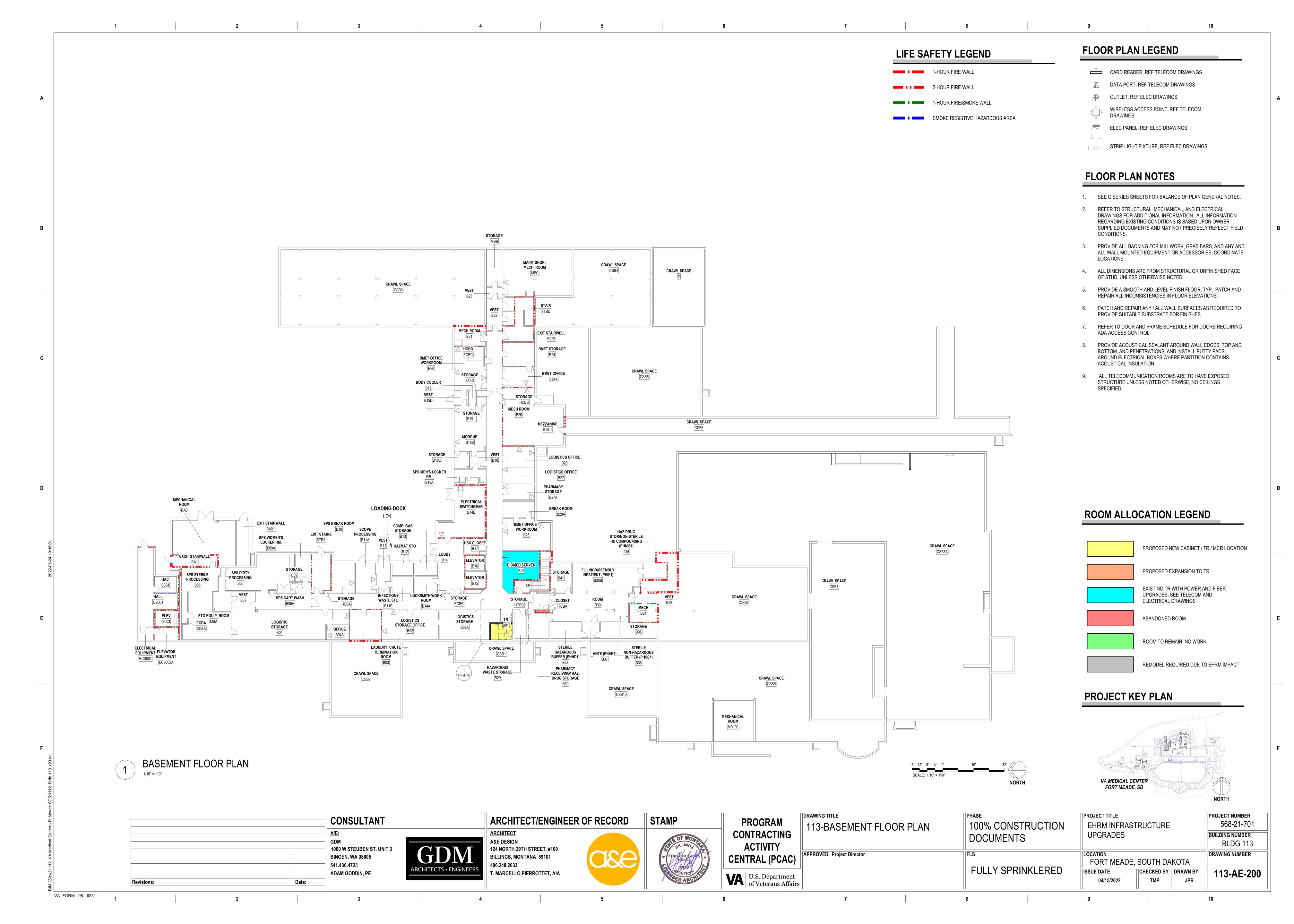
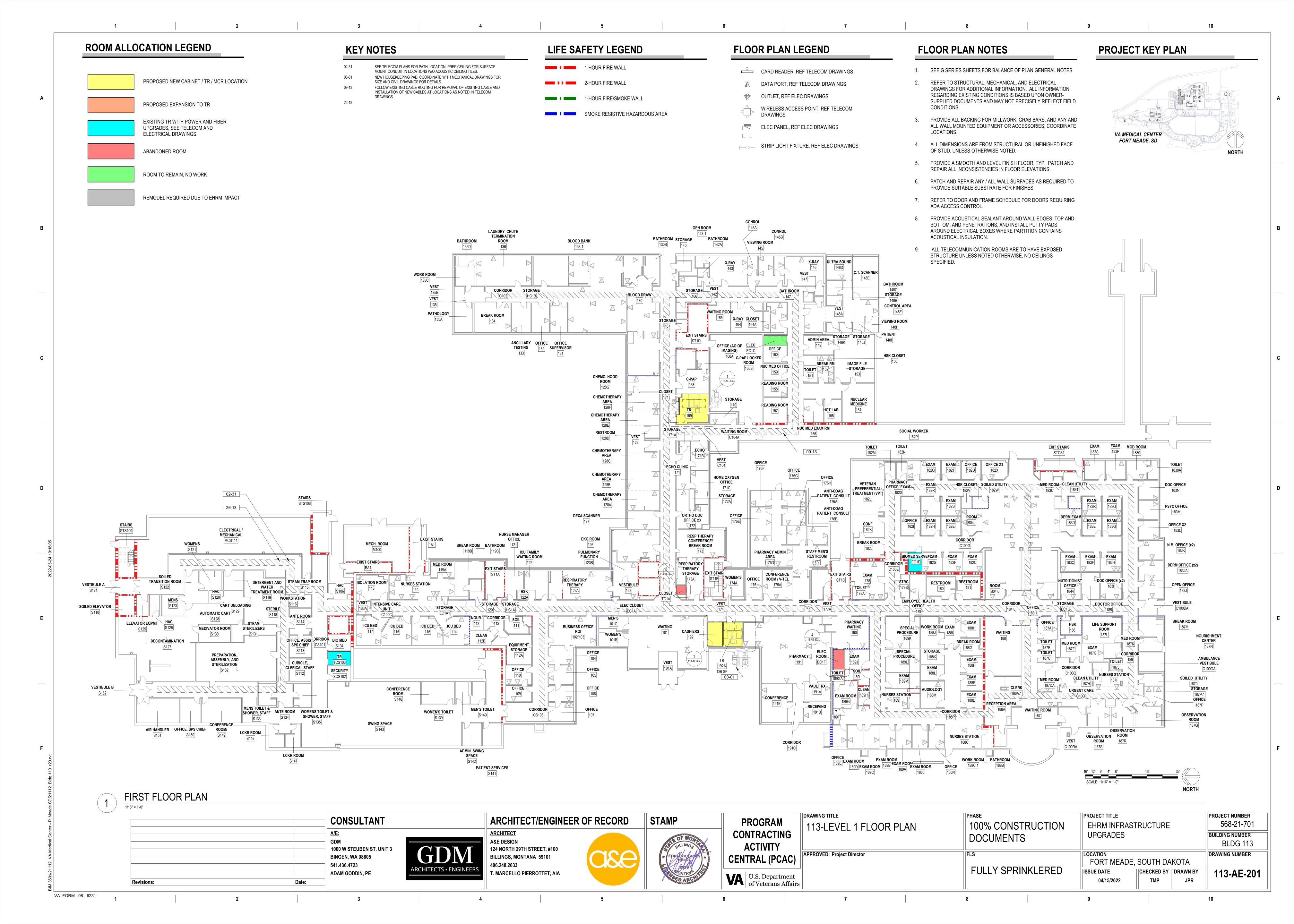
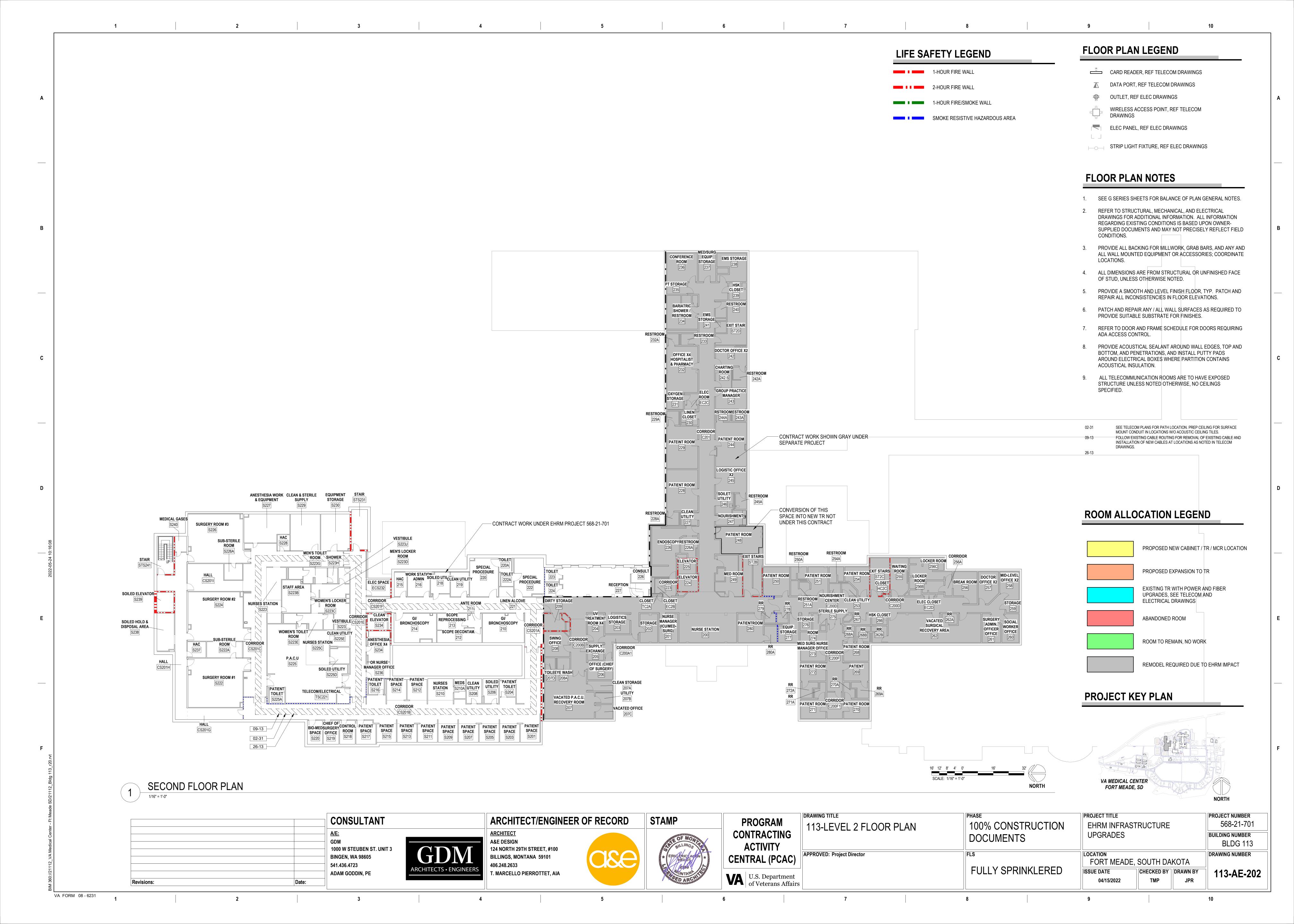
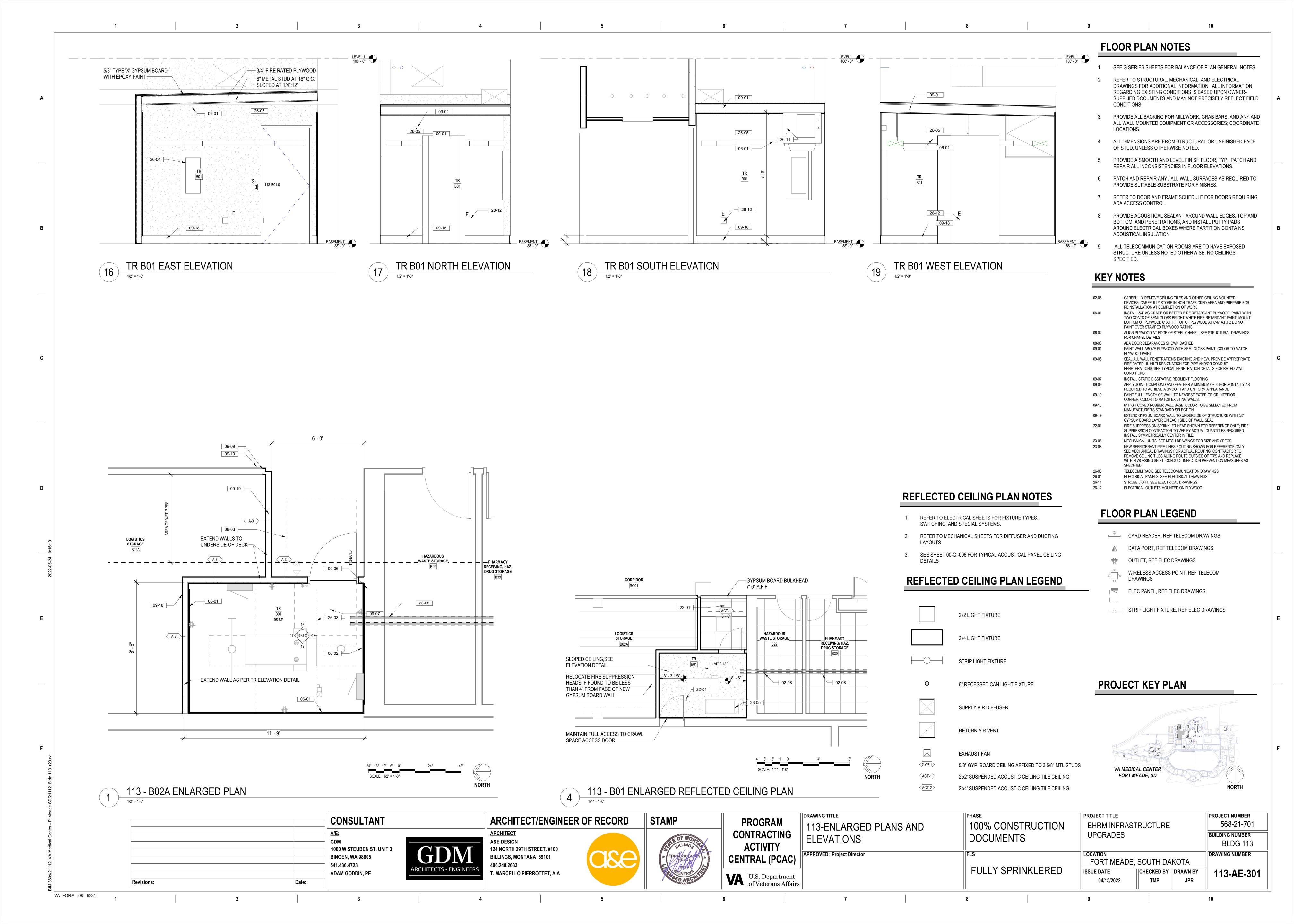


