GROUND SHALL BE BROUGHT FROM A SEPARATE GROUND SOURCE TO THE CEILING PLATE.
3. THE GROUNDING POINT FOR ALL DEVICES SHOULD BE THE BUILDING STEEL. ALL HOSPITALS ARE REQUIRED TO HAVE A GRID GROUNDING SYSTEM WHICH SHOULD INCLUDE THE BUILDING STEEL. THIS DOES NOT NECESSARILY MEAN THAT "ALL" STEEL PARTS ARE INCLUDED IN THE GRID AND HAVE BONDED GROUND STRAPS. THE OTHER CONSIDERATION IS THAT ALL GROUND STRAPS ARE INTACT. A RESISTANCE CHECK FROM SYSTEM ELECTRICAL GROUND TO A RELIABLE BUILDING GROUND POINT SHOULD SHOW CONTINUITY. IF CONTINUITY DOES NOT EXIST FROM THE HUB TO THE BUILDING GROUND NOTIFY THE CUSTOMER SITE MAINTENANCE DEPARTMENT TO CORRECT THE PROBLEM.
5. STERIS "HARMONYAIR SURGICAL LIGHTING SYSTEM A-SERIES" GROUNDING SCHEME IS SHOWN ON PAGES 10 TO 11. ADDITIONAL GROUNDING REQUIREMENTS ARE LISTED IN THE INSTALLATION INSTRUCTIONS 11007640.

CONDUIT REQUIREMENTS NOTES

1. (AC1) SITE AC POWER FOR IWC.
2. FOR DC POWER, RUNS OTHER THAN THE SUPPLIED (50ft. OR 75ft. OPTIONAL) WILL REQUIRE CUSTOMER SUPPLIED CABLE, SEE TABLE 1.
3. HD VIDEO FIBER OUTPUT CAN GO TO SITE SPECIFIC A/V EQUIPMENT, OR DIRECTLY TO MONITOR (CUSTOMER DETERMINED).
4. ALL CONDUIT, AC SUPPLY LINES, AND GROUND WIRES ARE TO BE SUPPLIED BY CUSTOMER ON SITE.

TABLE 1:

DC POWER (LONG RUNS) CABLE CHART		
RUN LENGTH FROM IWC TO HUB		MIN. ACCEPTABLE AWG
LENGTH IN FEET	LENGTH IN METERS	
6-75	2-22	12
75-100	22-30	10
100-150	30-45	8*
150-250	45-75	6*
250-325	75-100	4*

* FOR 4-8 AWG WIRE BOTH ENDS MUST BE SPLICED TO A SHORT LENGTH OF 10 AWG WIRE IN ORDER TO ACCOMMODATE THE TERMINAL BLOCK SIZE RESTRICTION IN THE IWC AND HUB BREAKOUT BOARD.

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
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ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 3 of 12

MAXIMUM CONFIGURATION PER IWC

- REFER TO MECHANICAL EQUIPMENT DRAWINGS FOR MOUNTING REQUIREMENTS OF MECHANICAL COMPONENTS.
- REFER TO SHEETS 10-12 FOR SPECIFIC CONFIGURATIONS. NOT ALL POSSIBLE CONFIGURATIONS ARE SHOWN.

STERIS COMPONENT	MAXIMUM NUMBER PER SYSTEM	COMMENTS
LIGHTHEADS	4	MAXIMUM 3 LIGHTHEADS PER HUB BOARD
LIGHTHANDLE HD CAMERA (OPTIONAL)	2	WILL ONLY FUNCTION IF INSERTED INTO HD COMPATIBLE LIGHTHEAD.
AMBIENT LIGHT (OPTIONAL)	2	ONE MOUNTED PER CENTRAL SPINDLE.
CEILING PLATE (SPINDLE)	2	DENOTED AS (PRIMARY AND SECONDARY MOUNT)

CONFIGURATION NOTES

(SEE FIGURES 1, AND 2 ON SHEETS 10-11)

GENERAL NOTES:

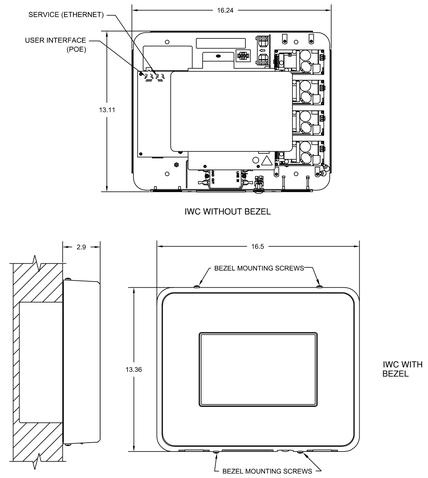
1. WIRING ENTERS THROUGH CEILING PLATE AREA. TERMINATE ELECTRICAL METALLIC TUBING (EMT) INTO LOW VOLTAGE JUNCTION BOX WITHIN 18" OF CEILING PLATE AND GROUND TO CEILING PLATE.
2. 1" EMT MAY BE USED IF SYSTEM CONFIGURATION PERMITS.

DRAWING NOTES:

1. SIGNAL CONDUIT SIZE FROM A/V EQUIPMENT IS DETERMINED AND SUPPLIED BY A/V VENDOR.
2. ALL CONDUIT RUNS AND AC SUPPLY LINES ARE TO BE SUPPLIED BY CUSTOMER ON SITE.
3. FIBER CAN BE RUN THRU CONDUIT, LC FIBER CONNECTOR AVAILABLE AT CEILING PLATE.
4. THE DAISY CHAIN HARNESS INCLUDES AN INTEGRATED FLEXIBLE METAL CONDUIT THAT MUST BE CONNECTED TO EITHER A CUSTOMER SUPPLIED GROUNDED JUNCTION BOX AT BOTH CEILING PLATES OR OPTIONAL HUB BREAKOUT BOARD ENCLOSURE STERIS P/N 10103591 (1 PER HUB).

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
STERIS® STERIS Corporation Mentor, OH
ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 4 of 12

IWC INFORMATION

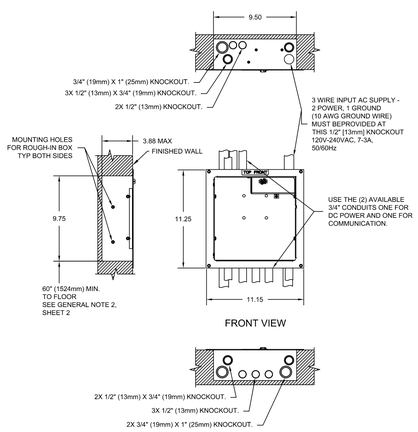


WALL CAVITY ABOVE AND BELOW IWC MUST BE KEPT CLEAR OF ANY OBSTRUCTIONS TO PREVENT INTERFERENCE WITH CONDUITS.

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
STERIS® STERIS Corporation Mentor, OH
ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 5 of 12

INTEGRATED WALL CONTROL (IWC) ROUGH-IN BOX INFORMATION

(WALL CONTROL NOT SHOWN)



NOTES:
- WALL CAVITY ABOVE AND BELOW IWC MUST BE KEPT CLEAR OF ANY OBSTRUCTIONS TO PREVENT INTERFERENCE WITH CONDUITS.
- LIGHTHEAD DC POWER SUPPLIES HAVE AC INPUT AUTORANGING FEATURE FOR 120V-240VAC

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
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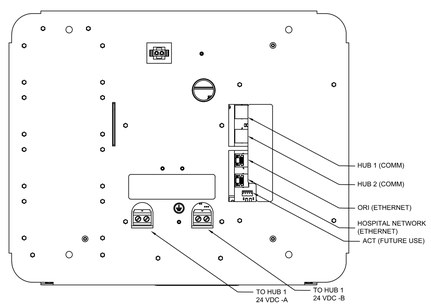
ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 6 of 12

IWC INFORMATION



BACK VIEW

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
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ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 7 of 12

HARMONYAIR SURGICAL LIGHTING SYSTEM A SERIES CABLES

CONNECTIONS										CONNECTIONS			
CABLE													
CONDUIT													
LABEL	DESCRIPTION	QUANTITY	LENGTH	PART #						SYSTEM	PANEL	TO	PINS
				AC	DC								
POWER CABLES													
AC1	AC POWER CABLE (NORTH AMERICAN)	1	6FT	11006243	50100121	12AWG				IWC	IWC	HUB 1	
DC1	DC POWER CABLE (NORTH AMERICAN)	1	50FT	11006244	50100124	12AWG	3/4"	1"		IWC	IWC	HUB 1	
DC2	DC POWER CABLE (NORTH AMERICAN)	1	75FT	11006245	50100125	12AWG	3/4"	1"		IWC	IWC	HUB 1	
COMMUNICATION CABLES													
C1	COMMUNICATION CAT 5	1	50FT (CONDUIT DEPENDING)	N/A	50100130	11006246	3/4" (CONDUIT DEPENDING)			IWC	IWC	HUB 1	4
C2	COMMUNICATION CAT 5	1	75FT (CONDUIT DEPENDING)	N/A	50100131	11006247	3/4" (CONDUIT DEPENDING)			IWC	IWC	HUB 2	4

* NON STANDARD AND MUST BE PURCHASED SEPERATELY.

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
STERIS® STERIS Corporation Mentor, OH
ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 8 of 12

CONDUIT REQUIREMENTS (FIGURES 1,2)

CONDUIT		CABLE		CONNECTIONS			
LABEL	SIZE	STD (CAN) RUN	CABLE DESCRIPTION	STYLE PER PANEL	QTY	FROM	TO	PINS
AC-POWER								
AC1	1/2"	20ft (STANDARD)	AC POWER FOR IWC	SEE AWG # & CONDUCTOR CABLES	1	SITE AC CLEANER	IWC	3
DC-POWER								
DC1	3/4"	50FT (CUSTOM)	2C POWER FOR IMPROVISED	SEE AWG # & CONDUCTOR CABLES	1	FIRST DISCONNECT & A/V POWER CABLE BOX	IWC	4
COMMUNICATION SIGNALS								
C1	3/4" (CONDUIT DEPENDING)	50 FT (10 FT +)	COMMUNICATION CAT 5	1 CORNER CAT 5 CABLE	1	PRIMARY HUB	IWC	4
C2	3/4" (CONDUIT DEPENDING)	50 FT (10 FT +)	COMMUNICATION CAT 5	1 CORNER CAT 5 CABLE	1	SECONDARY HUB	IWC	4

* MAXIMUM LENGTH FOR DC CABLES OR CAT5 COMMUNICATION CABLES IS 100ft. 120ft. (CUSTOMER SUPPLIED)

ALL DIMENSIONS ARE IN INCHES ALSO REFER TO GENERAL NOTES APPLICABLE TO EQUIPMENT DRAWINGS
STERIS® STERIS Corporation Mentor, OH
ELECTRICAL EQUIPMENT DRAWING
HarmonyAIR SURGICAL LIGHTING SYSTEM A-SERIES
ACCOUNT NAME / ACCOUNT LOCATION / FILE NAME / PRINTED DATE / SHEET 9 of 12

1 SURGICAL LIGHTING SYSTEM ELECTRICAL INFORMATION (1 OF 2)

E-402c

NTS

Revisions:	Date:

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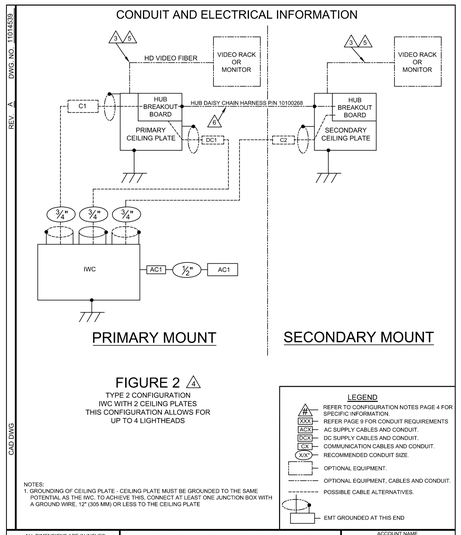
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

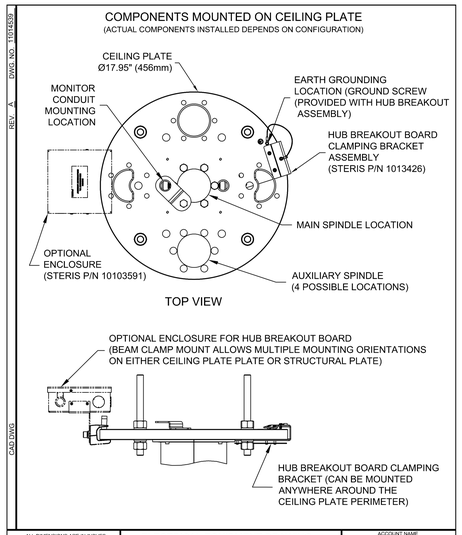
Drawing Title: ELECTRICAL CATH LAB DETAILS (7 OF 8)
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number:
Drawing Number: E-517

VA FORM 08 - 6231

GENERAL NOTES

1. DETAILS SUPPLIED VIA CATH LAB EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402c FOR ADDITIONAL INFORMATION.





1 SURGICAL LIGHTING SYSTEM ELECTRICAL INFORMATION (2 OF 2)

E-402c

NTS

Revisions:	Date:

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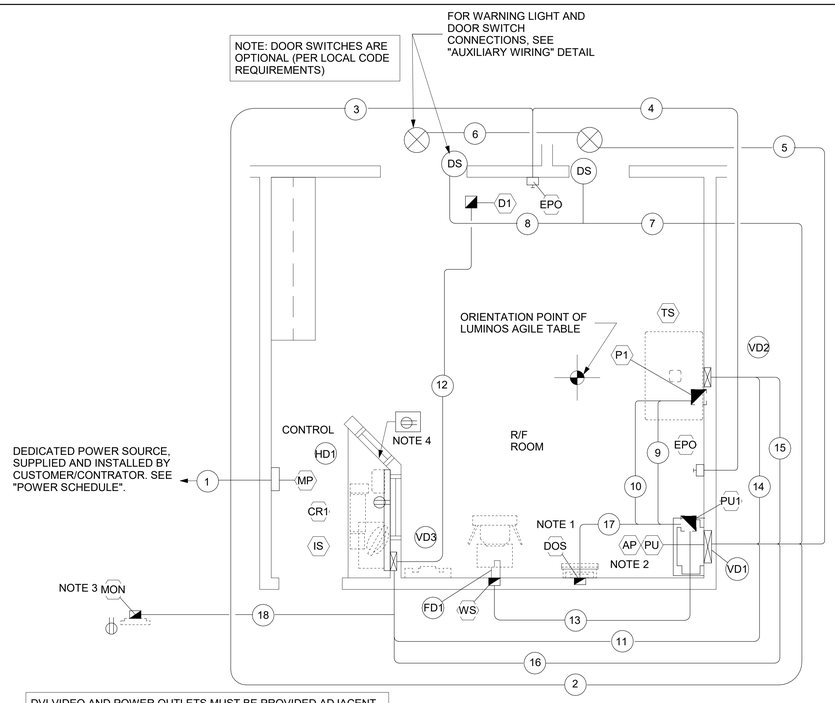
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL CATH LAB DETAILS (8 OF 8)	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number:
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: E-518

VA FORM 08 - 6231



DVI VIDEO AND POWER OUTLETS MUST BE PROVIDED ADJACENT TO THE LOCATION DETERMINDED FOR THE DVI COMPATIBLE MONITOR. FINAL LOCATIONS FOR THE MONITOR AND OUTLETS MUST BE DETERMINED BY CUSTOMER/CONTRACTOR.

(NOTE 1) THE DOCKING STATION ("DOS") IS REPLACED BY THE ACCESS POINT ("AP") FOR ALL MAX SYSTEMS.

(NOTE 2) THE ACCESS POINT ("AP") IS PROVIDED WITH ALL MAX SYSTEMS. IT IS MOUNTED ON TOP OF THE GENERATOR CABINET

(NOTE 3) THE DVI INTERFACE ("MON") IS AN OPTION FOR ALL MAX SYSTEMS, FINAL LOCATION IS DETERMINED BY THE CUSTOMER/CONTRACTOR.

(NOTE 4) A CONVENIENCE DUPLEX OUTLET FOR THE BATTERY CHARGER (OPTION) IS REQUIRED FOR ALL MAX SYSTEMS.

ELECTRICAL RACEWAY PLAN

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

SYMBOLS

ALL MAY NOT APPLY

	MAIN PANEL OR ENCLOSURE BY CUSTOMER/CONTRACTOR
	OPENING IN RACEWAY OR TRENCHDUCT
	PULLBOX IN (FLOOR/WALL/CEILING)
	OPENING IN ACCESS FLOORING
	WARNING LIGHT (X-RAY ON)
DS	DOOR SAFETY SWITCH
	(EPO) EMERGENCY POWER OFF BUTTON
	TRENCHDUCT
	CEILING DUCT
	UNDER FLOOR DUCT
	SURFACE DUCT
	VERTICAL DUCT
	ETHERNET CONNECTION TO CUSTOMER'S INFORMATION SYSTEMS NETWORK (VERIFY WITH SMS PROJECT MANAGER)
	110 VOLT, 20 AMP, HOSPITAL GRADE DUPLEX OUTLET UNLESS OTHERWISE STATED
	110 VOLT, 20 AMP, HOSPITAL GRADE QUAD OUTLET
L6-30R	SPECIAL PURPOSE RECEPTACLE

ELECTRICAL LEGEND

SYM	SIZE	DESCRIPTION SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR	REMARKS
CR1	- - -	OPENING IN FACE OF "HD1 ". EXACT LOCATIONS MUST BE DETERMINED AT TIME OF EQUIPMENT INSTALLATION.	FOR CONTROL EQUIPMENT
D1	6"x6"x6"	PULL BOX MOUNTED FLUSH WITH FINISHED CEILING, WITH REMOVABLE COVER.	FOR DCS CEILING MONITOR
DOS	6"x6"x4"	PULL BOX MOUNTED FLUSH WITH FINISHED WALL CENTERLINE 12" ABOVE THE FINISHED FLOOR.	FOR DOCKING STATION
EPO	- - -	EMERGENCY POWER BUTTON WITH PROTECTIVE COVER, MOUNTED 5'-0" ABOVE THE FINISHED FLOOR.	SEE POWER SCHEDULE
IS	10"x4"	OPENING IN FACE OF "VD3", CENTERLINE 6" ABOVE THE FINISHED FLOOR.	FOR IMAGING SYSTEM
MP	- - -	MAIN PANEL WITH MAIN BREAKER. EXACT LOCATION DETERMINED BY CUSTOMER/ CONTRACTOR	SEE POWER SCHEDULE
MON	AS REQUIRED	(MAX) PULL BOX FOR VIDEO TO DVI COMPATIBLE MONITOR. EXACT LOCATION TO BE COORDINATED WITH SIEMENS PROJECT MANAGER.	DVI CONNECTION IN EXAM ROOM
P1	AS REQUIRED	PULL BOX MOUNTED UNDER FLOOR SLAB WITH 4" DIA. CONDUIT RUNNING THROUGH FLOOR SLAB THAT ENDS FLUSH WITH FINISHED FLOOR UNDER THE TABLE BASE.	SIZED BY ELEC. CONTRACTOR
PU AP	18"x4"	OPENING IN FACE OF "VD1" AT THE FLOOR LINE.	FOR GENERATOR W/ ACCESS POINT
PU	AS REQUIRED	PULL BOX MOUNTED UNDER FLOOR SLAB WITH 4" DIA. CONDUIT RUNNING THROUGH FLOOR SLAB THAT ENDS FLUSH WITH FINISHED FLOOR UNDER POLYDOROS GENERATOR	SIZED BY ELEC. CONTRACTOR
TS	- - -	OPENING IN FACE OF "VD2" AT THE CEILING LINE. EXACT SIZE AND LOCATION TO BE DETERMINED AT TIME OF EQUIPMENT INSTALLATION.	FOR CEILING TUBE STAND
WS	6"x6"x4"	PULL BOX MOUNTED FLUSH TIWH FINISHED WALL AT THE FLOOR LINE AND FITTED WITH REMOVABLE COVER.	FOR WALL STAND
FD1	4 3/4" x 1 3/4"	FLOOR DUCT (6" LONG WIREMOLD 4000 OR EQUIVALENT) SURFACE MOUNTED ON FLOOR FROM PULL BOX "WS" TO REAR OF WALL STAND BASE, TO PROVIDE COVER FOR CABLES	FOR WALL STAND
HD1	6" x 3 1/2"	HORIZONTAL DUCT SURFACE MOUNTED ON WALL JUST BELOW THE CONTROL COUNTER AND CONNECTED TO "VD3".	FOR CONTROL EQUIPMENT
VD1	18" x 3 1/2"	VERTICAL DUCT MOUNTED FLUSH WITH FINISHED WALL FROM ABOVE THE FINISHED CEILING TO END AT THE FLOOR LINE. THIS DUCT MUST BE DIVIED INTO THREE EQUAL SECTIONS TO PROVIDE FOR SEPARATIONS OF CABLES.	FOR GENERATOR
VD2	10" x 3 1/2"	VERTICAL DUCT MOUNTED FLUSH WITH FINISHED WALL FROM ABOVE THE FINISHED CEILING TO END AT THE FLOOR LINE. THIS DUCT MUST BE DIVIED INTO THREE SECTIONS: ONE 4" AND TWO 3", TO PROVIDE FOR SEPARATION OF CABLES.	FOR CEILING TUBE STAND
VD3	10" x 3 1/2"	VERTICAL DUCT MOUNTED FLUSH WITH FINISHED WALL FROM ABOVE THE FINISHED CEILING TO END AT THE FLOOR LINE. THIS DUCT MUST BE DIVIED INTO THREE SECTIONS: ONE 4" AND TWO 3", TO PROVIDE FOR SEPARATION OF CABLES.	FOR CONTROL EQUIPMENT
	-	NOTES: 1. WARNING LIGHTS AND DOOR SWITCHES ARE THE RESPONSIBILITY OF THE CUSTOMER/CONTRACTOR. SEE "AUXILIARY WIRING" DETAIL. 2. TO TURN ROOM LIGHTS OFF FROM THE SIEMENS EQUIPMENT, SEE "ROOM LIGHTING WIRING" DETAIL.	
1	AS REQUIRED	CONDUIT FROM POWER SOURCE TO MAIN PANEL (MP).	SIZED BY ELEC. CONTRACTOR
2	AS REQUIRED	CONDUIT FROM "MP" TO "VD1" (PU).	SIZED BY ELEC. CONTRACTOR
3	AS REQUIRED	CONDUIT FROM "MP" TO "EPO".	SIZED BY ELEC. CONTRACTOR
4	AS REQUIRED	CONDUIT FROM "EPO" TO "EPO".	SIZED BY ELEC. CONTRACTOR
5	AS REQUIRED	CONDUIT FROM "VD1" (PU) TO RELAY CIRCUITRY TO WARNING LIGHT.	SIZED BY ELEC. CONTRACTOR
6	AS REQUIRED	CONDUIT FROM WARNING LIGHT TO WARNING LIGHT.	SIZED BY ELEC. CONTRACTOR
7	AS REQUIRED	CONDUIT FROM "VD1" (PU) TO DOOR SWICTH.	SIZED BY ELEC. CONTRACTOR
8	AS REQUIRED	CONDUIT FROM DOOR SWICTH TO DOOR SWICTH.	SIZED BY ELEC. CONTRACTOR
9	(2) 2 1/2" DIA.	CONDUIT FROM "P1" TO "PU1". (OR TWO 3" DIA. CONDUITS)	SIZED BY ELEC. CONTRACTOR
10	(2) 2 1/2" DIA.	CONDUIT FROM "P1" TO "PU1".	MAX. CONDUIT LENGTH 16 FT.
11	(2) 1/2" DIA.	CONDUIT FROM "VD3" (CR1) TO "VD1" (PU).	MAX. CONDUIT LENGTH 16 FT.
12	(2) 1/2" DIA.	CONDUIT FROM "VD3" (IS) TO "D1".	MAX. CONDUIT LENGTH 34 FT.
13	3" DIA.	CONDUIT FROM "PU1" TO "WS".	MAX. CONDUIT LENGTH 46 FT.
14	(2) 2 1/2" DIA.	CONDUIT FROM "VD1" (PU) TO "VD2" (TS).	MAX. CONDUIT LENGTH 33 FT.
15	2" DIA.	CONDUIT FROM "VD1" (PU) TO "VD2" (TS).	MAX. CONDUIT LENGTH 22 FT.
16	(2) 2 1/2" DIA.	CONDUIT FROM "VD3" (IS) TO "VD1" (PU).	MAX. CONDUIT LENGTH 39 FT.
17	1 1/2" DIA.	(*) CONDUIT FROM "PU1" TO "DOS". (NOT USED WITH MAX SYSTEMS)	MAX. CONDUIT LENGTH 33 FT.
18	2" DIA.	(MAX) CONDUITS FROM "IS" TO "MON".	MAX. CONDUIT LENGTH 118 FT.
	-	(*) - THIS CONDUITS IS ELIMINATED FOR ALL MAX SYSTEMS (MAX) - CONDUIT ADDED FOR MAX SYSTEMS ONLY	

1 ELECTRICAL RAD FLUORO DETAILS (1 OF 3)

E-402d

NTS

ELECTRICAL NOTES

1) COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA—70), O.S.HA. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY. COUNTY. STATE AND FEDERAL AGENCIES, PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY WITH ANSI, IEEE AND NEMA STANDARDS AND ARE U.L. LISTED AND LABELED. THE CUSTOMER'S/CONTRACTOR'S WORK AND ALL EQUIPMENT INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE ADOPTED/ENFORCED BY THE AUTHORITY HAVING JURISDICTION.

2) QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO ENSURE THAT THE NEW WORK WILL FIT INTO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE PERFORMANCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS. DIMENSIONS. OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY THE SIEMENS PROJECT MANAGER.

3) POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS HEALTHCARE EQUIPMENT SHALL BE FROM A MEDICAL IMAGING PANEL OR BUILDING SERVICE EQUIPMENT THAT IS A GROUNDED 3 OR 4-WIRE 'WYE' SOURCE PER THE SPECIFIC EQUIPMENT OPERATION REQUIREMENTS. A DEDICATED CIRCUIT SHALL BE PROVIDED THAT IS KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING. NO ELEVATORS, GENERATORS, PUMPS, HVAC OR SIMILAR EQUIPMENT SHALL BE CONNECTED TO THE SAME CIRCUIT OR MEDICAL IMAGING PANEL THAT SERVES THE SIEMENS HEALTHCARE EQUIPMENT. IF THE POWER SUPPLY SOURCE DOES NOT MEET THE SPECIFIC SIEMENS EQUIPMENT POWER REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT REQUIRED TO ESTABLISH THE POWER SUPPLY IN ACCORDANCE WITH THE REQUIRED POWER SUPPLY PARAMETERS OF THE SIEMENS EQUIPMENT.
THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER AND/OR UTILITY COMPANY FIELD REPRESENTATIVE.

4) WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SIEMENS HEALTHCARE BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING. UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS. WIRING TROUGHS. PULL BOXES, CONDUITS, CIRCUIT BREAKERS. ACCESS PANELS, EMERGENCY OFF BUTTONS. DOOR SWITCHES, WARNING LIGHTS, WIRING DEVICES, CONNECTORS. LIGHTING EQUIPMENT AND GROUNDING.

5) RACEWAY AND CONDUIT NOTES: ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT ENFORCED EDITION or THE NATIONAL ELECTRICAL CODE.

CONDUIT BODIES SHALL NOT BE USED. WHERE A CONDUIT ENTERS A BOX. FITTING. OR OTHER ENCLOSURE, AN INSULATED THROAT CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. ALL CONNECTORS FOR EMT SHALL BE COMPRESSION OR DOUBLE SET SCREW TYPE.

KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAY RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY.

CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS HEALTHCARE CABLES DO NOT EXCEED THE SPECIFIED UAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. LISTED CONDUIT SIZES FOR SIEMENS-SUPPLIED CABLES MUST BE MAINTAINED IN ORDER TO ENABLE THE TOTAL CABLE BUNDLE INCLUDING CONNECTORS TO BE PULLED THROUGH WITHOUT DAMAGE.

PROVIDE ENCLOSED METAL WIRE DUCT RACEWAY SYSTEM WHERE SHOWNON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT INTO TWO OR THREE SEPARATE COMPARTMENTS AS SHOWN ON THE SIEMENS PLANS (FOR POWER AND SIEMENS HEALTHCARE CABLING). DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM CERTIFICATION OF THE EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED. IS NOT NECESSARY TO INSURE SEPARATION OF CIRCUITS.

PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS. LOCATIONS OF BUILDING MATERIAL OPENINGS (I.E. ACCESS PANELS) TO BE CUT IN ARE TO BE COORDINATED WITH THE DRAWING REQUIRMENTS AND BUILDING STRCTURE. THOSE THAT ARE NOT INDICATED OR INTERFER WITH BUILDING ELEMENTS SHALL BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE INSTALLED IN A MANNER TO ALLOW ACCESSIBILITY FOR INSTALLATION AND MAINTENANCE. CONTRACTORS MUST PROVIDE PULL STRINGS FOR ALL CONDUIT AND WIRE DUCT/RACEWAY. IN-FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS.

WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED HIGHER THAN 14 FEET ABOVE FINISHED FLOOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP THE SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES AT CUSTOMER'S EXPENSE. WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED ABOVE A HARD CEILING (I.E. SHEET ROCK), A 24" x 24" ACCESS PANEL IS REQUIRED AT EACH JUNCTION Box AND WITHIN 2 FEET OF EACH RACEWAY TRANSITION (SUCH AS A 90 DEGREE ELBOW OR TEE) IN DUCT/RACEWAY. THERE MUST BE FREE AND CLEAR ACCESS TO JUNCTION BOXES AND WIRE DUCT/RACEWAY. WHEN ACCESS PANELS ARE LOCATED MORE THAN 3 FEET FROM JUNCTION BOXES AND WIRE DUCT/RACEWAY THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWOELECTRICIANS TO HELP SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES ATCUSTOMER'S EXPENSE.

6) WIRING: ALL WIRING INSTALLED SHALL BE 600 VOLT CLASS, STRANDED TYPE THHN/THWN—2, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 90• C (194• F), SIZED AS INDICATED, INSTALLED IN METAL RACEWAYS. THE CUSTOMER/CONTRACTOR SHALL LEAVE A MINIMUM 10 FEET OF WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY THE CUSTOMER/ELECTRICAL CONTRACTOR.

7) SHORT CIRCUIT REQUIREMENTS: ALL CIRCUIT BREAKERS SUPPLIED FOR THE SIEMENS EQUIPMENT REQUIREMENTS SHALL BE RATED HIGHER THAN THE SHORT CIRCUIT AVAILABLE AT THE TERMINALS OF THE ELECTRICAL EQUIPMENT AS DETERMINED BY THE ENGINEER OF RECORD, BUT NOT LESS THAN 35,000A RMS SYMMETRICAL AT 480V, 3—PHASE, 60 HERTZ. THE CONTRACTOR SHALL OBTAIN THE CORRECT SHORT CIRCUIT CURRENT RATING OF ALL THE NEW EQUIPMENT FOR INSTALLATION FROM THE ENGINEER OF RECORD.

GENERAL NOTES

1. DETAIL SUPPLIED VIA RAD FLUORO EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402d FOR ADDITIONAL INFORMATION.

Revisions:	Date:

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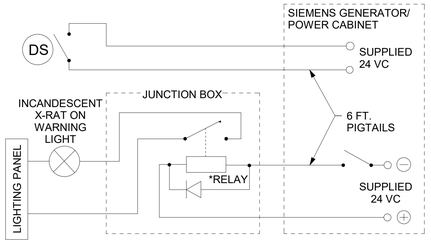
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL RAD FLUORO DETAILS (1 OF 3)	Phase: 100% CD	Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1	Project Number: 570-21-220
Approved:	FULLY SPRINKLERED	Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA	Building Number: 001
		Issue Date: 3/27/2026 · Checked: LRL/WNM · Drawn: JFO/JBB	Drawing Number: E-521

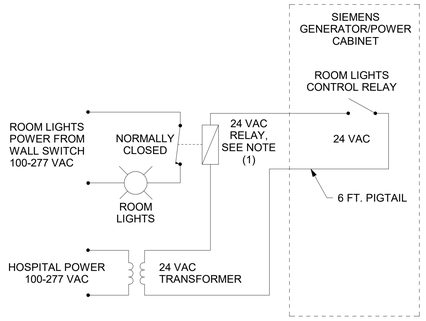
VA FORM 08 - 6231



*NORMALLY OPEN RELAY WITH A 24 VOLT, DC COIL (NOT TO EXCEED 5 WATTS) AND A STEERING DIODE WIRED OVER THE RELAY COIL, SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR, SIEMENS TO PROVIDE CONTROL SIGNAL TO RELAY, CONTRACTOR SUPPLIED AND INSTALLED JUNCTION BOX.

WARNING LIGHT AND DOOR SWITCH SCHEMATIC

1	**AUXILIARY WIRING**	SCALE: NONE REV 0



NOTES:
1) NORMALLY CLOSED RELAY WITH A 24 VOLT, AC COIL (NOT TO EXCEED 5 WATTS), SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR, SIEMENS ONLY PROVIDES CONTROL SIGNAL TO RELAY.

2) ALL ITEMS SHOWN ARE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR, WITH THE EXCEPTION OF THE SIEMENS GENERATOR/POWER CABINET.

ROOM LIGHTS SCHEMATIC

2	**ROOM LIGHTING WIRING**	SCALE: NONE

MINIMUM CEILING HEIGHT W/ RESTRICTION	CEILING HEIGHT WITHOUT RESTRICTION	RECOMMENDED CEILING HEIGHT
SEE RM HT REQMTS	SEE RM HT REQMTS	9' - 6"

CONTRACTOR SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
PANEL	1	MP	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE POWER SCHEDULE.
MP	2,VD1	PU	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE POWER SCHEDULE.
MP	3	EPO	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE POWER SCHEDULE.
EPO	4	EPO	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE POWER SCHEDULE.
PU	VD1,5	W.L.	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE AUXILIARY WIRING DTL.
W.L.	6	W.L.	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE AUXILIARY WIRING DTL.
PU	VD1,7	D.SW.	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE AUXILIARY WIRING DTL.
D.SW.	8	D.SW.	DETERMINED BY ELECTRICAL CONTRACTOR.	SEE AUXILIARY WIRING DTL.

SIEMENS SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
P1	9	PU1	W100 UNIT/GENERATOR, X-RAY TUBE (INCLUDES 30V, 300V, 600V AND FIBER OPTIC CABLES)	MAXIMUM LENGTH 22.5 FT.
P1	10	PU1	W400, W140 UNIT/GENERATOR, POWER SUPPLY AND XCS (INCLUDES 30V, 300V, 600V AND FIBER OPTIC CABLES)	MAXIMUM LENGTH 22.5 FT.
CR1	HD1, VD3, 11, VD1	PU1	W310, CONTROL ROOM MODULE (300 V CABLE)	MAXIMUM LENGTH 59 FT.
IS	VD3, HD1	CR1	IMAGING SYSTEM FLAT DISPLAY AND KEYBOARD	MAXIMUM LENGTH 11 FT.
IS	VD3, 12	D1	W200 FOR 1-DISPLAY, W300 FOR 2-DISPLAYS, (INCLUDES 30V, 300V, AND 600V CABLES)	MAXIMUM LENGTH 59 FT.
PU1	13	WS	W150M/W150P (INCLUDES 300V AND FIBER OPTIC CABLES)	MAXIMUM LENGTH 36 FT.
PU	VD1, 14, 15, VD2	TS	W110 AND HIGH TENSION CABLES (INCLUDES 30V, 300V, 600V AND ETHERNET CABLES)	MAXIMUM LENGTH 32 FT.
IS	VD3, 16, VD1	PU	W500 FL-C/GENERATOR, RADIATION DISPLAY (INCLUDES 30V, 300V, AND FIBER OPTIC CABLES)	MAXIMUM LENGTH 59 FT.
IS	VD3, 16, VD1	PU	W610 (INCLUDES 300V AND FIBER OPTIC CABLES)	MAXIMUM LENGTH 59 FT.
PU1	(*) 17	DOS	W610 (INCLUDES 300V AND FIBER OPTIC CABLES)	MAXIMUM LENGTH 36 FT.
IS	(MAX) 18	MON	DVI VIDEO CABLE	MAXIMUM LENGTH 118 FT.
-	-	-	(*) - THIS CONDUIT IS ELIMINATED FOR ALL MAX SYSTEMS (MAX) - CONDUIT ADDED FOR MAX SYSTEMS ONLY	

CONTRACTOR SUPPLIED ITEMS

ALL ITEMS, INCLUDING BUT NOT LIMITED TO CONDUITS, DUCTS, CIRCUIT BREAKERS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, AND WARNING LIGHTS, SHOWN IN THESE PLANS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER/ELECTRICAL CONTRACTOR, UNLESS OTHERWISE SPECIFIED.

CABLE PROTECTION

CABLES ARE NOT PLENUM RATED. ALL CABLES MUST BE ROUTED IN CABLE DUCTS OR CABLE CONDUITS.

CONDUIT LENGTH CALCULATIONS

FOR SITE SPECIFIC INSTANCES WHERE CABLES ARE BEING ROUTED IN A COMBINATION OF CONDUIT AND DUCTS, THE MAXIMUM LENGTH FOR THOSE CONDUITS, AS LISTED ON THE ELECTRICAL LEGEND, HAS BEEN CALCULATED BASED UPON THE DUCT LAYOUT SHOWN AND THE FOLLOWING ASSUMED VALUES:

1) VERTICAL DUCTS - 10' - 0"
2) FLOOR PENETRATIONS THROUGH CONCRETE SLAB - 3' - 0"

IF THE ACTUAL SITE SPECIFIC CONDITIONS EXCEED THESE ASSUMED VALUES AND/OR THE DUCT LOCATIONS ARE ALTERED, IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO RECALCULATE THE MAXIMUM LENGTH OF THE CONDUITS EFFECTED.

REV 0

CABLE LENGTH LIMITATIONS

THE CONDUITS ARE SHOWN SCHEMATICALLY IN THIS PLAM AND MUST BE RUN IN THE SHORTEST POSSIBLE DISTANCE BETWEEN TERMINATION POINTS. ANY VARIATION IN THE ROUTING OF DUCTS COULD RESULT IN CABLE LENGTH LIMITATIONS BEING EXCEEDED. THEREFORE, ANY CHANGES MUST BE APPROVED BY THE SIEMENS PROJECT MANAGER.

CABLE SEPARATION

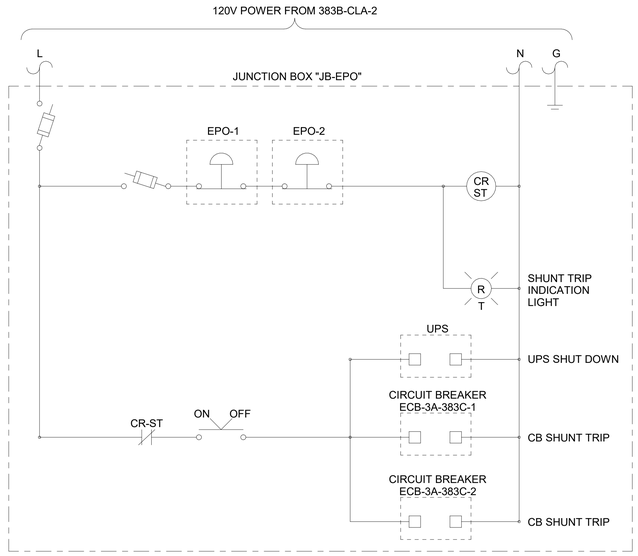
THIS ELECTRICAL RACEWAY PLAN DEPICTED IN THIS DRAWING IS PLANNED ACCORDING TO SIEMENS SYSTEM REQUIREMENTS AND UL CERTIFICATION OF THIS SYSTEM. ADDITIONAL SEPARATION OF THE SYSTEM CABLE SETS INTO SEPARATE OR PARTITIONED RACEWAYS UNLESS OTHERWISE NOTED IS NOT NECESSARY TO ENSURE SEPARATION OF CIRCUITS. INTERCONNECTING CABLE SETS ARE TESTED AS PART OF THE SYSTEM, AND ARE NOT CONSIDERED PREMISE WIRING.

THE CUSTOMER ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR ANY ADDITIONAL SEPARATION REQUIREMENTS INCLUDING, BUT NOT LIMITED TO: DETERMINING THE NEED FOR ADDITIONAL SEPARATION AND DETERMINING ANY ADDITIONAL ITEMS NEEDED OTHER THAN THOSE IDENTIFIED ON THIS PLAN.