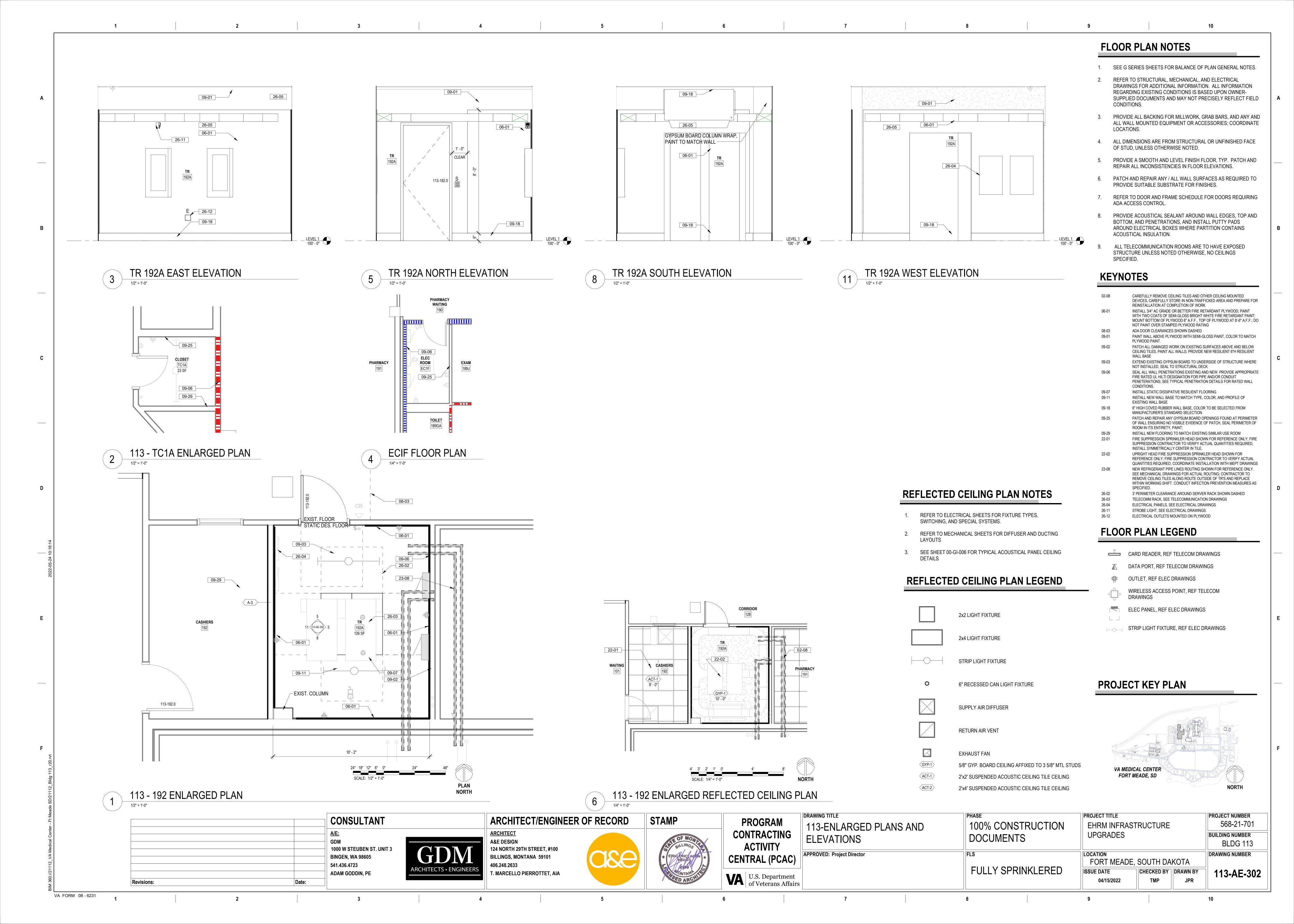
FLOOR PLAN LEGEND

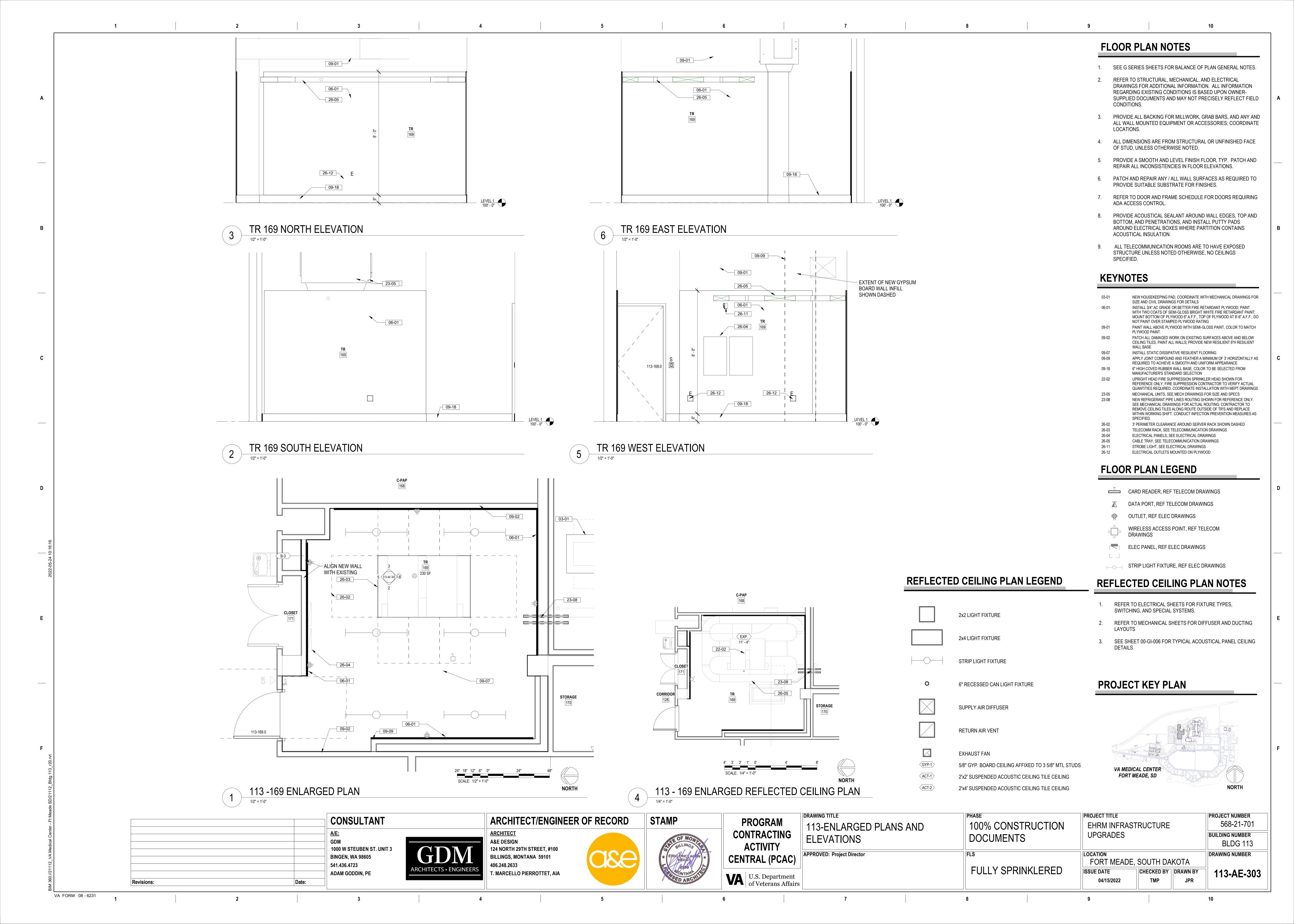


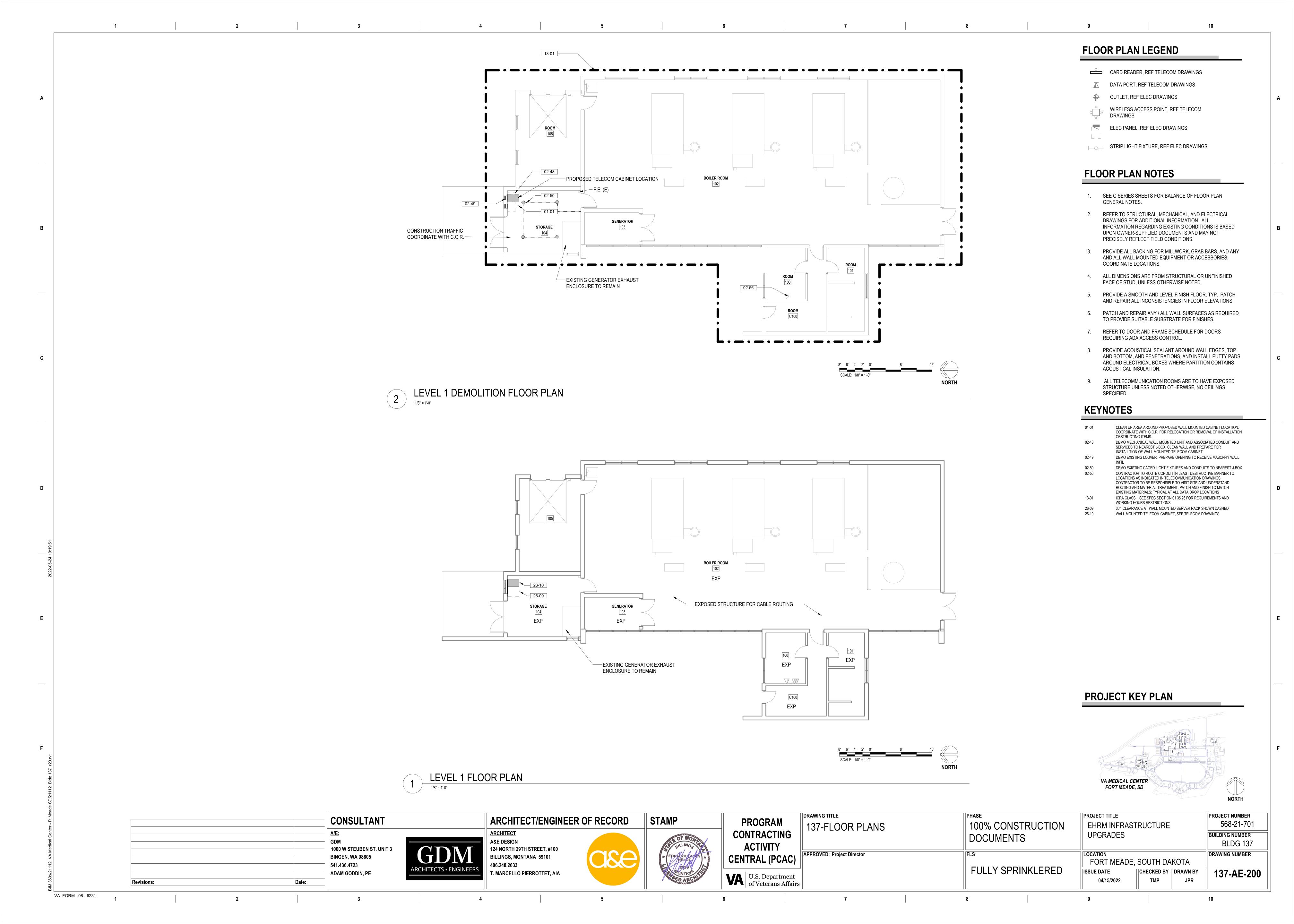


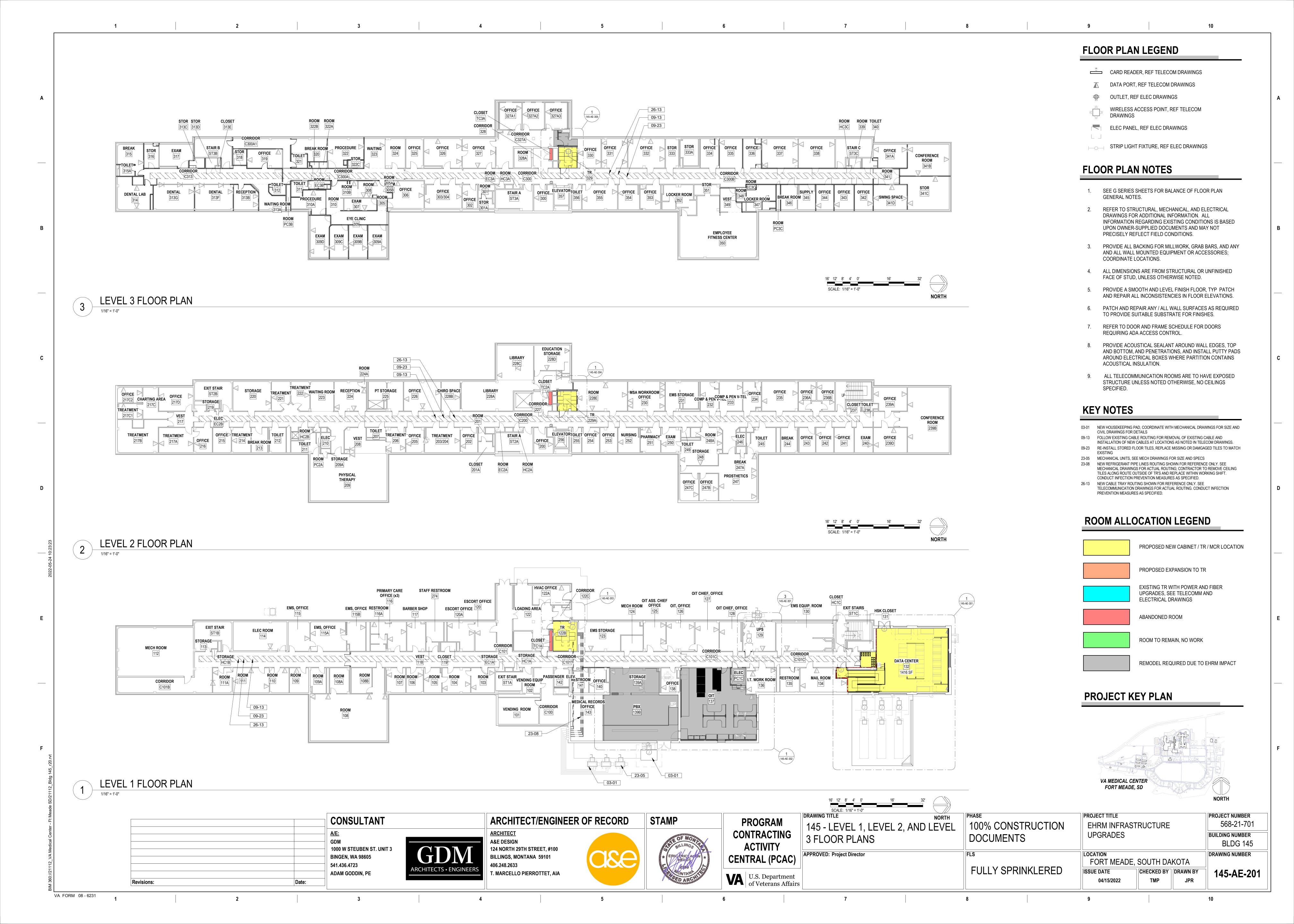


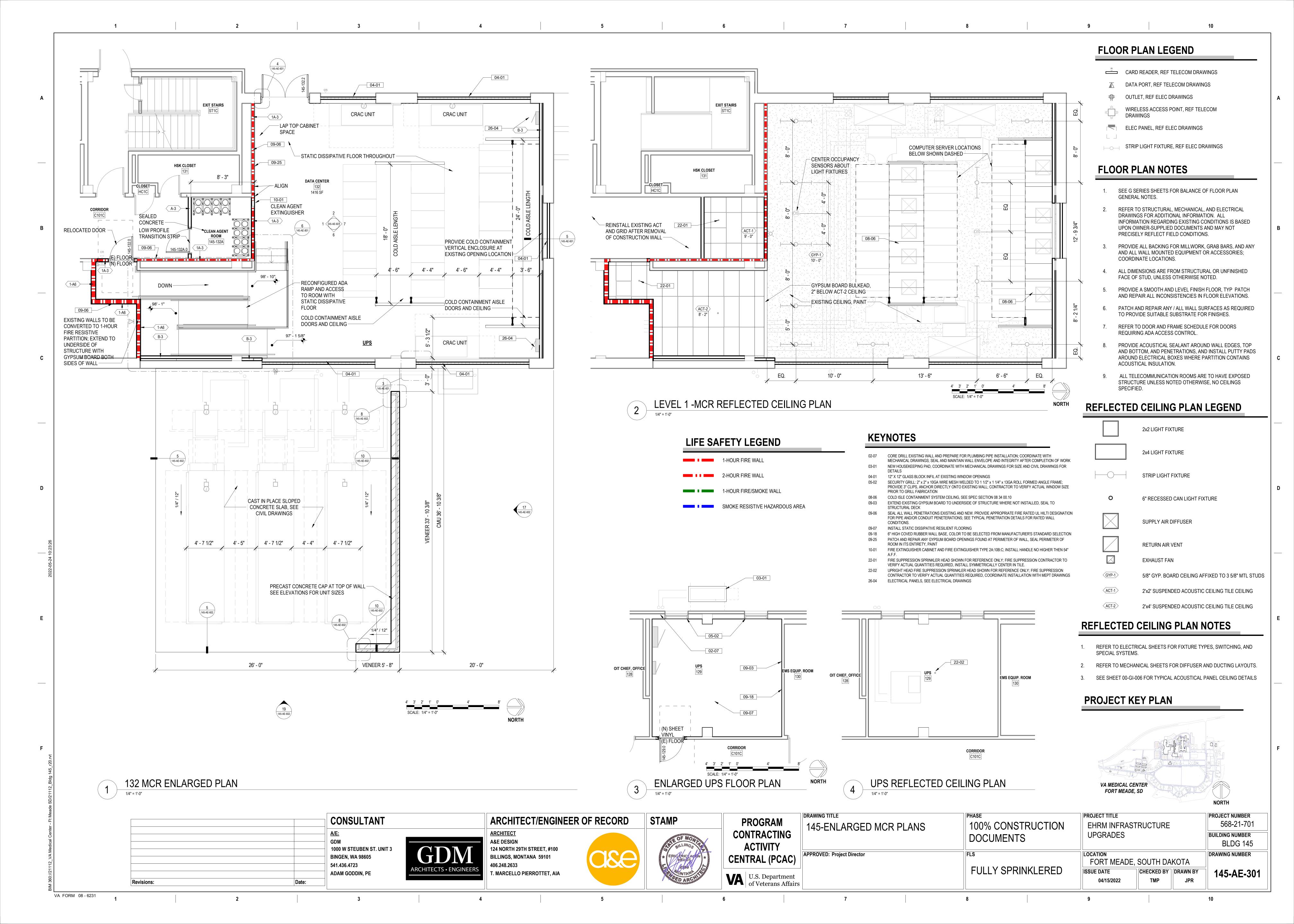


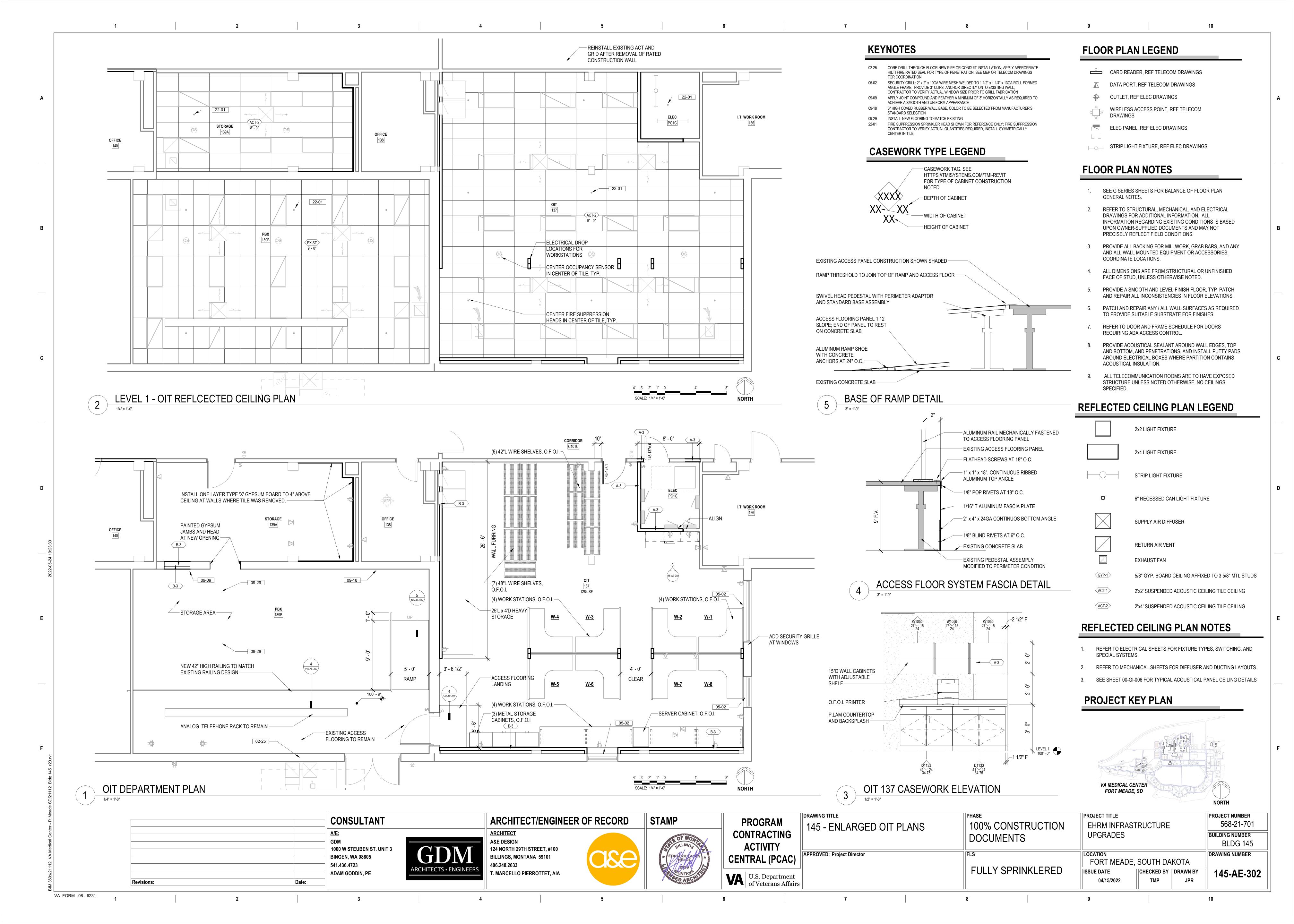


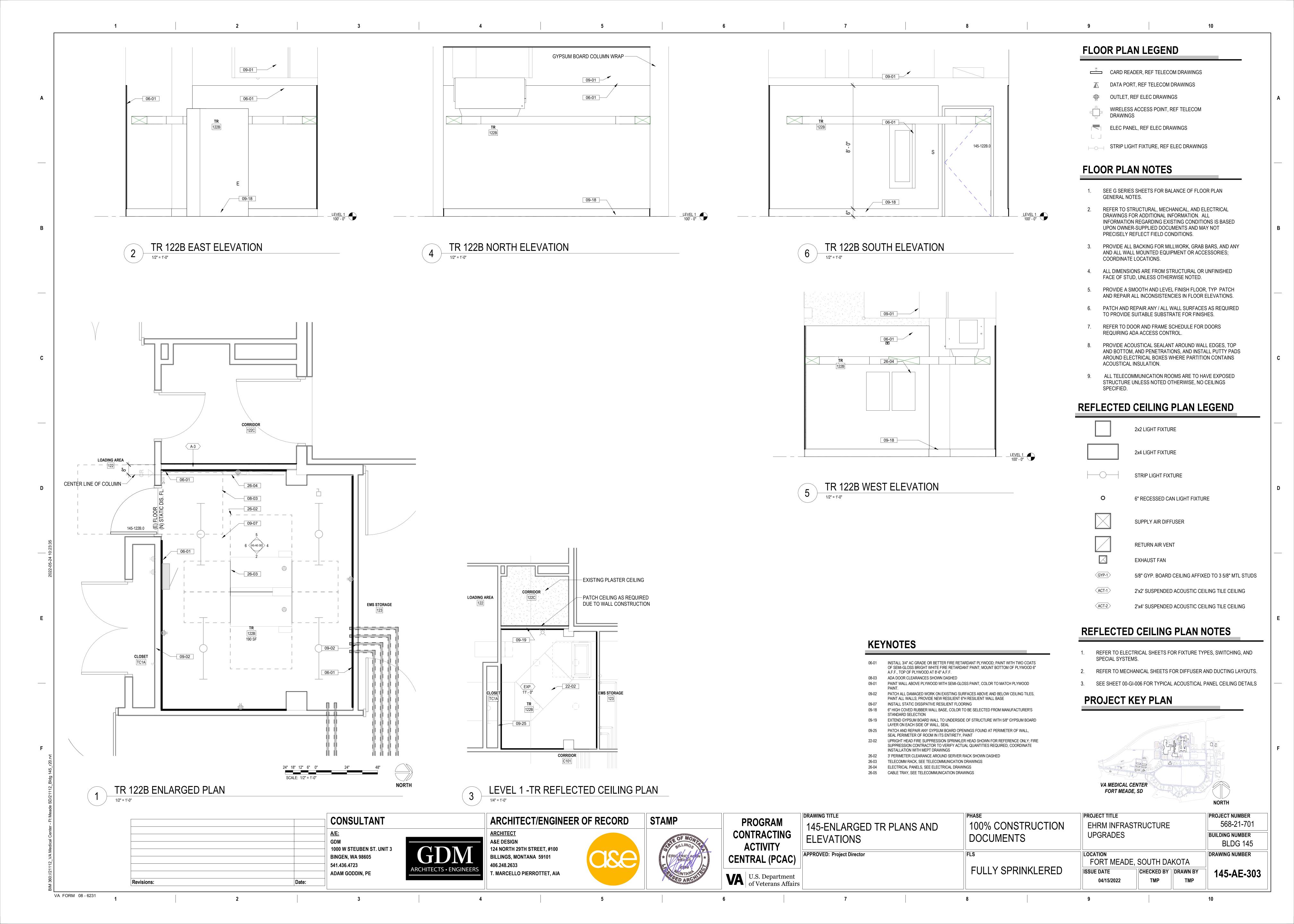


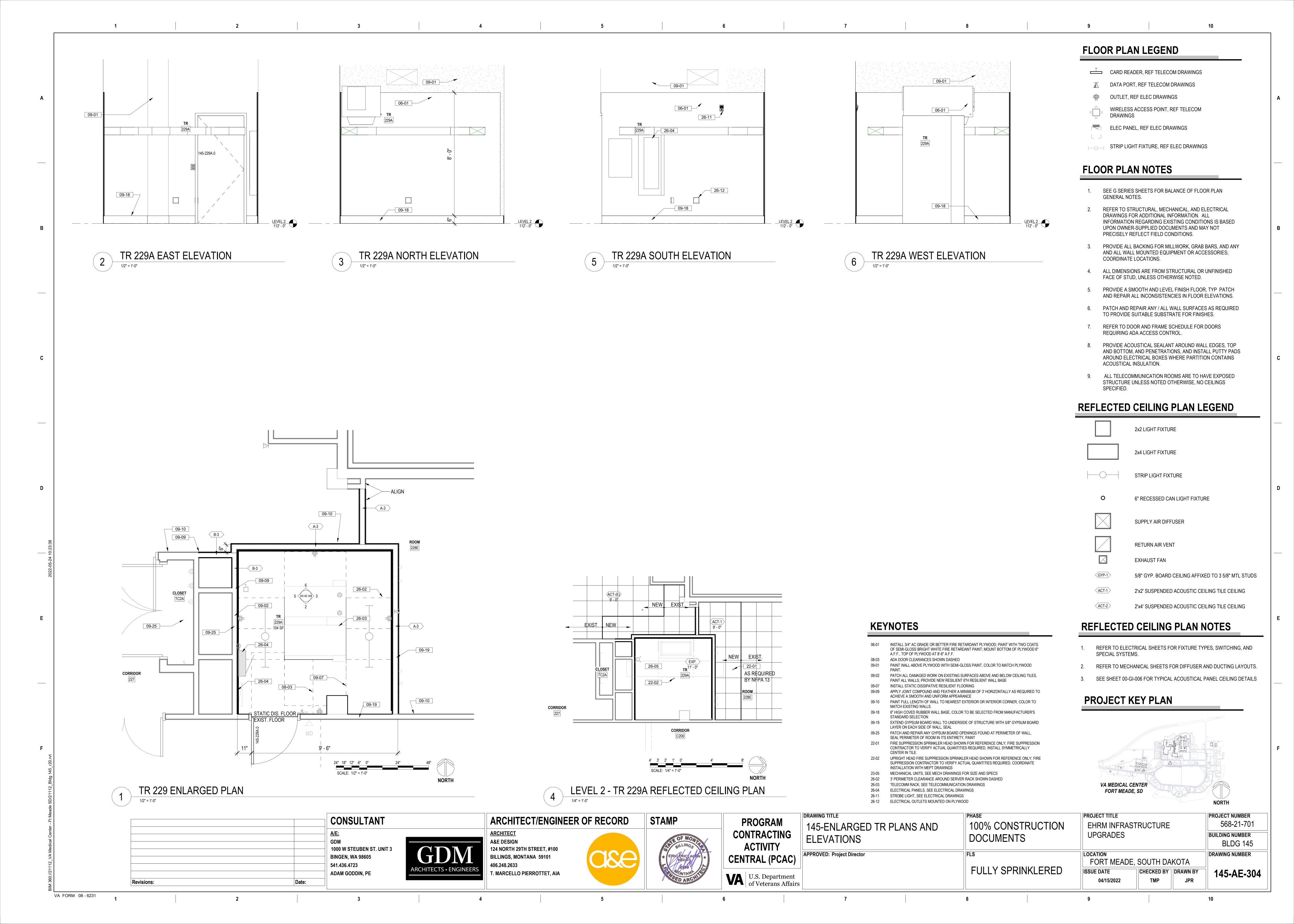


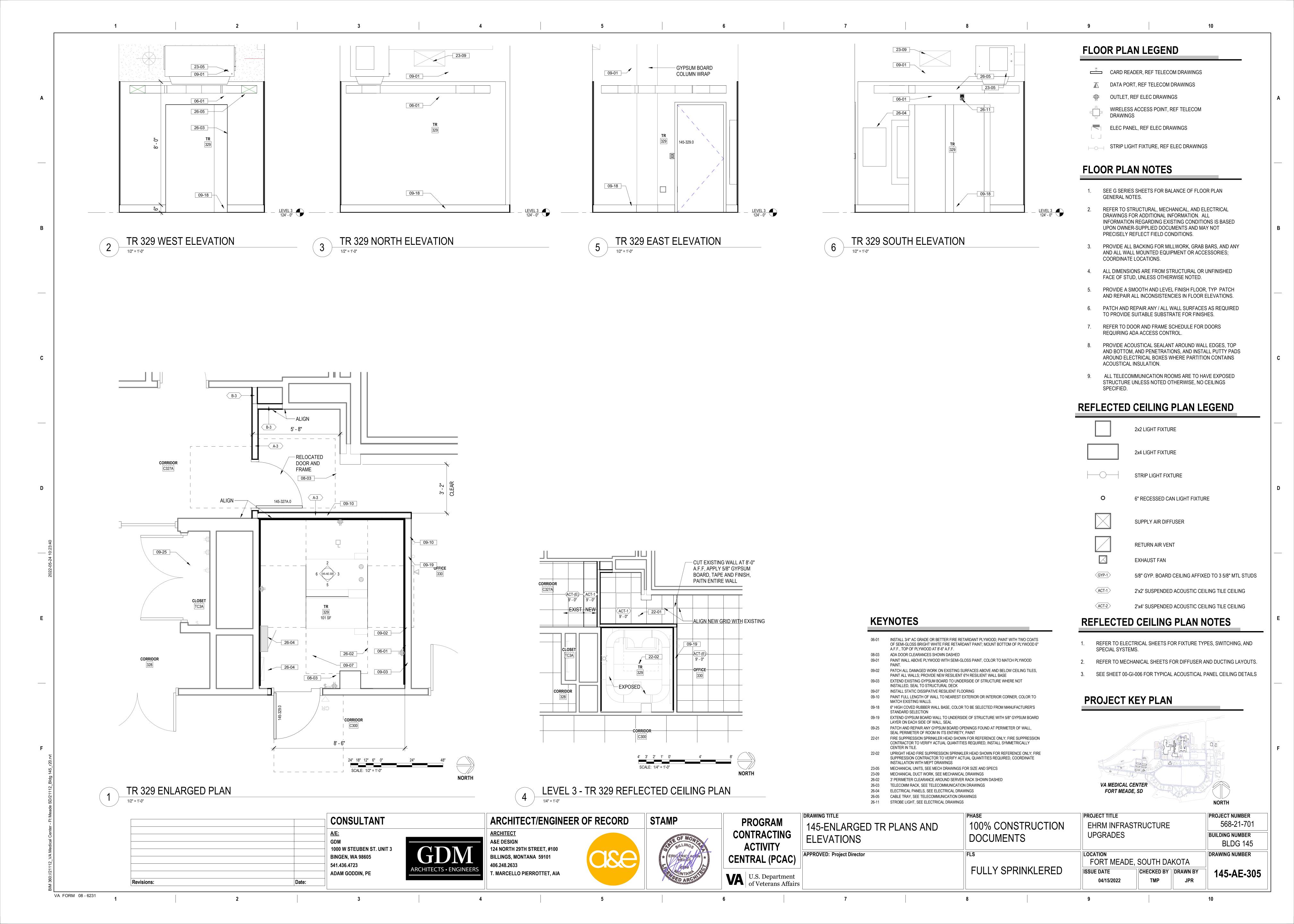


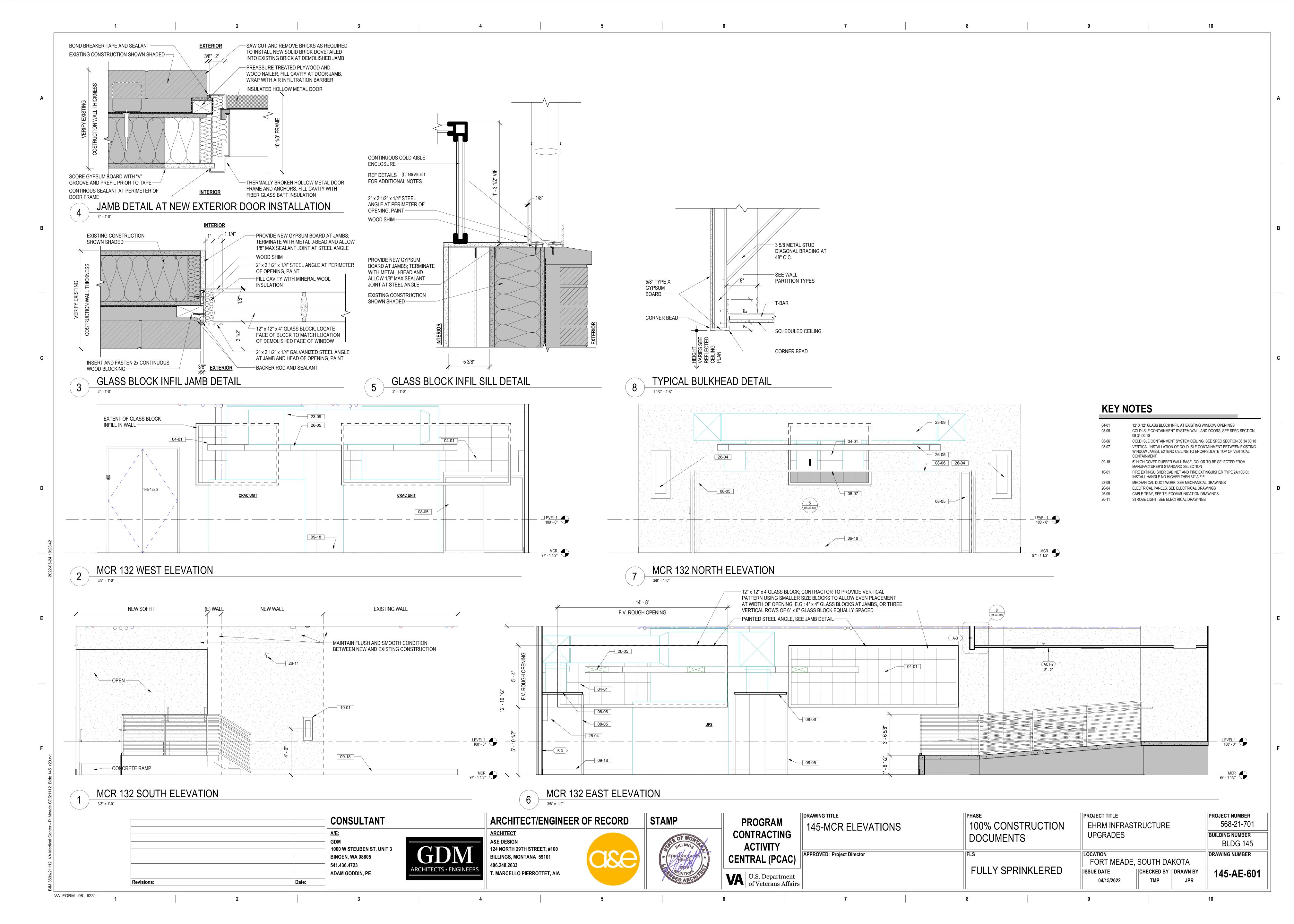


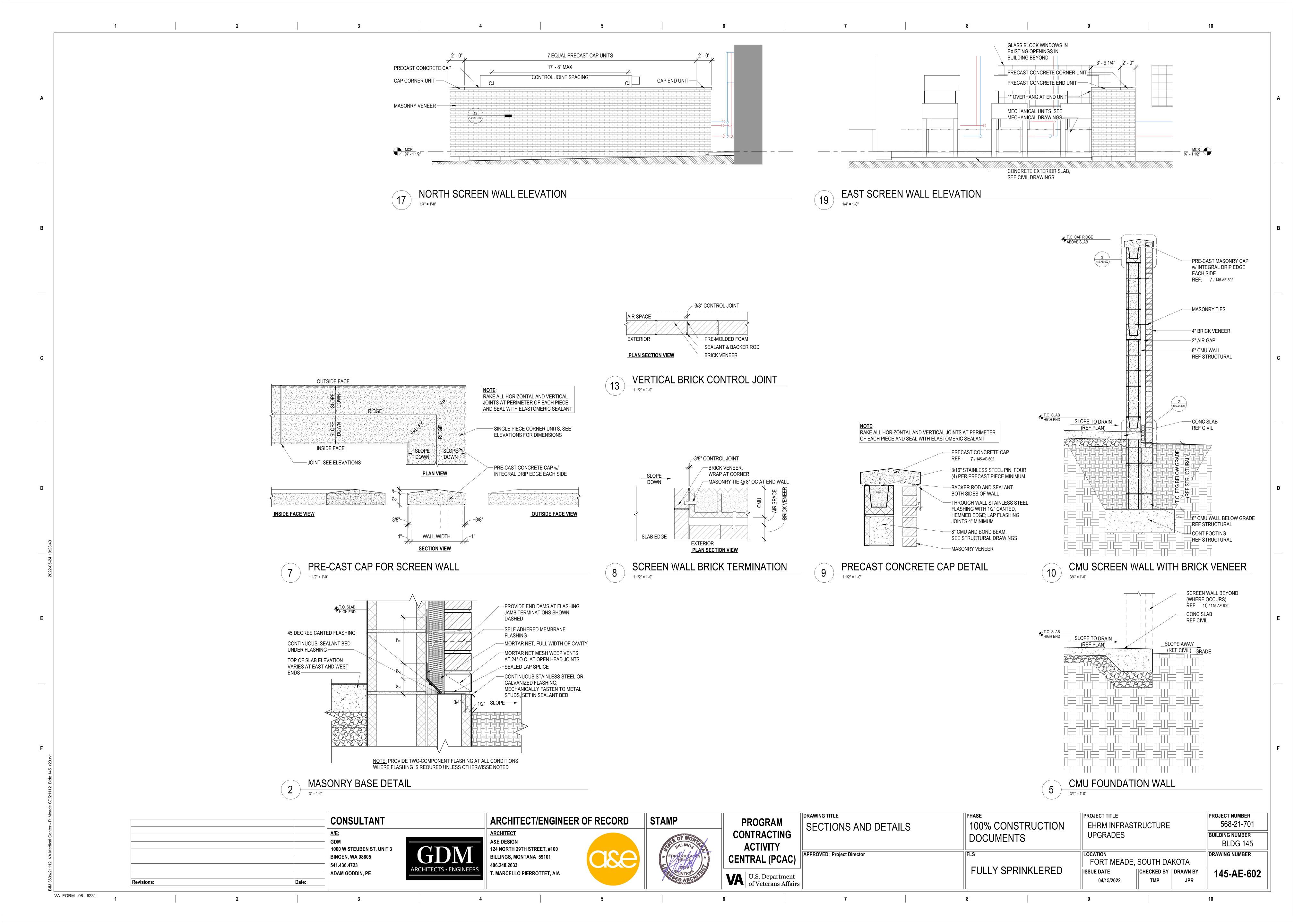


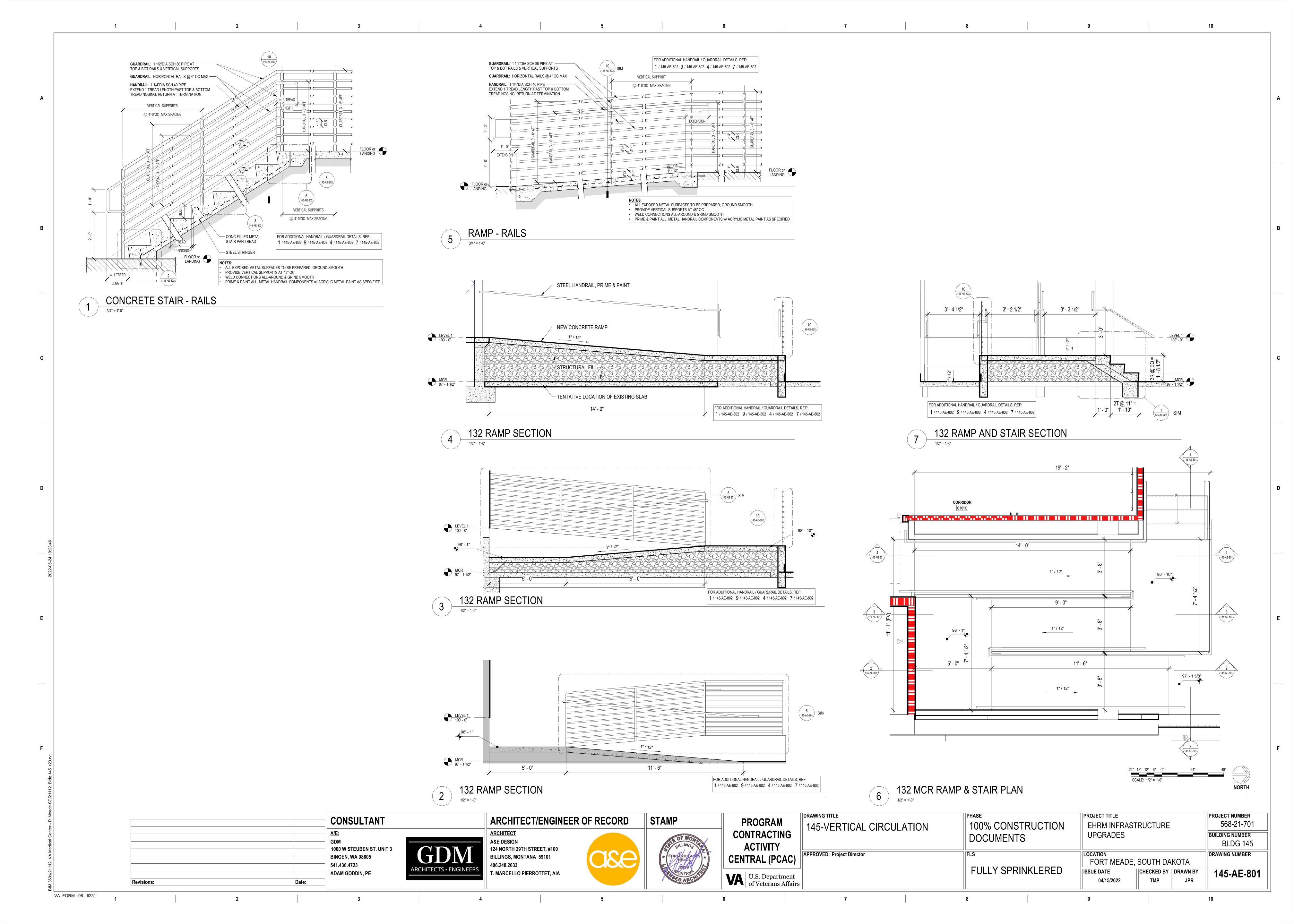


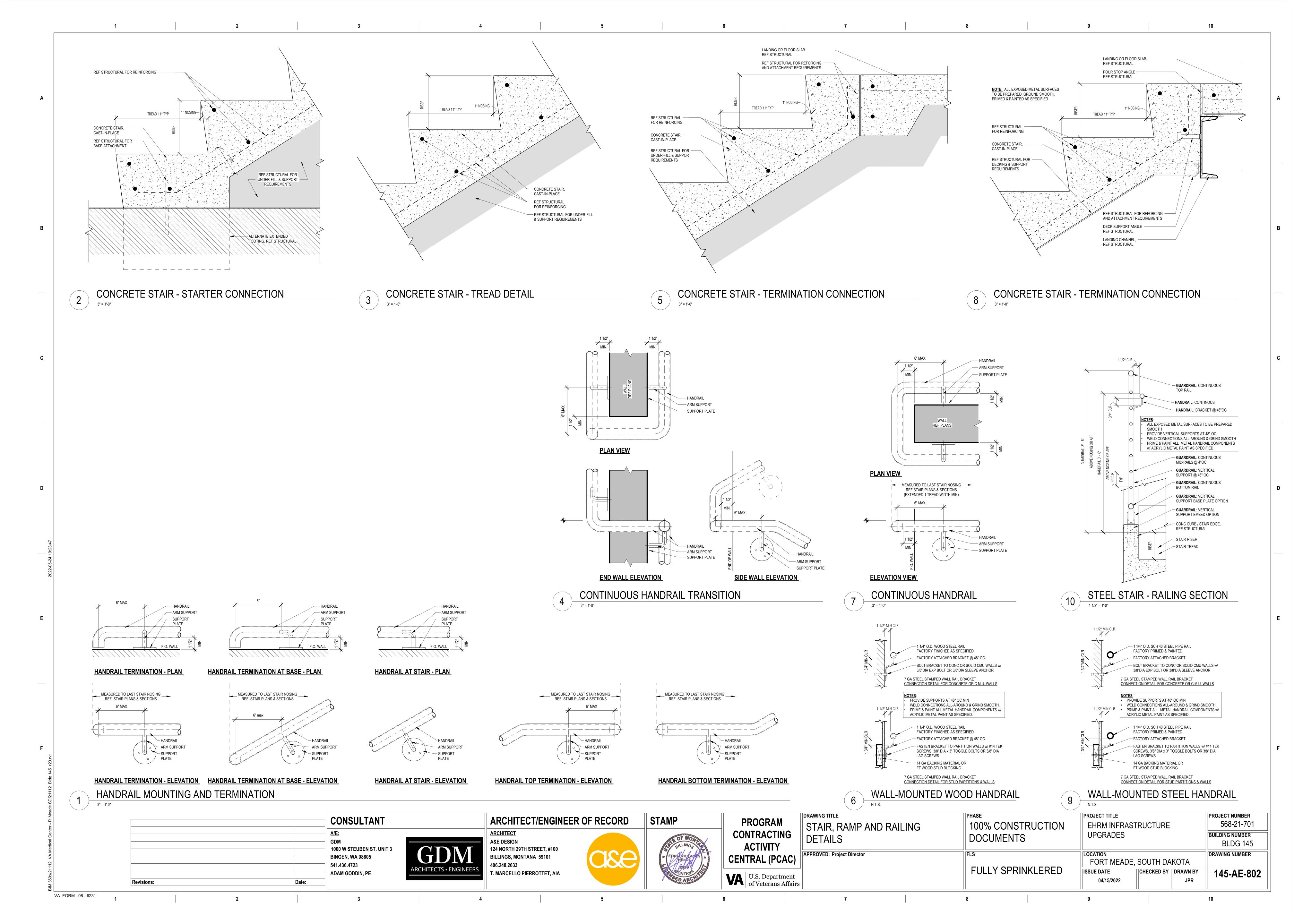


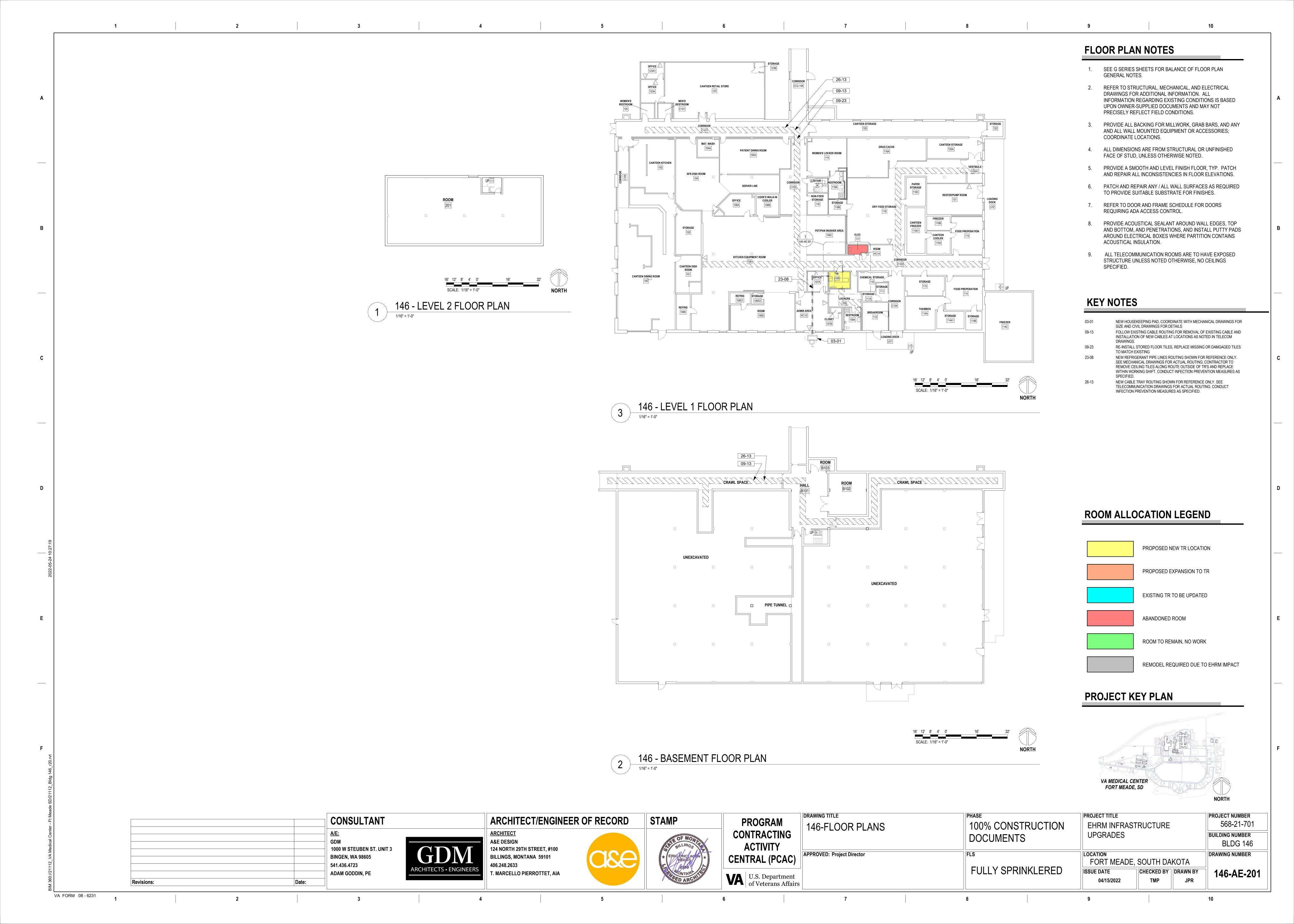


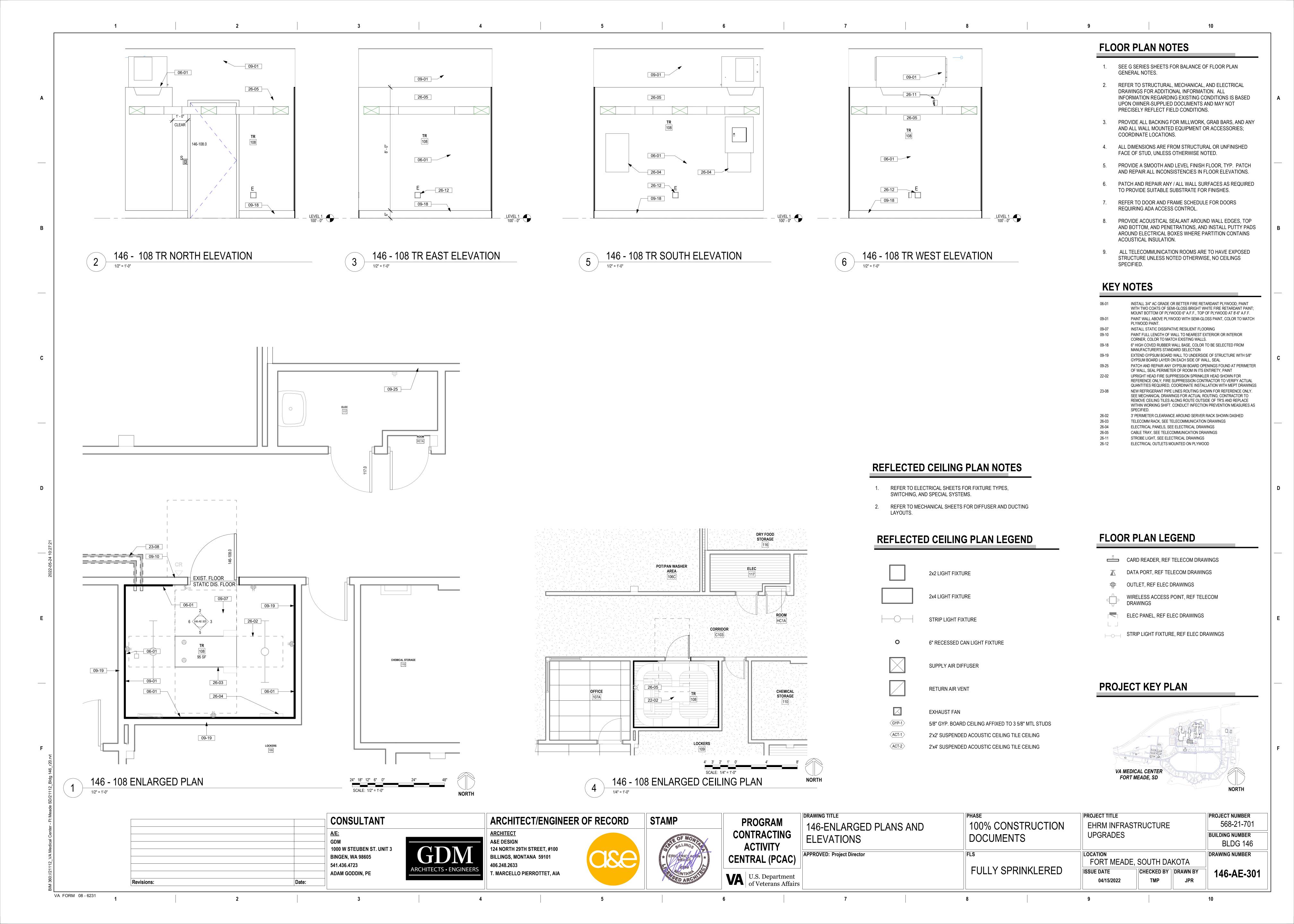


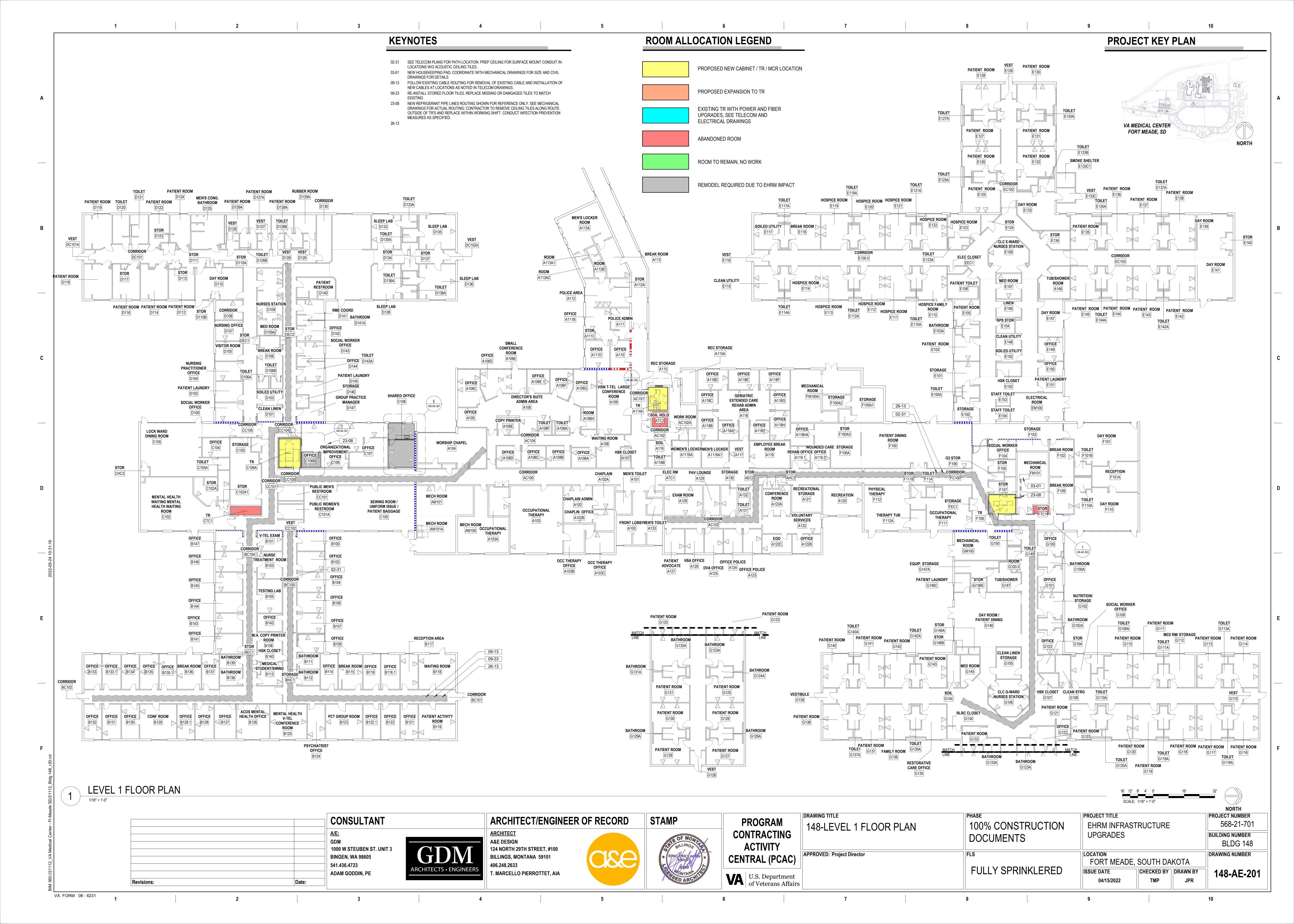


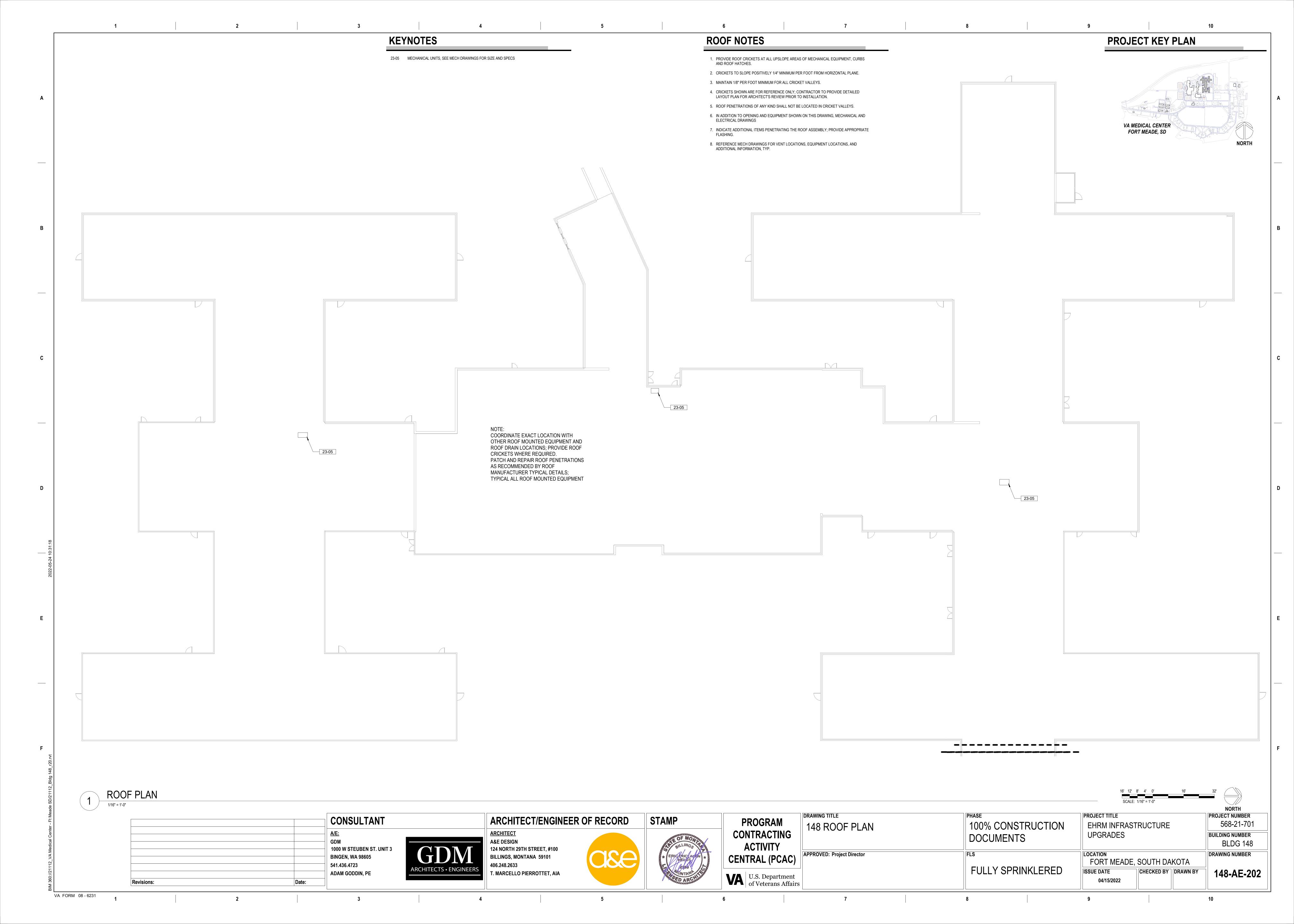




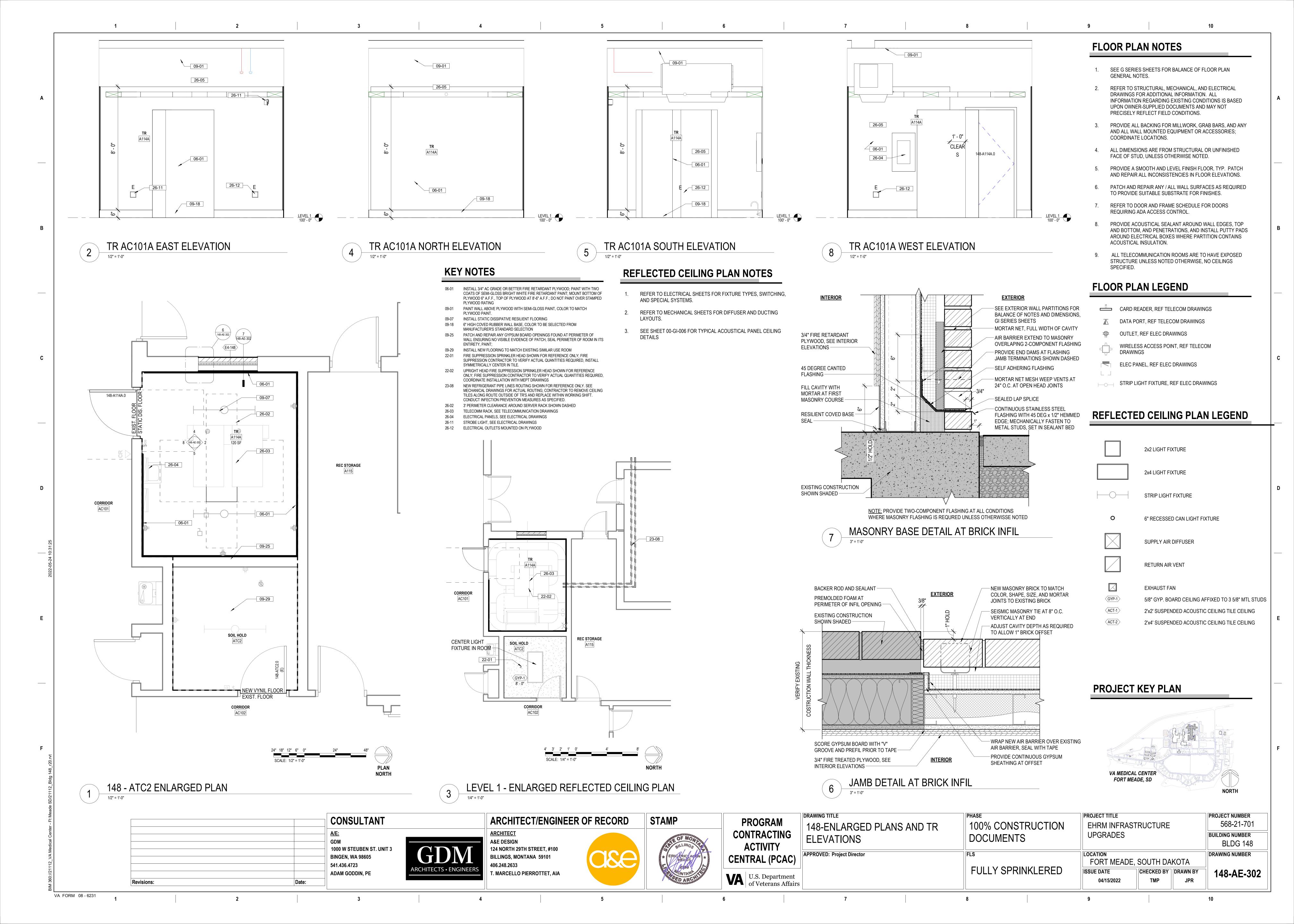


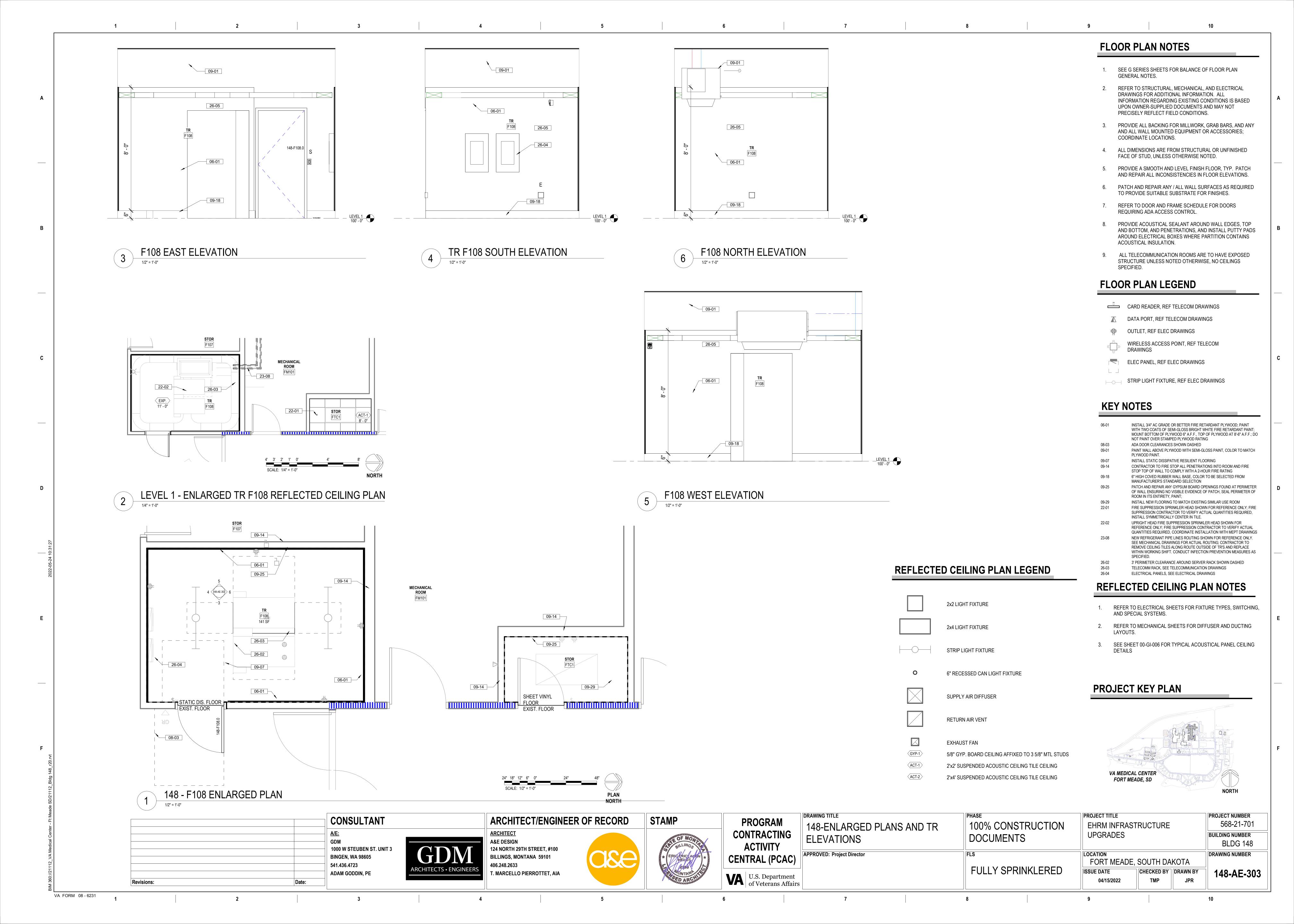






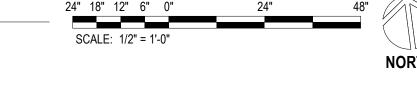






EXISTING OVERHEAD DOOR WITH AUTOMATIC OPENER COORDINATE WORK IN GARAGE WITH C.O.R. GARAGE CURRENTLY **USED FOR STORAGE** 101B TO BUILDING 72 **ICRA IN BUILDING 72** TO BE CLASS I TO BUILDING 85 **ICRA IN BUILDING 85** TO BE CLASS I WALL MOUNTED | TELECOM ENCLOSED CABINET, SEE TELECOM DRAWINGS -26-04 359-100A.0 09-13





CONSULTANT <u>A/E:</u> 1000 W STEUBEN ST. UNIT 3 **BINGEN, WA 98605** 541.436.4723 ADAM GODDIN, PE

VA FORM 08 - 6231



A&E DESIGN 124 NORTH 29TH STREET, #100 BILLINGS, MONTANA 59101 406.248.2633 T. MARCELLO PIERROTTET, AIA