GENERAL NOTES

1. DETAIL SUPPLIED VIA RAD FLUORO EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402d FOR ADDITIONAL INFORMATION.

DETAIL NOTE(S):
1. WHEN EITHER EMERGENCY POWER OFF SWITCH "EPO-1" OR"EPO-2" ARE PRESSED, SHUNT TRIP IS INITIATED FOR CIRCUITBREAKERS "ECB-3A-383C-1" AND "ECB-3A-383C-2".
2. RESET OF CIRCUIT BREAKERS AND EMERGENCY POWER OFF SWITCHES REQUIRE MANUAL DISENGAGEMENT FOR RESTORATION OF POWER.
3. REFERENCE DETAIL 1 ON SHEET E-512 FOR ADDITIONAL INFORMATION.
4. REFERENCE SHEET EP402 FOR EPO AND JUNCTION BOX LOCATIONS.
5. CONTRACTOR SHALL COORDINATE WITH IMAGING EQUIPMENT VENDOR FOR ALL REQUIREMENTS.



1 E-402d ELECTRICAL RAD FLUORO DETAILS (2 OF 3)
NTS

2 E-402d EPO JUNCTION BOX "JB-EPO" WIRING DIAGRAM
NTS

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VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL RAD FLUORO DETAILS (2 OF 3)
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
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Drawn: JFO/JBB
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Building Number: 001
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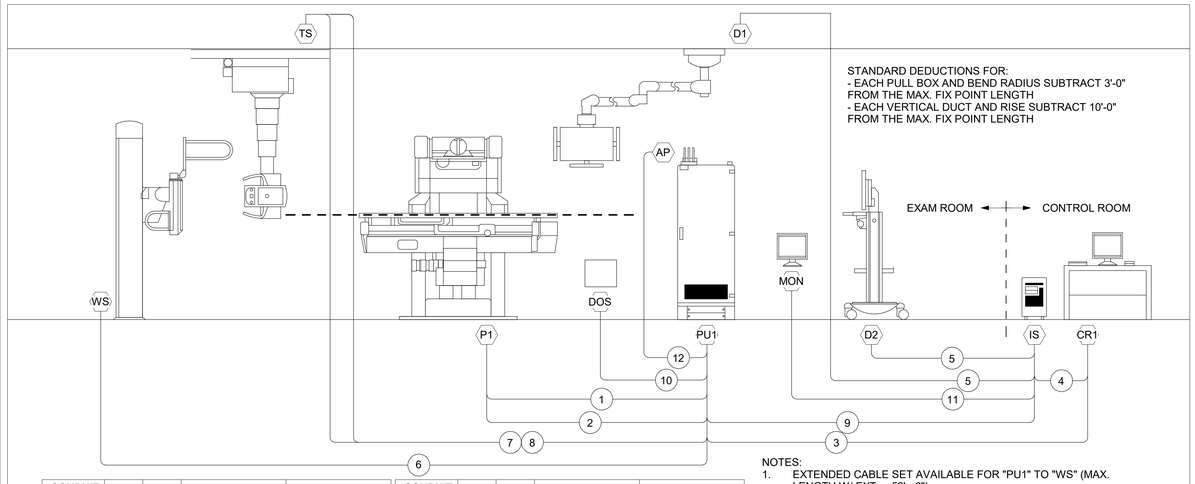


STANDARD DEDUCTIONS FOR:
- EACH PULL BOX AND BEND RADIUS SUBTRACT 3'-0" FROM THE MAX. FIX POINT LENGTH
- EACH VERTICAL DUCT AND RISE SUBTRACT 10'-0" FROM THE MAX. FIX POINT LENGTH

CONDUIT NUMBER	FROM	TO	CONDUIT SIZE	MAX. FIX POINT DISTANCE
1	P1	PU1	2 - 2 1/2"	22'-6"
2	P1	PU1	2 - 2 1/2"	22'-6"
3	CR1	PU1	2 1/2"	59'-0"
4	IS	CR1	2 1/2"	11'-0"
5	IS	D1	2 1/2"	59'-0"
	IS	D2	2 1/2"	32'-0" (5)
6	PU1	WS	3	36'-0" (1,6)

CONDUIT NUMBER	FROM	TO	CONDUIT SIZE	MAX. FIX POINT DISTANCE
7	PU1	TS	2 - 2 1/2"	32'-0"
8	PU1	TS	2"	32'-0"
9	IS	PU1	2 - 2 1/2"	59'-0"
10 (2)	PU1	SOS	1 1/2"	36'-0"
11	IS	MON	2"	118'-0"
12 (3)	AP	PU1	1 1/2"	(4)

( ) - REFER TO NOTES

NOTES:
1. EXTENDED CABLE SET AVAILABLE FOR "PU1" TO "WS" (MAX. LENGTH W/ EXT. = 52' - 6")
2. THIS CONDUIT IS ELIMINATED FOR ALL MAX SYSTEMS.
3. THIS CONDUIT IS ADDED FOR ALL MAX SYSTEMS WITH WI-D.
4. MAXIMUM FIX POINT DISTANCE "AP" TO "PU1"/ "IS":
   19'-6" FOR GENERATOR MOUNTED INSTALLATIONS VIA "PU1"
   82'-0" FOR WALL MOUNTED INSTALLATIONS VIA "IS".
5. ACTUAL FIX POINT DISTANCE IS 52'-0". 20'-0" RESERVED FOR CART MOBILITY IN THE EXAM ROOM.
6. CONDUIT SIZED FOR SPLICED CABLE PROVIDED WITH 5M (16FT.) CABLE EXTENSION, AND/ OR W150E CABLES FOR STATIC DETECTOR.

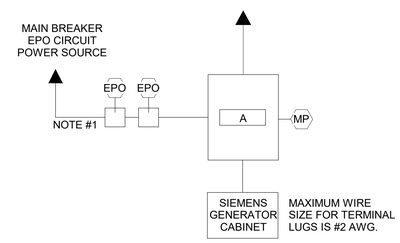
CONDUIT NUMBERS SHOWN IN THIS ILLUSTRATION APPLY ONLY TO THE LEGEND SHOWN. THERE IS NO CORRELATION TO THE CONDUIT NUMBER SHOWN ON ANY FINAL DRAWING FOR A SPECIFIC SITE PLAN.

LUMINOS AGILE CONNECTION DIAGRAM

SCALE: NONE

POWER SCHEDULE

ALL CONDUITS AND WIRES SIZES MUST BE DETERMINED BY THE ELECTRICAL ENGINEER OF RECORD PER N.E.C AND TO MAINTAIN SIEMENS IMPEDANCE REQUIREMENTS.



ITEM	QTY	DESCRIPTION				
MP	1	MAIN PANEL WITH CIRCUIT BREAKER FLUSH OR SURFACE MOUNTED.				
A	1	BREAKER MUST HAVE TRIPPING DEVICE SO WHEN ANY EPO IS PRESSED THE BREAKER TRIPS.				
		BREAKER AMPS: SEE POWER REQUIREMENTS				
		VOLTS	PHASE	NEUTRAL	GROUND	TOTAL WIRES
		480Y	3	0	1	4 (NOTE 1)
1. ALL WIRES MUST BE SAME SIZE. NOTE: UNLESS OTHERWISE NOTED, ALL BREAKERS WILL BE 80% RATED						
EPO	VARIES	NOTE 1 - EPO CIRCUIT #1 MAIN CIRCUIT BREAKER EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER THAT PREVENTS ACCIDENTAL ACTIVATION. THE EPO MUST BE OF FAIL-SAFE DESIGN. ALL EPO'S TO HAVE MECHANICAL LATCHING MECHANISM. EPO MUST BE RESET BEFORE MAIN BREAKER CAN RESUME OPERATION. CONTACTS AND WIRING CONFIGURATION TO BE DESIGNED BY ELECTRICAL ENGINEER OF RECORD. THE EPOs MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR ACCORDING TO NATIONAL ELECTRICAL CODE, STATE AND LOCAL REGULATIONS. MEASURES SHOULD BE TAKEN TO DESIGN THE CIRCUIT IN SUCH A WAY THAT IT WILL ALWAYS WORK WHEN THE MEDICAL EQUIPMENT IS POWERED. THE CUSTOMER US SOLELY RESPONSIBLE FOR THE IMPLEMENTATION OF THE EPOs AND THEIR ASSOCIATED CIRCUITS AND MUST MAKE THE FINAL DETERMINATION CONSIDERING ALL SITE CONDITIONS AND REGULATORY FACTORS.				

ALL ITEMS LISTED IN THIS SCHEDULE SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER/ CONTRACTOR.

REV 1

MINIMUM CEILING HEIGHT W/ RESTRICTION	CEILING HEIGHT WITHOUT RESITRICTIONS	RECOMMENDED CEILING HEIGHT
SEE RM HT REQMTS	SEE RM HT REQMTS	9'-6"

GENERAL NOTES

1. DETAIL SUPPLIED VIA RAD FLUORO EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402d FOR ADDITIONAL INFORMATION.

POWER QUALITY

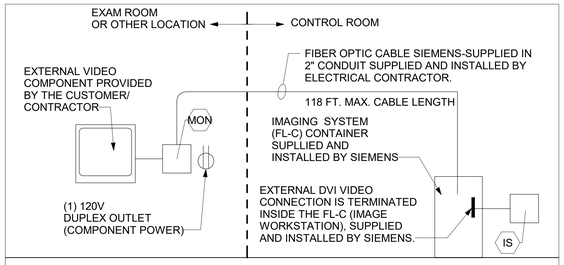
POOR POWER WILL ALTER EQUIPMENT PERFORMANCE

IT IS IN THE CUSTOMER'S INTEREST THAT THE ELECTRICAL CONTRACTOR BE RESPONSIBLE FOR TESTING AND VERIFYING THAT THE EQUIPMENT POWER SUPPLY COMPLIES WITH THE SIEMENS SPECIFICATIONS.

GROUNDING NOTES

EQUIPMENT GROUNDING CONDUCTOR TO COMPLY WITH THE FOLLOWING:

1. SIZE GROUNDING WIRE TO SIEMENS EQUIPMENT PER POWER SCHEDULE REQUIREMENTS.
2. DERIVED FROM THE ELECTRICAL SERVICE, TRANSFORMER OR MAIN DISTRIBUTION PANEL FEEDING THE SIEMENS EQUIPMENT.
3. RUN IN THE SAME CONDUIT, TROUGH OR RACEWAY AS THE PHASE CONDUCTORS.
4. CONTINUOUS, WITH NO BREAKS OR USE OF CONDUIT, CHASSIS OR EARTH AS THE SOLE GROUNDING PATH.
5. BONDED TO CHASSIS AND/ OR CONDUIT IN ACCORDANCE WITH THE NEC REQUIREMENTS.
6. MINIMIZE CONNECTIONS OR TERMINALS TO ENSURE CONTINUITY OVER THE LIFE OF THE INSTALLATIONS.
7. AS A NORM, THERE SHOULD NOT BE ANY CURRENT PRESENCE ON THE GROUND CONDUCTOR, BUT IT IS ACCEPTABLE TO HAVE <500mA DURING OPERATION OF THE IMAGING EQUIPMENT.



"MON" IS A DVI OUTPUT, ROUTED FROM THE IMAGING SYSTEM (FL-C) TO AN EXTERNAL VIDEO COMPONENT SUCH AS A MONITOR, COMPUTER, OR VIDEO RECORDER LOCATED IN A LOCATION OUTSIDE THE CONTROL AREA.

MONITORS MUST BE MOUNTED TO A VESA COMPATIBLE MONITOR STAND OR WALL MOUNT (WITH ADEQUATE WALL BACKING) DESIGNED, FURNISHED AND INSTALLED BY THE CUSTOMER/ CONTACTOR.

FINAL LOCATION FOR THE EXTERNAL VIDEO COMPONENT ("MON") MUST BE VERIFIED WITH SIEMEN'S PROJECT MANAGER BY THE CUSTOMER.

REV 0

DVI INTERFACE - "MON"

SCALE: NONE

POLYDOROS F80 80KW

X-RAY GENERATOR POWER REQUIREMENTS

INCOMING POWER:	480 VOLTS, 3 PHASE, 60HZ
CIRCUIT BREAKER:	80 AMPS.
GENERATOR OUTPUT:	80 kW
ALLOWABLE IMPEDANCE:	≤ 0.16 Ω
MAXIMUM MOMENTARY LOAD:	126 kVA
LINE VOLTAGE VARIATION:	± 10% MAX.
PHASE IMBALANCE:	± 2%
FREQUENCY VARIATION:	± 1 Hz

NOTE:
ALL INCOMING POWER SUPPLIES, FOR THE SIEMENS EQUIPMENT, ARE TO BE DEDICATED (BACK TO SOURCE) ISOLATED AND INSULATED FROM ANY OTHER EQUIPMENT, SUCH AS, ELEVATORS, GENERATORS, HVAC SYSTEMS, ETC.

A NEUTRAL CONDUCTOR, IF PRESENT, IS NOT USED FOR THE LINE VOLTAGE CONNECTION TO THE SIEMENS EQUIPMENT. IF THE NEUTRAL CONDUCTOR IS PROVIDED, IT SHOULD NOT BE ELECTRICALLY CONNECTED AT ANY POINT IN THE POWER DISTRIBUTION TO THE SIEMENS EQUIPMENT UNLESS SPECIFICALLY REQUIRED. UNINTENTIONAL NEUTRAL ELECTRICAL CODES, AS WELL AS CREATE GROUNDING PROBLEMS.

IF AN ON-SITE TRANSFORMER IS REQUIRED TO OBTAIN XP MODALITY OPERATING VOLTAGE, IT MUST BE OF SUFFICIENT CAPACITY AND CHARACTERISTICS TO MAINTAIN SUPPLY VOLTAGE AND IMPEDANCE REQUIREMENTS (TRANSFORMER & CONDUCTORS).

ATTENTION:
SIEMENS MEDICAL SYSTEMS, INC. RECOMMENDS THAT THE INCOMING POWER LINES BE ANALYZED WITH RESPECT TO THE TRANSIENT SURGES AND IMPULSES, SAGS, AND OVERVOLTAGES.

REV 2

1 E-402d ELECTRICAL RAD FLUORO DETAILS (3 OF 3)
NTS

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD
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STAMP
LOUIS R. LITZKA
STATE OF WASHINGTON
55681
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL RAD FLUORO DETAILS (3 OF 3)
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-523

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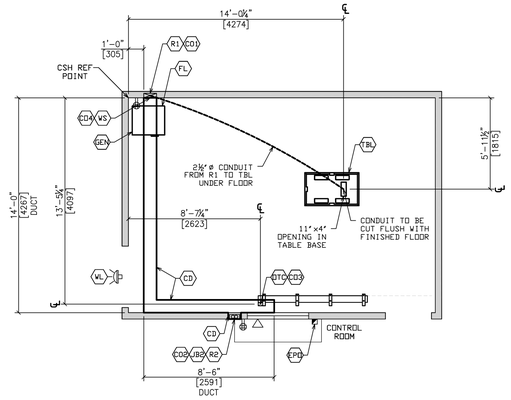


ELECTRICAL PLAN
ELECTRICAL INSTALLED BY CUSTOMER

NOTES:
ALL OUTLETS, WHETHER DUPLEX OR QUAD, SHOWN ON CARESTREAM SITE SPECIFIC DRAWINGS, ARE EXCLUSIVELY FOR CARESTREAM EQUIPMENT. ANY CUSTOMER REQUIRED OUTLETS MUST BE APPROVED SEPARATELY.

ELECTRICAL LEGEND

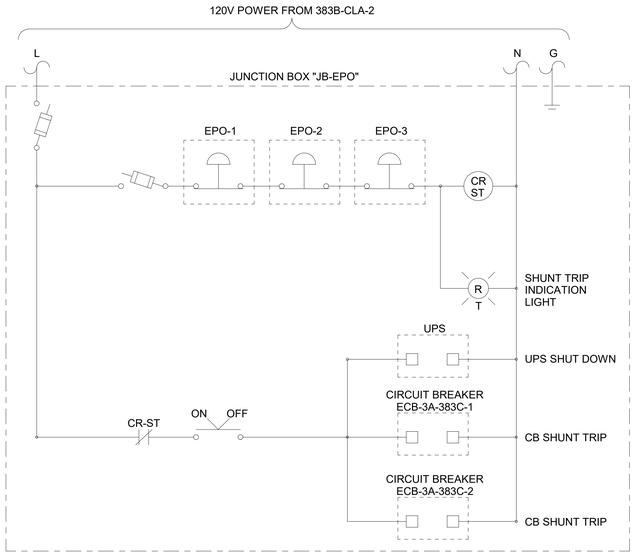
SYM.	SUPPLIED/INSTALLED BY CUSTOMER/CONTRACTOR UNLESS NOTED
R1	RISER- 10"x3¾" FLUSH MOUNTED WITH REMOVABLE COVERS FROM CD TO FINISHED FLOOR, PROVIDE DIVIDERS PER LOCAL CODE
CD1	CUT OUT- 3"ø KNOCK OUT OR 3" GROMMETED SPACE IN COVER PLATES OF R1, 36" A.F.F.
R2	RISER- 2X 2½"ø ELEC. CONDUIT FROM CD TO JB2
JB2	JUNCTION BOX- 8"x8" FLUSH MOUNTED IN CONTROL ROOM WALL, BOTTOM AT 14" A.F.F.
CD2	CUT OUT- 3"ø WITH GROMMET ON FACE PLATE OF JB2
DTC	CARESTREAM DTC CABLE ENTRY TO CD
CD3	CUT OUT- 3"ø ON BOTTOM FACE OF CD
WS	CARESTREAM WALL STAND CABLE ENTRY
CD4	CUT OUT- 2"ø WITH GROMMET ON COVER PLATES OF R1, 8" BELOW FINISHED CEILING
TBL	CARESTREAM TABLE BASE SHOWN FOR REFERENCE
CD	CEILING DUCT- 10"x3¾" ABOVE FINISHED CEILING, WITH REMOVABLE COVERS FACING UP, PROVIDE DIVIDERS PER LOCAL CODE
GEN	GENERATOR- SEE POWER SPECIFICATIONS ON SHEET E2 SUPPLIED/INSTALLED BY CARESTREAM
FL	CUSTOMER PROVIDED 1½"ø SEAL-TIGHT, INCLUDE FITTINGS FOR MAIN POWER TO CARESTREAM GENERATOR, WIP LENGTH PER LOCAL CODE, INSTALLED BY CUSTOMER ELECTRICIAN. SEE SHEET E2 FOR POWER REQUIREMENTS
WL	WARNING LIGHT- OPTIONAL "X-RAY IN USE" LIGHT PER CODE, CUSTOMER TO PROVIDE FIXTURE AND 24V POWER / CONTACTS TO CSH GENERATOR. SEE SHEET E2 SCHEMATIC DIAGRAM
EPO	EMERGENCY POWER OFF- OPTIONAL SWITCH TO CUSTOMER SHUNT BREAKER IN MAIN DISCONNECT, EXACT LOCATION PER LOCAL CODE OR BY CUSTOMER
⊕	120 VAC QUAD OUTLET, 14" A.F.F.
△	NETWORK DROP, 14" A.F.F.

NOTE: ALL ELECTRICAL DUCTS AND CONNECTIONS MUST CONFORM TO THE N.E.C. CODES, IN ADDITION TO STATE AND LOCAL REGULATIONS FOR THE COUNTRY OR LOCALITY IN WHICH THE EQUIPMENT IS INSTALLED. SITE IS RESPONSIBLE TO DETERMINE ELECTRICAL DESIGN INCLUDING NUMBER OF DIVIDERS IN CABLE TROUGH PER CODE.

CUSTOMER SIGNATURE:	DRAWN BY:	NO/MS
	DATE:	08.14.2023
	PROJECT MGR:	RA
DATE:	CHECKED BY:	NO/MS
	DATE:	08.14.2023
PROJECT: EVOLUTION SYSTEM TYPICAL ROOM LAYOUT WALL STAND-2 TABLE-2	SHT.:	E1
	REV.:	T-1
SIZE: B / TITLE:	DRX-EVOLUTION	
SCALE: SEE DRAWING SCALE	SHEET: 3 OF 8	

Carestream THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

DETAIL NOTE(S):
1. WHEN EITHER EMERGENCY POWER OFF SWITCH "EPO-1" OR"EPO-2" ARE PRESSED, SHUNT TRIP IS INITIATED FOR CIRCUITBREAKERS "ECB-3A-383C-1" AND "ECB-3A-383C-2".
2. RESET OF CIRCUIT BREAKERS AND EMERGENCY POWER OFF SWITCHES REQUIRE MANUAL DISENGAGEMENT FOR RESTORATION OF POWER.
3. REFERENCE DETAIL 1 ON SHEET E-512 FOR ADDITIONAL INFORMATION.
4. REFERENCE SHEET EP402 FOR EPO AND JUNCTION BOX LOCATIONS.
5. CONTRACTOR SHALL COORDINATE WITH IMAGING EQUIPMENT VENDOR FOR ALL REQUIREMENTS.

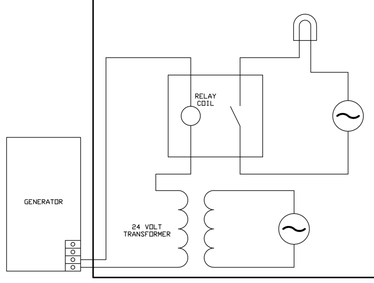


2 E-402b EPO JUNCTION BOX "JB-EPO" WIRING DIAGRAM
NTS

GENERAL NOTES

1. DETAIL SUPPLIED VIA RADIOLOGY EQUIPMENT MANUFACTURER; COORDINATE AND COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
2. COORDINATE WITH VA FOR MANUFACTURER PROVIDED SITE SPECIFIC DRAWINGS. COMPLY WITH ALL MANUFACTURER'S REQUIREMENTS AND INSTALLATION RECOMMENDATIONS.
3. REFERENCE ELECTRICAL FLOOR PLAN SHEET E-402b FOR ADDITIONAL INFORMATION.

WARNING LIGHT "X-RAY IN USE" WIRING DIAGRAM
SUPPLIED AND INSTALLED BY CUSTOMER - CONNECTED BY CSH TO GENERATOR.



ELECTRICAL POWER REQUIREMENTS FOR DRX-E

ALL ELECTRICAL CONNECTIONS SHOULD CONFORM TO N.E.C. AND TO STATE AND LOCAL CODES.

MAIN POWER REQUIREMENT VOLTAGE: 400/480V AC, 60 HZ, 3 PHASE WYE.

MAX. LINE VOLTAGE VARIATION: ±10%
MAX. PHASE IMBALANCE: ±2%
MAX. LINE IMPEDANCE: 0.1 Ohms @ 400V, 0.15 OHMS @480V

RECOMMENDED DISTRIBUTION POWER: INCOMING APPARENT POWER: 105kva

LOCKABLE CIRCUIT DISCONNECT OR TIME DELAYED FUSES:
MAX. WIRE SIZE 2/0 AWG PER CODE FROM MAIN DISCONNECT TO PDU.

GENERATOR - CARESTREAM X-RAY ELECTRICAL REQUIREMENTS

Maximum Output Power	Nominal Line Voltage (V)ac	Main Disconnect (A)	Recommended Distribution on Transformer Rating (kVA)	Max. Input Line Resistance (@ Full-load RMS)	Instantaneous Current (A)	BTU/Hr
3-Phase, 380 - 480 V (ac)						
80 KW	380	100	105	0.11	166	1000
	400	100	105	0.13	158	
	480	80	105	0.17	143	

MAIN POWER INTERCONNECTIONS AND WIRE SIZE

NOTE: ALL CABLES TERMINATE AT MAIN CONNECTION POINT FOR EACH MAJOR ASSEMBLY UNLESS SHOWN OTHERWISE.

RUN (#)	CABLE RUN (POINT TO POINT)	MAX. CONDUIT LENGTH (FT.)	MAX. CONNCT'R SIZE (INCH)	MIN. CONDUIT SIZE (INCH)
H	HOSPITAL'S NETWORK TO CONTROL DESK	PER CODE	PER CODE	PER CODE
H	HOSPITAL'S MAIN TO PDU	PER CODE	PER CODE	PER CODE
1	PDU TO CONTROL	50'-0"	2 1/8"	3"
2	PDU TO DTC	33'-0"	2"	3"
2'	E-DTC TO JB (CSH)	30'-0"	1 1/8"	3"
3	CONTROL TO DTC	45'-0"	RJ45	3"
4	PDU TO WALL STAND	57'-0"	RJ45	N/A
4'	E-WS TO JB(CSH)	28'-0"	RJ45	N/A
5	PDU TO TABLE	50'-0"	RJ45	2.5"
5'	E-TABLE TO JB(CSH)	43'-0"	RJ45	2.5"

H=HOSPITAL
E=EMERGENCY STOP COMMUNICATION CABLE
OCTOBER. 07. 2009

CUSTOMER SIGNATURE:	DRAWN BY:	NO/MS
	DATE:	08.14.2023
	PROJECT MGR:	RA
DATE:	CHECKED BY:	NO/MS
	DATE:	08.14.2023
PROJECT: EVOLUTION SYSTEM TYPICAL ROOM LAYOUT WALL STAND-2 TABLE-2	SHT.:	E2
	REV.:	T-1
SIZE: B / TITLE:	DRX-EVOLUTION	
SCALE: SEE DRAWING SCALE	SHEET: 4 OF 8	

Carestream THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

CABLING MATRIX

DTC CABLES

Manuf.	Manuf. Part No.	CSH Part No.	Cable Name	Cable Rating	Applied Voltage	From	To	Usable Length	Function
L-Com	TC2599	2G3721	SCB to PDU Ethernet	300	12 VDC	SCB P11	PDU	12.055 m (38.58 ft)	Communication
Various	N/A	2G4120	GND - Electronics Assy to PDU	600	N/A	Electronics Assy G4	PDU Ground	15.855 m (50.74 ft)	Ground
Various	N/A	2G4121	GND - Tube to PDU	600	N/A	Tube	PDU Tank Ground	12.605 m (40.34 ft)	Ground
Electri-Cord	Q57712 JCR2	2G4200	Power 240 VAC	600	240 V	PDU	Electronics AY P5	15.833 m (50.74 ft)	DTC Power
Claymount	13650	2G4201	Tube High Voltage	75k VDC	75k VDC	PDU	Tube	12.730 m (40.74 ft)	Anode Cathode X-ray Tube
Alpha	6SC07C4	2G4202	Tube Stator	600	29Q	PDU	Tube	12.505 m (40.02 ft)	Stator X-ray Tube
Alpha	5006C	2G4275	Console Estop/Auto Position to TMC	300	24 VDC	Console J1	TMC Board P23/J26000	15.805 m (50.58 ft)	Emergency Stop
Belden	8442	2G3790	DTC Echain Out	300	24 VDC	Junction Box	WS/Table Echain in	9.705 m (31.06 ft)	Emergency Stop
L-Com	TC2592	2G3799	DTC Can Out	300	12 VDC	Junction Box	WS/Table Can in	10.055 m (32.18 ft)	Communication

CONSOLE PC

Manuf.	Manuf. Part No.	CSH Part No.	Cable Name	Cable Rating	Applied Voltage	From	To	Usable Length	Function
Various	N/A	8H1109	Table GRND	600	N/A	PDU	Console	---	Ground
Various	N/A	6H1305	Console Ground	600	N/A	PDU	Console	20 m (65.6 ft)	Ground
Various	N/A	8H1107	Control	300	12 VDC	PDU	Console	20 m (65.6 ft)	Communication
Electri-Cord	Q57712 JCR	8H1110	PC Power	600	240 VAC	PDU	PC	20 m (65.6 ft)	PC Power
Electri-Cord	Q57712 JCR	8H1111	Monitor Power	600	240 VAC	PDU	Monitor	20 m (65.6 ft)	Monitor Power
Various	N/A	8H1108	Communication	300	12 VDC	PDU	PC	20 m (65.6 ft)	Communication
L-Com	TC259	8H2554	Communication	300	12 VDC	PDU	PC	20 m (65.6 ft)	Communication

WALL STAND

Manuf.	Manuf. Part No.	CSH Part No.	Cable Name	Cable Rating	Applied Voltage	From	To	Usable Length	Function
Various	N/A	2G4177	WS GND - PDU to PS/TMC	600	N/A	PDU	TMC Board G3	19.65 m (62.99 ft)	Ground
Alpha	6347	2G4178	WS AEC - PDU to WS Bucky	300	12 VDC	PDU	AEC	22.015 m (70.45 ft)	AEC
Electri-Cord	Q57712 JCR	2G4179	WS AEC - PDU to WS Power Supply	600	240 VAC	PDU	WS - Power Supply	19.5 m (62.4 ft)	Wall Stand Power
L-Com	TC2599	2G4190	WS Ethernet - PDU to Detector	300	12 VDC	PDU	Detector	22.015 m (70.45 ft)	Communication
L-Com	TC2592	2G4156	WS CAN in	300	12 VDC	Junction Box	WS TMC P18	9.3 m (29.76 ft)	Communication
L-Com	TC2592	2G4157	WS CAN out	300	12 VDC	Junction Box	WS TMC P17	9.3 m (29.76 ft)	Communication
Belden	8442	2G4158	WS Echain in	300	24 VDC	Junction Box	WS TMC J25	9.35 m (29.97 ft)	Energency Stop
Belden	8442	2G4159	WS Echain Out	300	24 VDC	Junction Box	WS TMC J24	9.35 m (29.97 ft)	Energency Stop

TABLE

Manuf.	Manuf. Part No.	CSH Part No.	Cable Name	Cable Rating	Applied Voltage	From	To	Usable Length	Function
Various	N/A	2G4447	Table GND - PDU to Table PS/DNC	600	N/A	PDU	DMC Board	18 m (57.6 ft)	Ground
Alpha	6347	2G4178	Table AEC - PDU to Table Bucky	300	12 VDC	PDU	AEC	24 m (56.8 ft)	AEC
Electri-Cord	Q57712 JCR	2G4449	Table Power - PDU to Table Power Supply	600	240 VAC	PDU	Power Supply	18 m (57.6 ft)	Table Power
L-Com	TC2599	2G4450	Table Ethernet - PDU to Detector	300	12 VDC	PDU	Detector	18 m (57.6 ft)	Communication
Belden	8442	2G3791	Table Echain in	300	24 VDC	Junction Box	DMC Board P17	14 m (44.8 ft)	Energency Stop
L-Com	TC2592	2G3800	Table Can in	300	12 VDC	Junction Box	DMC Board J14	14 m (44.8 ft)	Communication

CUSTOMER SIGNATURE:	DRAWN BY:	NO/MS
	DATE:	08.14.2023
	PROJECT MGR:	RA
DATE:	CHECKED BY:	NO/MS
	DATE:	08.14.2023
PROJECT: EVOLUTION SYSTEM TYPICAL ROOM LAYOUT WALL STAND-2 TABLE-2	SHT.:	E3
	REV.:	T-1
SIZE: B / TITLE:	DRX-EVOLUTION	
SCALE: SEE DRAWING SCALE	SHEET: 5 OF 8	

Carestream THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

1 E-402b ELECTRICAL RADIOLOGY DETAILS
NTS

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD
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LOUIS R. LITZKO
STATE OF WASHINGTON
55681
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL RADIOLOGY DETAILS
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Project Number: 570-21-220
Building Number: 001
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Drawing Number: E-531

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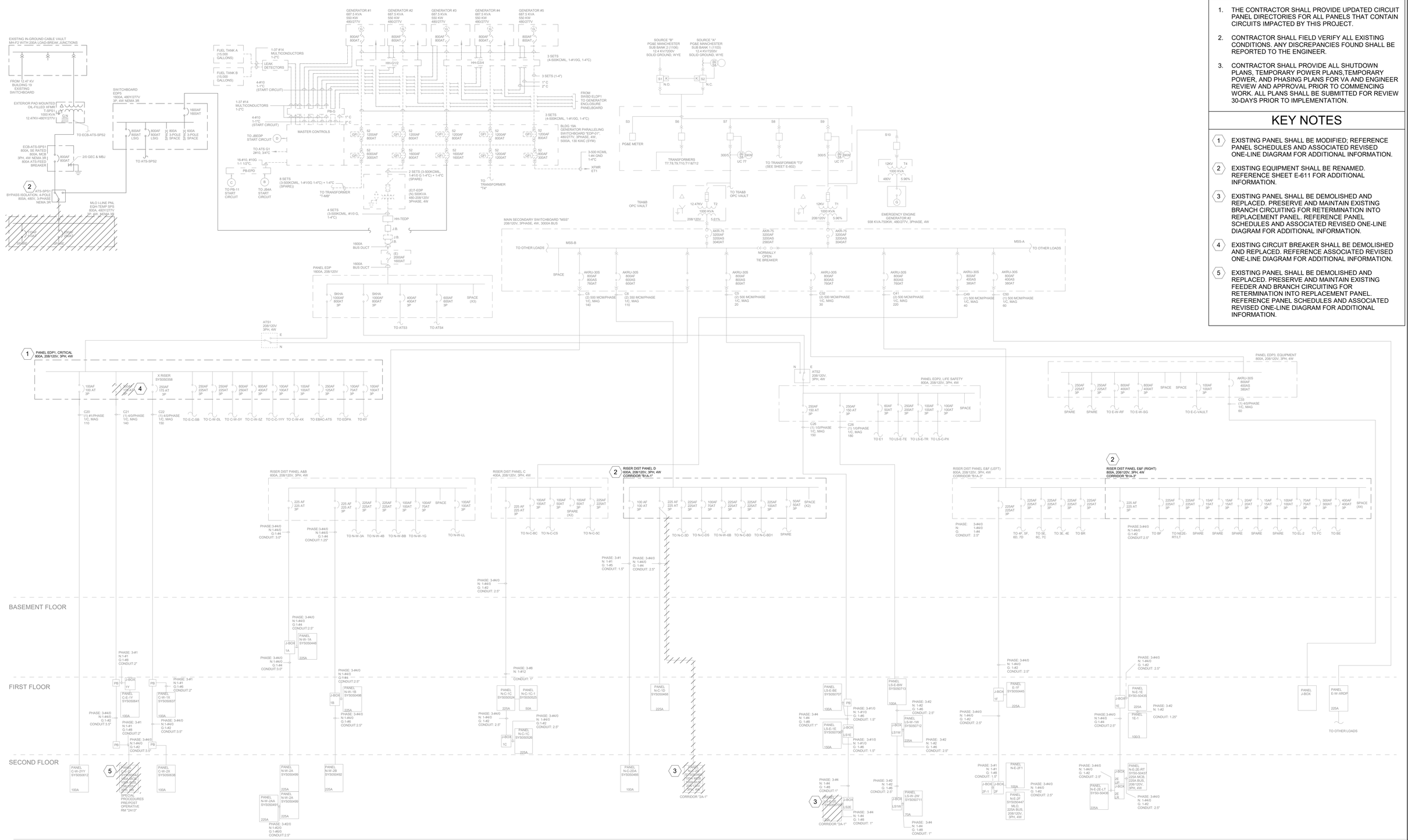

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE ENGINEER.
3. CONTRACTOR SHALL PROVIDE ALL SHUTDOWN PLANS, TEMPORARY POWER PLANS,TEMPORARY POWER, AND PHASING PLANS FOR VA AND ENGINEER REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. ALL PLANS SHALL BE SUBMITTED FOR REVIEW 30-DAYS PRIOR TO IMPLEMENTATION.

KEY NOTES

1. EXISTING PANEL SHALL BE MODIFIED; REFERENCE PANEL SCHEDULES AND ASSOCIATED REVISED ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
2. EXISTING EQUIPMENT SHALL BE RENAMED. REFERENCE SHEET E-611 FOR ADDITIONAL INFORMATION.
3. EXISTING PANEL SHALL BE DEMOLISHED AND REPLACED. PRESERVE AND MAINTAIN EXISTING BRANCH CIRCUITING FOR RETERMINATION INTO REPLACEMENT PANEL. REFERENCE PANEL SCHEDULES AND ASSOCIATED REVISED ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
4. EXISTING CIRCUIT BREAKER SHALL BE DEMOLISHED AND REPLACED. REFERENCE ASSOCIATED REVISED ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
5. EXISTING PANEL SHALL BE DEMOLISHED AND REPLACED. PRESERVE AND MAINTAIN EXISTING FEEDER AND BRANCH CIRCUITING FOR RETERMINATION INTO REPLACEMENT PANEL. REFERENCE PANEL SCHEDULES AND ASSOCIATED REVISED ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.

1 EXISTING PARTIAL ONE-LINE DIAGRAM (1 OF 2)

NTS

Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: EXISTING PARTIAL ONE-LINE DIAGRAM (1 OF 2)

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: LRL/WNM

Drawn: JFO/JBB

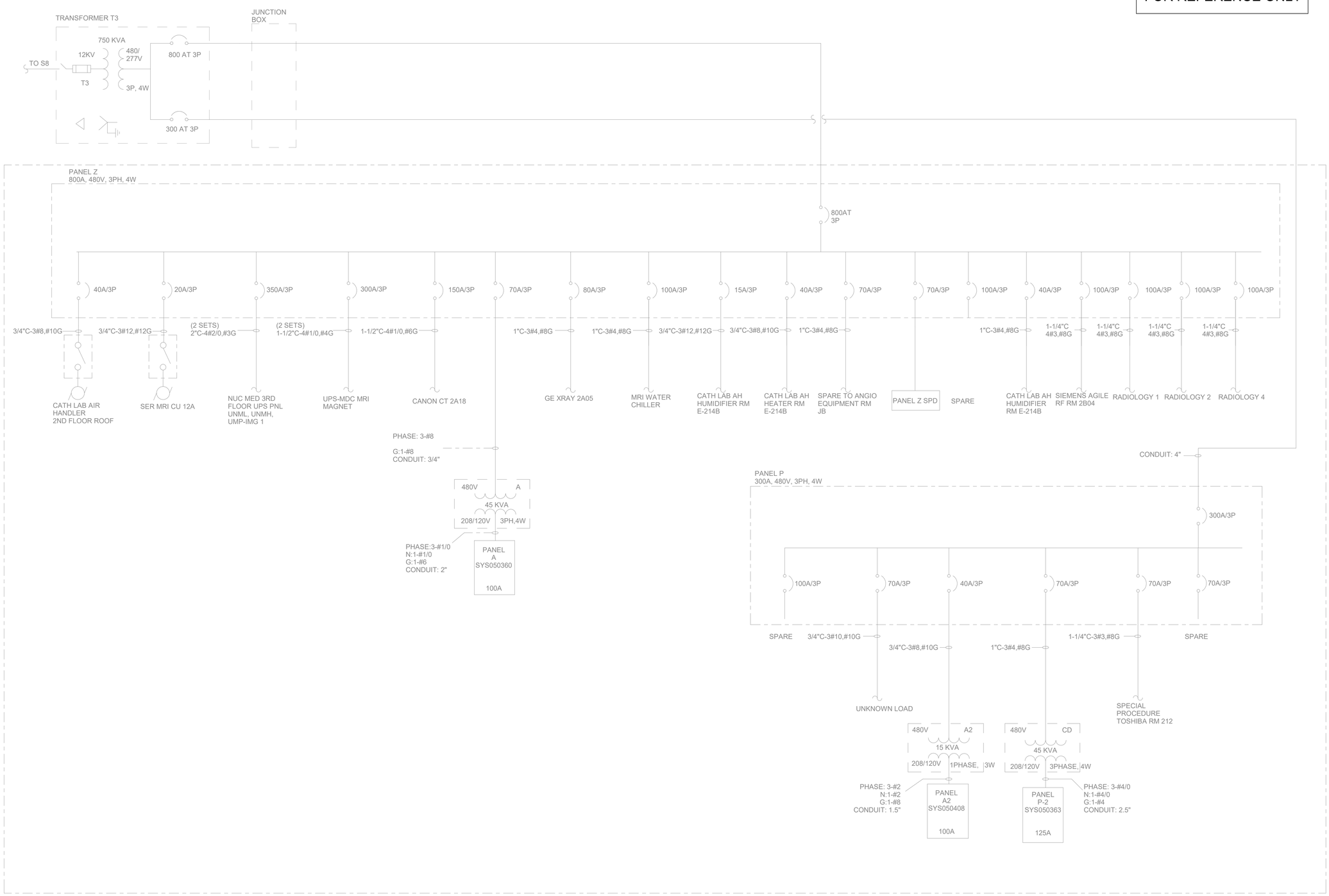
Project Number: 570-21-220

Building Number: 001

Drawing Number: E-601

VA FORM 08 - 6231

FOR REFERENCE ONLY



1 - EXISTING PARTIAL ONE-LINE DIAGRAM (2 OF 2)

NTS

GENERAL NOTES

KEY NOTES

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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SPEESDESIGNBUILD