ARCHITECT/ENGINEER OF RECORD





PROGRAM CONTRACTING **ACTIVITY CENTRAL (PCAC)**

	DRAWING TITLE	PHASE
	359-FLOOR PLANS	100% CONSTRUCTION DOCUMENTS
)	APPROVED: Project Director	FLS

DOCUMENTS	UPGRADES
FLS	FORT MEADE, SOUTH DAKOTA
NON SPRINKLERED	ISSUE DATE CHECKED BY DRAWN

04/15/2022

BUILDING NUMBER DRAWING NUMBER

359-AE-201

1. SEE G SERIES SHEETS FOR BALANCE OF FLOOR PLAN

FLOOR PLAN NOTES

GENERAL NOTES.

REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL INFORMATION REGARDING EXISTING CONDITIONS IS BASED UPON OWNER-SUPPLIED DOCUMENTS AND MAY NOT PRECISELY REFLECT FIELD CONDITIONS.

PROVIDE ALL BACKING FOR MILLWORK, GRAB BARS, AND ANY AND ALL WALL MOUNTED EQUIPMENT OR ACCESSORIES; COORDINATE LOCATIONS.

4. ALL DIMENSIONS ARE FROM STRUCTURAL OR UNFINISHED FACE OF STUD, UNLESS OTHERWISE NOTED.

PROVIDE A SMOOTH AND LEVEL FINISH FLOOR, TYP. PATCH AND REPAIR ALL INCONSISTENCIES IN FLOOR ELEVATIONS.

PATCH AND REPAIR ANY / ALL WALL SURFACES AS REQUIRED TO PROVIDE SUITABLE SUBSTRATE FOR FINISHES.

7. REFER TO DOOR AND FRAME SCHEDULE FOR DOORS

REQUIRING ADA ACCESS CONTROL.

PROVIDE ACOUSTICAL SEALANT AROUND WALL EDGES, TOP AND BOTTOM, AND PENETRATIONS, AND INSTALL PUTTY PADS AROUND ELECTRICAL BOXES WHERE PARTITION CONTAINS ACOUSTICAL INSULATION.

ALL TELECOMMUNICATION ROOMS ARE TO HAVE EXPOSED STRUCTURE UNLESS NOTED OTHERWISE, NO CEILINGS SPECIFIED.