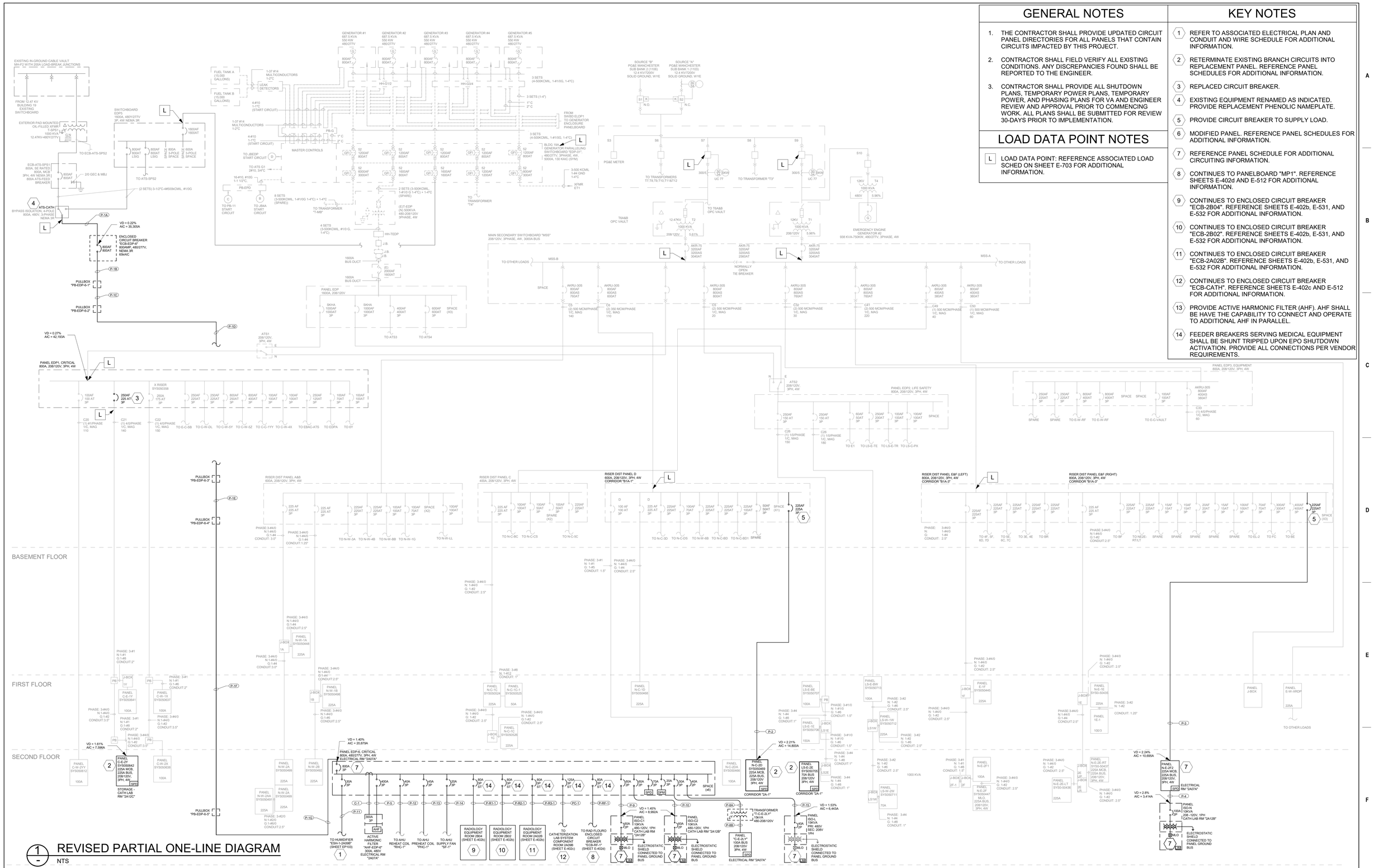
STAMP: LUIS R. LITZAO, STATE OF WASHINGTON, 55681, 3-27-26, REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	EXISTING PARTIAL ONE-LINE DIAGRAM (2 OF 2)
Approved:	
Phase	100% CD
	FULLY SPRINKLERED
Project Title	RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location	VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date	3/27/2026
Checked	LRL/WNM
Drawn	JFO/JBB
Project Number	570-21-220
Building Number	001
Drawing Number	E-602

VA FORM 08 - 6231



1 REVISED PARTIAL ONE-LINE DIAGRAM
NTS

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE ENGINEER.
3. CONTRACTOR SHALL PROVIDE ALL SHUTDOWN PLANS, TEMPORARY POWER PLANS, TEMPORARY POWER, AND PHASING PLANS FOR VA AND ENGINEER REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. ALL PLANS SHALL BE SUBMITTED FOR REVIEW 30-DAYS PRIOR TO IMPLEMENTATION.

LOAD DATA POINT NOTES

L — LOAD DATA POINT: REFERENCE ASSOCIATED LOAD SCHED ON SHEET E-703 FOR ADDITIONAL INFORMATION.

KEY NOTES

1. REFER TO ASSOCIATED ELECTRICAL PLAN AND CONDUIT AND WIRE SCHEDULE FOR ADDITIONAL INFORMATION.
2. RETERMINATE EXISTING BRANCH CIRCUITS INTO REPLACEMENT PANEL. REFERENCE PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
3. REPLACED CIRCUIT BREAKER.
4. EXISTING EQUIPMENT RENAMED AS INDICATED. PROVIDE REPLACEMENT PHENOLIC NAMEPLATE.
5. PROVIDE CIRCUIT BREAKER TO SUPPLY LOAD.
6. MODIFIED PANEL. REFERENCE PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
7. REFERENCE PANEL SCHEDULE FOR ADDITIONAL CIRCUITING INFORMATION.
8. CONTINUES TO PANELBOARD "MP1". REFERENCE SHEETS E-402d AND E-512 FOR ADDITIONAL INFORMATION.
9. CONTINUES TO ENCLOSED CIRCUIT BREAKER "ECB-2B04". REFERENCE SHEETS E-402b, E-531, AND E-532 FOR ADDITIONAL INFORMATION.
10. CONTINUES TO ENCLOSED CIRCUIT BREAKER "ECB-2B02". REFERENCE SHEETS E-402b, E-531, AND E-532 FOR ADDITIONAL INFORMATION.
11. CONTINUES TO ENCLOSED CIRCUIT BREAKER "ECB-2A02B". REFERENCE SHEETS E-402b, E-531, AND E-532 FOR ADDITIONAL INFORMATION.
12. CONTINUES TO ENCLOSED CIRCUIT BREAKER "ECB-CATH". REFERENCE SHEETS E-402c AND E-512 FOR ADDITIONAL INFORMATION.
13. PROVIDE ACTIVE HARMONIC FILTER (AHF). AHF SHALL BE HAVE THE CAPABILITY TO CONNECT AND OPERATE TO ADDITIONAL AHF IN PARALLEL.
14. FEEDER BREAKERS SERVING MEDICAL EQUIPMENT SHALL BE SHUNT TRIPPED UPON EPO SHUTDOWN ACTIVATION. PROVIDE ALL CONNECTIONS PER VENDOR REQUIREMENTS.

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD
A/E:
SPEES DESIGN BUILD
23830 PACIFIC HIGHWAY S. SUITE 300
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LOUIS R. LITZKA — STATE OF WASHINGTON — 55681 — 3-27-26 — REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: REVISED PARTIAL ONE-LINE DIAGRAM
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-611

VA FORM 08 - 6231

LUMINAIRE SCHEDULE (NOTE 1)

CONTRACTOR TO PROVIDE ALL LUMINAIRES COMPLETE.

TYPE	DESCRIPTION	LUMENS / COLOR TEMP	DRIVER	WATTS	VOLTS	MOUNTING	MFGR	CATALOG #	LENS/DIFFUSER	FINISH	NOTES
GL1/GL1E	2X4 TROFFER	4656 / 4000K	ELECTRONIC	38	120-277V	CEILING	COOPER, OR APPROVED EQUAL	24EN-LD2-45-UNV-L835-CD1-U	INDIRECT/DIRECT	WHITE	2
GL2/GL2E	2X2 TROFFER	3471 / 4000K	ELECTRONIC	28.5	120-277V	CEILING	COOPER, OR APPROVED EQUAL	22EN-LD2-34-UNV-L835-CD1-U	INDIRECT/DIRECT	WHITE	2
GL3/GL3E	2X2 TROFFER	4478 / 4000K	ELECTRONIC	38.3	120-277V	CEILING	COOPER, OR APPROVED EQUAL	22EN-LD2-43-UNV-L835-CD1-U	INDIRECT/DIRECT	WHITE	2
RC1/RC1E	6" DOWN LIGHT - RECESSED CAN	1359 / 3500K	ELECTRONIC	14.3	120-277V	CEILING	COOPER, OR APPROVED EQUAL	FLD6B15D010 EU6B1 28040 F6LBM	DIRECT	WHITE	2
RC2/RC2E	6" DOWN LIGHT - RECESSED CAN	2500 / 4000K	ELECTRONIC	29.8	120-277V	CEILING	COOPER, OR APPROVED EQUAL	BAA-MRI-DRV-D010-UNV-FLD6C-25	DIRECT	WHITE	2
RC3/RC3E	6" DOWN LIGHT - RECESSED CAN - SPECIALTY	6000 / 4000K	ELECTRONIC	50.4	120-277V	CEILING	ALKCO, OR APPROVED EQUAL	ASDF-6-BAC/ASDE-60-60-940-M-Z10-U-BAC/ASDT-6-R-CC-WH-BAC	INDIRECT/DIRECT	WHITE	2
S1	UNDERCABINET, LED	4,183 / 4000K	0-10V DIMMING	49.15	120/277V	SURFACE	FAIL SAFE, OR APPROVED EQUAL	UCLV-4-LD4-40-89BW- EDD1-UNV-AM	INDIRECT/DIRECT	WHITE	2
VT1/VT1E	4' STRIP LED	6136 / 4000K	ELECTRONIC	50.6	120-277V	CEILING	COOPER, OR APPROVED EQUAL	4VT2-LD5-6-FR50-UNV-L835-CD1-U	DIRECT	WHITE	2
WM1	4' VANITY LIGHT	2155 / 3500K	ELECTRONIC	16.3	120-277V	WALL	COOPER, OR APPROVED EQUAL	SQW-F-025U-025D-840-1D-UNV-ST	INDIRECT/DIRECT	WHITE	2
X	EXIT SIGN, LED, BATTERY BACKUP, SELF-DIAGNOSTICS, USA ASSEMBLED	N/A	ELECTRONIC	5	120-277V	SURFACE	EMERGENCY LIGHTING, OR APPROVED EQUAL	EZXTEU-2-R-W-EM-SDT-USA	-	BRUSHED ALUMINUM	

GENERAL NOTES:

1. PRIOR TO LUMINAIRE PROCUREMENT, CONTRACTOR SHALL PROVIDE LIGHTING LAYOUT WITH PROPOSED LUMINAIRES AND INDICATE POINT-BY-POINT PHOTOMETRICS FOR ENGINEER REVIEW DURING SUBMITTAL REVIEW PROCESS.
2. ALL LUMINAIRES WITH AN 'E' SUFFIX SHALL BE PROVIDED WITH EMERGENCY POWER VIA EMERGENCY LIGHTING UL-924 TRANSFER SWITCH CIRCUITED TO EMERGENCY PANELBOARD. PROVIDE RACEWAYS AND WIRING TO INTERFACE WITH FIRE ALARM SYSTEM AS REQUIRED. LOCATE TRANSFER SWITCH LOCAL TO CONTROLLED LUMINAIRE. DURING NORMAL POWER CONDITIONS, CONTROL AND SWITCHING OF LUMINAIRE SHALL OPERATE NORMALLY; UPON LOSS OF POWER, TRANSFER SWITCH SHALL BYPASS LIGHTING CONTROL AND PROVIDE FULL, NON-DIMMED, EMERGENCY LIGHTING. PROVIDE ADDITIONAL SWITCH CONDUCTORS AS REQUIRED. WHERE BUILDING DOES NOT HAVE EMERGENCY POWER, PROVIDE EMERGENCY BATTERY PACK INTEGRAL TO FIXTURE.

TELECOMMUNICATION CABLING SCHEDULE

TELECOM ROOM	NUMBER OF DATA PORTS PROVIDED	EXISTING WAOs DEMOLISHED	TOTAL NET DATA PORTS
2B17	272	166	106

Notes:

1. TOTAL NUMBER OF DATA CONNECTIONS AND CABLING SHALL BE VERIFIED BY CONTRACTOR WITH MANUFACTURER'S REQUIREMENTS PRIOR TO ACQUISITION OF CABLING. CONTRACTOR SHALL PROVIDE AN INITIAL SURVEY OF ALL AREAS TO HAVE RE-FED CABLING IN ORDER TO VERIFY EXACT LOCATIONS AND QUANTITIES PRIOR TO
2. TELECOMMUNICATIONS CABLING INSTALLATION SHALL INCLUDE, BUT IS NOT LIMITED TO REMOVING AND DISPOSING OF EXISTING CABLING, JACKS AND FACEPLATES AS REQUIRED; PROVIDING ALL LABOR, MATERIALS, TOOLS, TEST INSTRUMENTS, AND CONSUMABLES REQUIRED FOR INSTALLATION, TERMINATION, TESTING, LABELING, AND CERTIFICATION OF A FULLY FUNCTIONAL CATEGORY 6A OUTLET WITH PORT QUANTITY INDICATED.
3. CONTRACTOR SHALL PROVIDE CAT 6A PATCH PANELS IN EXISTING TELECOM RACK AS REQUIRED TO ACCOMMODATE ADDED CABLING.

MECHANICAL EQUIPMENT SCHEDULE

EQUIPMENT DESCRIPTION	EQUIPMENT TAG	VOLTS / PHASE	HP	FLA (A)	MOCP (A)	VA	NOTES
AIR HANDLING UNIT - LIGHTING CIRCUIT	AHU-1-2A09B-L	115 / 1	-	12	20	1380	-
AIR HANDLING UNIT - REHEAT COIL	RHC-1	480 / 3	-	28	40	22955	1
AIR HANDLING UNIT - PREHEAT COIL	PHC-1	480 / 3	-	30	45	25041	1
AIR HANDLING UNIT - SUPPLY FAN	SF-1	480 / 3	7.5	9	20	7482	1
EXHAUST FAN	EF-1-2A16	208 / 3	2	8	20	2702	-
ELECTRIC TO STEAM HUMIDIFIER	001-ESH-01-2A09B	480 / 3	-	22	30	18041	-
PACKAGED REVERSE OSMOSIS SYSTEM	RO-01-2A09B	208 / 1	-	3	20	2328	-
DUCTLESS SPLIT OUTDOOR UNIT	DSO-1-2A09B	208 / 1	-	18	30	3827	-
DUCTLESS SPLIT OUTDOOR UNIT	DSO-2-2A07A	208 / 1	-	18	30	3827	-
SCRUB SINK SENSOR	P-519	115 / 1	-	15	20	1650	-

NOTES:

1. INTEGRAL DISCONNECT FURNISHED BY DIVISION 23.

CONDUIT AND WIRE SCHEDULE - GENERAL

CONDUIT TAG	SERVICE	ROUTING FROM	ROUTING TO	CONDUIT QTY	CONDUIT SIZE	CONDUCTORS (QTY) & SIZE	CONDUCTORS GROUND SIZE	NOTES
P-1A	PANEL "EDP-6	ATS "ATS-SPS1"	ENCLOSED CIRCUIT BREAKER "ECB-EDP-6"	2	4"	(4) 600 kCMIL	3/0 AWG	-
P-1B	PANEL "EDP-6"	ENCLOSED CIRCUIT BREAKER "ECB-EDP-6"	PULLBOX "PB-EDP-6-1"	2	4"	(4) 600 kCMIL	3/0 AWG	-
P-1C	PANEL "EDP-6"	PULLBOX "PB-EDP-6-1"	PULLBOX "PB-EDP-6-2"	2	4"	(4) 600 kCMIL	3/0 AWG	-
P-1D	PANEL "EDP-6"	PULLBOX "PB-EDP-6-2"	PULLBOX "PB-EDP-6-3"	2	4"	(4) 600 kCMIL	3/0 AWG	-
P-1E	PANEL "EDP-6"	PULLBOX "PB-EDP-6-3"	PULLBOX "PB-EDP-6-4"	2	4"	(4) 600 kCMIL	3/0 AWG	-
P-1F	PANEL "EDP-6"	PULLBOX "PB-EDP-6-4"	PULLBOX "PB-EDP-6-5"	2	4"	(4) 600 kCMIL	3/0 AWG	-
P-1G	PANEL "EDP-6"	PULLBOX "PB-EDP-6-5"	PANEL "EDP-6"	2	4"	(4) 600 kCMIL	3/0 AWG	-
P-2	PANEL "N-C-2D"	PANEL "RISER DIST PANEL D"	PANEL "N-C-2D"	1	2"	(4) 4/0 AWG	4 AWG	-
P-3	PANEL "N-E-2F2"	PANEL "RISER DIST PANEL E&F (RIGHT)"	PANEL "N-E-2F2"	2	2"	(4) 4/0 AWG	4 AWG	-
P-4	PANEL "ISO-N"	PANEL "N-E-2F2"	PANEL "ISO-N"	1	1-1/4"	(3) 2 AWG	2 AWG	-
P-5	ACTIVE HARMONIC FILTER "AHF-C-EDP-2"	PANEL "EDP-6"	ACTIVE HARMONIC FILTER "AHF-C-EDP-2"	1	2-1/2"	(4) 350 kCMIL	4 AWG	-
P-8A	PANEL "C-E-2LY"	PANEL "EDP-6"	XFMR "TX-C-E-2LY"	1	3/4"	(3) 10 AWG	10 AWG	-
P-8B	PANEL "C-E-2LY"	XFMR "TX-C-E-2LY"	PANEL "C-E-2LY"	1	1"	(4) 6 AWG	10 AWG	-
P-9	PANEL "ISO-C1"	PANEL "EDP-6"	PANEL "ISO-C1"	1	1"	(3) 6 AWG	6 AWG	1
P-10	PANEL "ISO-C2"	PANEL "EDP-6"	PANEL "ISO-C2"	1	1"	(3) 6 AWG	6 AWG	1
P-11	HUMIDIFIER "ESH-1-2A09B"	PANEL "EDP-6"	HUMIDIFIER "ESH-1-2A09B"	1	3/4"	(3) 10 AWG	10 AWG	-
P-12	AHU REHEAT COIL "RHC-1"	PANEL "EDP-6"	AHU REHEAT COIL "RHC-1"	1	3/4"	(3) 8 AWG	8 AWG	-
P-13	AHU PREHEAT COIL "PHC-1"	PANEL "EDP-6"	AHU PREHEAT COIL "PHC-1"	1	3/4"	(3) 8 AWG	8 AWG	-
P-14	AHU SUPPLY FAN "SF-1"	PANEL "EDP-6"	AHU SUPPLY FAN "SF-1"	1	3/4"	(3) 10 AWG	10 AWG	-
P-15	PANEL "ISO-L"	PANEL "EDP-6"	PANEL "ISO-L"	1	3/4"	(3) 8 AWG	8 AWG	1
P-16	LASER RECEPTACLE	PANEL "ISO-L"	LASER RECEPTACLE	1	3/4"	(2) 10 AWG	10 AWG	1
C-1	ACTIVE HARMONIC FILTER "AHF-EDP-6"	ACTIVE HARMONIC FILTER "AHF-C-EDP-2"	PANEL "EDP-6"	1	1"	MFRS CABLE	(1) 12 AWG	-

NOTE(S):

1. ALL CIRCUITS SERVING AND SERVED FROM ISOLATED POWER PANELS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NEC 517.160 AND NFPA 99 CHAPTER 6.
2. ALL CONDUCTORS (PHASE, GROUND, AND NEUTRAL) SHALL COMPLY WITH MANUFACTURER REQUIREMENTS.

CONDUIT AND WIRE SCHEDULE - RADIOLOGY ROOMS 2A02B, 2B02, 2B04

CONDUIT TAG	SERVICE	ROUTING FROM	ROUTING TO	CONDUIT QTY	CONDUIT SIZE	CONDUCTORS (QTY) & SIZE	CONDUCTORS GROUND SIZE	NOTES
P-R1-1	RADIOLOGY ROOM 2B04	PANEL "C-EDP-2"	ENCLOSED CIRCUIT BREAKER "ECB-2B04"	1	1-1/2"	(4) 1/0 AWG	1/0 AWG	3
E-R1-2	RADIOLOGY ROOM 2B04	RISER "R1-1"	TABLE BASE	1	2-1/2"	PULL STRING		1, 2
E-R1-3A	RADIOLOGY ROOM 2B04	ENCLOSED CIRCUIT BREAKER "ECB-2B04"	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
E-R1-3B	RADIOLOGY ROOM 2B04	ENCLOSED CIRCUIT BREAKER "ECB-2B04"	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
E-R1-3C	RADIOLOGY ROOM 2B04	EPO SWITCH	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
P-R2-1	RADIOLOGY ROOM 2B02	PANEL "C-EDP-2"	ENCLOSED CIRCUIT BREAKER "ECB-2B02"	1	1-1/2"	(4) 1/0 AWG	1/0 AWG	3
E-R2-2	RADIOLOGY ROOM 2B02	RISER "R1-2"	TABLE BASE	1	2-1/2"	PULL STRING		1, 2
E-R2-3A	RADIOLOGY ROOM 2B02	ENCLOSED CIRCUIT BREAKER "ECB-2B02"	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
E-R2-3B	RADIOLOGY ROOM 2B02	ENCLOSED CIRCUIT BREAKER "ECB-2B02"	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
E-R2-3C	RADIOLOGY ROOM 2B02	EPO SWITCH	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
P-R3-1	RADIOLOGY ROOM 2A02B	PANEL "C-EDP-2"	ENCLOSED CIRCUIT BREAKER "ECB-2A02B"	1	1-1/2"	(4) 1/0 AWG	1/0 AWG	3
E-R3-2	RADIOLOGY ROOM 2A02B	RISER "R1-3"	TABLE BASE	1	2-1/2"	PULL STRING		1, 2
E-R3-3A	RADIOLOGY ROOM 2A02B	ENCLOSED CIRCUIT BREAKER "ECB-2A02B"	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
E-R3-3B	RADIOLOGY ROOM 2A02B	ENCLOSED CIRCUIT BREAKER "ECB-2A02B"	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	
E-R3-3C	RADIOLOGY ROOM 2A02B	EPO SWITCH	EPO SWITCH	1	3/4"	(2) 12 AWG	12 AWG	

NOTE(S):

1. GE PROVIDED CONDUCTORS IN CONTRACTOR PROVIDED CONDUIT. CONTRACTOR TO PROVIDE PULL STRINGS IN EACH CONDUIT.
2. WHERE CONDUIT EXITS FLUSH WITH FLOOR, LOCATION IS CRITICAL. REFERENCE VENDOR DRAWINGS FOR ADDITIONAL INFORMATION.
3. ALL CONDUCTORS (PHASE, GROUND, AND NEUTRAL) SHALL COMPLY WITH MANUFACTURER REQUIREMENTS.