FLOOR PLAN LEGEND

CARD READER, REF TELECOM DRAWINGS

OUTLET, REF ELEC DRAWINGS

WIRELESS ACCESS POINT, REF TELECOM **DRAWINGS**

ELEC PANEL, REF ELEC DRAWINGS

STRIP LIGHT FIXTURE, REF ELEC DRAWINGS

KEYNOTES

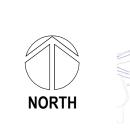
ADA DOOR CLEARANCES SHOWN DASHED 09-13 FOLLOW EXISTING CABLE ROUTING FOR REMOVAL OF EXISTING CABLE AND INSTALLATION OF NEW CABLES AT LOCATIONS AS NOTED IN TELECOM

ICRA CLASS I, SEE SPEC SECTION 01 35 26 FOR REQUIREMENTS AND WORKING HOURS RESTRICTIONS 26-04 ELECTRICAL PANELS, SEE ELECTRICAL DRAWINGS

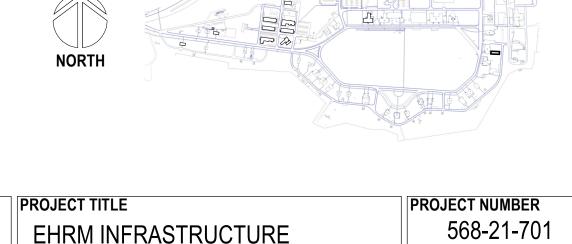
30" CLEARANCE AT WALL MOUNTED SERVER RACK SHOWN DASHED

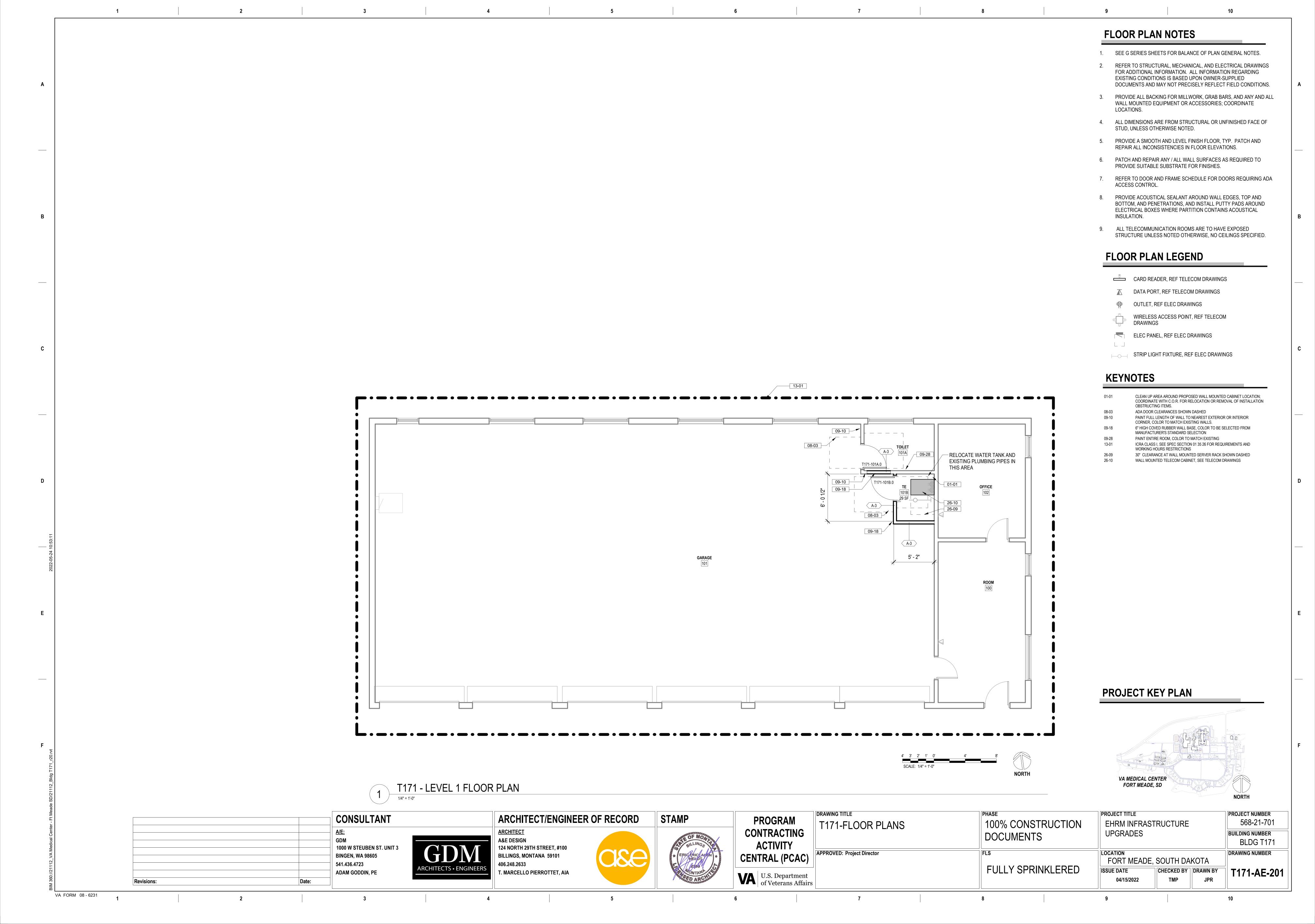
PROJECT KEY PLAN

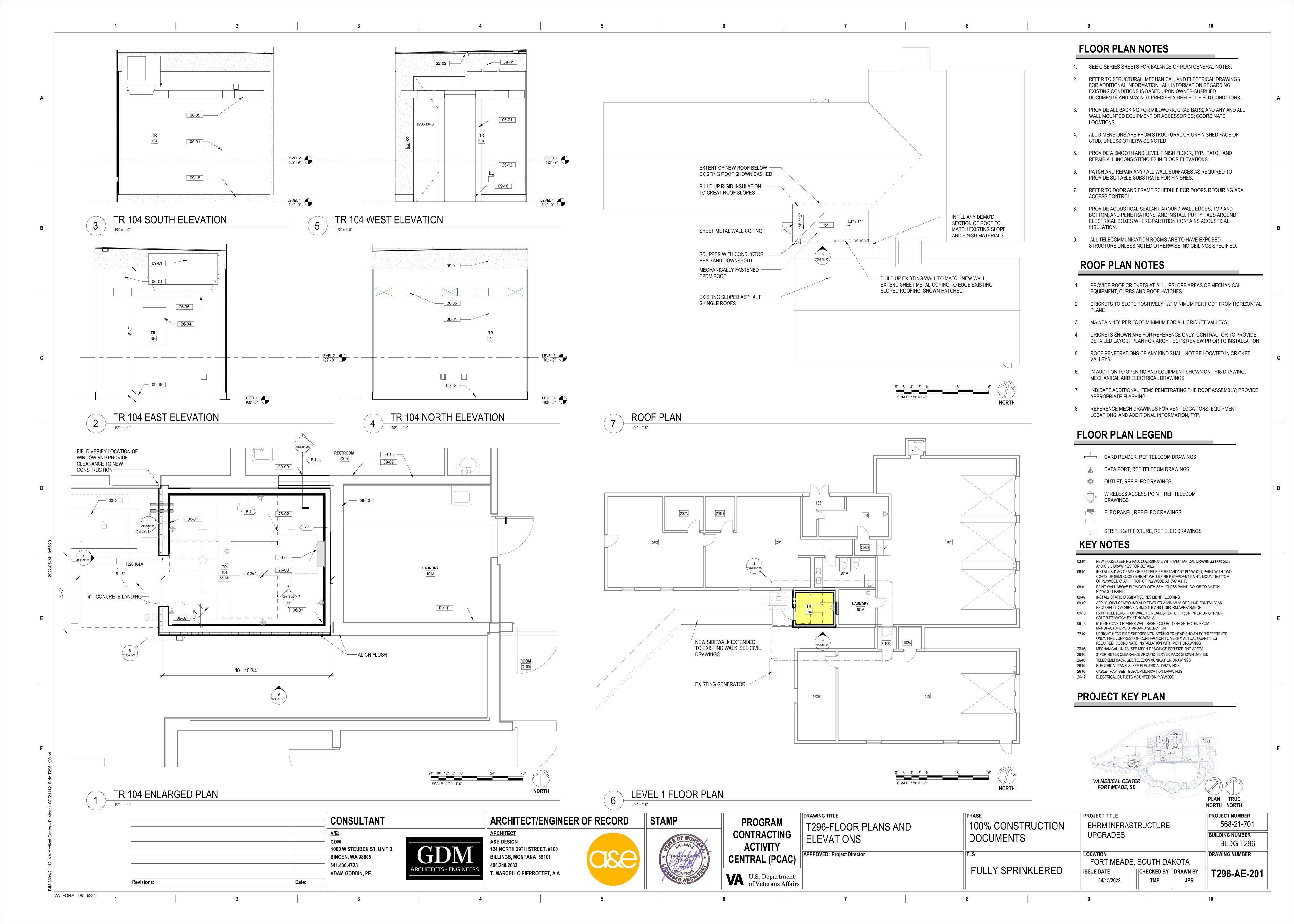
BLACK HILLS VA HEALTHCARE SYSTEM BLACK HILLS NETWORK ## 113 COMANCHE ROAD | FORT MEADE, SD 57741

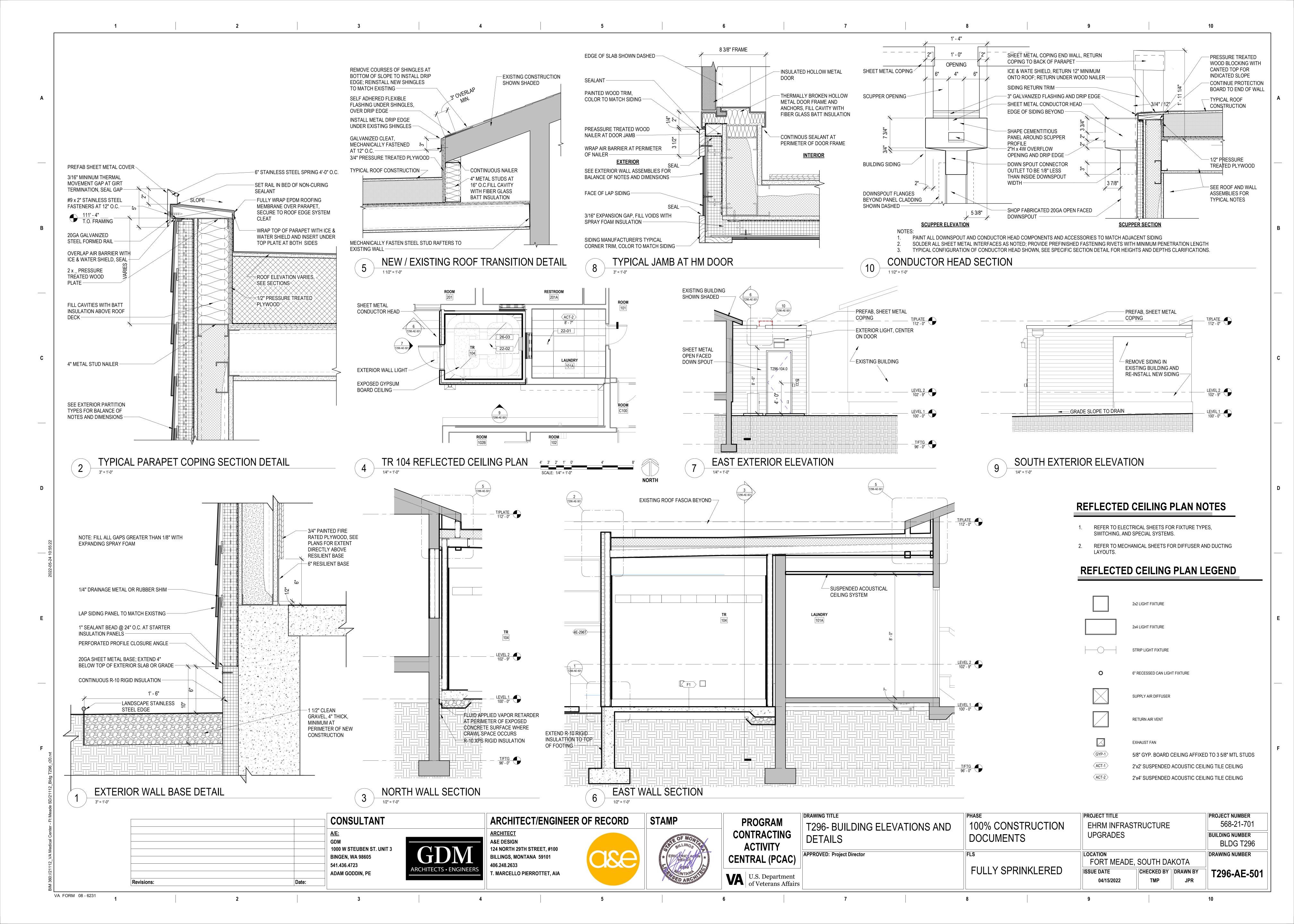


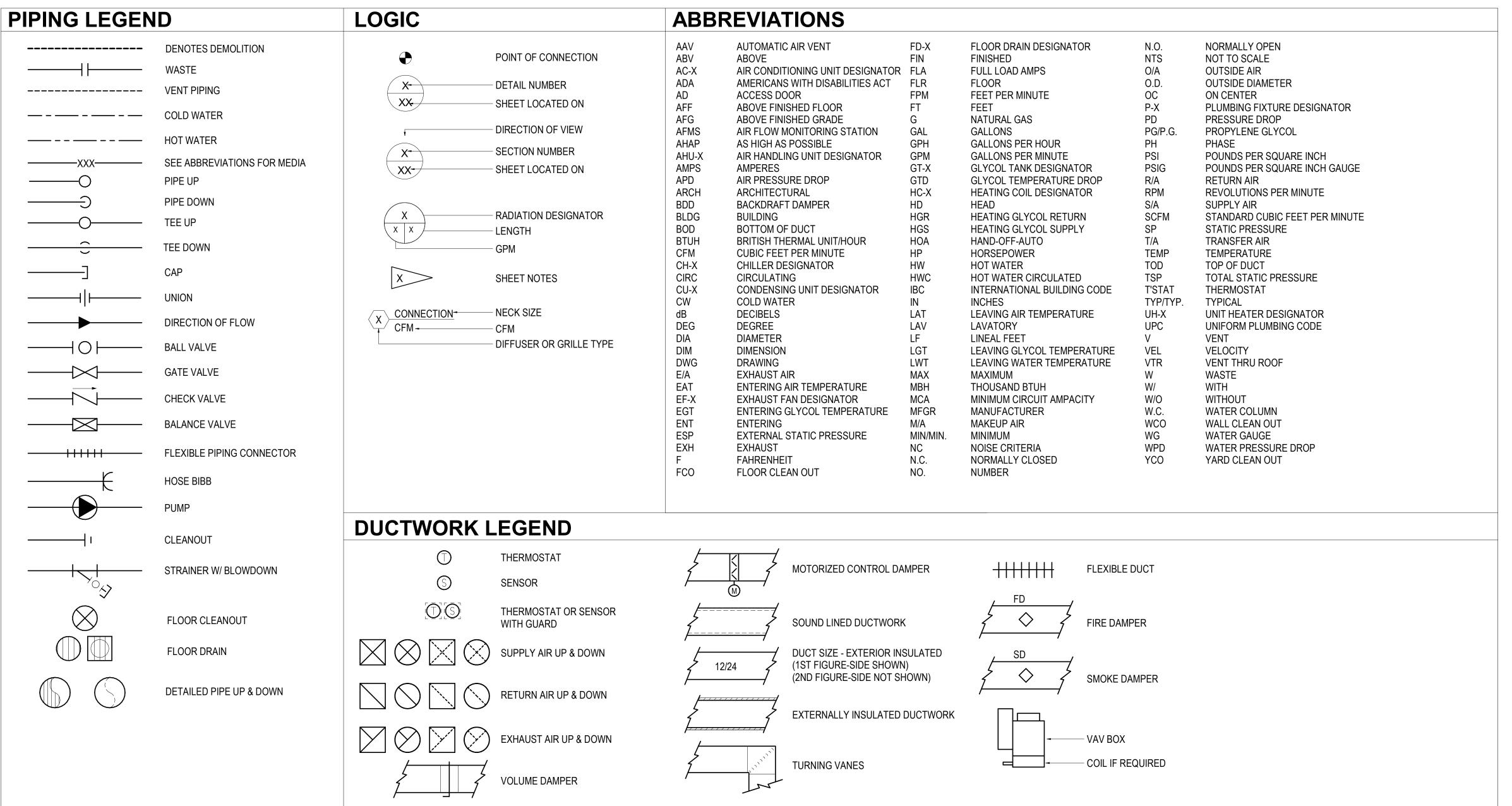
PROJECT TITLE











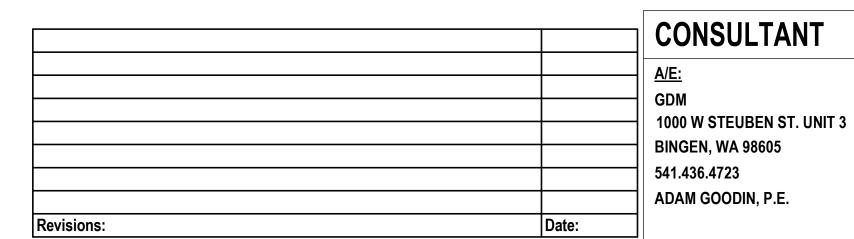
GENERAL PROJECT NOTES:

- PROVIDE SYSTEM STARTUP, TESTING, & ADJUSTING OF INSTALLED SYSTEMS TO MEET PERFORMANCE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL SUPPORT SYSTEM COMMISSIONING AND SHALL COORDINATE WITH PROJECT COMMISSIONING AGENT.
- CONTRACT SHALL PROVIDE ALL DOCUMENTATION REQUIRED TO SUPPORT SYSTEM COMMISSIONING.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND CONSTRUCTION FEES. FURNISH COPIES OF ALL CONSTRUCTION PERMITS, FINAL APPROVED PERMITS, AND SIMILAR DOCUMENTS TO OWNER DOCUMENTING COMPLIANCE WITH CODE REQUIREMENTS.
- LOCATE ALL VALVES, TRAPS, TEST PORTS, DAMPERS, CONTROLS, CLEANOUTS, ETC. TO BE ACCESSIBLE FOR MAINTENANCE, ADJUSTMENT, 8 TESTING. PROVIDE ACCESS PANELS FOR ALL CONCEALED DEVICES. ACCESS PANEL LOCATIONS SHALL BE COORDINATED WITH ARCHITECT. FOR SECURE AREAS. ACCESS PANELS SHALL BE LOCKING TYPE.
- ALL PIPING & DUCTWORK IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN A FURRED CHASE OR ABOVE THE SUSPENDED CEILING SYSTEM. REFER TO ARCHITECTURAL DOCUMENTS FOR FURRING & CHASE LOCATIONS & SIZES.
- THE FIRST FIGURE OF DUCT SIZE CALLOUTS INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS. PROVIDE ANY APPLICABLE DUCT LINING AND INSULATION PER THESE PLANS AND SPECIFICATIONS. NOMINAL OUTER DUCT DIMENSIONS ARE NET INSIDE DIMENSIONS PLUS 2X INSULATION THICKNESS.
- DUCTWORK SHALL BE 4.0" PRESSURE CLASS UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
- CONSTRUCT DUCTWORK ACCORDING TO SMACNA AND INTERNATIONAL **ENERGY CONSERVATION CODE SECTION C403.11.2.**
- PROVIDE TURNING VANES IN ALL MITERED RECTANGULAR DUCT ELBOWS &
- PROVIDE MANUAL BALANCING DAMPERS ON ALL NEW AND MODIFIED DUCT BRANCHES TO AIR INLETS & OUTLETS. LOCATE DAMPERS AS CLOSE TO MAIN TRUCK DUCT CONNECTIONS AS POSSIBLE. WHERE BRANCH DUCTWORK IS INACCESSIBLE (SUCH AS ABOVE HARD LID CEILING SYSTEM), PROVIDE BALANCING DAMPER AT REGISTER, GRILLLE, OR DIFFUSER,
- PROVIDE MOTORIZED DAMPERS ON OUTDOOR AIR SUPPLY, EXHAUST OPENINGS, AND RELIEF OUTLETS. DAMPERS SHALL HAVE A MAXIMUM LEAKAGE RATE OF 4 CFM PER SQUARE FOOT AT 1" W.C.
- 13. RELIEF GRAVITY DAMPERS SHALL HAVE A MAXIMUM LEAKAGE RATE OF 20 CFM PER SQUARE FOOT AT 1" W.C.. DAMPERS SMALLER THAN 24" IN EITHER DIRECTION SHALL HAVE A MAXIMUM LEAKAGE RATE OF 40 CFM PER SQUARE FOOT AT 1" W.C..
- PROVIDE COMPLETE CONDENSATE DRAINAGE SYSTEM FOR ALL SPLIT SYSTEMS AND SIMILAR SYSTEMS WITH REFRIGERANT OR CHILLED WATER COOLING. FIELD ROUTE DRAINAGE PIPING FROM EQUIPMENT TO NEAREST DRAIN LOCATION (SUCH AS SERVICE SINK, FUNNEL DRAIN, ETC.) SLOPE NON-PRESSURIZED DRAIN PIPING TO DRAIN LOCATION. PIPING & FITTINGS SHALL BE COPPER. MINIMUM PIPE SIZE SHALL BE 3/4". INCREASE PIPE SIZE WHERE APPLICABLE PER INTERNATIONAL MECHANICAL CODE
- SIZE REFRIGERANT PIPING ON SPLIT SYSTEM UNITS PER MANUFACTURER'S RECOMMENDATION.
- PROVIDE 5W/FT HEAT TRACE FOR ALL CW PIPING & P-TRAPS IN UN-HEATED
- 17. TOTAL STATIC PRESSURE NOTED IN SCHEDULES SHALL BE ASSUMED TO

INCLUDE DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.

- 18. AIR INLET & OUTLET SIZES SHOWN ON PLANS ARE NECK SIZES. PROVIDE ALL ADDITIONAL HARDWARE NECESSARY REQUIRED TO INSTALL AIR INLETS & OUTLETS IN CEILING SYSTEM.
- 19. WALL REGISTER-TYPE AIR INLETS & OUTLETS SHALL BE INSTALLED AT 7" AFF MINIMUM ELEVATION.
- 20. AIR INLETS & OUTLETS IN UNFINISHED SPACES OR OPEN CEILING AREAS SHALL BE INSTALLED AT 96" AFF UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
- 21. ALL PRESSURES LISTED ARE GAUGE PRESSURES UNLESS OTHERWISE NOTED.
- WATER PIPE CONNECTIONS TO AIR HEATING AND COOLING COILS SHALL BE MANUFACTURED & CONNECTED IN COUNTER-FLOW CONFIGURATION BETWEEN WATER & AIR.
- PROVIDE COMPLETE DRAINAGE PIPING SYSTEM FOR DISCHARGE FROM ALL AIR VENTS INSTALLED ON HYDRONIC PIPING. FIELD ROUTE DRAINAGE PIPING FROM EQUIPMENT TO NEAREST DRAIN LOCATION (SUCH AS SERVICE SINK. FUNNEL DRAIN, ETC.). DRAIN LOCATIONS SHALL BE IN UTILITY ROOMS OR OTHER NON-PUBLIC AREAS. SLOPE NON-PRESSURIZED DRAIN PIPING TO DRAIN LOCATION. PIPING & FITTINGS SHALL BE TYPE-L COPPER WITH BRAZED OR SWEAT FITTINGS. MINIMUM PIPE SIZE SHALL BE 3/4".
- PROVIDE SEISMIC SUPPORT, BRACING, AND ATTACHMENTS FOR DUCTWORK. PIPING, AND EQUIPMENT.
- SEISMIC PROVISIONS SHALL BE PROVIDED TO MEET REQUIREMENTS FOR ASCE-7 SEISMIC DESIGN CATEGORY D & RISK CATEGORY IV.
- COORDINATE ALL MECHANICAL & PLUMBING WORK WITH OTHER TRADES TO INSURE PROPER AND ADEQUATE INTERACE OF THEIR WORK WITH THE WORK SHOWN ON THESE DOCUMENTS. CONTRACTR SHALL PROVIDE COORDINATED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.

- 27. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70 STANDARDS AND LOCAL REQUIREMENTS.
- 28. ALL FIELD WIRING SHALL REQUIRE AN ELECTRICAL PERMIT AND SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.
- 29. A SHORT DASH IN A SCHEDULE TABLE CELL INDICATES THAT THE COLUM HEADING IS NOT USED OR NOT APPLICABLE TO THAT SCHEDULED ITEM.
- MAINTAIN AND RESTORE (IF INTERRUPTED) ALL CONDUITS & CONDUCTORS. PIPING, & DUCTWORK PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.
- REMOVE ALL ABANDONED DUCTWORK, PIPING, CONTROLS, WIRING ETC., WHERE ACESSBILE IN RENOVATED AREAS.
- WHERE CONTROLS ARE DEMOLISHED, REMOVE WIRING BACK TO NEAREST CONTROL PANEL OR JUNCTION BOX. REMOVE ACCESSIBLE CONDUIT, JUNCTION BOXES, ETC.
- 33. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL EQUIPMENT AND COMPONENTS REMOVED DURING DEMOLITION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CUTTING & RESTORATION WORK NECESSARY IN EXISTING AREAS OF THE BUILDINGS WHERE WORK IS SHOWN ON THESE DOCUMENTS. RESTORATION SHALL INCLUDE PATCHING TO MATCH EXISTING SURROUNDING CONSTRUCTION AND FINISHES. PATCHED AREAS SHALL BE RE-PAINTED FULL HEIGHT OF WALL, FROM CORNER TO WALL CORNER.

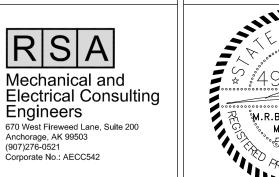


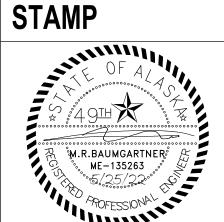


MECHANICAL ENGINEER RSA ENGINEERING, INC.

ARCHITECT/ENGINEER OF RECORD

670 W. FIREWEED LN, SUITE 200 **ANCHORAGE, ALASKA 99503** 907.276.0521 M.R. BAUMGARTNER, P.E.





OFFICE OF CONSTRUCTION **AND FACILITIES MANAGEMENT**

U.S. Department of Veterans Affairs

DRAWING TITLE MECHANICAL LEGENDS & ABBREVIATIONS APPROVED:

100% CONSTRUCTION DOCUMENTS FLS

FULLY SPRINKLERED

PHASE

PROJECT TITLE EHRM INFRASTRUCTURE **UPGRADES** LOCATION

ISSUE DATE

FORT MEADE, SOUTH DAKOTA

EMM/MRB

MEM/NSK

BUILDING NUMBER DRAWING NUMBER CHECKED BY DRAWN BY **MG-001**

PROJECT NUMBER

568-21-701

VA FORM 08 - 6231

AIR CONDITIONING UNIT SCHEDULE - EVAPORATOR **ELECTRICAL DATA** FAN DATA NOMINAL TOTAL SENSIBLE COOLING COOLING | W.G.) | FILTER | FLA | MCA | MOCP | VOLTS | PH | (LBS) | REMARKS 0.50 0.30 MERV 8 | 38 A | 48 A | 50 A

PROVIDE WITH FIELD INSTALLED AIR DISTRIBUTION PLENUM OPTION THROUGH BOTTOM OF UNIT

2. COMPUTER ROOM AIR CONDITIONING UNIT WITH DEDICATED HUMIDIFICATION AND DEHUMIDIFICATION.

PROVIDE WITH CONDENSATE PUMP, CONDENSATE PUMP SHALL BE POWERED BY INDOOR UNIT 4. PROVIDE WITH DDC INTERFACE OPTION. DDC INTERFACE BOX SHALL BE MOUNTED SEPARATE FROM INDOOR UNIT AND SHALL REQUIRE SEPARATE 120V/1PH POWER SUPPLY

AIR (COND	ITIO	NING U	INIT S	CHEDI	ULE -	COI	ND	ENS	ING	UN	JIT	
						NOMINAL	ELECT	RICAL D	ATA				
SYMBOL	SERVICE	MFGR	MODEL	TYPE	MOUNTING	TONS	FLA	MCA	MOP	VOLTS	PH	WEIGHT	REMARKS
53-CU-1	53-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
88-CU-1	88-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
89-CU-1	89-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
90-CU-1	90-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
113-CU-1	113-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
113-CU-2	113-IU-2	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
113-CU-B	113-IU-B	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-1	145-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-2	145-IU-2	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-3	145-IU-3	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-4	145-IU-4	LIEBERT	PFD054A-L	AIR-COOLED	PAD	4.0	23.4	28.4	45 A	208 V	1	351	
145-DC-1	145-CRAC-1	LIEBERT	MCL220E2AD	AIR-COOLED	PAD	20	22.8	24.2	25 A	208 V	3	1547	PROVIDE W/ 60" STAND LEGS, PRE-ECONOMIZER W/ SEPARATE ELECTRICAL CONNECTION 208/3PH 5.2 FLA.
145-DC-2	145-CRAC-2	LIEBERT	MCL220E2AD	AIR-COOLED	PAD	20	22.8	24.2	25 A	208 V	3	1547	PROVIDE W/ 60" STAND LEGS, PRE-ECONOMIZER W/ SEPARATE ELECTRICAL CONNECTION 208/3PH 5.2 FLA.
145-DC-3	145-CRAC-3	LIEBERT	MCL220E2AD	AIR-COOLED	PAD	20	11.2	11.9	15 A	460 V	3	1547	PROVIDE W/ 60" STAND LEGS, PRE-ECONOMIZER W/ SEPARATE ELECTRICAL CONNECTION 460/3PH 2.6 FLA.
146-CU-1	146-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
148-CU-1	148-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
148-CU-2	148-IU-2	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
148-CU-3	148-IU-3	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
T296-CU-1	T296-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	

AIR	AIR INLET/OUTLET SCHEDULE														
SYMBOL		MODEL	1	USE	MATERIAL	FINISH	CFM	FACE SIZE (IN)	NC	THROW	REMARKS				
Α	TITUS	TMS	LAY-IN	SUPPLY	STEEL	PER ARCH	PER PLANS	PER PLANS	<25	4-WAY	ADJUSTABLE THROW, OPTIONAL DAMPER FOR BALANCING, BORDER/FRAME TYPE AS REQUIRED FOR MOUNTING.				
В	TITUS	50F	LAY IN	RETURN	ALUMINUM	PER ARCH	PER PLANS	PER PLANS	<25		1/2" EGGCRATE CORE, BORDER/FRAME TYPE AS REQUIRED FOR MOUNTING.				
С	TITUS	300FL	CEILING	SUPPLY	ALUMINUM	PER ARCH	PER PLANS	PER PLANS	<25	1	3/4" BLADE SPACING, DOUBLE DEFLECTION, FRONT BLADES PARALLEL TO SHORT DIMENSION, INDIVIDUALLY ADJUSTABLE BLADES, FRAME TYPE AS REQUIRED FOR MOUNTING				

AIR HANDLER SCHEDULE

ESP IN. | TSP IN. | MOTOR DATA NOMINAL TONS TOTAL MBH EWB DEG F AMBIENT DEG F KW SQ. FT. RATING O/A % REMARKS | W.C. | W.C. | # MOTORS | HP | VOLTS | PH | MCA TDANE TOCAMOUADN 9.0 3.0 | 460 | 3 | 61 A 13.9 MERV 13 30 LOW LEAKAGE DAMPERS, DX COOLING, ECONOMIZER OPERATION, SINGLE POINT ELECTRICAL CONNECTION, PACKAGED DDC CONTROLS, ECONOMIZER HOOD, BAROMETRIC RELIEF HOOD.

0.50 0.30 0.50 0.30

SYSTEM POINT DESCRIPTION					A	NALC	G								DI	GITA	L.				SYSTEM FEATURES										
0.0.2 5 5250 115				INF					С	UTPL	JT		- 1	NPU1		0117	<u>. </u>	OU	JTPL	JT					_ARN		, .	. 0. 12		PROGRAMS	NOTES
										PE RC			SED														SFAIL				
	TEMPERATURE	PRESSURE	KW	KWH	STUTIK GPM	PERCENT	CFM RELATIVE HUMIDITY			⊏NI		STATUS ON/OFF	STATUS OPEN/CLOSED	STATUS	NO. OF STARTS	LIMED OVERRIDE	ON/OFF	OPEN/CLOSE	LOCK OUT	ENABLE/DISABLE	HIGH ANALOG	LOW ANALOG	HIGH BINARY	PROOF	SENSOR FAIL	FLOW FAIL	COMMUNICATIONS	GENERAL ALARM		GRAPHICS TRENDING TIME SCHEDULING	
COMPUTER ROOM AIR CONDITIONING UNIT		+	+						\dashv		+						+									_	+		+		1,2
DISCHARGE AIR TEMPERATURE	Х							+									+												+	x x	1,2
	-	Y				+			\dashv		+				+		+	\vdash			\vdash	-		+		+	+		+		1
DISCHARGE STATIC PRESSURE		X				+			\dashv		+		-		+		+	\vdash			\vdash	-		+	+		+	-	+	XX	
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HUMIDIFIER COMMAND		\perp							_		_	Х			\perp												_		_	X X	1
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DISCHARGE AIR PRESSURE SETPOINT									Х																					X X	1
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SCHEDULE COMMAND																														x x	
UNIT ENABLE COMMAND																				Х				Х						x x x	
FIRE ALARM SHUTDOWN																	X													хх	8
UNIT ALARM																												X		x x	
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RACK HUMIDITY SENSOR (3 EACH)									Х						+															хх	4
TEMPERATURE AND HUMIDITY SENSOR (HE/TE)																															
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EAK DETECTION																														x x	7
ROOF TOP UNIT		+							+		+							H			\vdash			+			+		-		
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R/A TEMP INDICATION	X	+				+			\dashv		+				+			\vdash			X			-			+		+	XX	
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ECONOMIZER INDICATION		+				+			\dashv	+	+			X	+			\vdash			\vdash			-			+		+	XX	
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SUPPLY FAN STATUS		+							-		+				+		<u>*</u>					-		-			+		-		
ALARM SETPOINT		\perp						Ш									\perp					\perp								X X	8

ROVIDE GATEWAY IF REQUIRED TO CONNECT FACTORY UNIT CONTROLLER TO DDC SYSTEM. 3. PROVIDE HIGH, MIDDLE, AND LOW TEMPERATURE SENSORS IN RACK.

. PROVIDE HIGH, MIDDLE, AND LOW HUMIDITY SENSORS IN RACK.

5. SPACE TEMPERATURE AND HUMIDITY SENSORS MAY BE PROVIDED AS SEPARATE SENSORS OR COMBINED SENSOR UNITS. RACK TEMPERATURE AND HUMIDITY SENSORS MAY BE PROVIDED AS SEPARATE SENSORS OR COMBINED SENSOR UNITS.

. WALL MOUNTED REFRIGERANT LEAK DETECTION SENSOR. 8. FIRE ALARM SHUTDOWN IS FOR RETURN AIR DUCT SMOKE DETECTORS IN UNITS RATED OVER 2.000 CFM.

SEQUENCE OF OPERATIONS

MERV 8 | 38 A | 48 A | 50 A | 208 V | 1 | 225

MERV 8 | 38 A | 48 A | 50 A | 208 V | 1 | 225

COMPUTER ROOM AIR CONDITIONING UNIT - MCR SPACES

CONTROL TO THE SPACES THAT THEY SERVE.

- 1.1 DESCRIPTION: COMPUTER ROOM AIR CONDITIONING UNITS TO PROVIDE TEMPERATURE AND HUMIDITY
- 1.2 SPACE CONDITIONING: CRAC UNITS SHALL RECEIVE TEMPERATURE AND HUMIDITY SETPOINTS FROM THE BUILDING DDC SYSTEM. THE UNITS SHALL OPERATE DURING BOTH OCCUPIED AND UNOCCUPIED HOURS USING MANUFACTURER'S PRE-PROGRAMMED SEQUENCES TO HEAT, COOL, HUMIDIFY, AND DE-HUMIDIFY THE SPACE TO MAINTAIN SPACE CONDITION REQUIREMENTS SPECIFIED FOR THE DATA CENTER EQUIPMENT.
- 1.3 MULTI-UNIT OPERATION AND STAGING:
 - 1.3.1 CRAC UNITS SERVING MCR SPACE SHALL BE CONNECTED TO CRAC UNIT MANUFACTURER'S WALL-MOUNTED NETWORK SWITCH WITH TOUCH-SCREEN DISPLAY.
- 1.3.2 CRAC UNITS SHALL BE CONFIGURED USING MANUFACTURER'S CONTROLS FOR AUTOMATIC UNIT STAGING AND REDUNDANT OPERATION. AS WELL AS MOST EFFICIENT SPACE CONDITIONING OPERATION. INITIAL PROGRAMMING SHALL BE ONE UNIT IN OPERATION, SECOND UNIT ON STAND-BY, AND THIRD UNIT ON LAG ROTATION.
- 1.4 SPACE MONITORING:
 - 1.4.1 THE DDC SYSTEM SHALL MONITOR THE SPACE USING DEDICATED TEMPERATURE AND HUMIDITY SENSORS. IF CONDITIONS IN THE SPACE ARE ABOVE OR BELOW THE ALLOWABLE CONDITIONS (USER ADJUSTABLE MIN AND MAX SETPOINTS FOR TEMPERATURE AND HUMIDITY) FOR 5 MIN. (ADJUSTABLE) OR MORE, AN ALARM SHALL BE INITIATED ON THE DDC SYSTEM.
 - 1.4.2 THE CRAC UNITS SHALL MONITOR RACK INLET TEMPERATURE AND HUMIDITY USING WIRED RACK-MOUNTED SENSORS. EACH UNIT SHALL BE PROVIDED WITH A MINIMUM OF (3) SENSORS; TO BE LOCATED AT LOW / MID / HIGH LEVELS AT A SPECIFIC RACK.
- 1.5 FIRE ALARM SHUTDOWN: THE HVAC SYSTEM SHALL BE DE-ACTIVATED ON A FIRE ALARM SIGNAL FROM THE BUILDING FIRE ALARM SYSTEM (INCLUDING THE CLEAN AGENT SUPPRESSION SYSTEM SERVING THE MCR). THIS IS DONE THROUGH AN INTER-LOCKING SAFETY RELAY THAT REMOVES CONTROL POWER TO THE
- 1.6 EMERGENECY SHUTDOWN: THE CRAC UNITS WILL BE DE-ACTIVATED IF ANY OF THE EMERGENCY SHUT-OFF BUTTON(S) IN THE MCR ARE PRESSED.
- 1.7 HUMIDITY SENSOR AND TEMPERATURE SENSOR
 - 1.7.1 DDC MONITORING (TE): DDC TO MONITOR AND TREND THE ROOM AND RACK TEMPERATURE.
 - 1.7.2 DDC MONITORING (HE): DDC TO MONITOR AND TREND THE ROOM AND RACK RELATIVE HUMIDITY.
 - 1.7.3 ALARM: TEMPERATURE (TE): DDC TO MONITOR TEMPERATURE AND SEND AN ALARM IF TEMPERATURE EXCEEDS TEMPERATURE SETPOINT BY 5 °F FOR MORE THAN 5 MINUTES (USER ADJUSTABLE FOR TIME AND VALUE OUTSIDE RANGE).
 - 1.7.4 ALARM: HUMIDITY SENSOR (HE): DDC TO MONITOR RELATIVE HUMIDITY AND SEND AN ALARM IF HUMIDITY EXCEEDS TEMPERATURE SETPOINT BY 2% FOR MORE THAN 5 MINUTES (USER ADJUSTABLE FOR TIME AND VALUE OUTSIDE RANGE).
- 1.8 HUMIDITY AND TEMPERATURE SETPOINTS MCR SPACES
 - 1.8.1 TEMPERATURE
 - 1.8.1.1 LOW TEMPERATURE SETPOINT: 65°F (USER ADJUSTABLE)
 - 1.8.1.2 HIGH TEMPERATURE SETPOINT: 75 °F (USER ADJUSTABLE)
 - 1.8.2 HUMIDITY
 - 1.8.2.1 LOW HUMIDITY SETPOINT 30% RH (USER ADJUSTABLE)
 - 1.8.2.2 HIGH HUMIDITY SETPOINT 60% RH (USER ADJUSTABLE)
- 1.9 LEAK DETECTORS
 - 1.9.1 DDC SHALL MONITOR LEAK DETECTORS. IF REFRIGERANT IS DETECTED BY LEAK DETECTOR, AN ALARM SHALL BE TRIGGERED ON THE DDC SYSTEM.

- COMPUTER ROOM AIR CONDITIONING UNIT TR SPACES
 - DESCRIPTION: COMPUTER ROOM AIR CONDITIONING UNITS TO PROVIDE TEMPERATURE AND HUMIDITY CONTROL TO THE SPACES THAT THEY SERVE.
 - 2.2 SPACE CONDITIONING: CRAC UNITS SHALL RECEIVE TEMPERATURE AND HUMIDITY SETPOINTS FROM THE BUILDING DDC SYSTEM. THE UNITS SHALL OPERATE DURING BOTH OCCUPIED AND UNOCCUPIED HOURS USING MANUFACTURER'S PREPROGRAMMED SEQUENCES TO HEAT, COOL, DEHUMIDIFY, AND HUMIDIFY THE SPACE TO MAINTAIN CONDITION REQUIREMENTS SPECIFIED FOR THE DATA CENTER EQUIPMENT.
 - 2.3 SPACE CONDITIONING MONITORING: THE DDC SYSTEM SHALL MONITOR THE SPACE USING DEDICATED TEMPERATURE AND HUMIDITY SENSORS. IF CONDITIONS IN THE SPACE ARE ABOVE OR BELOW THE ALLOWABLE CONDITIONS (USER ADJUSTABLE MIN AND MAX SEPOINTS FOR TEMPERATURE AND HUMIDITY) FOR 5 MIN (ADJUSTABLE) OR MORE, AN ALARM SHALL BE INITIATED ON THE DDC SYSTEM.
 - 2.4 FIRE ALARM SHUTDOWN: THE HVAC SYSTEM WILL SHUTDOWN ON A FIRE ALARM SIGNAL FROM THE BUILDING FIRE ALARM SYSTEM. THIS IS DONE THRU AN INTERLOCKING SAFETY RELAY THAT REMOVES CONTROL POWER TO THE DDC.
 - 2.4.1 FAN(S) SHALL BE DE-ACTIVATED.
 - 2.4.2 COMPRESSOR(S) SHALL BE DE-ACTIVATED.
 - 2.5 HUMIDITY SENSOR AND TEMPERATURE SENSOR:
 - 2.5.1 DDC MONITORING (TE): DDC TO MONITOR AND TREND THE ROOM TEMPERATURE.
 - 2.5.2 DDC MONITORING (HE): DDC TO MONITOR AND TREND THE ROOM RELATIVE HUMIDITY.
 - 2.5.3 ALARM: TEMPERATURE SENSOR (TE): DDC TO MONITOR TEMPERATURE AND SEND AN ALARM IF TEMPERATURE EXCEEDS TEMPERATURE SETPOINT BY 5 °F FOR MORE THAN 5 MINUTES (USER ADJUSTABLE FOR TIME AND VLUE OUTSIDE OF RANGE).
 - 2.5.4 ALARM: HUMDITY SENSOR (HE): DDC TO MONITOR RELATIVE HUMIDITY AND SEND AN ALARM UPON FAILURE TO MEET HUMIDITY SETPOINTS.
 - 2.6 HUMIDITY AND TEMPERATURE SETPOINTS TR SPACES
 - 2.6.1 TEMPERATURE
 - 2.6.1.1 LOW TEMPERATURE SETPOINT: 41 °F
 - 2.6.1.2 HIGH TEMPERATURE SETPOINT: 95 °F
 - 2.6.2 HUMIDITY
 - 2.6.2.1 LOW HUMIDITY SETPOINT: 30% RH
 - 2.6.2.2 HIGH HUMIDITY SETPOINT: 80% RH

- **ROOF TOP UNIT**
- 3.1 DESCRIPTION: ROOF TOP UNIT PROVIDES HEATED AND COOLED SUPPLY AIR TO REMODELED OIT OFFICE SPACES.
- 3.2 OPERATION MODE: UNIT SHALL BE CONTROLLED BY THE DDC VIA AN OCCUPIED/UNOCCUPIED SCHEDULE.
- 3.2.1 DAY MODE:
 - 3.2.1.1 THE OUTSIDE AIR DAMPERS SHALL OPEN PAST MINIMUM TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.
 - 3.2.1.2 THE RETURN AIR DAMPER SHALL MODULATE WITH THE OUTSIDE AIR DAMPER SUCH THAT WHEN THE OUTSIDE AIR DAMPER IS OPEN, THE RETURN AIR DAMPER IS CLOSED.
 - 3.2.1.3 THE SUPPLY AIR TEMPERATURE SHALL BE LINEARLY RESET BETWEEN THE TWO POINTS AS FOLLOWS: WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 60 °F THE SUPPLY AIR TEMPERATURE SHALL BE MAINTAINED AT 55 °F. WHEN THE OUTSIDE AIR TEMPERATURE IS AT 30 °F THE SUPPLY AIR TEMPERATURE SHALL BE MAINTAINED AT 65 °F.
- 3.2.2 NIGHT MODE:
- 3.2.2.1 DURING NIGHT MODE OF OPERATION, RTU WILL RUN BASED UPON ZONE NIGHT SET BACK TEMPERATURE. IF ANY ZONE DROPS BELOW NIGHT SET BACK SETPOINT THE UNIT SHALL START AND RUN WITH THE OUTSIDE AIR DAMPERS FULL CLOSED AND THE RETURN AIR DAMPERS 100% OPEN.
- 3.3 ON LOW SUPPLY AIR TEMPERATURE ALARM (INITIALLY 40 °F, ADJUSTABLE), DELAY TWO MINUTES, THEN O/A DAMPER WILL FULL CLOSE, R/A DAMPER WILL FULLY OPEN, AND ALARM SHALL SIGNAL. PROVIDE AUTOMATIC RESET OF ALARM AFTER FIVE MINUTES.
- 3.4 ON SMOKE DETECTION, THE FAN SHALL STOP, O/A DAMPERS WILL FULLLY CLOSE AND R/A DAMPERS WILL FULLY OPEN. INTERCONNECT WITH FIRE ALARM SYSTEM SUCH THAT UPON SMOKE DETECTION FIRE ALARM SYSTEM SHALL BE SIGNALED AND CONVERSELY UPON ACTIVATION OF THE FIRE ALARM, SYSTEM SHALL STOP THE FAN AS INDICATED ABOVE. COORDINATE WITH THE FIRE ALARM SYSTEM.

CONSULTANT <u>A/E:</u> 1000 W STEUBEN ST. UNIT 3 **BINGEN, WA 98605** 541.436.4723 ADAM GOODIN, P.E. Revisions:



ARCHITECT/ENGINEER OF RECORD **MECHANICAL ENGINEER**

RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200 **ANCHORAGE, ALASKA 99503** 907.276.0521 M.R. BAUMGARTNER, P.E.



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OFFICE OF

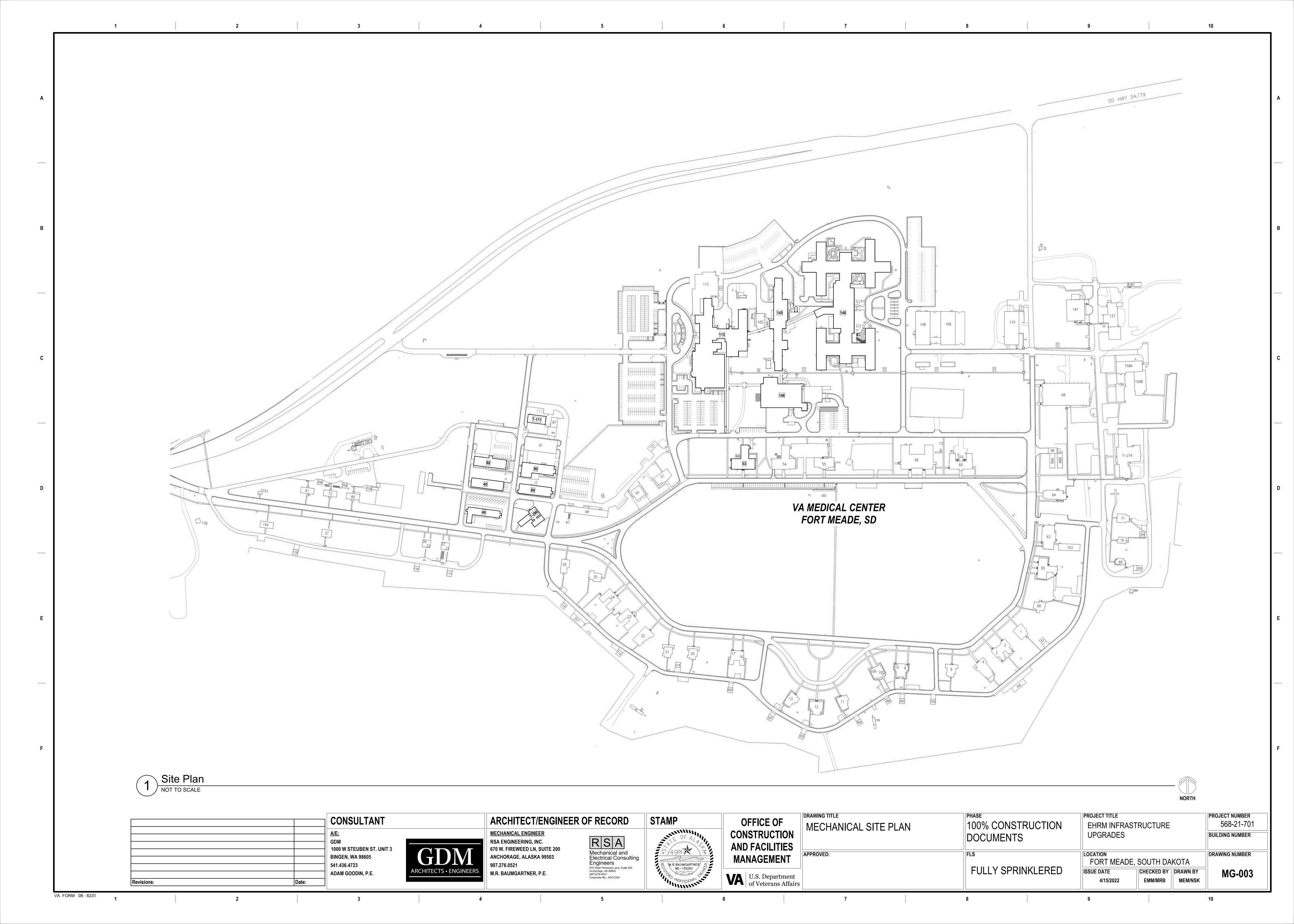
CONSTRUCTION **AND FACILITIES MANAGEMENT**

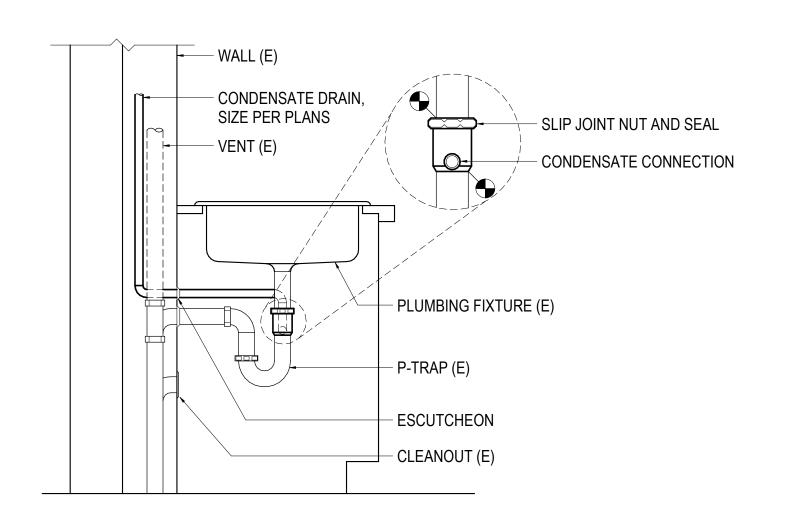
DRAWING TITLE APPROVED:

PHASE PROJECT TITLE PROJECT NUMBER 568-21-701 100% CONSTRUCTION **EHRM INFRASTRUCTURE** MECHANICAL SCHEDULES **UPGRADES BUILDING NUMBER** DOCUMENTS FLS LOCATION **DRAWING NUMBER** FORT MEADE, SOUTH DAKOTA **FULLY SPRINKLERED ISSUE DATE** CHECKED BY DRAWN BY MG-002 EMM/MRB MEM/NSK

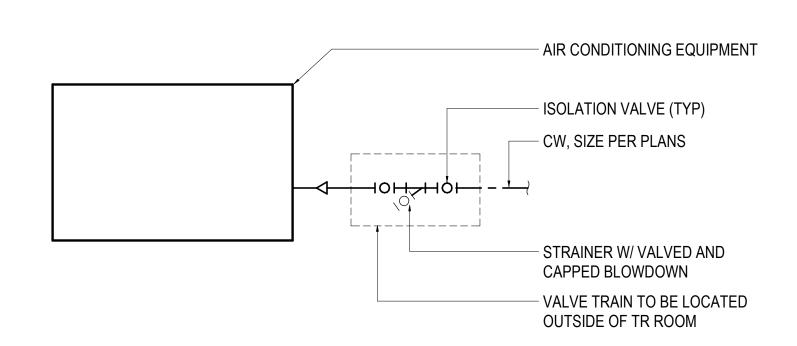
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U.S. Department of Veterans Affairs

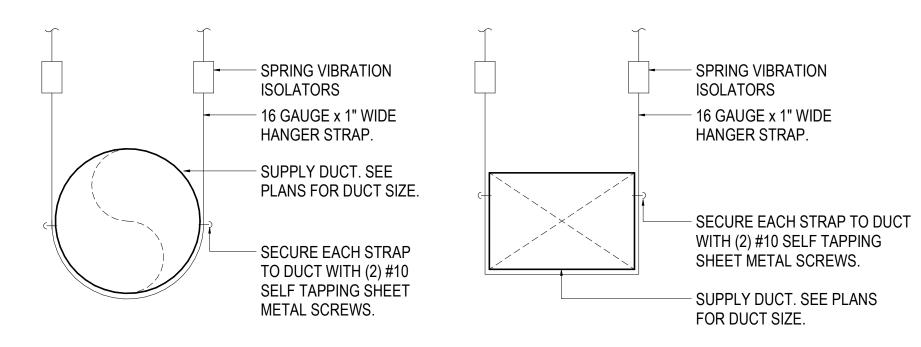




INDIRECT DRAIN DETAIL NOT TO SCALE

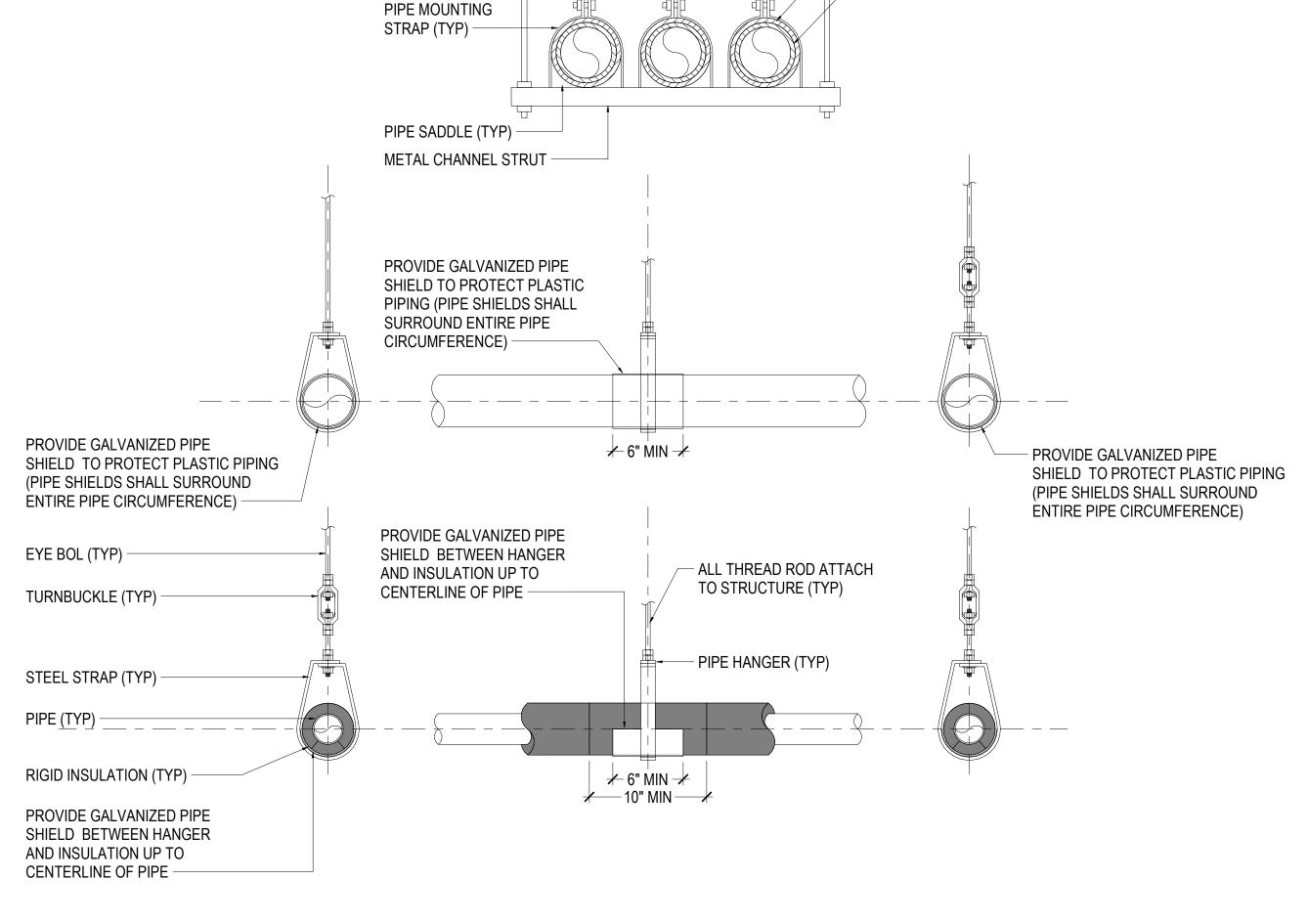


HUMIDIFIER WATER CONNECTION DETAIL NOT TO SCALE



1. PROVIDE AND CONSTRUCT DUCT HANGERS AND SUPPORTS PER 2006 SMACNA HVAC DUCT CONSTRUCTION STANDARDS FIGURE 5-5. 2. LENGTH OF SUPPORTS, STRAP SIZES, AND SIZES OF STEEL ANGLES AS REQUIRED FOR DUCT SIZE AND CONFIGURATION. 3. MAXIMUM 10' SPACING BETWEEN SUPPORTS.

TYPICAL DUCT SUPPORT DETAIL



HANGER ROD UP TO

STRUCTURE (TYP)

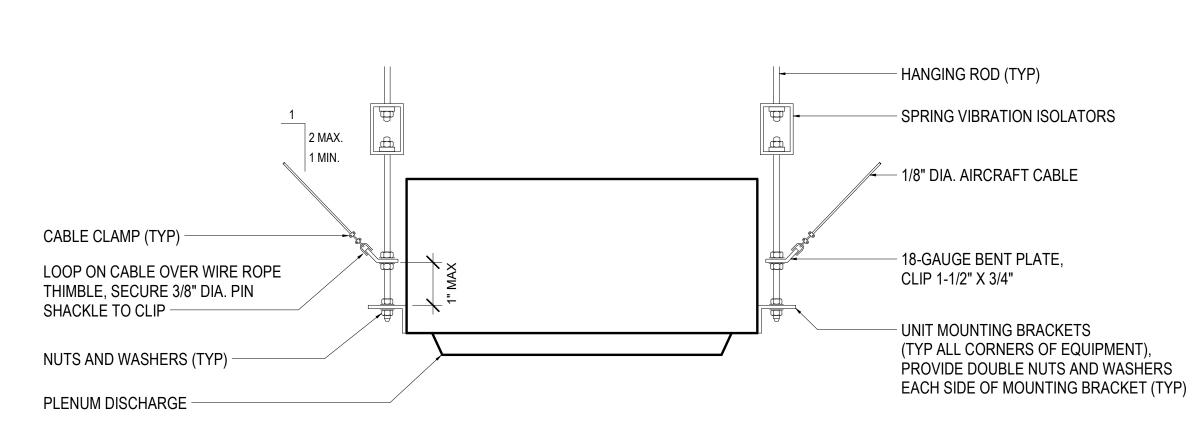
ATTACHMENT TO CEILING

- GALVANIZED PIPE SHIELD TO

- PIPING (TYP)

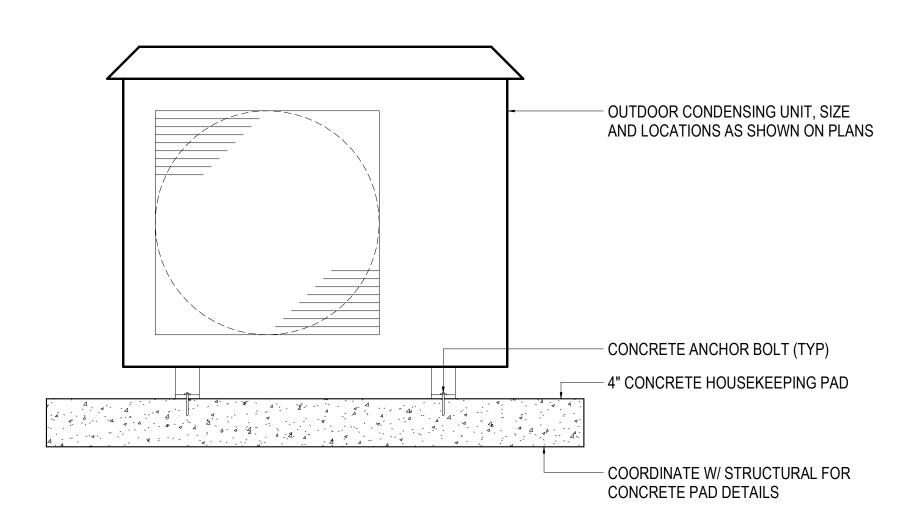
PROTECT PLASTIC PIPING (TYP)



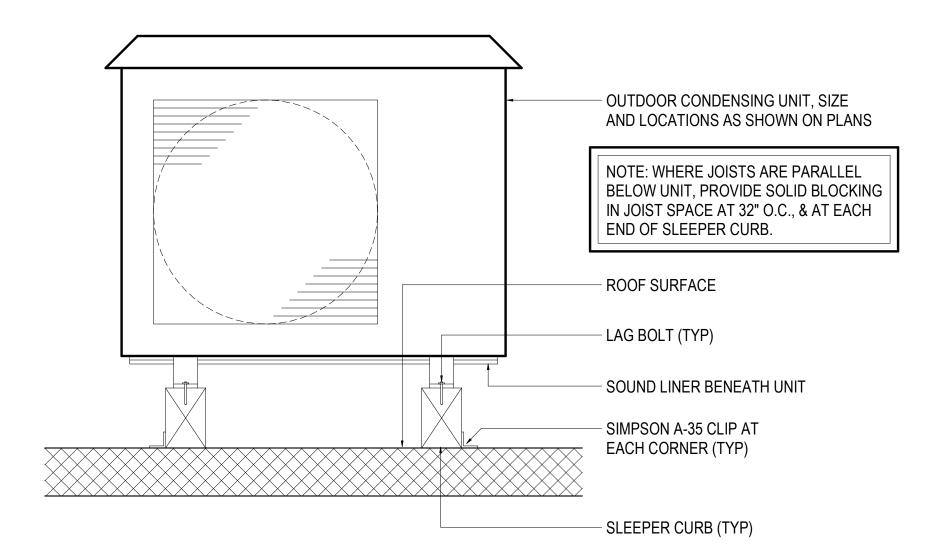


INDOOR UNIT WITH PLENUM MOUNTING DETAIL NOT TO SCALE

VA FORM 08 - 6231



OUTDOOR CONDENSING UNIT PAD INSTALLATION DETAIL (6) NOT TO SCALE



OUTDOOR CONDENSING UNIT ROOF INSTALLATION DETAIL NOT TO SCALE

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		A/E: GDM 1000 W STEUBEN ST. UNIT 3 BINGEN, WA 98605 541.436.4723 ADAM GOODIN, P.E.	GDIV ARCHITECTS · ENGIN
Revisions:	Date:		

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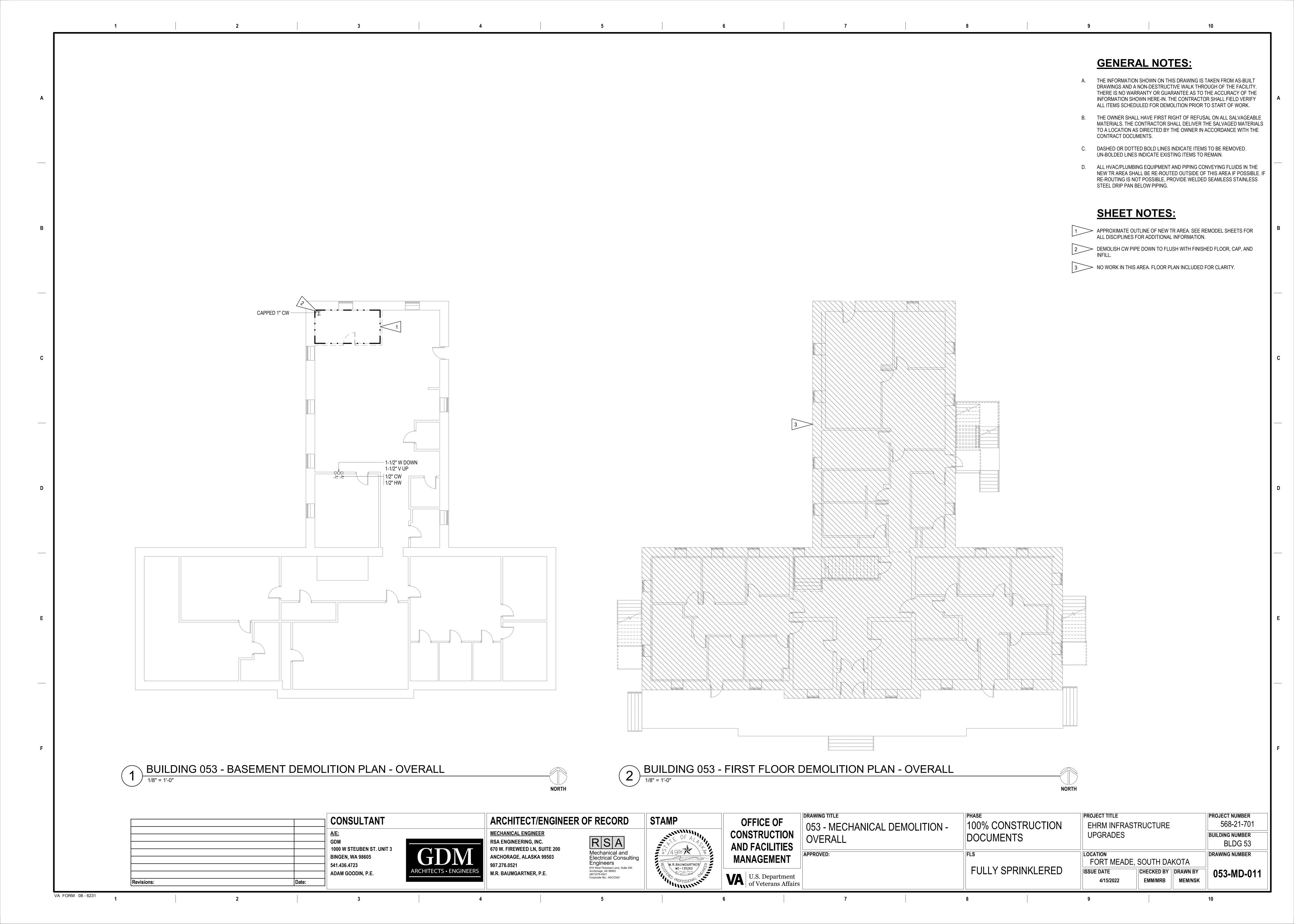
M.R. BAUMGARTNER, P.E.