LUMINAIRE FOOT-CANDLE REQUIREMENT SCHEDULE

ROOM TYPE	BLDG NUMBER	ROOM NUMBER	SHEET NUMBER	MOUNTING HEIGHT	CEILING HEIGHT	FOOT-CANDLE REQUIREMENT	NOTES
SURGERY/OPERATING ROOM	1	RADIOLOGY 2B04	EL101	9'	9'	50 FC	1, 2
		RADIOLOGY 2B02	EL101	9'	9'		1, 2
		RADIOLOGY 2A02B	EL101	9'	9'		1, 2
		CATH LAB 2A12B	EL102	9'	9'		1, 2
		RAD FLUORO 2A25B	EL102	9'	9'		1, 2
EXAM ROOM		ULTRASOUND 2A26A	EL102	9'	9'	50 FC	1, 2
		ULTRASOUND 2A26B	EL102	9'	9'		1, 2
		ULTRASOUND 2A26D	EL102	9'	9'		1, 2
		PRE OPERATIVE & RECOVERY 2A16	EL102	9'	9'		1, 2
OFFICE		OMNICELL MEDS 2A11	EL101	9'	9'	40 FC	1, 2
		MSA/SCHEDULE 2A05	EL101	9'	9'		1, 2
		MSA/SCHEDULE 2A05A	EL101	9'	9'		1, 2
		RECEPTION 2A06	EL101	9'	9'		1, 2
		RAD WORK 2A02C	EL101	9'	9'		1, 2
		CONTROL CATH LAB 2A12C	EL102	9'	9'		1, 2
		CARDIOLOGY WORK 2A16A	EL102	9'	9'		1, 2
		CONTROL ULTRASOUND 2A26E	EL102	9'	9'		1, 2
		OFFICE SHARED 2A23	EL102	9'	9'		1, 2
STORAGE		STORAGE/RADIOLOGY 2B01	EL101	9'	9'	40 FC	1, 2
		STORAGE CATH LAB 2A12B.1	EL102	9'	9'		1, 2
		DRESSING & STORAGE MRI 2A09A	EL102	9'	9'		1, 2
CORRIDOR		CHARGING ALCOVE 2A-1A	EL101	9'	9'	30 FC	1, 2
		CORRIDOR 2A-2	EL101	9'	9'		1, 2
		CORRIDOR 2A-12	EL102	9'	9'		1, 2
		CORRIDOR 2A26	EL102	9'	9'		1, 2
		MRI ZONE II 2A09	EL102	9'	9'		1, 2
WAITING AREA		RAD FLUORO WAITING 2A25	EL102	9'	9'	30 FC	1, 2
RESTROOM		TOILET 2A03	EL101	9'	9'	30 FC	1, 2
		TOILET STAFF 2A08	EL102	9'	9'		1, 2
		TOILET PRE OPERATIVE & RECOVERY 2A13	EL102	9'	9'		1, 2
		STAFF LOCKER WOMEN 2A19	EL102	9'	9'		1, 2
		STAFF LOCKER MEN 2A20	EL102	9'	9'		1, 2
		DRESSING & TOILET ULTRASOUND 2A26C	EL102	9'	9'		1, 2
		TOILET STAFF 2A08	EL102	9'	9'		1, 2
		DRESSING & TOILET RAD FLUORO 2A25A	EL102	9'	9'		1, 2
ELECTRICAL/MECHANICAL ROOM		ELECTRICAL 2A07A	EL101	9'	11'-8"	40 FC	1, 2
		SYSTEM COMPONENT CATH LAB 2A09B	EL102	9'	13'-2"		1, 2

NOTE(S):

1. FOOT CANDLE REQUIREMENTS ARE AVERAGE MAINTAINED ILLUMINATION LEVELS AT FINISHED FLOOR THROUGHOUT THE SPACE.
2. PROVIDE ALL HARDWARE AND FASTENING EQUIPMENT AS REQUIRED. REFERENCE LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.

Revisions:	Date:

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3-27-26
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES

Phase: 100% CD

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Project Number: 570-21-220

Building Number: 001

Approved:

FULLY SPRINKLERED

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026

Checked: LRL/WNM

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Drawing Number: E-701

VA FORM 08 - 6231

CONDUIT AND WIRE SCHEDULE - RAD FLUORO

CONDUIT TAG	SERVICE	ROUTING FROM	ROUTING TO	CONDUIT QTY	CONDUIT SIZE	CONDUCTORS (QTY) & SIZE	CONDUCTORS GROUND SIZE	NOTES
P-RF-1	RAD FLUORO EQUIPMENT	PANEL "C-EDP-2"	RAD FLUORO ENCLOSED CIRCUIT BREAKER "ECB-RF-1"	1	2"	(4) 3 AWG	3 AWG	2
E-RF-2	RAD FLUORO EQUIPMENT	RAD FLUORO ENCLOSED CIRCUIT BREAKER "ECB-RF-1"	VERTICAL/HORIZONTAL WALL DUCT "VD1"	1	2"	(4) 3 AWG	3 AWG	2
E-RF-3	RAD FLUORO EQUIPMENT	RAD FLUORO ENCLOSED CIRCUIT BREAKER "ECB-RF-1"	EPO	1	3/4"	(2) 12 AWG	12 AWG	-
E-RF-4	RAD FLUORO EQUIPMENT	EPO	EPO	1	3/4"	(2) 12 AWG	12 AWG	-
E-RF-5	RAD FLUORO EQUIPMENT	VERTICAL/HORIZONTAL WALL DUCT "VD1"	WARNING LIGHT	1	3/4"	(2) 12 AWG	12 AWG	-
E-RF-7	RAD FLUORO EQUIPMENT	VERTICAL/HORIZONTAL WALL DUCT "VD1" (PU)	DOOR SWITCH	1	3/4"	(2) 12 AWG	12 AWG	-
E-RF-9	RAD FLUORO EQUIPMENT	PULL BOX "P1"	PULL BOX "PU1"	2	2-1/2"	SEE NOTES	SEE NOTES	1
E-RF-10	RAD FLUORO EQUIPMENT	PULL BOX "P1"	PULL BOX "PU1"	2	2-1/2"	SEE NOTES	SEE NOTES	1
E-RF-11	RAD FLUORO EQUIPMENT	VERTICAL DUCT "VD3" (CR1)	VERTICAL DUCT "VD1" (PU)	1	2-1/2"	SEE NOTES	SEE NOTES	1
E-RF-12	RAD FLUORO EQUIPMENT	VERTICAL DUCT "VD3" (IS)	PULL BOX "D1"	1	2-1/2"	SEE NOTES	SEE NOTES	1
E-RF-13	RAD FLUORO EQUIPMENT	PULL BOX "PU1"	PULL BOX "WS"	1	3"	SEE NOTES	SEE NOTES	1
E-RF-14	RAD FLUORO EQUIPMENT	VERTICAL DUCT "VD1" (PU)	VERTICAL DUCT "VD2" (TS)	2	2-1/2"	SEE NOTES	SEE NOTES	1
E-RF-15	RAD FLUORO EQUIPMENT	VERTICAL DUCT "VD1" (PU)	VERTICAL DUCT "VD2" (TS)	1	2"	SEE NOTES	SEE NOTES	1
E-RF-16	RAD FLUORO EQUIPMENT	VERTICAL DUCT "VD3" (IS)	VERTICAL DUCT "VD1" (PU)	2	2-1/2"	SEE NOTES	SEE NOTES	1
E-RF-17	RAD FLUORO EQUIPMENT	PULL BOX "PU1"	PULL BOX "DOS"	1	1-1/2"	SEE NOTES	SEE NOTES	1
E-RF-18	RAD FLUORO EQUIPMENT	IS (OPENING IN FACE OF VERTICAL DUCT "VD3")	PULL BOX "MON"	1	2"	SEE NOTES	SEE NOTES	1

NOTE(S):
1. VENDOR PROVIDED CONDUCTORS IN CONTRACTOR PROVIDED RACEWAY. CONTRACTOR TO PROVIDE PULL STRINGS IN EACH CONDUIT.
2. ALL CONDUCTORS (PHASE, GROUND, AND NEUTRAL) SHALL COMPLY WITH MANUFACTURER REQUIREMENTS.

CONDUIT AND WIRE SCHEDULE - CATHETERIZATION LAB

CONDUIT TAG	SERVICE	ROUTING FROM	ROUTING TO	CONDUIT QTY	CONDUIT SIZE	CONDUCTORS (QTY) & SIZE	CONDUCTORS GROUND SIZE	NOTES
PC-1	CATHETERIZATION LAB	PANELBOARD "EDP-6"	CATHETERIZATION LAB ENCLOSED CIRCUIT BREAKER "ECB-CATH-1"	1	1-1/2"	(4) 1 AWG	1 AWG	2, 3
PC-2	CATHETERIZATION LAB	CATHETERIZATION LAB ENCLOSED CIRCUIT BREAKER "ECB-CATH-1"	CATHETERIZATION LAB UPS "UPS-CATH-1"	1	1-1/2"	(4) 1 AWG	1 AWG	2, 3
PC-3	CATHETERIZATION LAB	CATHETERIZATION LAB UPS "UPS-CATH-1"	CATHETERIZATION LAB ENCLOSED CIRCUIT BREAKER "ECB-CATH-2"	1	1-1/2"	(4) 4 AWG	4 AWG	2, 3
PC-4	CATHETERIZATION LAB	CATHETERIZATION LAB ENCLOSED CIRCUIT BREAKER "ECB-CATH-2"	MAIN ELECTRICAL CABINET "MA"	1	1-1/2"	(4) 4 AWG	4 AWG	2, 3
EC-3A	EPO JUNCTION BOX "JB-EPO" WIRING	PANELBOARD X	EPO JUNCTION BOX "JB-EPO"	1	3/4"	(2) 12 AWG	12 AWG	2
EC-3B	EPO JUNCTION BOX "JB-EPO" WIRING	UPS	EPO JUNCTION BOX "JB-EPO"	1	3/4"	(2) 12 AWG	12 AWG	2
EC-3C	EPO JUNCTION BOX "JB-EPO" WIRING	EPO SWITCH "EPO-1"	EPO JUNCTION BOX "JB-EPO"	1	3/4"	(2) 12 AWG	12 AWG	2
EC-3D	EPO JUNCTION BOX "JB-EPO" WIRING	EPO SWITCH "EPO-2"	EPO JUNCTION BOX "JB-EPO"	1	3/4"	(2) 12 AWG	12 AWG	2
EC-3E	EPO JUNCTION BOX "JB-EPO" WIRING	ENCLOSED CIRCUIT BREAKER "ECB-CATH-1"	EPO JUNCTION BOX "JB-EPO"	1	3/4"	(2) 12 AWG	12 AWG	2
EC-3F	EPO JUNCTION BOX "JB-EPO" WIRING	ENCLOSED CIRCUIT BREAKER "ECB-CATH-2"	EPO JUNCTION BOX "JB-EPO"	1	3/4"	(2) 12 AWG	12 AWG	2
EC-05A	EQUIPOTENTIAL REFERENCE BAR	EQUIPOTENTIAL REFERENCE BAR	LOCAL BUILDING STEEL (I.E. STRUCTURAL STEEL, GROUND ROD)	1	3/4"	-	6 AWG	2
EC-05B	EQUIPOTENTIAL REFERENCE BAR	EQUIPOTENTIAL REFERENCE BAR	CATHETERIZATION LAB ROOM OUTLETS	1	3/4"	-	6 AWG	2
EC-07	CATHETERIZATION LAB	BACK BOX "ME"	CEILING BOX "SP"	1	2-1/2"	-	-	1, 2
EC-08	CATHETERIZATION LAB	BACK BOX "ME"	CEILING BOX "SP"	1	2"	-	-	1, 2
EC-09	CATHETERIZATION LAB	BACK BOX "MA"	CEILING BOX "SP"	1	1-1/2"	-	-	1, 2
EC-10	CATHETERIZATION LAB	BACK BOX "ME"	CEILING BOX "SP"	1	1-1/2"	-	-	1, 2
EC-11	CATHETERIZATION LAB	BACK BOX "ME"	CEILING BOX "SP"	1	1"	-	-	1, 2
EC-12	CATHETERIZATION LAB	BACK BOX "MA"	CEILING BOX "SP"	1	2"	-	-	1, 2
EC-13	CATHETERIZATION LAB	BACK BOX "MA"	FLOOR BOX "MSA"	1	2"	-	-	1, 2
EC-14	CATHETERIZATION LAB	BACK BOX "MA"	FLOOR BOX "MSA"	1	3"	-	-	1, 2
EC-15	CATHETERIZATION LAB	BACK BOX "MB"	FLOOR BOX "MSA"	1	1"	-	-	1, 2
EC-16	CATHETERIZATION LAB	BACK BOX "MA"	CEILING BOX "TV"	1	1-1/2"	-	-	1, 2
EC-17	CATHETERIZATION LAB	BACK BOX "MB"	CEILING BOX "TV"	1	1-1/2"	-	-	1, 2
EC-18	CATHETERIZATION LAB	BACK BOX "MB"	CEILING BOX "TV"	1	1-1/2"	-	-	1, 2
EC-19	CATHETERIZATION LAB	WALL RACEWAY "WR3" (GROMMET "CY")	CEILING BOX "TV"	1	3/4"	-	-	1, 2
EC-20	CATHETERIZATION LAB	AUXILIARY BOX "ATY"	CEILING BOX "TV"	1	1"	-	-	1, 2
EC-21	CATHETERIZATION LAB	BACK BOX "MA"	WALL RACEWAY "WR3" (GROMMET "CY")	1	3"	-	-	1, 2
EC-22	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "CY")	1	1-1/2"	-	-	1, 2
EC-23	CATHETERIZATION LAB	BACK BOX "MA"	WALL RACEWAY "WR3" (GROMMET "CY")	1	2"	-	-	1, 2
EC-24	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "CY")	1	2"	-	-	1, 2
EC-25	CATHETERIZATION LAB	BACK BOX "MA"	AUXILIARY BOX "ATY"	1	2"	-	-	1, 2
EC-26	CATHETERIZATION LAB	WALL RACEWAY "WR1" (GROMMET "SH")	WALL RACEWAY "WR3" (GROMMET "SHP")	1	1"	-	-	1, 2
EC-27	CATHETERIZATION LAB	BACK BOX "MA"	X-RAY WARNING LIGHT	1	3/4"	(2) 12 AWG	12 AWG	2
EC-28	CATHETERIZATION LAB	FLOOR BOX "MSA"	WALL RACEWAY "WR3" (STUB UP POINT "PHY")	1	3"	-	-	1, 2
EC-30	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "AUX1")	1	1-1/2"	-	-	1, 2
EC-31	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "AUX2")	1	1-1/2"	-	-	1, 2
EC-32	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "AUX3")	1	1-1/2"	-	-	1, 2
EC-33	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "AUX4")	1	1-1/2"	-	-	1, 2
EC-34	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "AUX5")	1	1-1/2"	-	-	1, 2
EC-35	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "AUX6")	1	1-1/2"	-	-	1, 2
EC-36	CATHETERIZATION LAB	BACK BOX "MB"	WALL RACEWAY "WR3" (GROMMET "AUX7")	1	1-1/2"	-	-	1, 2
EC-37	CATHETERIZATION LAB	BACK BOX "MB"	PULL BOX "AUX8"	1	1-1/2"	-	-	1, 2

NOTE(S):
1. VENDOR PROVIDED CONDUCTORS IN CONTRACTOR PROVIDED CONDUIT. CONDUCTORS TO BE INSTALLED BY VENDOR. CONTRACTOR TO PROVIDE PULL STRINGS IN EACH CONDUIT.
2. REFER TO VENDOR DRAWINGS FOR ADDITIONAL REQUIREMENTS.
3. ALL CONDUCTORS (PHASE, GROUND, AND NEUTRAL) SHALL COMPLY WITH MANUFACTURER REQUIREMENTS.

GENERAL NOTES

KEY NOTES

Revisions: Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD
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REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-702

VA FORM 08 - 6231

BLDG 19A GENERATOR PARALLELING SWITCHBOARD "EDP-01" LOAD SCHEDULE

SYSTEM RATINGS: 480/277V, 5000A, 3-PH, 4W

LOAD TYPE	VA
PEAK DEMAND LOAD (NOTE 1)	1499817
25% OF PEAK DEMAND (NEC 220.87)	374954
EXISTING DEMAND SUBTOTAL	*1874772*
Added this project:	
PANELBOARD "EDP-6"	482788
PANELBOARD "LS-E-2E"	3079
ADDED SUBTOTAL	485867
TOTAL VA LOAD	2360639
TOTAL AMPERAGE	2839
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	57%

NOTE(S):
1. EXISTING PEAK DEMAND DATA DETERMINED FROM 12-MONTHS OF GENERATOR LOAD TEST DATA FOR GENERATORS 1 - 5. LOAD TEST DATA WAS RECORDED OVER JANUARY THROUGH X.

PG&E MANCHESTER SWITCHGEAR CIRCUIT BREAKER "S7" LOAD SCHEDULE

SYSTEM RATINGS: 12.47kV, 300A, 3-PH, 3W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	626362
25% OF PEAK DEMAND (NEC 220.87)	156590
EXISTING DEMAND SUBTOTAL	*782952*
Added this project:	
PANELBOARD "N-E-2F2"	21274
PANELBOARD "N-C-2D"	1882
PANELBOARD "C-E-2Y"	27317
ADDED SUBTOTAL	21274
TOTAL VA LOAD	804225
TOTAL AMPERAGE	37
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	12%

NOTE(S):
1. EXISTING PEAK DEMAND DATA WAS PROVIDED BY VA ON 8/18/2025.

PG&E MANCHESTER SWITCHGEAR CIRCUIT BREAKER "S9" LOAD SCHEDULE

SYSTEM RATINGS: 12.47kV, 300A, 3-PH, 3W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	323980
25% OF PEAK DEMAND (NEC 220.87)	80995
EXISTING DEMAND SUBTOTAL	*404975*
Added this project:	
PANELBOARD "N-E-2F2"	21274
PANELBOARD "N-C-2D"	1882
PANELBOARD "C-E-2Y"	27317
ADDED SUBTOTAL	21274
TOTAL VA LOAD	426249
TOTAL AMPERAGE	20
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	7%

NOTE(S):
1. EXISTING PEAK DEMAND DATA WAS PROVIDED BY VA ON 8/18/2025.

SWITCHBOARD "EDP5" LOAD SCHEDULE

SYSTEM RATINGS: 480/277V, 1600A, 3-PH, 4W

LOAD TYPE	VA
ESTIMATED EXISTING CONNECTED LOAD (NOTE 1)	347519
25% OF PEAK DEMAND (NEC 220.87)	86880
EXISTING DEMAND SUBTOTAL	*434398*
Added this project:	
PANELBOARD "EDP-6"	482788
ADDED SUBTOTAL	482788
TOTAL VA LOAD	917186
TOTAL AMPERAGE	1103
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	69%

NOTE(S):
1. EXISTING CONNECTED LOAD IS CALCULATED FROM VA PROVIDED LOAD DATA.