RSA Mechanical and **Electrical Consulting** Engineers 670 West Fireweed Lane, Suite 200 Anchorage, AK 99503 (907)276-0521 Corporate No.: AECC542

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OFFICE OF CONSTRUCTION AND FACILITIES **MANAGEMENT** U.S. Department of Veterans Affairs

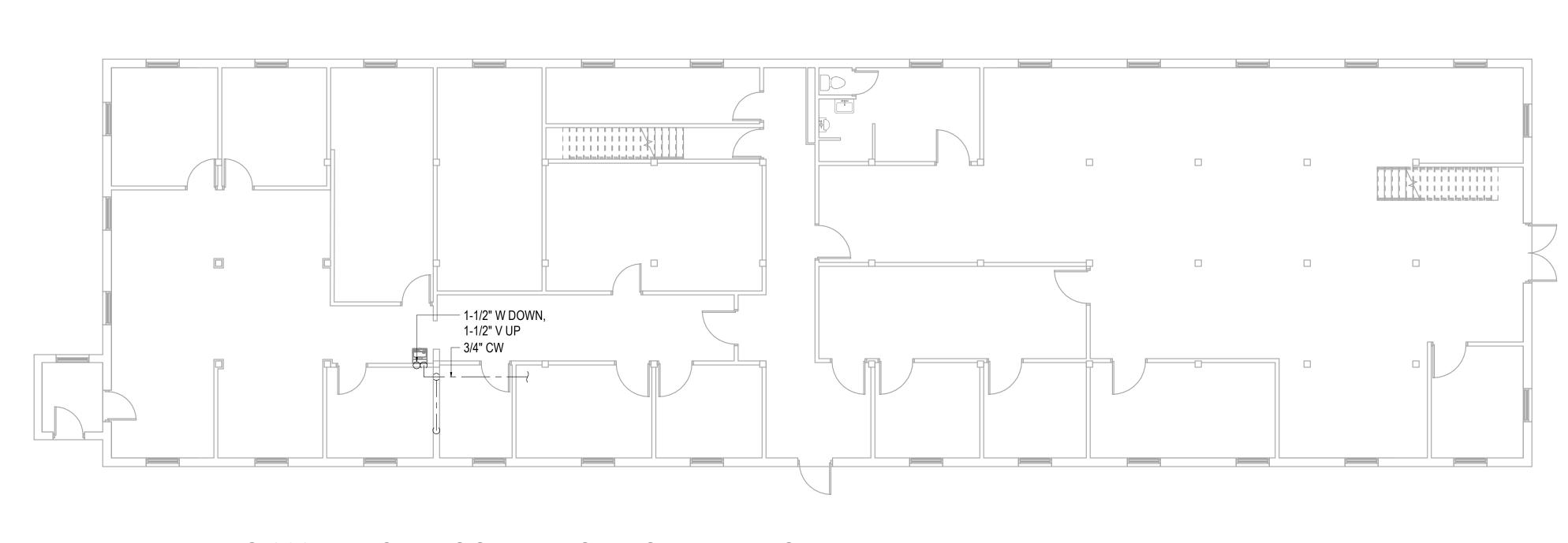
	MECHANICAL DETAILS	100% CONSTRUCTION DOCUMENTS	PROJECT TITLE EHRM INFRASTRUC UPGRADES	PROJECT NUMBER 568-21-701 BUILDING NUMBER	
rs	APPROVED:				MG-004

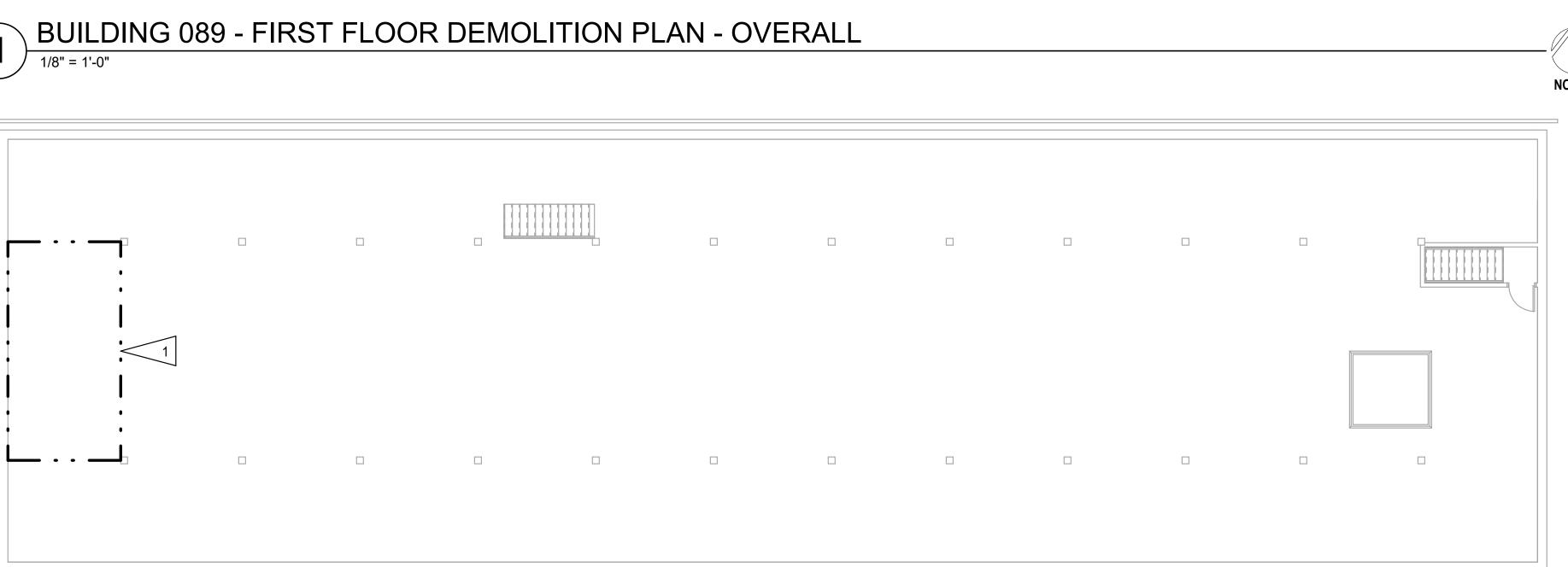


GENERAL NOTES: THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK. B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER THE SALVAGED MATERIALS TO A LOCATION AS DIRECTED BY THE OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. C. DASHED OR DOTTED BOLD LINES INDICATE ITEMS TO BE REMOVED. UN-BOLDED LINES INDICATE EXISTING ITEMS TO REMAIN. D. ALL HVAC/PLUMBING EQUIPMENT AND PIPING CONVEYING FLUIDS IN THE NEW TR AREA SHALL BE RE-ROUTED OUTSIDE OF THIS AREA IF POSSIBLE. IF RE-ROUTING IS NOT POSSIBLE, PROVIDE WELDED SEAMLESS STAINLESS STEEL DRIP PAN BELOW PIPING. **SHEET NOTES:** 1 APPROXIMATE OUTLINE OF NEW TR AREA. SEE REMODEL SHEETS FOR ALL DISCIPLINES FOR ADDITIONAL INFORMATION. 2 RELOCATE ELECTRIC UNIT HEATER OUTSIDE OF TR LOCATION. SEE ELECTRICAL FOR ADDITIONAL INFORMATION. BUILDING 088 - FIRST FLOOR DEMOLITION PLAN - OVERALL 1/8" = 1'-0" NORTH DRAWING TITLE PROJECT TITLE PROJECT NUMBER CONSULTANT ARCHITECT/ENGINEER OF RECORD STAMP OFFICE OF 568-21-701 100% CONSTRUCTION EHRM INFRASTRUCTURE 088 - MECHANICAL DEMOLITION -CONSTRUCTION MECHANICAL ENGINEER **UPGRADES** BUILDING NUMBER DOCUMENTS RSA Mechanical and Electrical Consulting Engineers 670 West Fireweed Lane, Suite 200 Anchorage, AK 99503 (907)276-0521 Corporate No.: AECC542 **OVERALL** RSA ENGINEERING, INC. BLDG 88 AND FACILITIES 670 W. FIREWEED LN, SUITE 200 1000 W STEUBEN ST. UNIT 3 FORT MEADE, SOUTH DAKOTA DRAWING NUMBER ANCHORAGE, ALASKA 99503 **MANAGEMENT BINGEN, WA 98605** M.R.BAUMGARTNER ME-135263 541.436.4723 ME-135263 ME-135263 ME-135263 ME-135263 ME-135263 FULLY SPRINKLERED CHECKED BY DRAWN BY ISSUE DATE 088-MD-011 M.R. BAUMGARTNER, P.E. ADAM GOODIN, P.E. U.S. Department of Veterans Affairs EMM/MRB MEM/NSK Revisions: VA FORM 08 - 6231

GENERAL NOTES: THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK. B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE CONTRACT DOCUMENTS. C. DASHED OR DOTTED BOLD LINES INDICATE ITEMS TO BE REMOVED. UN-BOLDED LINES INDICATE EXISTING ITEMS TO REMAIN. D. ALL HVAC/PLUMBING EQUIPMENT AND PIPING CONVEYING FLUIDS IN THE STEEL DRIP PAN BELOW PIPING. **SHEET NOTES:** > APPROXIMATE OUTLINE OF NEW TR AREA. SEE REMODEL SHEETS FOR ALL DISCIPLINES FOR ADDITIONAL INFORMATION.

- MATERIALS. THE CONTRACTOR SHALL DELIVER THE SALVAGED MATERIALS TO A LOCATION AS DIRECTED BY THE OWNER IN ACCORDANCE WITH THE
- NEW TR AREA SHALL BE RE-ROUTED OUTSIDE OF THIS AREA IF POSSIBLE. IF RE-ROUTING IS NOT POSSIBLE, PROVIDE WELDED SEAMLESS STAINLESS





BUILDING 089 - SECOND FLOOR DEMOLITION PLAN - OVERALL

1/8" = 1'-0"

CONCILITAN	
CONSULTAN	11
<u>A/E:</u>	
GDM	
1000 W STEUBEN ST. U	UNIT 3
BINGEN, WA 98605	GDN
541.436.4723	
ADAM GOODIN, P.E.	ARCHITECTS • ENG

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GINEERS	MECHANICAL ENGINEER RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200 ANCHORAGE, ALASKA 99503 907.276.0521 M.R. BAUMGARTNER, P.E.	Mechanical and Electrical Consulting Engineers 670 West Fireweed Lane, Suite 200 Anchorage, AK 99503 (907)276-0521 Corporate No.: AECC542

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	** ML-135263 ** ** ** ** ** ** ** ** ** ** ** ** **	VA	U.S. Departme of Veterans Af

	DRAWING TITLE
)N S	089 - MECHANICAL DEMOLITION - OVERALL
T	APPROVED:

100% CONSTRUCTION DOCUMENTS	EHRM INFRASTRUCTURE UPGRADES
LS	LOCATION FORT MEADE SOUTH DAKOTA

- 1					
1	FLS	LOCATION			DRAWING NUMBER
		FORT MEADE,	SOUTH DA	KOTA	
FULLY SPRINKLERED		ISSUE DATE	CHECKED BY	DRAWN BY	089-MD-011
		4/15/2022	EMM/MRB	MEM/NSK	
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PROJECT NUMBER

BUILDING NUMBER

568-21-701

BLDG 8

- THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
- B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER THE SALVAGED MATERIALS TO A LOCATION AS DIRECTED BY THE OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- C. DASHED OR DOTTED BOLD LINES INDICATE ITEMS TO BE REMOVED. UN-BOLDED LINES INDICATE EXISTING ITEMS TO REMAIN.
- D. ALL HVAC/PLUMBING EQUIPMENT AND PIPING CONVEYING FLUIDS IN THE NEW TR AREA SHALL BE RE-ROUTED OUTSIDE OF THIS AREA IF POSSIBLE. IF RE-ROUTING IS NOT POSSIBLE, PROVIDE WELDED SEAMLESS STAINLESS STEEL DRIP PAN BELOW PIPING.

SHEET NOTES:

PROJECT TITLE

PROJECT NUMBER

BUILDING NUMBER

DRAWING NUMBER

568-21-701

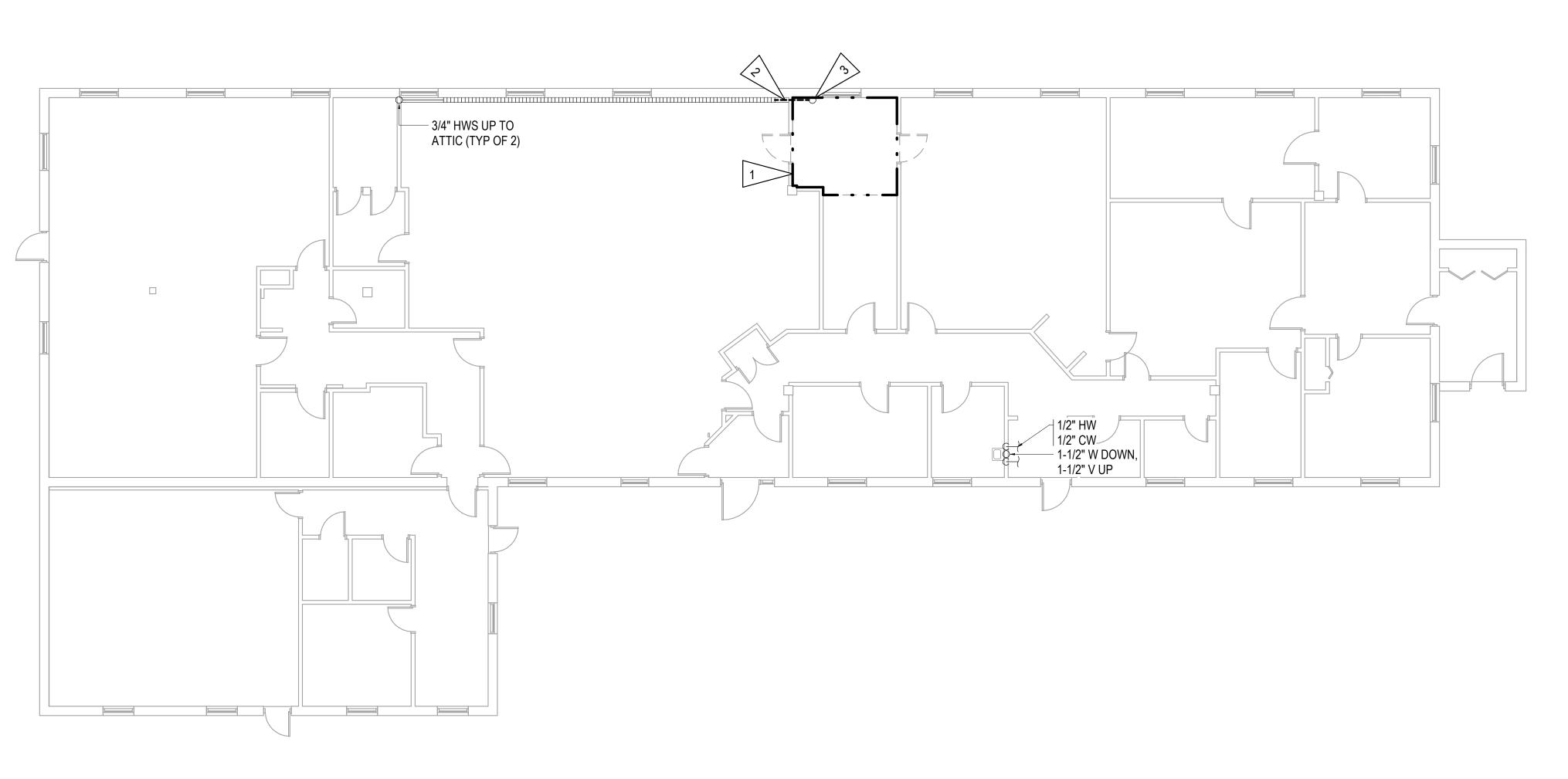
BLDG 90

090-MD-011

1 APPROXIMATE OUTLINE OF NEW TR AREA. SEE REMODEL SHEETS FOR ALL DISCIPLINES FOR ADDITIONAL INFORMATION.

2 DEMOLISH EXISTING FIN TUBE, FIN TUBE ENCLOSURE, AND ASSOCIATED HYDRONIC BRANCH PIPING TO EXTENT NECESSARY FOR TR REMODEL. SALVAGE VALVE TRAIN FOR RE-USE IN REMODEL.

3 DEMOLISH HYDRONIC PIPE RISER TO ATTIC. PATCH AND SEAL FLOOR PENETRATION.



BUILDING 090 - FIRST FLOOR DEMOLITION PLAN - OVERALL

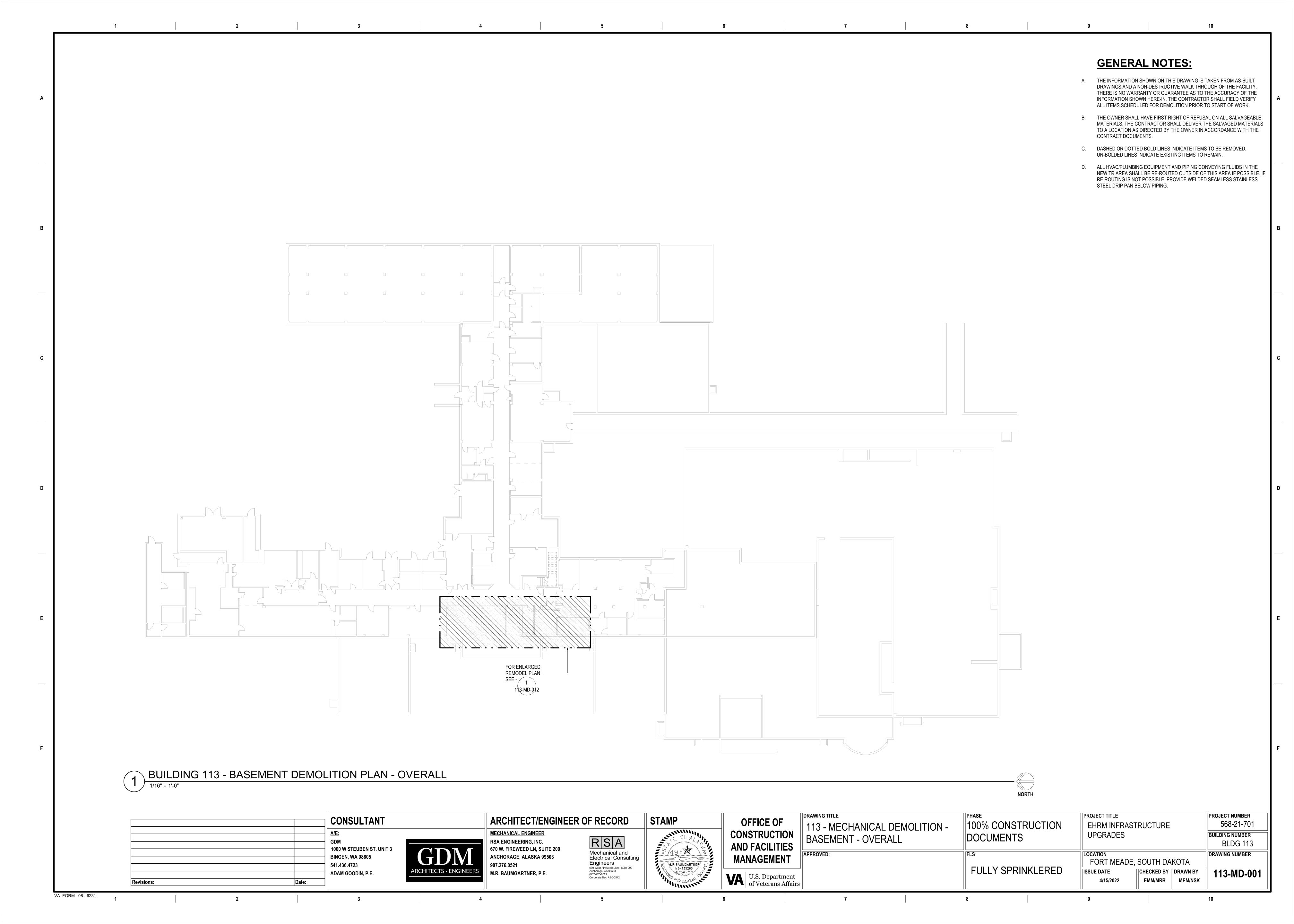
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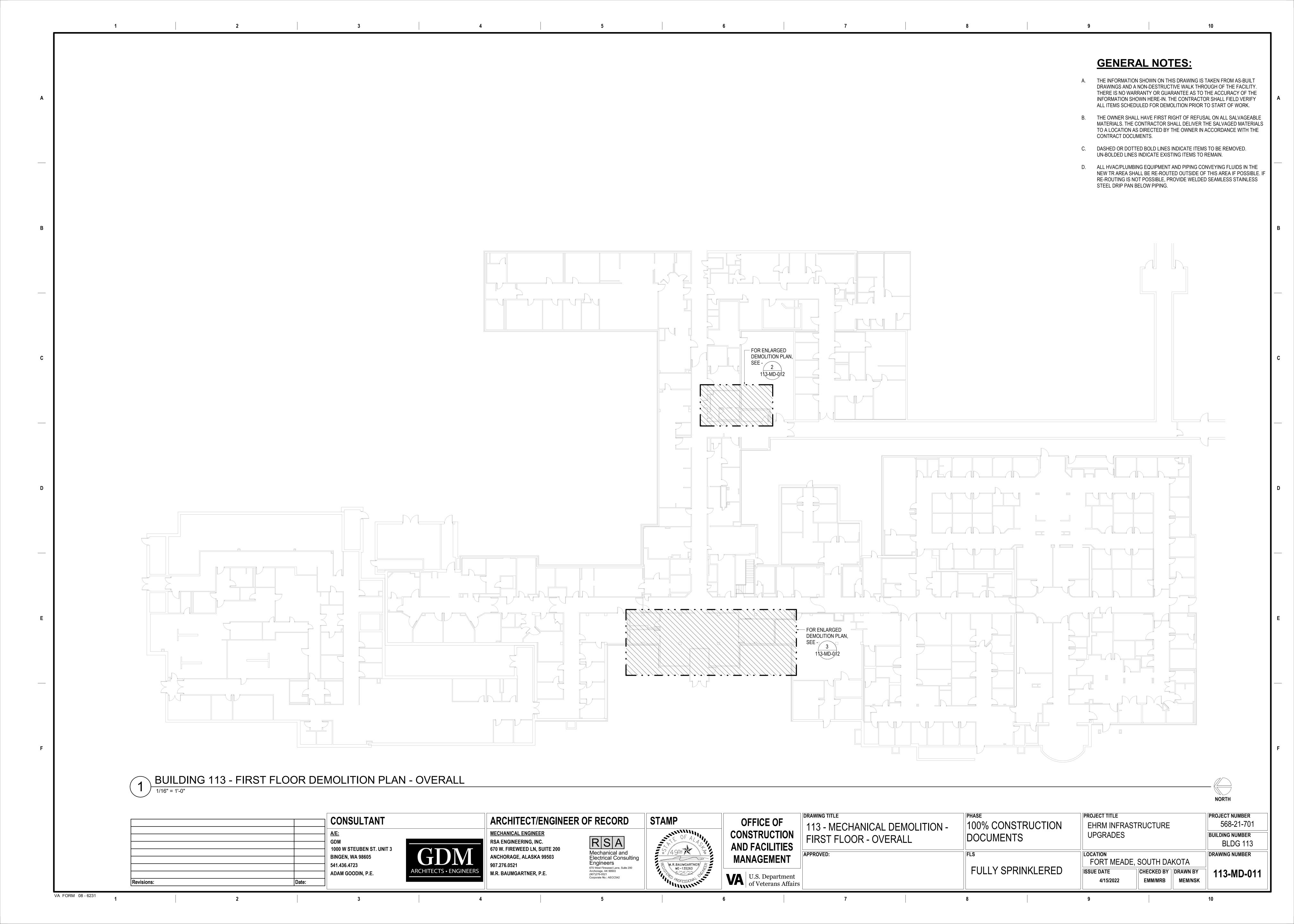
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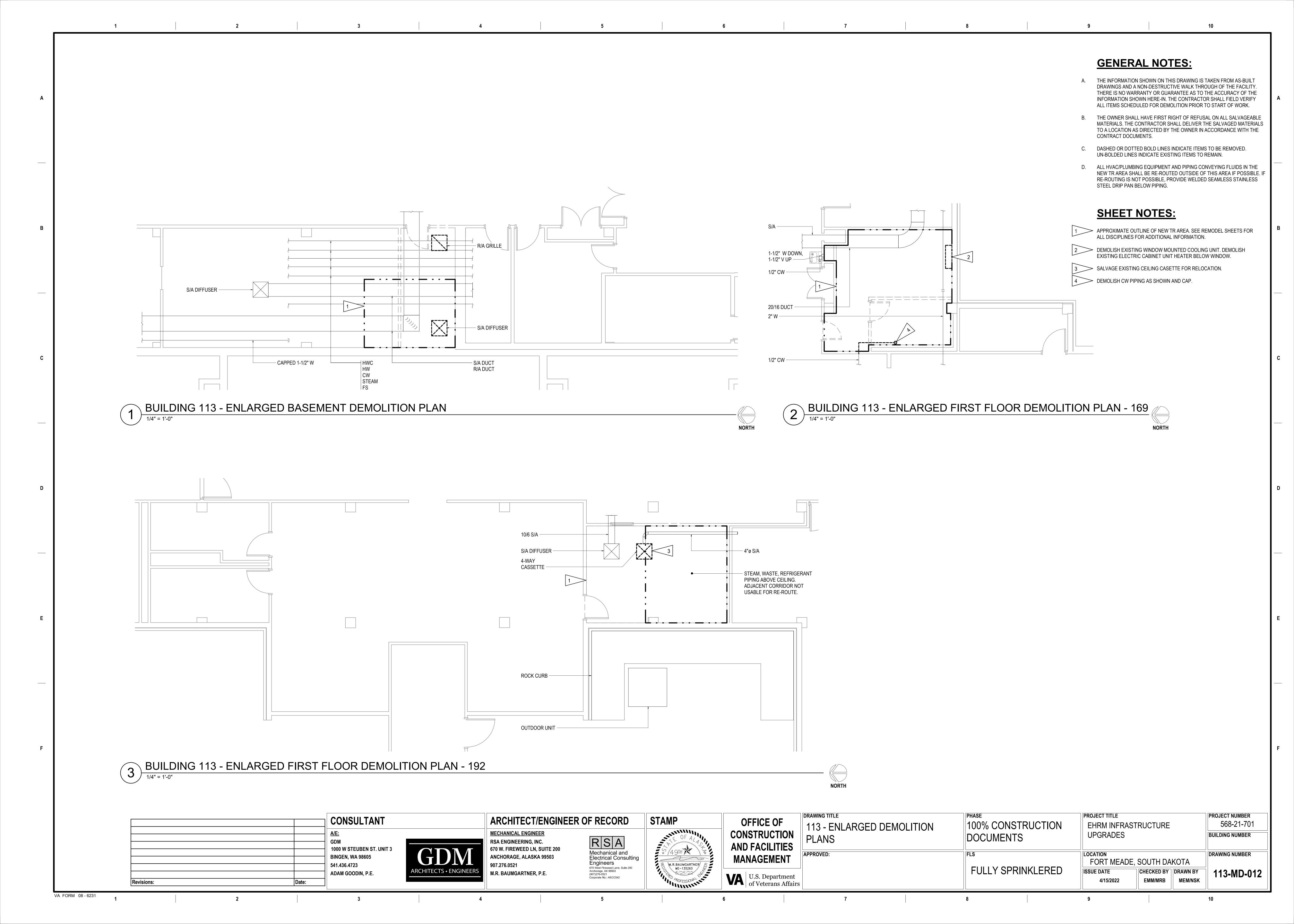
NORTH