SWITCHBOARD "MSS-B" LOAD SCHEDULE

SYSTEM RATINGS: 208/120V, 3000A, 3-PH, 4W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	626362
25% OF PEAK DEMAND (NEC 220.87)	156590
EXISTING DEMAND SUBTOTAL	*782952*
Added this project:	
PANELBOARD "N-C-2D"	1882
PANELBOARD "C-E-2Y"	27317
PANELBOARD "LS-E-2E"	3079
ADDED SUBTOTAL	29199
TOTAL VA LOAD	812150
TOTAL AMPERAGE	2254
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	75%

NOTE(S):
1. EXISTING PEAK DEMAND DATA WAS PROVIDED BY VA ON 8/18/2025.

SWITCHBOARD "MSS-A" LOAD SCHEDULE

SYSTEM RATINGS: 208/120V, 3000A, 3-PH, 4W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	323980
25% OF PEAK DEMAND (NEC 220.87)	80995
EXISTING DEMAND SUBTOTAL	*404975*
Added this project:	
PANELBOARD "N-E-2F2"	21274
ADDED SUBTOTAL	21274
TOTAL VA LOAD	426249
TOTAL AMPERAGE	1183
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	39%

NOTE(S):
1. EXISTING PEAK DEMAND DATA WAS PROVIDED BY VA ON 8/18/2025.

AUTOMATIC TRANSFER SWITCH "ATS-CATH" LOAD SCHEDULE

SYSTEM RATINGS: 480/277V, 800A, 3-PH, 4W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	0
EXISTING DEMAND SUBTOTAL	*0*
Added this project:	
PANELBOARD "EDP-6"	482788
ADDED SUBTOTAL	482788
TOTAL VA LOAD	482788
TOTAL AMPERAGE	581
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	73%

NOTE(S):
1. EQUIPMENT DOES NOT FEED ANY EXISTING LOADS.

PANELBOARD "RISER DIST PANEL D" LOAD SCHEDULE

SYSTEM RATINGS: 208/120V, 600A, 3-PH, 4W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	45440
25% OF PEAK DEMAND (NEC 220.87)	11360
EXISTING DEMAND SUBTOTAL	*56800*
Added this project:	
PANELBOARD "N-C-2D"	1882
ADDED SUBTOTAL	1882
TOTAL VA LOAD	58682
TOTAL AMPERAGE	163
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	27%

NOTE(S):
1. DATA WAS PROVIDED VIA 30-DAY DEMAND POWER LOAD STUDY PROVIDED PER NEC 220.87. DATA WAS RECORDED FROM 7.26.22 TO 8.25.22.

PANELBOARD "RISER DIST PANEL E&F" LOAD SCHEDULE

SYSTEM RATINGS: 208/120V, 800A, 3-PH, 4W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	105301
25% OF PEAK DEMAND (NEC 220.87)	26325
EXISTING DEMAND SUBTOTAL	*131626*
Added this project:	
PANELBOARD "N-E-2F2"	21274
ADDED SUBTOTAL	21274
TOTAL VA LOAD	152900
TOTAL AMPERAGE	424
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	53%

NOTE(S):
1. DATA WAS PROVIDED VIA 30-DAY DEMAND POWER LOAD STUDY PROVIDED PER NEC 220.87. DATA WAS RECORDED FROM 7.26.22 TO 8.25.22.

PANELBOARD "EDP1" LOAD SCHEDULE

SYSTEM RATINGS: 208/120V, 800A, 3-PH, 4W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	76743
25% OF PEAK DEMAND (NEC 220.87)	19186
EXISTING DEMAND SUBTOTAL	*95929*
Added this project:	
PANELBOARD "C-E-2Y"	27317
ADDED SUBTOTAL	27317
TOTAL VA LOAD	123246
TOTAL AMPERAGE	342
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD	43%

NOTE(S):
1. DATA WAS PROVIDED VIA 30-DAY DEMAND POWER LOAD STUDY PROVIDED PER NEC 220.87. DATA WAS RECORDED FROM 7.26.22 TO 8.25.22.

FEEDER "C21" LOAD SCHEDULE

FEEDER RATINGS: 208/120V, 225A, 3PH, 4W

LOAD TYPE	VA
EXISTING DEMAND (NOTE 1)	23023
25% OF PEAK DEMAND (NEC 220.87)	5756
EXISTING DEMAND SUBTOTAL	*28779*
Added this project:	
PANELBOARD "C-E-2Y"	27317
ADDED SUBTOTAL	27317
TOTAL VA LOAD	56095
TOTAL AMPERAGE	156
PERCENTAGE OF EQUIPMENT RATING WITH ADDED LOAD (NOTE 2)	69%

NOTE(S):
1. PEAK DEMAND IS CALCULATED FROM UPSTREAM EQUIPMENT PANEL "EDP1" PEAK DEMAND OBTAINED VIA 30-DAY DEMAND POWER LOAD STUDY PROVIDED PER NEC 220.87. DATA WAS RECORDED FROM 7.26.22 TO 8.25.22. BASED ON EXISTING ONE-LINE TOPOLOGY. A CONSERVATIVE DEMAND FACTOR OF 30% OF TOTAL LOAD IS APPLIED TO FEEDER "C21".

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE ENGINEER.
3. CONTRACTOR SHALL PROVIDE ALL SHUTDOWN PLANS, TEMPORARY POWER PLANS, AND PHASING PLANS FOR VA AND ENGINEER REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. ALL PLANS SHALL BE SUBMITTED FOR REVIEW 30-DAYS PRIOR TO IMPLEMENTATION.

KEY NOTES

Revisions: Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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STAMP: LOUIS R. LITZAO, STATE OF WASHINGTON, 55681, 3-27-26, REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES

Approved:

Phase: 100% CD

FULLY SPRINKLERED

Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1

Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA

Issue Date: 3/27/2026 | Checked: LRL/WNM | Drawn: JFO/JBB

Project Number: 570-21-220

Building Number: 001

Drawing Number: E-703

VA FORM 08 - 6231

PANELBOARD: C-E-2Y (EXISTING)

Location: BLDG 001, RM 2A12C
Supply From: PANEL "EDP1"
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 100A
Main Circuit Breaker: 100A / 3P

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	LIGHTS IN CATH LAB (MAIN)	20 A	1	650	1080					1	20 A	RECEPTACLES	2
3	* HEADBOARD RECEPTACLES	20 A	"			1080	1080			1	20 A	RECEPTACLES	4
5	2A19 COMM	30 A	"					1800	1200	1	20 A	PIXYS MACHINE IN CT SCAN RM (MACH)	6
7	UNKOWN LOAD	20 A	3	1200	0					1	20 A	SPARE	8
9	RECEPTABLES PREP AREA	20 A	"			1080	1200			1	20 A	SP2A09A-1 PIXYS MACHINE	10
11	SPARE	40 A	2					0	650	1	20 A	LIGHTS IN CATH LAB	12
13	"	"	"	0	0					3	30 A	SPARE	14
15	SPACE	-	1			0	0			"	"	"	16
17	SPARE	40 A	1					0	0	"	"	"	18
19	SPACE	-	1	0	0					1	-	SPACE	20
21	SPACE	-	1			0	0			1	-	SPACE	22
23	SPACE	-	1					0	0	1	-	SPACE	24
25	SPACE	-	1	0	0					1	-	SPACE	26
27	SPACE	-	1			0	0			1	-	SPACE	28
29	SPACE	-	1					0	0	1	-	SPACE	30
31	SPACE	-	1	0	0					1	-	SPACE	32
33	SPACE	-	1			0	0			1	-	SPACE	34
35	SPACE	-	1					0	0	1	-	SPACE	36
37	SPACE	-	1	0	0					3	100 A	MAIN	38
39	SPACE	-	1			0	0			"	"	"	40
41	SPACE	-	1					0	0	"	"	"	42
			Total Load:	2930		4440		3650					
			Total Amps:	24		37		30					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	11020 VA
Other	6480	100.00%	6480	Total Est. Power Demand:	11345 VA
Receptacle	3240	100.00%	3240	Total Conn. Amperage:	31 A
Lighting	1300	125.00%	1625	Total Est. Amperage Demand:	31 A
Telecom Rack	0	100.00%	0		

Notes:

PANELBOARD: NC2D (EXISTING)

Location: BLDG 001, COR 2B-1
Supply From: RISER DIST PANEL D
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 225 A
Main Circuit Breaker: 100A / 3P

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	REC 2B01	20 A	1	1080	1200					1	20 A	LIGHTS REC 2B10A	2
3	REC 2A05, BATH	20 A	1			1080	1200			1	20 A	LIGHTS REC 2B10, 10A	4
5	REC 2A02, 05	20 A	1					1080	0	1	20 A	SPARE	6
7	REC 2B02	20 A	1	1080	0					1	20 A	SPARE	8
9	REC WATER FOUNTAIN	20 A	1			1080	0			1	20 A	SPARE	10
11	REC 2B01, RECEPTION	20 A	1					1080	1080	1	20 A	REC 2B01 (TV)	12
13	REC 2B02	20 A	1	1080	0					1	20 A	SPARE	14
15	SPACE	-	-			0	0			1	20 A	SPARE	16
17	SPARE	15 A	2					0	1080	1	20 A	REC CORD X RAY	18
19	"	"	"	0	0					1	20 A	SPARE	20
21	SPACE	-	1			0	1200			1	20 A	LIGHTS WARN 2A05, HALLWAY	22
23	SPACE	-	1					0	0	1	-	SPACE	24
25	SPARE	40 A	1	0	0					3	100 A	MAIN	26
27	SPARE	30 A	2			0	0			"	"	"	28
29	"	"	"					0	0	"	"	"	30
			Total Load:	4440		4560		4320					
			Total Amps:	37		38		36					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	13320 VA
Other	0	100.00%	0	Total Est. Power Demand:	14220 VA
Receptacle	9720	100.00%	9720	Total Conn. Amperage:	37 A
Lighting	3600	125.00%	4500	Total Est. Amperage Demand:	39 A
Telecom Rack	0	100.00%	0		

Notes:

PANELBOARD: C-E-2Y (REPLACEMENT)

Location: BLDG 001, RM 2A12C
Supply From: PANEL "EDP1"
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 225A
Main Circuit Breaker: 225A / 3P

SPD: INTEGRAL (NOTE 2)

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	LIGHTS IN CATH LAB (MAIN)	**20 A**	**1**	650	1080					**1**	**20 A**	RECEPTACLES	2
3	* HEADBOARD RECEPTACLES	**20 A**	**"**			1080	1080			**1**	**20 A**	RECEPTACLES	4
5	2A19 COMM	**30 A**	**"**					1800	1200	**1**	**20 A**	PIXYS MACHINE IN CT SCAN RM (MACH)	6
7	UNKOWN LOAD	**20 A**	**3**	1200	429					**1**	**20 A**	**LTG - 2A26A,2A26B,2A26D,2A26E**	8
9	RECEPTABLES PREP AREA	**20 A**	**"**			1080	1200			**1**	**20 A**	SP2A09A-1 PIXYS MACHINE	10
11	**SPARE**	**20 A**	**1**					0	650	**1**	**20 A**	LIGHTS IN CATH LAB	12
13	**STARIS CLEANSUITE OVERHEAD UNIT**	**20 A**	**1**	840	1164					**2**	**20 A**	**REVERSE OSMOSIS SYSTEM "RO-2A09B"**	14
15	**DUCTLESS SPLIT OUTDOOR UNIT "DSO-1-2A09B"**	**20 A**	**1**			1914	1164			**"**	**"**	**"**	16
17	**"**	**20 A**	**1**					1914	1380	**1**	**20 A**	**AHU "AHU-1-2A09B" LIGHTING CIRCUIT**	18
19	**SPARE**	**20 A**	**1**	0	1080					**1**	**20 A**	**RECEPS - 2A25B**	20
21	**EXHAUST FAN "EF-1-2A16**	**20 A**	**3**			901	1080			**1**	**20 A**	**RECEPS - 2A12C**	22
23	**"**	**"**	**"**					901	1080	**1**	**20 A**	**RECEPS - 2A12C**	24
25	**"**	**"**	**"**	901	720					**1**	**20 A**	**RECEPS - 2A26D**	26
27	**PATIENT LIFT**	**20 A**	**1**			1200	720			**1**	**20 A**	**RECEPS - 2A26B**	28
29	**PATIENT LIFT**	**20 A**	**1**					1200	720	**1**	**20 A**	**RECEPS - 2A26A**	30
31	**PATIENT LIFT**	**20 A**	**1**	1200	0					**1**	**20 A**	**SPARE**	32
33	**DUCTLESS SPLIT OUTDOOR UNIT "DSO-1-2A07A"**	**20 A**	**1**			1914	0			**1**	**20 A**	**SPARE**	34
35	**"**	**20 A**	**1**					1914	360	**1**	**20 A**	**RECEPS - 2A02B**	36
37	**LTG - 2A25B**	**20 A**	**1**	776	180					**1**	**20 A**	**CRASH CART - 2A07**	38
39	**NURSE CALL PANEL "NCE-2B17"**	**20 A**	**1**			500	360			**1**	**20 A**	**RECEPS RM 2A12B.1**	40
41	**LTG - 2A12B,2A12C**	**20 A**	**1**					1006	0	**1**	**20 A**	**SPARE**	42
			Total Load:	10220		14192		14124					
			Total Amps:	85		118		118					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	38535 VA
Other	17030	100.00%	17030	Total Est. Power Demand:	38662 VA
Receptacle	13667	100.00% (NOTE 1)	11833.5	Total Conn. Amperage:	107 A
Lighting	7838	125.00%	9798	Total Est. Amperage Demand:	107 A
Telecom Rack	0	100.00%	0		

Notes:
1. DEMAND FACTOR OF 50% IS APPLIED AFTER THE FIRST 10kVA PER NEC 220.47.
2. DIGITAL POWER METER (DPM) AND SURGE PROTECTION DEVICE (SPD) SHALL BE INTEGRAL TO PANEL (FACTORY INSTALLED).
3. EXISTING LOAD IS CALCULATED FROM AS-BUILT ON SITE INVESTIGATON.

PANELBOARD: NC2D (REPLACEMENT)

Location: BLDG 001, RM 2B-1
Supply From: RISER DIST PANEL D
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 225 A
Main Circuit Breaker: 225A / 3P

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	REC 2B01	20 A	1	1080	1200					1	20 A	LIGHTS REC 2B10A	2
3	REC 2A05, BATH	20 A	1			1080	1200			1	20 A	LIGHTS REC 2B10, 10A	4
5	REC 2A02, 05	20 A	1					1080	0	1	20 A	SPARE	6
7	REC 2B02	20 A	1	1080	0					1	20 A	SPARE	8
9	REC WATER FOUNTAIN	20 A	1			1080	0			1	20 A	SPARE	10
11	REC 2B01, RECEPTION	20 A	1					1080	1080	1	20 A	REC 2B01 (TV)	12
13	REC 2B02	20 A	1	1080	0					1	20 A	SPARE	14
15	**R-2A06**	**20 A**	**1**			720	720			**1**	**20 A**	**R-2A-1A**	16
17	**R-2A05,2A06**	**20 A**	**1**					900	1080	1	20 A	REC CORD X RAY	18
19	**R-2A05**	**20 A**	**1**	900	0					1	20 A	SPARE	20
21	**R-2A2B**	**20 A**	**1**			1080	1200			1	20 A	LIGHTS WARN 2A02, HALLWAY	22
23	**R-2A03,2A02D**	**20 A**	**1**					1080	1080	**1**	**20 A**	**R-2B04**	24
25	**R-2A02D,2A02D.1**	**20 A**	**1**	900	1080					**1**	**20 A**	**R-2B02**	26
27	**L-2B04,2B02,2B01,2A11**	**20 A**	**1**			174	514			**1**	**20 A**	**L-2A-2,2A03,2A02B,2A02C,2A02D,2A02D.1**	28
29	**L-2A-2,2A07A,2A06,2A05,2A05A**	**20 A**	**1**					457	360	**1**	**20 A**	**R-2A11**	30
31	**R-2B01**	**20 A**	**1**	720	180					**1**	**20 A**	**R-TV WAITING AREA**	32
33	**R-2A-2**	**20 A**	**1**			360	0			**1**	**20 A**	**SPARE**	34
35	**R-2A05,2A05A**	**20 A**	**1**					540	0	**1**	**20 A**	**SPARE**	36
37	**SPARE**	**20 A**	**1**	0	0					**1**	**20 A**	**SPARE**	38
39	**SPARE**	**20 A**	**1**			0	0			**1**	**20 A**	**SPARE**	40
41	**SPARE**	**20 A**	**1**					0	0	**1**	**20 A**	**SPARE**	42
43	**SPARE**	**20 A**	**1**	0	100					**3**	**20 A**	**DPM (NOTE 2)**	44
45	**SPARE**	**20 A**	**1**			0	100			**"**	**"**	**"**	46
47	**SPARE**	**20 A**	**1**					0	100	**"**	**"**	**"**	48
49	**SPARE**	**20 A**	**1**	0	100					**3**	**20 A**	**SPD (NOTE 2)**	50
51	**SPARE**	**20 A**	**1**			0	100			**"**	**"**	**"**	52
53	**SPARE**	**20 A**	**1**					0	100	**"**	**"**	**"**	54
			Total Load:	8420		8328		8937					
			Total Amps:	70		69		74					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	25686 VA
Other	600	100.00%	600	Total Est. Power Demand:	16702 VA
Receptacle	20340	100.00% (NOTE 1)	10170	Total Conn. Amperage:	71 A
Lighting	4746	125.00%	5932	Total Est. Amperage Demand:	46 A
Telecom Rack	0	100.00%	0		

Notes:
1. DEMAND FACTOR OF 50% IS APPLIED AFTER THE FIRST 10kVA PER NEC 220.47.
2. DIGITAL POWER METER (DPM) AND SURGE PROTECTION DEVICE (SPD) SHALL BE INTEGRAL TO PANEL (FACTORY INSTALLED).

IPU PANELBOARD: ISO-L

Location: BLDG 001, RM 2A13
Supply From: PANELBOARD "EDP-6"
Mounting: SURFACE
Enclosure: Type 1

Volts: PRI: 480V; SEC: 208V
Phases: 1
Wires 2

A.I.C Rating: 10k
XFMR Rating: 15KVA
Main Circuit Breaker: 40A / 2P (ON PRIMARY SIDE OF IPU XFMR)

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	LASER RECEPTACLE	60 A	2	4160	0			2	20 A	SPARE	2
	"	"	"			4160	0	"	"	"	
3	SPARE	20 A	2	0	0			2	20 A	SPARE	4
	"	"	"			0	0	"	"	"	
5	SPARE	20 A	2	0	0			2	20 A	SPARE	6
	"	"	"			0	0	"	"	"	
7	SPARE	20 A	2	0	0			2	20 A	SPARE	8
	"	"	"			0	0	"	"	"	
			Total Load:	4160		4160					
			Total Amps:	35		35					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Load:	8320 VA
Other	0	100.00%	0	Total Est. Demand:	8320 VA
Receptacle	8320	100.00%	8320	Total Conn.:	40 A
Lighting	0	125.00%	0	Total Est. Demand:	40 A

Notes:
1. TOTAL CONNECTED AND TOTAL ESTIMATED DEMAND AMPERAGES ARE INDICATED AT 120V.
2. 15kVA, 480V PRIMARY, 208V SECONDARY ISOLATION PANEL.

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE ENGINEER.
3. CONTRACTOR SHALL PROVIDE ALL SHUTDOWN PLANS, TEMPORARY POWER PLANS, AND PHASING PLANS FOR VA AND ENGINEER REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. ALL PLANS SHALL BE SUBMITTED FOR REVIEW 30-DAYS PRIOR TO IMPLEMENTATION.