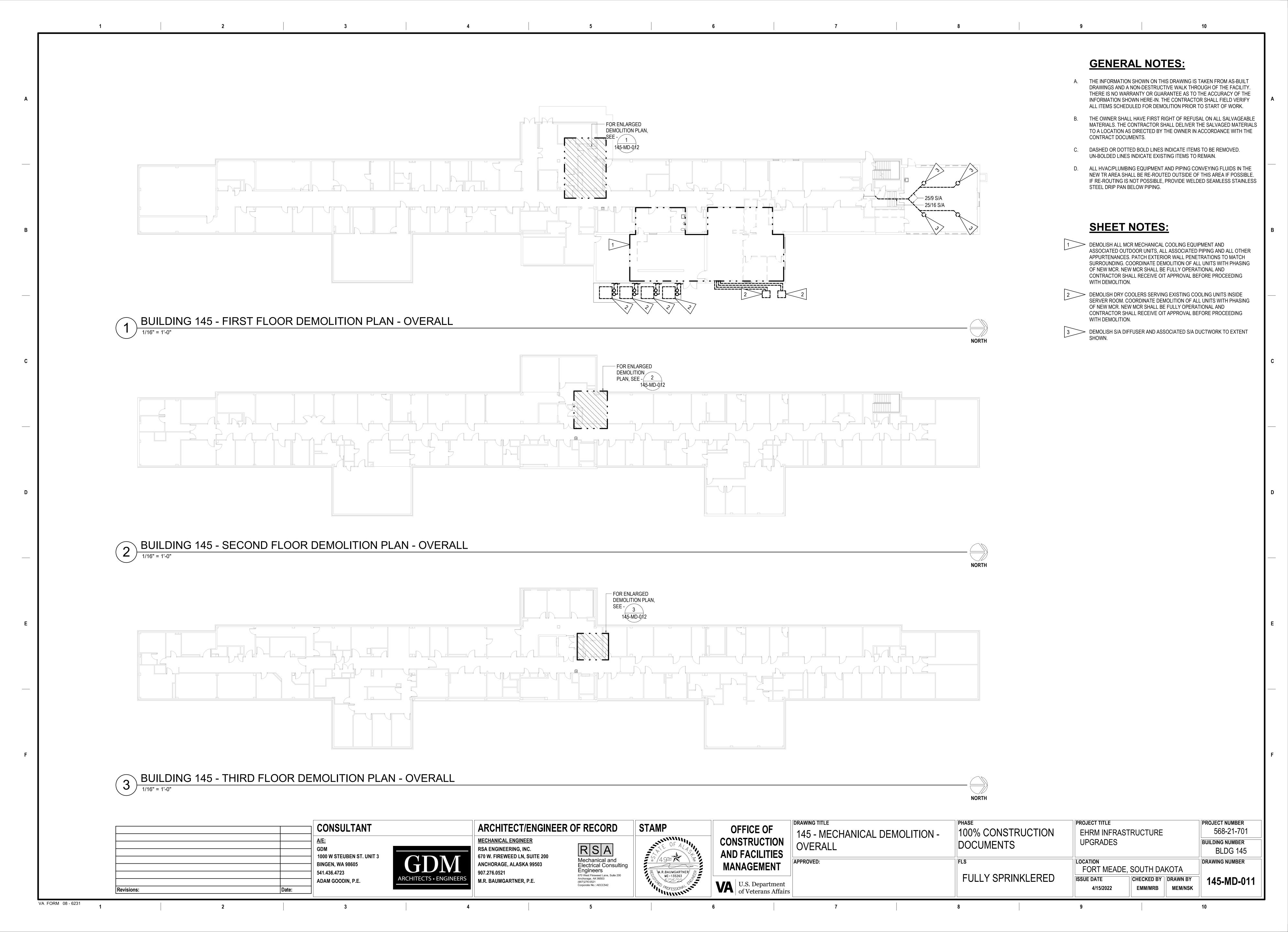
DRAWING TITLE

		CONSULTANT		ARCHITECT/ENGINEE	ER OF RECORD	STAMP	OFFICE OF	090 - MECHANICAL DEMOLITION -	100% CONSTRUCTION	PROJECT TITLE EHRM INFRAST	TRUCTURE	<u>.</u>
		A/E: GDM 1000 W STEUBEN ST. UNIT 3		MECHANICAL ENGINEER RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200	RSA	OF A	CONSTRUCTION AND FACILITIES		DOCUMENTS	UPGRADES		
		BINGEN, WA 98605 541.436.4723		ANCHORAGE, ALASKA 99503 907.276.0521	Mechanical and Electrical Consulting Engineers 670 West Fireweed Lane, Suite 200	M.R.BAUMGARTNER ME-135263	MANAGEMENT	APPROVED:	FLS	FORT MEADE,	<u>′ </u>	
Revisions:	Date:	ADAM GOODIN, P.E.	ARCHITECTS • ENGINEERS	M.R. BAUMGARTNER, P.E.	Anchorage, AK 99503 (907)276-0521 Corporate No.: AECC542	I Some the second of the secon	U.S. Department of Veterans Affairs		FULLY SPRINKLERED	ISSUE DATE 4/15/2022	CHECKED BY EMM/MRB	DRAWN BY MEM/NSK





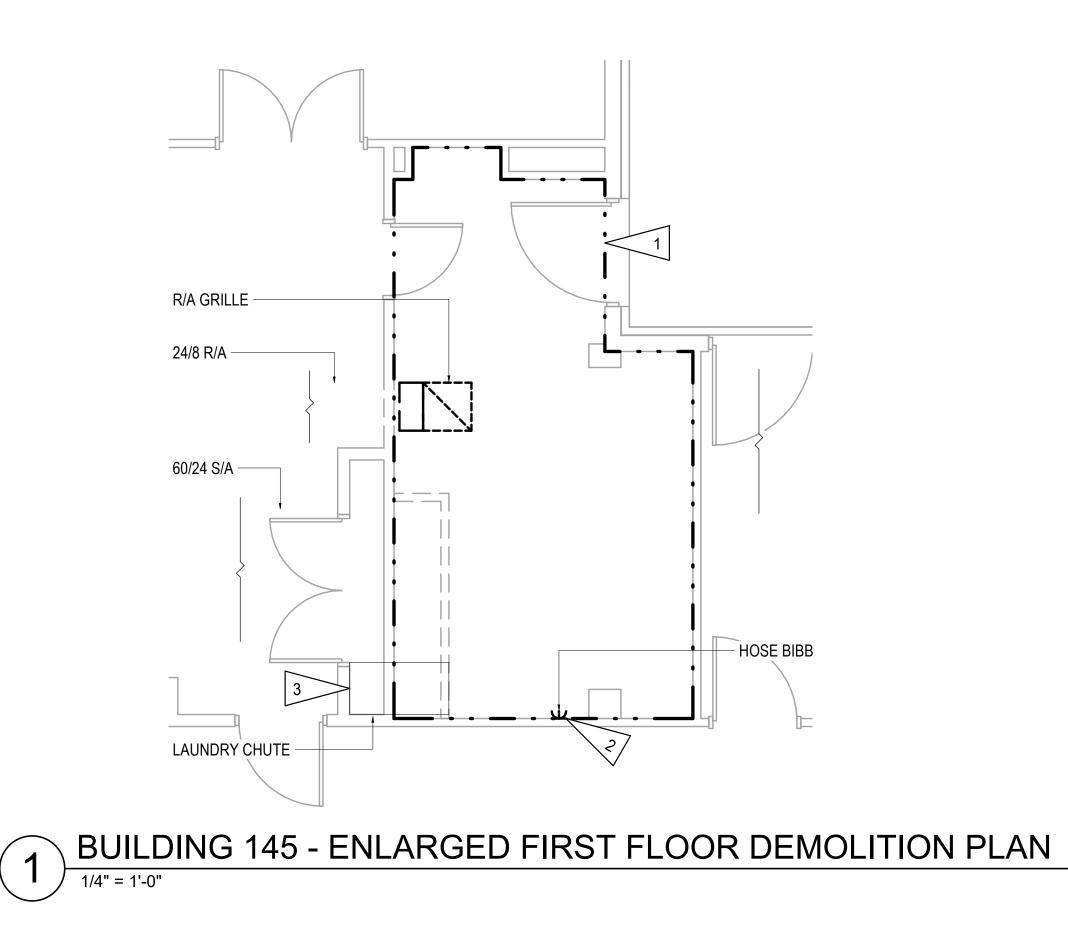


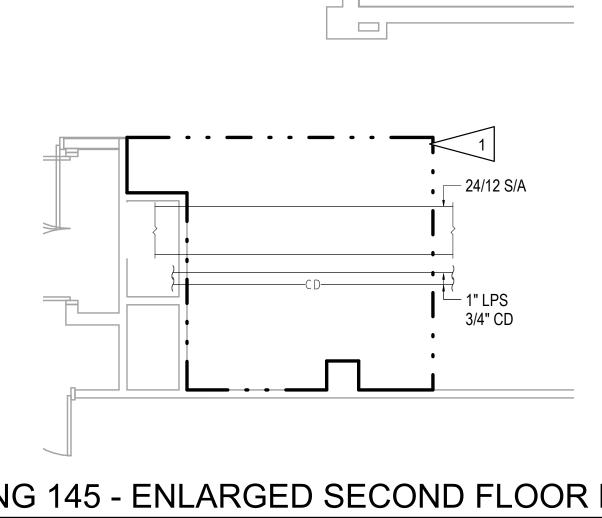


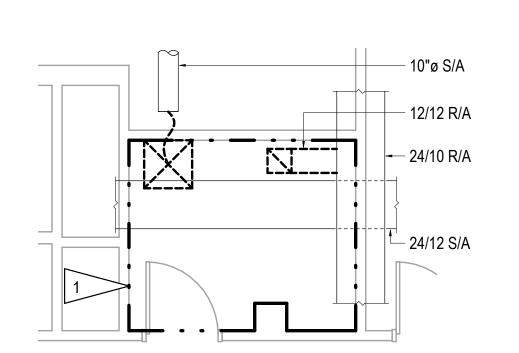
- THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
- B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER THE SALVAGED MATERIALS TO A LOCATION AS DIRECTED BY THE OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- C. DASHED OR DOTTED BOLD LINES INDICATE ITEMS TO BE REMOVED. UN-BOLDED LINES INDICATE EXISTING ITEMS TO REMAIN.
- D. ALL HVAC/PLUMBING EQUIPMENT AND PIPING CONVEYING FLUIDS IN THE NEW TR AREA SHALL BE RE-ROUTED OUTSIDE OF THIS AREA IF POSSIBLE. IF RE-ROUTING IS NOT POSSIBLE, PROVIDE WELDED SEAMLESS STAINLESS STEEL DRIP PAN BELOW PIPING.

SHEET NOTES:

- APPROXIMATE OUTLINE OF NEW TR AREA. SEE REMODEL SHEETS FOR ALL DISCIPLINES FOR ADDITIONAL INFORMATION.
- 2 DEMOLISH HOSE BIBB BACK INTO WALL, ISOLATE, AND CAP.
- 3 BLOCK OFF AND WALL OVER EXISTING LAUNDRY CHUTE.







BUILDING 145 - ENLARGED SECOND FLOOR DEMOLITION PLAN

1/4" = 1'-0"

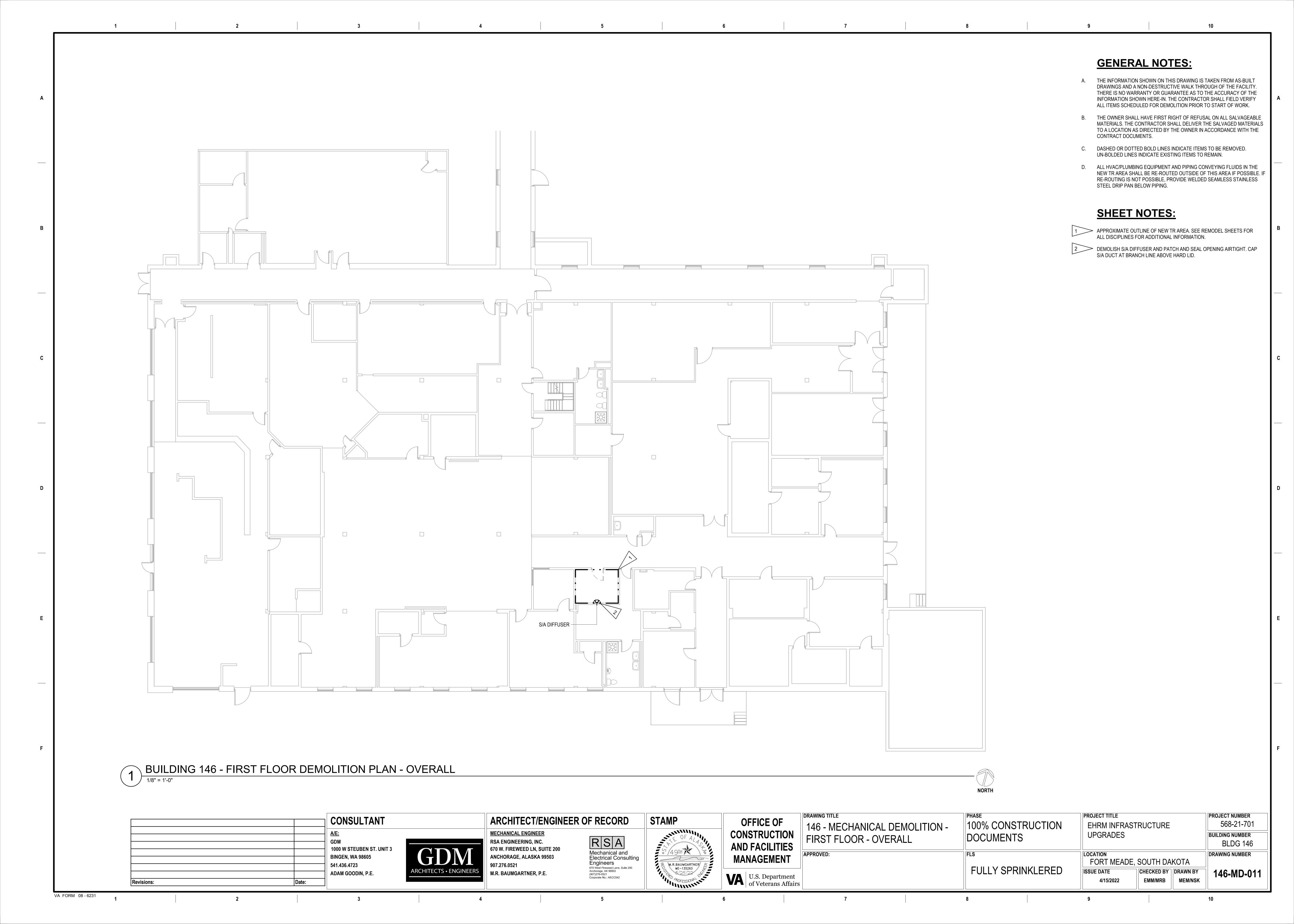
BUILDING 145 - ENLARGED THIRD FLOOR DEMOLITION PLAN

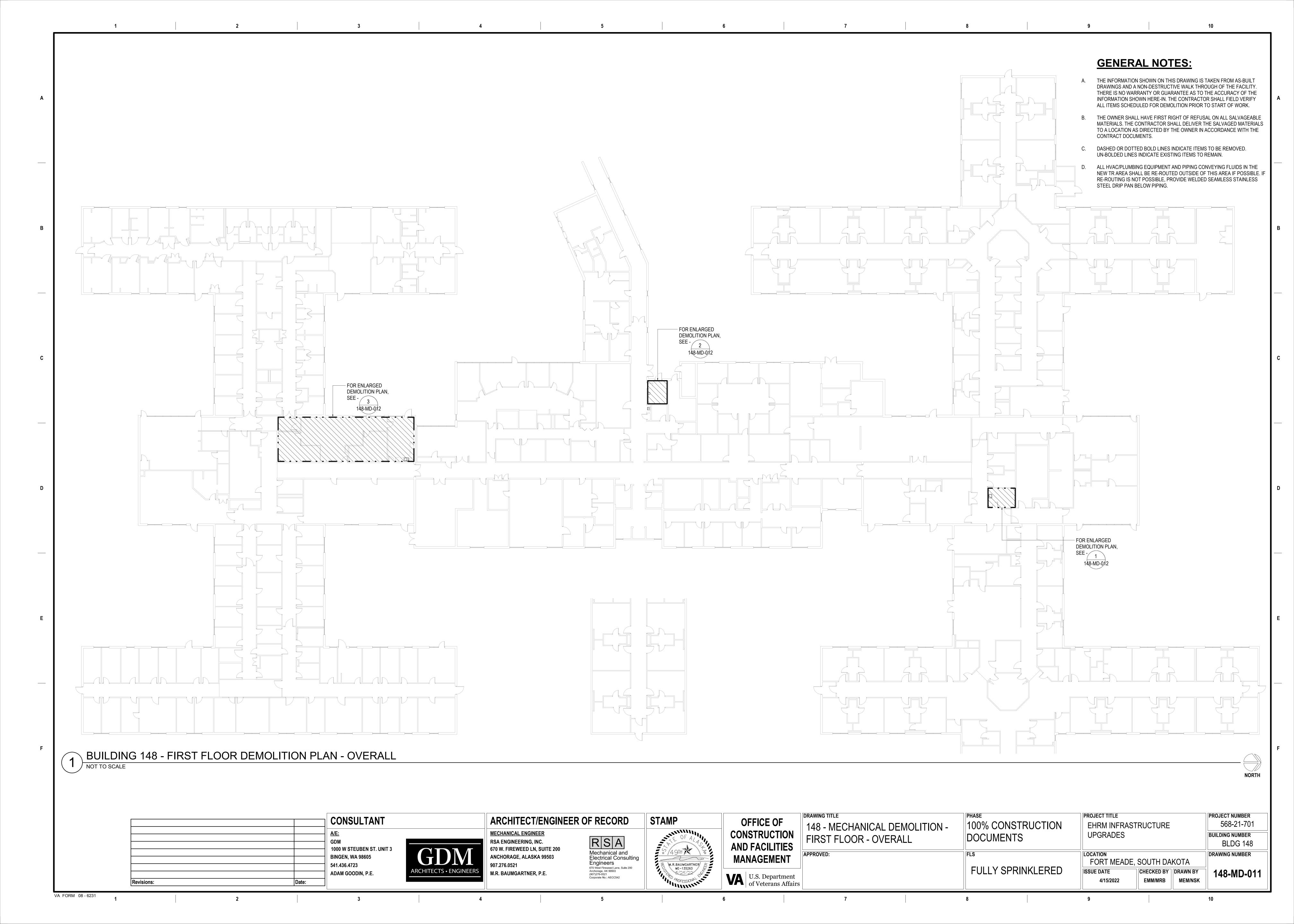
1/4" = 1'-0"

PROJECT TITLE

PROJECT NUMBER

		CONSULTANT	ARCHITECT/ENGINEER OF RECORD	STAMP	OFFICE OF	145 - ENLARGED DEMOLITION	100% CONSTRUCTION	EHRM INFRASTRUCTURE	568-21-701
		A/E: GDM 1000 W STEUBEN ST. UNIT 3	MECHANICAL ENGINEER RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200 ANCHORAGE, ALASKA 99503 Mechanical and Electrical Consulting	OF A	CONSTRUCTION AND FACILITIES	PLANS	DOCUMENTS	UPGRADES	BUILDING NUMBER
		BINGEN, WA 98605 541.436.4723	907.276.0521 Engineers	M.R.BAUMGARTNER	MANAGEMENT	APPROVED:	FLS	FORT MEADE, SOUTH DAKOTA	DRAWING NUMBER
	Revisions: Date:	ADAM GOODIN, P.E. ARCHITECTS • ENGINEER	M.R. BAUMGARTNER, P.E. Anchorage, AK 99503 (907)276-0521 Corporate No.: AECC542	AROFESSIONAL	VA U.S. Department of Veterans Affairs		FULLY SPRINKLERED	ISSUE DATE 4/15/2022 CHECKED BY EMM/MRB DRAWN BY MEM/NSK	145-MD-012
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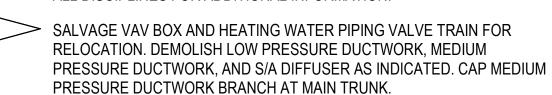




- THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
- B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER THE SALVAGED MATERIALS TO A LOCATION AS DIRECTED BY THE OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- DASHED OR DOTTED BOLD LINES INDICATE ITEMS TO BE REMOVED. UN-BOLDED LINES INDICATE EXISTING ITEMS TO REMAIN.
- ALL HVAC/PLUMBING EQUIPMENT AND PIPING CONVEYING FLUIDS IN THE NEW TR AREA SHALL BE RE-ROUTED OUTSIDE OF THIS AREA IF POSSIBLE. IF RE-ROUTING IS NOT POSSIBLE, PROVIDE WELDED SEAMLESS STAINLESS STEEL DRIP PAN BELOW PIPING.

SHEET NOTES:

- APPROXIMATE OUTLINE OF NEW TR AREA. SEE REMODEL SHEETS FOR ALL DISCIPLINES FOR ADDITIONAL INFORMATION.

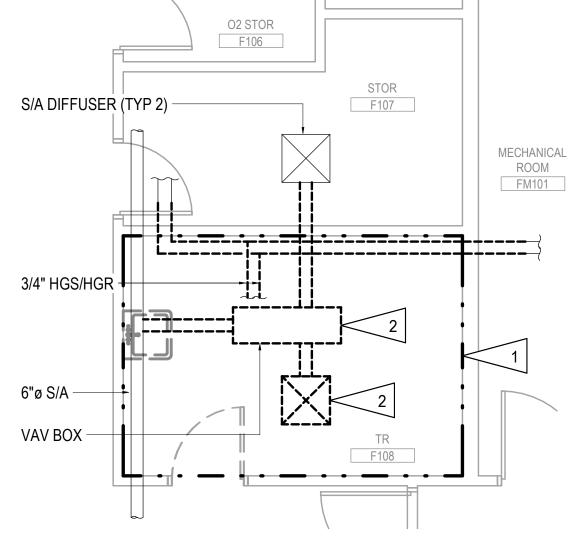


> DEMOLISH AC UNIT, ASSOCIATED ROOF MOUNTED CONDENSING UNIT, REFRIGERANT PIPING, AND CONDENSATE PIPING AS INDICATED.

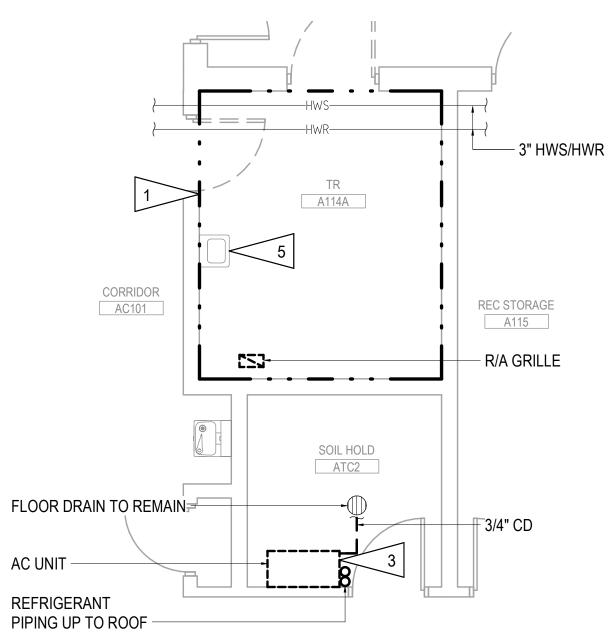
SALVAGE FAN COIL UNIT FOR RELOCATION. DEMOLISH S/A DUCTWORK, DIFFUSERS, CHILLED WATER PIPING, HEATING WATER PIPING, AND CONDENSATE PIPING AS INDICATED.

DEMOLISH DOMESTIC WATER, WASTE, AND VENT PIPING TO SINK AS NECESSARY TO ACCOMMODATE REMODEL WORK. SALVAGE SINK FOR RE-USE IN REMODEL.

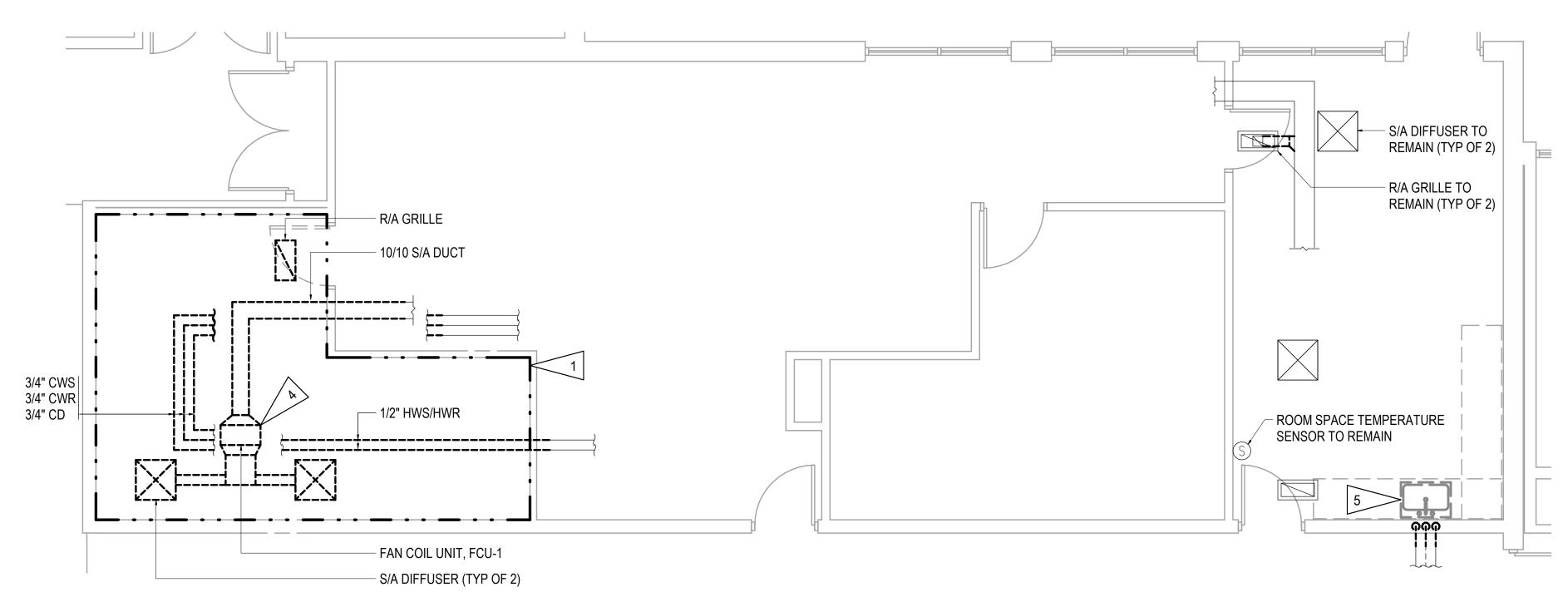
6 DEMOLISH CONNECTED RETURN AIR DUCT BACK TO MAIN AND CAP. RETURN AIR GRILLE TO REMAIN



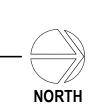
BUILDING 148 - ENLARGED FIRST FLOOR DEMOLITION PLAN - 108



BUILDING 148 - ELARGED FIRST FLOOR DEMOLITION PLAN - 114



BUILDING 148 - ENLARGED FIRST FLOOR DEMOLITION PLAN - 106



568-21-701

148-MD-012

		CONSULTANT
		<u>A/E:</u>
		GDM
		1000 W STEUBEN ST. UNIT BINGEN, WA 98605
		541.436.4723
		ADAM GOODIN, P.E.
Revisions:	Date:	

1000 W STEUBEN ST. UNIT 3

ARCHITECT/ENGINEER OF RECORD MECHANICAL ENGINEER RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200 **ANCHORAGE, ALASKA 99503** 907.276.0521 M.R. BAUMGARTNER, P.E.

NORTH

RSA Mechanical and Electrical Consulting Engineers 670 West Fireweed Lane, Suite 200 Anchorage, AK 99503 (907)276-0521 Corporate No.: AECC542 STAMP M.R.BAUMGARTNER

ME-135263

MOFESSIONA

OFFICE OF CONSTRUCTION AND FACILITIES **MANAGEMENT** U.S. Department of Veterans Affairs

DRAWING TITLE 148 - ENLARGED MECHANICAL **DEMOLITION PLANS**

100% CONSTRUCTION DOCUMENTS FULLY SPRINKLERED

PROJECT TITLE PROJECT NUMBER EHRM INFRASTRUCTURE **UPGRADES BUILDING NUMBER** DRAWING NUMBER LOCATION

FORT MEADE, SOUTH DAKOTA CHECKED BY DRAWN BY **ISSUE DATE** EMM/MRB MEM/NSK

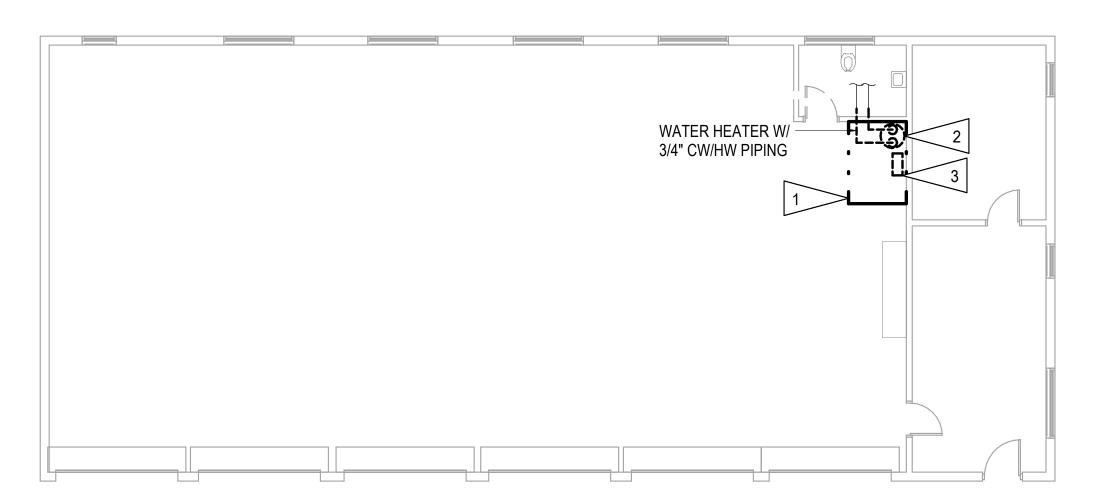
- THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
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- C. DASHED OR DOTTED BOLD LINES INDICATE ITEMS TO BE REMOVED. UN-BOLDED LINES INDICATE EXISTING ITEMS TO REMAIN.
- D. ALL HVAC/PLUMBING EQUIPMENT AND PIPING CONVEYING FLUIDS IN THE NEW TR AREA SHALL BE RE-ROUTED OUTSIDE OF THIS AREA IF POSSIBLE. IF RE-ROUTING IS NOT POSSIBLE, PROVIDE WELDED SEAMLESS STAINLESS STEEL DRIP PAN BELOW PIPING.