KEY NOTES

1. RETERMINATE EXISTING BRANCH CIRCUITS INTO REPLACEMENT PANEL; EXTEND CONDUIT AND WIRE AS NECESSARY.

Revisions:
Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD
A/E:
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23830 PACIFIC HIGHWAY S. SUITE 300
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SDB SPEESDESIGNBUILD

STAMP
LOUIS R. LITZKO STATE OF WASHINGTON 55681 3-27-26 REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-704
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB

VA FORM 08 - 6231

PANELBOARD: LS-E-2E (EXISTING)

Location: BLDG 001, COR 2A-1
Supply From: J-BOX LS2E
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 100A
Main Circuit Breaker: 70A / 3P

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	LIGHTS CORD, CT EGRESS, EXIT	20 A	1	1200	0					1	20 A	SPARE	2
3	LIGHTS CORD, EXIT, CHAPEL ENTRY	20 A	1			1200	0			1	20 A	SPARE	4
5	FIRE ALARM CNT PNL/CEILING 2A11	20 A	1					1200	0	1	20 A	SPARE	6
7	SPACE	-	-	0	0					1	-	SPACE	8
9	SPACE	-	-			0	0			1	-	SPACE	10
11	SPACE	-	-					0	0	1	-	SPACE	12
13	SPACE	-	-	0	0					1	-	SPACE	14
15	SPACE	-	-			0	0			1	-	SPACE	16
17	SPACE	-	-					0	0	1	-	SPACE	18
19	SPACE	-	-	0	0					1	-	SPACE	20
21	SPACE	-	-			0	0			1	-	SPACE	22
23	SPACE	-	-					0	0	1	-	SPACE	24
25	SPACE	-	-	0	0					1	-	SPACE	26
27	SPACE	-	-			0	0			1	-	SPACE	28
29	SPACE	-	-					0	0	1	-	SPACE	30
31	SPACE	-	-	0	0					1	-	SPACE	32
33	SPACE	-	-			0	0			1	-	SPACE	34
35	SPACE	-	-					0	0	1	-	SPACE	36
37	SPACE	-	-	0	0					3	70 A	MAIN	38
39	SPACE	-	-			0	0			"	"	"	40
41	SPACE	-	-					0	0	"	"	"	42
			Total Load:	1200		1200		1200					
			Total Amps:	10		10		10					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	3600 VA
Other	1200	100.00%	1200	Total Est. Power Demand:	4200 VA
Receptacle	0	100.00%	0	Total Conn. Amperage:	10 A
Lighting	2400	125.00%	3000	Total Est. Amperage Demand:	12 A
Telecom Rack	0	100.00%	0		

Notes:

PANELBOARD: LS-E-2E (REVISED)

Location: BLDG 001, RM 2A-1
Supply From: J-BOX LS2E
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 100A
Main Circuit Breaker: 70A / 3P

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	LIGHTS CORD, CT EGRESS, EXIT	20 A	1	1200	0					1	20 A	SPARE	2
3	LIGHTS CORD, EXIT, CHAPEL ENTRY	20 A	1			1200	0			1	20 A	SPARE	4
5	FIRE ALARM CNT PNL/CEILING 2A11	20 A	1					1200	0	1	20 A	SPARE	6
7	SPACE	-	-	0	0					-	-	SPACE	8
9	L-2A-1A,2A08,2A09,2A09A,2A09B,2B01,2A11	20 A	1			329	523			1	20 A	L-2A02C,2A03,2A05,2A05A,2A06,2A07A	10
11	L-2A25A,2A26C,2A25,2A26,2A26A,2A26B,2A26D,2A26E	20 A	1					365	410	1	20 A	L-2A12,2A13,2A16,2A16A,2A19,2A20,2A23,2A25B,2A25C	12
13	L-2A12B,2A12C	20 A	1	403	434					1	20 A	L-2A-2,2A02B,2B02,2B04,	14
15	SPACE	-	1			0	0			1	-	SPACE	16
17	SPACE	-	1					0	0	1	-	SPACE	18
19	SPACE	-	1	0	0					1	-	SPACE	20
21	SPACE	-	1			0	0			1	-	SPACE	22
23	SPACE	-	1					0	0	1	-	SPACE	24
25	SPACE	-	1	0	0					1	-	SPACE	26
27	SPACE	-	1			0	0			1	-	SPACE	28
29	SPACE	-	1					0	0	1	-	SPACE	30
31	SPACE	-	1	0	0					1	-	SPACE	32
33	SPACE	-	1			0	0			1	-	SPACE	34
35	SPACE	-	1					0	0	1	-	SPACE	36
37	SPACE	-	1	0	0					3	70 A	MAIN	38
39	SPACE	-	1			0	0			"	"	"	40
41	SPACE	-	1					0	0	"	"	"	42
			Total Load:	2037		2052		1975					
			Total Amps:	17		17		16					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	6063 VA
Other	1200	100.00%	1200	Total Est. Power Demand:	7279 VA
Receptacle	0	100.00% (NOTE 1)	0	Total Conn. Amperage:	17 A
Lighting	4863	125.00%	6079	Total Est. Amperage Demand:	20 A
Telecom Rack	0	100.00%	0		

Notes:
1. DEMAND FACTOR OF 50% IS APPLIED AFTER THE FIRST 10kVA PER NEC 220.47.

IPU PANELBOARD: ISO-N

Location: BLDG 001, RM 2A13
Supply From: PANELBOARD "N-E-2F2"
Mounting: SURFACE
Enclosure: Type 1

Volts: PRI: 480V; SEC: 120V
Phases: 1
Wires 2

A.I.C Rating: 10k
XFMR Rating: 10KVA
Main Circuit Breaker: 30A / 2P (ON PRIMARY SIDE OF IPU XFMR)

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES - CATHERIZATION LAB	20 A	2	360	360			2	20 A	RECEPTACLES - CATHERIZATION LAB	2
	"	"	"			360	360	"	"	"	
3	RECEPTACLES - CATHERIZATION LAB	20 A	2	360	360			2	20 A	RECEPTACLES - CATHERIZATION LAB	4
	"	"	"			360	360	"	"	"	
5	SPARE	20 A	2	0	0			2	20 A	SPARE	6
	"	"	"			0	0	"	"	"	
7	SPARE	20 A	2	0	0			2	20 A	SPARE	8
	"	"	"			0	0	"	"	"	
			Total Load:	1440		1440					
			Total Amps:	12		12					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Load:	2880 VA
Other	0	100.00%	0	Total Est. Demand:	2880 VA
Receptacle	2880	100.00%	2880	Total Conn.:	24 A
Lighting	0	125.00%	0	Total Est. Demand:	24 A

Notes:
1. TOTAL CONNECTED AND TOTAL ESTIMATED DEMAND AMPERAGES ARE INDICATED AT 120V.
2. 10kVA, 480V PRIMARY, 120V SECONDARY ISOLATION PANEL.

IPU PANELBOARD: ISO-C1

Location: BLDG 001, RM 2A13
Supply From: PANELBOARD "EDP-6"
Mounting: SURFACE
Enclosure: Type 1

Volts: PRI: 480V; SEC: 120V
Phases: 1
Wires 2

A.I.C Rating: 22k
Bus Rating: 10kVA
Main Circuit Breaker: 30A / 2P (ON PRIMARY SIDE OF IPU XFMR)

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES - CATHERIZATION LAB	20 A	2	360	360			2	20 A	RECEPTACLES - CATHERIZATION LAB	2
	"	"	"			360	360	"	"	"	
3	RECEPTACLES - CATHERIZATION LAB	20 A	2	360	360			2	20 A	RECEPTACLES - CATHERIZATION LAB	4
	"	"	"			360	360	"	"	"	
5	ANESTHESIA BOOM - CIRCUIT 1	20 A	2	180	180			2	20 A	ANESTHESIA BOOM - CIRCUIT 2	6
	"	"	"			180	180	"	"	"	
7	ANESTHESIA BOOM - CIRCUIT 3	20 A	2	90	180			2	20 A	ANESTHESIA BOOM - CIRCUIT 4	8
	"	"	"			90	180	"	"	"	
9	ANESTHESIA BOOM - CIRCUIT 5	20 A	2	360	0			2	20 A	SPARE	10
	"	"	"			360	0	"	"	"	
11	SPARE	20 A	2	0	0			2	20 A	SPARE	12
	"	"	"			0	0	"	"	"	
13	SPARE	20 A	2	0	0			2	20 A	SPARE	14
	"	"	"			0	0	"	"	"	
15	SPARE	20 A	2	0	0			2	20 A	SPARE	16
	"	"	"			0	0	"	"	"	
			Total Load:	2430		2430					
			Total Amps:	20		20					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Load:	4860 VA
Other	0	100.00%	0	Total Est. Demand:	4860 VA
Receptacle	4860	100.00%	4860	Total Conn.:	41 A
Lighting	0	125.00%	0	Total Est. Demand:	41 A
All other Motor	0	100.00%	0		

Notes:
1. TOTAL CONNECTED AND TOTAL ESTIMATED DEMAND AMPERAGES ARE INDICATED AT 120V.
2. 10kVA, 480V PRIMARY, 120V SECONDARY ISOLATION PANEL.

IPU PANELBOARD: ISO-C2

Location: BLDG 001, RM 2A13
Supply From: PANELBOARD "EDP-6"
Mounting: SURFACE
Enclosure: Type 1

Volts: PRI: 480V; SEC: 120V
Phases: 1
Wires 2

A.I.C Rating: 22k
Bus Rating: 10kVA
Main Circuit Breaker: 30A / 2P (ON PRIMARY SIDE OF IPU XFMR)

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES - CATHERIZATION LAB	20 A	2	360	360			2	20 A	RECEPTACLES - CATHERIZATION LAB	2
	"	"	"			360	360	"	"	"	
3	RECEPTACLES - CATHERIZATION LAB	20 A	2	360	360			2	20 A	RECEPTACLES - CATHERIZATION LAB	4
	"	"	"			360	360	"	"	"	
5	MONITOR BOOM - CIRCUIT 1	20 A	2	360	90			2	20 A	MONITOR BOOM - CIRCUIT 2	6
	"	"	"			360	90	"	"	"	
7	EQUIPMENT AND LIGHT BOOM - CIRCUIT 1	20 A	2	180	180			2	20 A	EQUIPMENT AND LIGHT BOOM - CIRCUIT 2	8
	"	"	"			180	180	"	"	"	
9	EQUIPMENT AND LIGHT BOOM - CIRCUIT 3	20 A	2	120	0			2	20 A	SPARE	10
	"	"	"			120	0	"	"	"	
11	SPARE	20 A	2	0	0			2	20 A	SPARE	12
	"	"	"			0	0	"	"	"	
13	SPARE	20 A	2	0	0			2	20 A	SPARE	14
	"	"	"			0	0	"	"	"	
15	SPARE	20 A	2	0	0			2	20 A	SPARE	16
	"	"	"			0	0	"	"	"	
			Total Load:	2370		2370					
			Total Amps:	20		20					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Load:	4740 VA
Other	0	100.00%	0	Total Est. Demand:	4740 VA
Receptacle	4740	100.00%	4740	Total Conn.:	40 A
Lighting	0	125.00%	0	Total Est. Demand:	40 A
All other Motor	0	100.00%	0		

Notes:
1. TOTAL CONNECTED AND TOTAL ESTIMATED DEMAND AMPERAGES ARE INDICATED AT 120V.
2. 10kVA, 480V PRIMARY, 120V SECONDARY ISOLATION PANEL.

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. ANY DISCREPANCIES FOUND SHALL BE REPORTED TO THE ENGINEER.
3. CONTRACTOR SHALL PROVIDE ALL SHUTDOWN PLANS, TEMPORARY POWER PLANS, AND PHASING PLANS FOR VA AND ENGINEER REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. ALL PLANS SHALL BE SUBMITTED FOR REVIEW 30-DAYS PRIOR TO IMPLEMENTATION.

KEY NOTES

1. PROVIDE CIRCUIT BREAKER TO SUPPLY LOAD.

Revisions: | Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD
A/E:
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23830 PACIFIC HIGHWAY S. SUITE 300
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LOUIS R. LITZKO STATE OF WASHINGTON 55681 3-27-26 REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES
Approved:
Phase: 100% CD
FULLY SPRINKLERED
Project Title: RENOVATE IMAGING & CATHETERIZATION LAB IN BUILDING 1
Location: VA CENTRAL CALIFORNIA HEALTHCARE SYSTEM - FRESNO, CA
Issue Date: 3/27/2026
Checked: LRL/WNM
Drawn: JFO/JBB
Project Number: 570-21-220
Building Number: 001
Drawing Number: E-705

VA FORM 08 - 6231

PANELBOARD: EDP-6

Location: BLDG 001, RM 2A07A
Supply From: PANELBOARD "EQH-TEMP SPS"
Mounting: Surface
Enclosure: Type 1

Line Volts: 480
Neutral Volts: 277
Phases: 3
Wires 4

A.I.C Rating: 42K
Bus Rating: 800A
Main Circuit Breaker: 800A / 3P / LSI

DPM: INTEGRAL (NOTE 2)
SPD: INTEGRAL (NOTE 2)

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	AIR HANDLING UNIT REHEAT COIL "RHC-1"	40 A	3	7652	26667					3	80 A	RADIOLOGY RM 2B04 ECB "ECB-2B04" (NOTE 1)	2
3	"	"	"			7652	26667			"	"	"	4
5	"	"	"					7652	26667	"	"	"	6
7	RADIOLOGY RM 2B02 ECB "ECB-2B02" (NOTE 1)	80 A	3	26667	26667					3	80 A	RADIOLOGY RM 2A02B ECB "ECB-2A02B" (NOTE 1)	8
9	"	"	"			26667	26667			"	"	"	10
11	"	"	"					26667	26667	"	"	"	12
13	CATH LAB ECB "ECB-CATH-1" (NOTE 1)	80 A	3	17459	26667					3	80A	RAD FLUORO ECB "ECB-RF-1" (NOTE 1)	14
15	"	"	"			17459	26667			"	"	"	16
17	"	"	"					17459	26667	"	"	"	18
19	PANELBOARD "ISO-C1"	60 A	2	2430	2494					3	20A	AIR HANDLING UNIT SUPPLY FAN "SF-1"	20
21	"	"	"			2430	2494			"	"	"	22
23	PANELBOARD "ISO-C2"	60 A	2					2370	2494	"	"	"	24
25	"	"	"	2370	6014					3	30A	HUMIDIFIER "ESH-1-2A09B"	26
27	AIR HANDLING UNIT PREHEAT COIL "PHC-1"	45 A	3			8347	6014			"	"	"	28
29	"	"	"					8347	6014	"	"	"	30
31	"	"	"	8347	4360					3	30 A	PANEL "C-E-2LY"	32
33	ACTIVE HARMONIC FILTER "AHF-C-EDP-2"	400 A	3			100	3707			"	"	"	34
35	"	"	"					100	3974	"	"	"	36
37	"	"	"	100	0					3	70 A	SPARE	38
39	PANELBOARD "ISO-L"	40 A	2			4160	0			"	"	"	40
41	"	"	"					4160	0	"	"	"	42
			Total Load:	157892		159029		159236					
			Total Amps:	570		574		575					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	25041	125.00%	31301	Total Conn. Power Load:	476157 VA
Other	443876	100.00%	443876	Total Est. Power Demand:	482788 VA
Receptacle	5760	100.00%	5760	Total Conn. Amperage:	573 A
Lighting	1480	125.00%	1851	Total Est. Amperage Demand:	581 A
Telecom Rack	0	100.00%	0		

Notes:
1. PROVIDE SHUNT TRIP CIRCUIT BREAKER. PROVIDE CONTROL WIRING, RACEWAYS, AND APPURTENANCES PER MANUFACTURER'S REQUIREMENTS.
2. DIGITAL POWER METER (DPM) AND SURGE PROTECTION DEVICE (SPD) SHALL BE INTEGRAL TO PANEL (FACTORY INSTALLED).

PANELBOARD: C-E-2LY

Location: BLDG 001, RM 2A07A
Supply From: PANEL "EDP-6"
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 100A
Main Circuit Breaker: 60A / 3P

SPD: INTEGRAL (NOTE 2)

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	DOOR ACCESS CONTROLS RM-2B02B	20 A	1	400	1000					1	20 A	16 MODULE PACS CARD READER	2
3	DOOR ACCESS CONTROLS RM-2B01,2B02,2B04	20 A	1			1200	540			1	20 A	RCPT-2A11	4
5	DOOR ACCESS CONTROLS RM-2A26,2A26A	20 A	1					800	1080	1	20 A	RCPT-2B04	6
7	DOOR ACCESS CONTROLS RM-2A25B,2A12	20 A	1	800	360					1	20 A	RCPT-2B04	8
9	LTG - 2A02B	20 A	1			527	1080			1	20 A	RCPT-2B02	10
11	LTG - 2B04, 2B02	20 A	1					954	360	1	20 A	RCPT-2B02	12
13	SPARE	20 A	1	0	1080					1	20 A	RCPT-2A02B	14
15	SPARE	20 A	1			0	360			1	20 A	RCPT-2A02B	16
17	WATER SOFTENER -2A09B	20 A	1					600	180	1	20 A	RCPT - ROOF	18
19	SPARE	20 A	1	0	720					1	20 A	RCPT - 2A12B PYXIS ARRAY	20
21	SPARE	20 A	1			0	0			1	20 A	SPARE	22
23	SPARE	20 A	1					0	0	1	20 A	SPARE	24
25	SPARE	20 A	1	0	0					1	20 A	SPARE	26
27	SPARE	20 A	1			0	0			1	20 A	SPARE	28
29	SPARE	20 A	1					0	0	1	20 A	SPARE	30
			Total Load:	4360		3707		3974					
			Total Amps:	36		31		33					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	12040 VA
Other	4800	100.00%	4800	Total Est. Power Demand:	12411 VA
Receptacle	5760	100.00% (NOTE 1)	5760	Total Conn. Amperage:	33 A
Lighting	1480	125.00%	1851	Total Est. Amperage Demand:	34 A
Telecom Rack	0	100.00%	0		

Notes:
1. DEMAND FACTOR OF 50% IS APPLIED AFTER THE FIRST 10kVA PER NEC 220.47.
2. SURGE PROTECTION DEVICE (SPD) SHALL BE INTEGRAL TO PANEL (FACTORY INSTALLED).

PANELBOARD: N-E-2F2

Location: BLDG 001, RM 2A07A
Supply From: RISER DIST PANEL E&F (RIGHT)
Mounting: Surface
Enclosure: Type 1

Line Volts: 208
Neutral Volts: 120
Phases: 3
Wires 4

A.I.C Rating: 10K
Bus Rating: 225A
Main Circuit Breaker: 225A / 3P

CKT	CIRCUIT DESCRIPTION	Trip	Poles	VA PER PHASE A		VA PER PHASE B		VA PER PHASE C		Poles	Trip	CIRCUIT DESCRIPTION	CKT
1	SPARE	20 A	1	0	720					1	20 A	R-2A22	2
3	R-2A24	20 A	1			720	900			1	20 A	R-2A25A,2A26E	4
5	R-2A23,2A25C,2A25B	20 A	1					900	720	1	20 A	R-2A19,2A20,2A16A	6
7	R-2A16A	20 A	1	900	900					1	20 A	R-2A26A	8
9	R-2A16,2A13	20 A	1			900	1080			1	20 A	R-2A26B,2A26C	10
11	R-2A23	20 A	1					900	1080	1	20 A	R-2A26D,2A26E	12
13	R-2A08,2A09A,2A12C	20 A	1	900	720					1	20 A	R-2A25B	14
15	R-2A09C,2A12C	20 A	1			900	1000			1	20 A	REFRIGERATOR-2A21	16
17	R-2A07A	20 A	1					360	540	1	20 A	R-2A12,2A16	18
19	SPARE	20 A	1	0	360					1	20 A	R-2A09	20
21	L-2A08,2A-1A,2A09,2A09A,2A09B,2A12B.1	20 A	1			289	540			1	20 A	R-2A21	22
23	L-2A12,2A13,2A16,2A16A,2A19,2A20	20 A	1					338	720	1	20 A	R-2A21	24
25	L-2A23,2A25A,2A25B,2A26C,2A25,2A26D	20 A	1	305	1200					1	20 A	MICROWAVE-2A21	26
27	L-2A26A,2A26B,2A26	20 A	1			223	0			1	20 A	SPARE	28
29	SCRUB SINK SENSOR P-519	20 A	1					1650	0	1	20 A	SPARE	30
31	LAVATORY P-401 - RMS 2A03, 2A08	20 A	1	1080	100					3	20 A	DPM	32
33	LAVATORY P-401 - RMS 2A13, 2A25A, 2A26D	20 A	1			1080	100			"	"	"	34
35	PANEL ISO-N	100 A	2					1440	100	"	"	"	36
37	"	"	"	1440	100					3	20 A	SPD	38
39	SPARE	20 A	1			0	100			"	"	"	40
41	SPARE	20 A	1					0	100	"	"	"	42
			Total Load:	8725		7832		8848					
			Total Amps:	73		65		74					

LOAD TYPE	Connected Load (VA)	Demand Factor	Estimated Demand (VA)	Panel Totals	
Largest Motor	0	125.00%	0	Total Conn. Power Load:	25405 VA
Other	6610	100.00%	6610	Total Est. Power Demand:	21874 VA
Receptacle	17640	100.00% (NOTE 1)	13820	Total Conn. Amperage:	71 A
Lighting	1155	125.00%	1444	Total Est. Amperage Demand:	61 A
Telecom Rack	0	100.00%	0		

Notes:
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KEY NOTES

Revisions: Date:

CONSULTANT

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STAMP
LOUIS R. LITZAO
STATE OF WASHINGTON
55681
3-27-26
REGISTERED PROFESSIONAL ENGINEER

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SCHEDULES
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Phase: 100% CD
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Issue Date: 3/27/2026
Checked: LRL/WNM
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Project Number: 570-21-220
Building Number: 001
Drawing Number: E-706

VA FORM 08 - 6231