SHEET NOTES:

1 APPROXIMATE OUTLINE OF NEW TR AREA. SEE REMODEL SHEETS FOR ALL DISCIPLINES FOR ADDITIONAL INFORMATION.

2 SALVAGE AND RELOCATE WATER HEATER. DEMOLISH CW AND HW PIPING FROM WATER HEATER TO PLUMBING FIXTURES TO EXTENT NECCESSARY FOR REMODEL WORK. NO DOMESTIC WATER PIPING SHALL BE IN NEW IT CLOSET.

3 SALVAGE CEILING HUNG UNIT HEATER AND RELOCATE OUTSIDE OF NEW TR. EXISTING GAS PIPING AND VENT TO REMAIN FOR RECONNECTION.



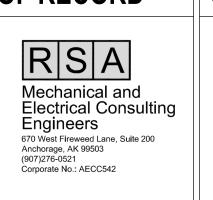
BUILDING T171 - FIRST FLOOR DEMOLITION PLAN - OVERALL

1/8" = 1'-0"

	CONSULTANT
	<u>A/E:</u>
	GDM
	1000 W STEUBEN ST. UNIT 3
	BINGEN, WA 98605
	541.436.4723
	ADAM GOODIN, P.E.

GDIV ARCHITECTS • ENGINEERS

ARCHITECT/ENGINEER OF RECORD MECHANICAL ENGINEER RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200 ANCHORAGE, ALASKA 99503 907.276.0521 M.R. BAUMGARTNER, P.E.





	OFFICE OF
	CONSTRUCTION
ı	AND FACILITIES MANAGEMENT
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	U.S. Departmen

DRAWING TITLE
T171 - MECHANICAL DEMOLITION -
OVERALL
APPROVED:

-	100% CONSTRUCTION DOCUMENTS
	FLS

PROJECT TITLE	PROJECT NUMBER
EHRM INFRASTRUCTURE	568-21-701
UPGRADES	BUILDING NUMBER
	BLDG T171
LOCATION	DRAWING NUMBER

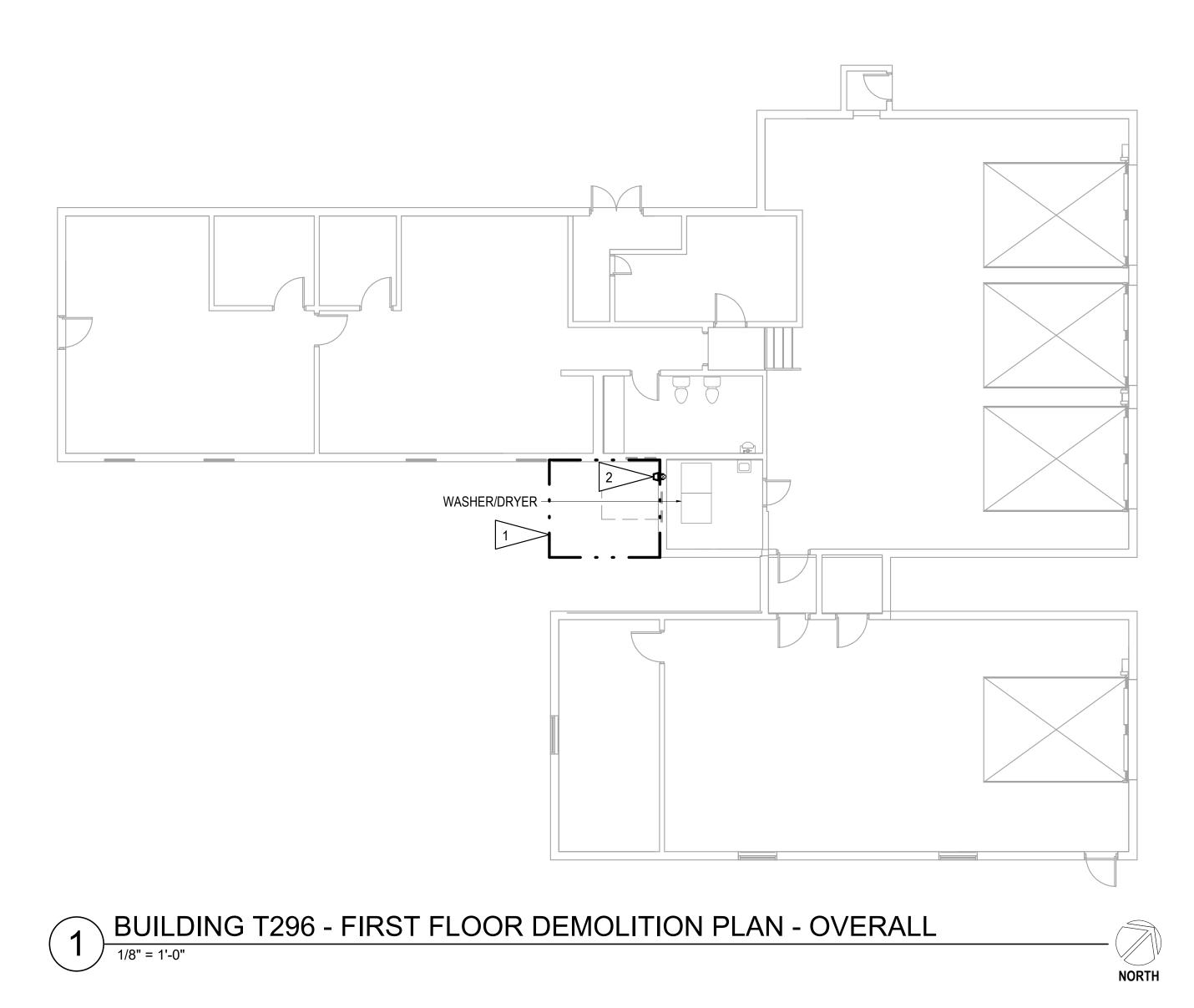
FORT MEADE, SOUTH DAKOTA **FULLY SPRINKLERED** CHECKED BY DRAWN BY T171-MD-011 EMM/MRB MEM/NSK

- THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
- B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER THE SALVAGED MATERIALS TO A LOCATION AS DIRECTED BY THE OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- C. DASHED OR DOTTED BOLD LINES INDICATE ITEMS TO BE REMOVED. UN-BOLDED LINES INDICATE EXISTING ITEMS TO REMAIN.
- D. ALL HVAC/PLUMBING EQUIPMENT AND PIPING CONVEYING FLUIDS IN THE NEW TR AREA SHALL BE RE-ROUTED OUTSIDE OF THIS AREA IF POSSIBLE. IF RE-ROUTING IS NOT POSSIBLE, PROVIDE WELDED SEAMLESS STAINLESS STEEL DRIP PAN BELOW PIPING.

SHEET NOTES:

1 APPROXIMATE OUTLINE OF NEW TR AREA. SEE REMODEL SHEETS FOR ALL DISCIPLINES FOR ADDITIONAL INFORMATION.

2 DEMOLISH CLOTHES DRYER WALL CAP AND E/A DUCTWORK IN TO WALL. E/A DUCTWORK IN WALL TO REMAIN FOR RECONNECTION.



ARCHITECT/ENGINEER OF RECORD MECHANICAL ENGINEER Mechanical and
Electrical Consulting
Engineers
670 West Fireweed Lane, Suite 200
Anchorage, AK 99503
(907)276-0521
Corporate No.: AECC542 RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200 ANCHORAGE, ALASKA 99503 907.276.0521 M.R. BAUMGARTNER, P.E.

STAMP

OFFICE OF CONSTRUCTION AND FACILITIES **MANAGEMENT** M.R.BAUMGARTNER®
ME-135263
AOFESSIONA **VA** U.S. Department of Veterans Affairs

DRAWING TITLE T296 - MECHANICAL DEMOLITION -**OVERALL**

100% CONSTRUCTION DOCUMENTS

PROJECT TITLE EHRM INFRASTRUCTURE **UPGRADES**

568-21-701 BUILDING NUMBER BLDG T296 DRAWING NUMBER

PROJECT NUMBER

LOCATION FORT MEADE, SOUTH DAKOTA CHECKED BY DRAWN BY T296-MD-011 ISSUE DATE EMM/MRB MEM/NSK

CONSULTANT

1000 W STEUBEN ST. UNIT 3

BINGEN, WA 98605

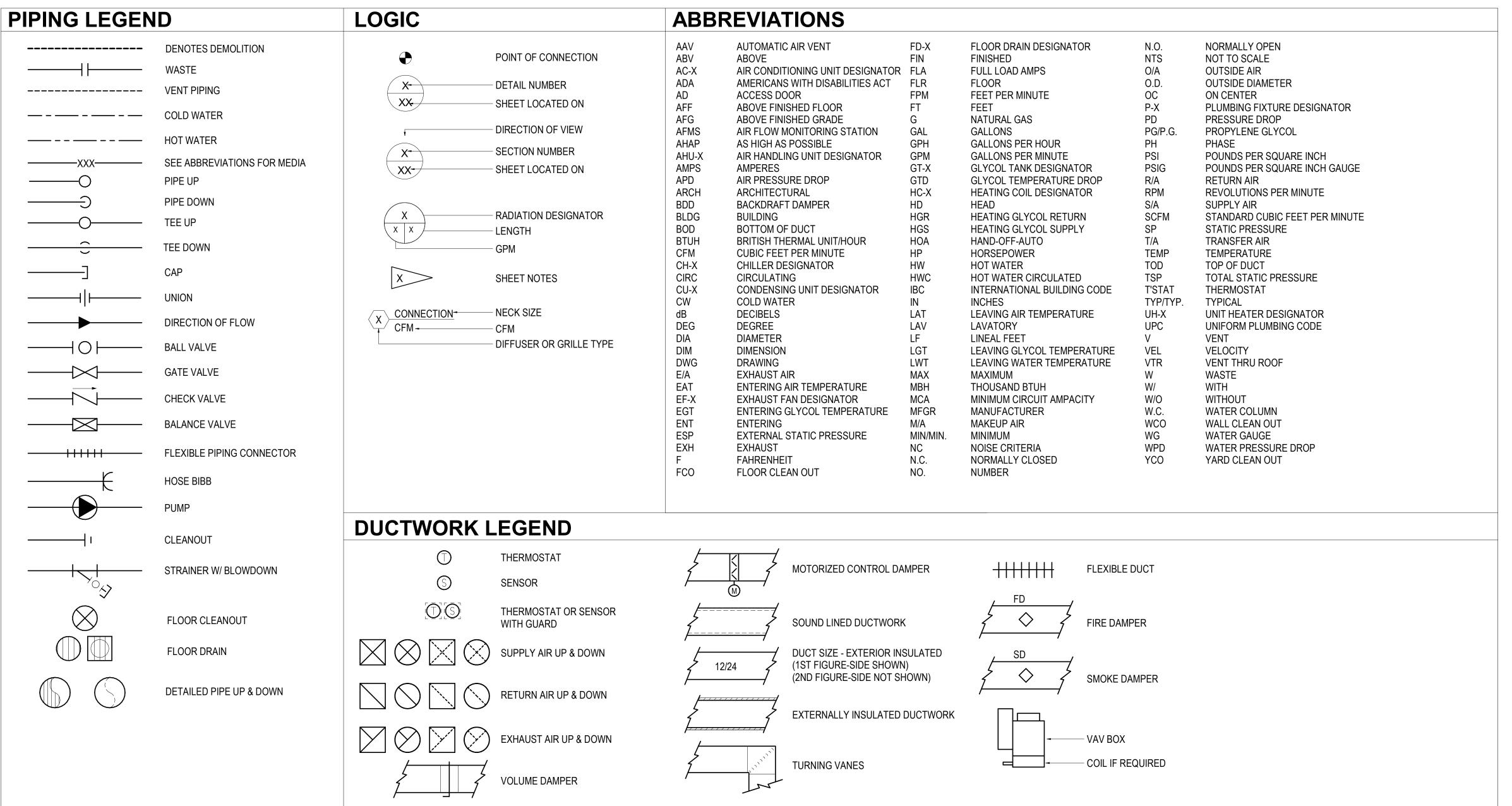
ADAM GOODIN, P.E.

541.436.4723

Revisions:

VA FORM 08 - 6231

FULLY SPRINKLERED



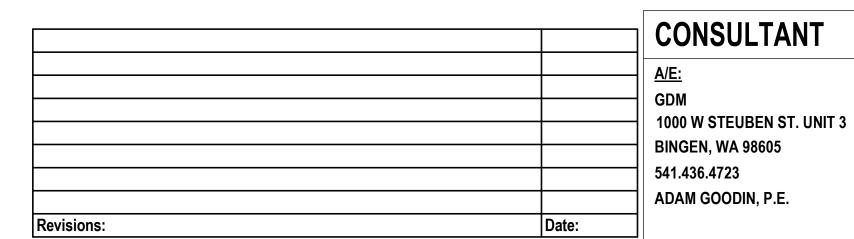
GENERAL PROJECT NOTES:

- PROVIDE SYSTEM STARTUP, TESTING, & ADJUSTING OF INSTALLED SYSTEMS TO MEET PERFORMANCE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL SUPPORT SYSTEM COMMISSIONING AND SHALL COORDINATE WITH PROJECT COMMISSIONING AGENT.
- CONTRACT SHALL PROVIDE ALL DOCUMENTATION REQUIRED TO SUPPORT SYSTEM COMMISSIONING.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND CONSTRUCTION FEES. FURNISH COPIES OF ALL CONSTRUCTION PERMITS, FINAL APPROVED PERMITS, AND SIMILAR DOCUMENTS TO OWNER DOCUMENTING COMPLIANCE WITH CODE REQUIREMENTS.
- LOCATE ALL VALVES, TRAPS, TEST PORTS, DAMPERS, CONTROLS, CLEANOUTS, ETC. TO BE ACCESSIBLE FOR MAINTENANCE, ADJUSTMENT, 8 TESTING. PROVIDE ACCESS PANELS FOR ALL CONCEALED DEVICES. ACCESS PANEL LOCATIONS SHALL BE COORDINATED WITH ARCHITECT. FOR SECURE AREAS. ACCESS PANELS SHALL BE LOCKING TYPE.
- ALL PIPING & DUCTWORK IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN A FURRED CHASE OR ABOVE THE SUSPENDED CEILING SYSTEM. REFER TO ARCHITECTURAL DOCUMENTS FOR FURRING & CHASE LOCATIONS & SIZES.
- THE FIRST FIGURE OF DUCT SIZE CALLOUTS INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS. PROVIDE ANY APPLICABLE DUCT LINING AND INSULATION PER THESE PLANS AND SPECIFICATIONS. NOMINAL OUTER DUCT DIMENSIONS ARE NET INSIDE DIMENSIONS PLUS 2X INSULATION THICKNESS.
- DUCTWORK SHALL BE 4.0" PRESSURE CLASS UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
- CONSTRUCT DUCTWORK ACCORDING TO SMACNA AND INTERNATIONAL **ENERGY CONSERVATION CODE SECTION C403.11.2.**
- PROVIDE TURNING VANES IN ALL MITERED RECTANGULAR DUCT ELBOWS &
- PROVIDE MANUAL BALANCING DAMPERS ON ALL NEW AND MODIFIED DUCT BRANCHES TO AIR INLETS & OUTLETS. LOCATE DAMPERS AS CLOSE TO MAIN TRUCK DUCT CONNECTIONS AS POSSIBLE. WHERE BRANCH DUCTWORK IS INACCESSIBLE (SUCH AS ABOVE HARD LID CEILING SYSTEM), PROVIDE BALANCING DAMPER AT REGISTER, GRILLLE, OR DIFFUSER,
- PROVIDE MOTORIZED DAMPERS ON OUTDOOR AIR SUPPLY, EXHAUST OPENINGS, AND RELIEF OUTLETS. DAMPERS SHALL HAVE A MAXIMUM LEAKAGE RATE OF 4 CFM PER SQUARE FOOT AT 1" W.C.
- 13. RELIEF GRAVITY DAMPERS SHALL HAVE A MAXIMUM LEAKAGE RATE OF 20 CFM PER SQUARE FOOT AT 1" W.C.. DAMPERS SMALLER THAN 24" IN EITHER DIRECTION SHALL HAVE A MAXIMUM LEAKAGE RATE OF 40 CFM PER SQUARE FOOT AT 1" W.C..
- PROVIDE COMPLETE CONDENSATE DRAINAGE SYSTEM FOR ALL SPLIT SYSTEMS AND SIMILAR SYSTEMS WITH REFRIGERANT OR CHILLED WATER COOLING. FIELD ROUTE DRAINAGE PIPING FROM EQUIPMENT TO NEAREST DRAIN LOCATION (SUCH AS SERVICE SINK, FUNNEL DRAIN, ETC.) SLOPE NON-PRESSURIZED DRAIN PIPING TO DRAIN LOCATION. PIPING & FITTINGS SHALL BE COPPER. MINIMUM PIPE SIZE SHALL BE 3/4". INCREASE PIPE SIZE WHERE APPLICABLE PER INTERNATIONAL MECHANICAL CODE
- SIZE REFRIGERANT PIPING ON SPLIT SYSTEM UNITS PER MANUFACTURER'S RECOMMENDATION.
- PROVIDE 5W/FT HEAT TRACE FOR ALL CW PIPING & P-TRAPS IN UN-HEATED
- 17. TOTAL STATIC PRESSURE NOTED IN SCHEDULES SHALL BE ASSUMED TO

INCLUDE DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.

- 18. AIR INLET & OUTLET SIZES SHOWN ON PLANS ARE NECK SIZES. PROVIDE ALL ADDITIONAL HARDWARE NECESSARY REQUIRED TO INSTALL AIR INLETS & OUTLETS IN CEILING SYSTEM.
- 19. WALL REGISTER-TYPE AIR INLETS & OUTLETS SHALL BE INSTALLED AT 7" AFF MINIMUM ELEVATION.
- 20. AIR INLETS & OUTLETS IN UNFINISHED SPACES OR OPEN CEILING AREAS SHALL BE INSTALLED AT 96" AFF UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
- 21. ALL PRESSURES LISTED ARE GAUGE PRESSURES UNLESS OTHERWISE NOTED.
- WATER PIPE CONNECTIONS TO AIR HEATING AND COOLING COILS SHALL BE MANUFACTURED & CONNECTED IN COUNTER-FLOW CONFIGURATION BETWEEN WATER & AIR.
- PROVIDE COMPLETE DRAINAGE PIPING SYSTEM FOR DISCHARGE FROM ALL AIR VENTS INSTALLED ON HYDRONIC PIPING. FIELD ROUTE DRAINAGE PIPING FROM EQUIPMENT TO NEAREST DRAIN LOCATION (SUCH AS SERVICE SINK. FUNNEL DRAIN, ETC.). DRAIN LOCATIONS SHALL BE IN UTILITY ROOMS OR OTHER NON-PUBLIC AREAS. SLOPE NON-PRESSURIZED DRAIN PIPING TO DRAIN LOCATION. PIPING & FITTINGS SHALL BE TYPE-L COPPER WITH BRAZED OR SWEAT FITTINGS. MINIMUM PIPE SIZE SHALL BE 3/4".
- PROVIDE SEISMIC SUPPORT, BRACING, AND ATTACHMENTS FOR DUCTWORK. PIPING, AND EQUIPMENT.
- SEISMIC PROVISIONS SHALL BE PROVIDED TO MEET REQUIREMENTS FOR ASCE-7 SEISMIC DESIGN CATEGORY D & RISK CATEGORY IV.
- COORDINATE ALL MECHANICAL & PLUMBING WORK WITH OTHER TRADES TO INSURE PROPER AND ADEQUATE INTERACE OF THEIR WORK WITH THE WORK SHOWN ON THESE DOCUMENTS. CONTRACTR SHALL PROVIDE COORDINATED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.

- 27. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70 STANDARDS AND LOCAL REQUIREMENTS.
- 28. ALL FIELD WIRING SHALL REQUIRE AN ELECTRICAL PERMIT AND SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.
- 29. A SHORT DASH IN A SCHEDULE TABLE CELL INDICATES THAT THE COLUM HEADING IS NOT USED OR NOT APPLICABLE TO THAT SCHEDULED ITEM.
- MAINTAIN AND RESTORE (IF INTERRUPTED) ALL CONDUITS & CONDUCTORS. PIPING, & DUCTWORK PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.
- REMOVE ALL ABANDONED DUCTWORK, PIPING, CONTROLS, WIRING ETC., WHERE ACESSBILE IN RENOVATED AREAS.
- WHERE CONTROLS ARE DEMOLISHED, REMOVE WIRING BACK TO NEAREST CONTROL PANEL OR JUNCTION BOX. REMOVE ACCESSIBLE CONDUIT, JUNCTION BOXES, ETC.
- 33. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL EQUIPMENT AND COMPONENTS REMOVED DURING DEMOLITION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL CUTTING & RESTORATION WORK NECESSARY IN EXISTING AREAS OF THE BUILDINGS WHERE WORK IS SHOWN ON THESE DOCUMENTS. RESTORATION SHALL INCLUDE PATCHING TO MATCH EXISTING SURROUNDING CONSTRUCTION AND FINISHES. PATCHED AREAS SHALL BE RE-PAINTED FULL HEIGHT OF WALL, FROM CORNER TO WALL CORNER.

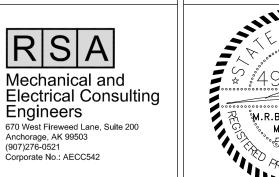


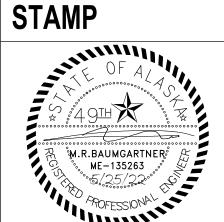


MECHANICAL ENGINEER RSA ENGINEERING, INC.

ARCHITECT/ENGINEER OF RECORD

670 W. FIREWEED LN, SUITE 200 **ANCHORAGE, ALASKA 99503** 907.276.0521 M.R. BAUMGARTNER, P.E.





OFFICE OF CONSTRUCTION **AND FACILITIES MANAGEMENT**

U.S. Department of Veterans Affairs

DRAWING TITLE MECHANICAL LEGENDS & ABBREVIATIONS APPROVED:

100% CONSTRUCTION DOCUMENTS FLS

FULLY SPRINKLERED

PHASE

PROJECT TITLE EHRM INFRASTRUCTURE **UPGRADES** LOCATION

ISSUE DATE

FORT MEADE, SOUTH DAKOTA

EMM/MRB

MEM/NSK

BUILDING NUMBER DRAWING NUMBER CHECKED BY DRAWN BY **MG-001**

PROJECT NUMBER

568-21-701

AIR CONDITIONING UNIT SCHEDULE - EVAPORATOR FAN DATA **ELECTRICAL DATA** NOMINAL TOTAL SENSIBLE COOLING COOLING | W.G.) | FILTER | FLA | MCA | MOCP | VOLTS | PH | (LBS) | REMARKS 0.50 0.30 MERV 8 | 38 A | 48 A | 50 A

PROVIDE WITH FIELD INSTALLED AIR DISTRIBUTION PLENUM OPTION THROUGH BOTTOM OF UNIT

2. COMPUTER ROOM AIR CONDITIONING UNIT WITH DEDICATED HUMIDIFICATION AND DEHUMIDIFICATION.

3. PROVIDE WITH CONDENSATE PUMP, CONDENSATE PUMP SHALL BE POWERED BY INDOOR UNIT 4. PROVIDE WITH DDC INTERFACE OPTION. DDC INTERFACE BOX SHALL BE MOUNTED SEPARATE FROM INDOOR UNIT AND SHALL REQUIRE SEPARATE 120V/1PH POWER SUPPLY

AIR	COND	ITIO	NING L	JNIT S	CHED	ULE -	CO	ND	ENS	SING	UI	TIV	
						NOMINAL	ELEC1	RICAL D	DATA				
SYMBOL	SERVICE	MFGR	MODEL	TYPE	MOUNTING	TONS	FLA	MCA	MOP	VOLTS	PH	WEIGHT	REMARKS
53-CU-1	53-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
88-CU-1	88-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
89-CU-1	89-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
90-CU-1	90-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
113-CU-1	113-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
113-CU-2	113-IU-2	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
113-CU-B	113-IU-B	LIEBERT	PFD037A-H	AIR-COOLED		3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-1	145-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-2	145-IU-2	LIEBERT	PFD037A-H	AIR-COOLED		3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-3	145-IU-3	LIEBERT	PFD037A-H	AIR-COOLED		3.0	24.0	29.0	45 A	208 V	1	241	
145-CU-4	145-IU-4	LIEBERT	PFD054A-L	AIR-COOLED	PAD	4.0	23.4	28.4	45 A	208 V	1	351	
145-DC-1	145-CRAC-1	LIEBERT	MCL220E2AD	AIR-COOLED	PAD	20	22.8	24.2	25 A	208 V	3	1547	PROVIDE W/ 60" STAND LEGS, PRE-ECONOMIZER W/ SEPARATE ELECTRICAL CONNECTION 208/3PH 5.2 FLA.
145-DC-2	145-CRAC-2	LIEBERT	MCL220E2AD	AIR-COOLED	PAD	20	22.8	24.2	25 A	208 V	3	1547	PROVIDE W/ 60" STAND LEGS, PRE-ECONOMIZER W/ SEPARATE ELECTRICAL CONNECTION 208/3PH 5.2 FLA.
145-DC-3	145-CRAC-3	LIEBERT	MCL220E2AD	AIR-COOLED	PAD	20	11.2	11.9	15 A	460 V	3	1547	PROVIDE W/ 60" STAND LEGS, PRE-ECONOMIZER W/ SEPARATE ELECTRICAL CONNECTION 460/3PH 2.6 FLA.
146-CU-1	146-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
148-CU-1	148-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
148-CU-2	148-IU-2	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
148-CU-3	148-IU-3	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	
T296-CU-1	T296-IU-1	LIEBERT	PFD037A-H	AIR-COOLED	PAD	3.0	24.0	29.0	45 A	208 V	1	241	

_															
	AIR INLET/OUTLET SCHEDULE														
	SYMBOL	MFGR	MODEL	TYPE	USE	MATERIAL	FINISH	CFM	FACE SIZE (IN)	NC	THROW	REMARKS			
	A	TITUS	TMS	LAY-IN	SUPPLY	STEEL	PER ARCH	PER PLANS	PER PLANS	<25	4-WAY	ADJUSTABLE THROW, OPTIONAL DAMPER FOR BALANCING, BORDER/FRAME TYPE AS REQUIRED FOR MOUNTING.			
	В	TITUS	50F	LAY IN	RETURN	ALUMINUM	PER ARCH	PER PLANS	PER PLANS	<25		1/2" EGGCRATE CORE, BORDER/FRAME TYPE AS REQUIRED FOR MOUNTING.			
	С	TITUS	300FL	CEILING	SUPPLY	ALUMINUM	PER ARCH	PER PLANS	PER PLANS	<25		3/4" BLADE SPACING, DOUBLE DEFLECTION, FRONT BLADES PARALLEL TO SHORT DIMENSION, INDIVIDUALLY ADJUSTABLE BLADES,			
												FRAME TYPE AS REQUIRED FOR MOUNTING			

AIR HANDLER SCHEDULE

ESP IN. TSP IN. MOTOR DATA ELECTRIC HEAT | SUPPLY FAN NOMINAL TONS TOTAL MBH EWB DEG F AMBIENT DEG F kW TYPE CFM ARRANGEMENT W.C. W.C. # MOTORS HP VOLTS PH MCA SQ. FT. RATING O/A % REMARKS 13.9 MERV 13 30 LOW LEAKAGE DAMPERS, DX COOLING, ECONOMIZER OPERATION, SINGLE POINT ELECTRICAL CONNECTION, PACKAGED DDC CONTROLS, ECONOMIZER HOOD, BAROMETRIC RELIEF HOOD.

0.50 | 0.30 0.50 0.30

SYSTEM POINTS LIST SYSTEM POINT DESCRIPTION	· 					ALOG					Т				DIG	SITAL				Τ				SYS	STEM		ΔΤΙΙ	IRES	_	_			NOTES
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														11 01										uL/ u	IVIO				+			10	
	TEMPERATURE	PKESSURE RH	KW	BTU HR	GPM	PERCENT	RELATIVE HUMIDITY		F	PE RC :N	STATUS ON/OFF	FILTER STATUS	STATUS OPEN/CLOSED	STATUS NO OE STABTS	TIMED OVERRIDE	i	ON/OFF	OPEN/CLOSE	LOCK OU I ENABLE/DISABLE	HIGH ANALOG	LOW ANALOG	HIGH BINARY	LOW BINARY	SENSOR FAII	FLOW FAIL	COMMUNICATIONS FAIL	DIAGNOSTICS	GENERAL ALARM	SUPPLICA	GRAPHICS	TIME SCHEDULING		
COMPUTER ROOM AIR CONDITIONING UNIT																												+	+			1	,2
DISCHARGE AIR TEMPERATURE	Х																												У	Х	(
DISCHARGE STATIC PRESSURE		x		+		\top		1												1				\dagger				\top	_	Х		\top	
RETURN AIR HUMIDITY		X		+		\top		+										\dagger		\dagger				+				\top		X X		\top	
SUPPLY FAN STATUS						\top		+			Х							\top		†		Х)					\top		Х	_	\top	
HUMIDIFIER COMMAND	\Box			+		\top					Х									\dagger				\top				\top		Х		\top	
DISCHARGE AIR TEMPERATURE SETPOINT	\vdash			+		\top		+	X									\dagger	+	\dagger				+				\top	_	Х		\top	
DISCHARGE AIR PRESSURE SETPOINT	\Box					\top		\rightarrow	X											\dagger				+				\top	_	X X	_	\top	
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COOLING ENABLE																			Х									Х	У	Х			
SCHEDULE COMMAND																													X	Х			
UNIT ENABLE COMMAND																			X	t)							Х	X		
FIRE ALARM SHUTDOWN																	Х												У	Х		8	3
UNIT ALARM																												Х	7	x x			
RACK TEMPERATURE SENSOR (3 EACH)									Х																				X	Х	(3	
RACK HUMIDITY SENSOR (3 EACH)									Х																			\perp	X	X X		4	
EMPERATURE AND HUMIDITY SENSOR (HE/TE)																				+								\dashv	+	_			
SPACE TEMPERATURE	Х																			X	X			X		X	Х	\mathbf{x}^{\dagger}	+	X X		5	5,6
SPACE HUMIDITY		X																		х				Х			Х		_	x x	_	_	5,6
EAK DETECTION																													- >	x x	(7	•
ROOF TOP UNIT																	H			-			\perp			\square		\dashv	+	+		+	
H-O-A CONTROL	\vdash		+			+		\dashv		++-	\vdash			+			H	+	X	+				+	+			+	+	x x		+	
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S/A TEMP SET POINT	X		+			+		\dashv	X					+				+	++	+				+	+	\vdash		\dashv		x x		+	
S/A TEMP INDICATION	X		\vdash			+		+	+					+				+		_X	X			+				+		x x		+	
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COOLING STAGE (ON/OFF/STAGE 1-X)						\top		\dashv										\top		\dagger	T			\dagger				\top	_	x x		\top	
SUPPLY FAN STATUS						\top											х							+				\uparrow	7	x x		\top	
ALARM SETPOINT						\top		1	\top								П			1				+				\top	+	x x		8	3

3. PROVIDE HIGH, MIDDLE, AND LOW TEMPERATURE SENSORS IN RACK. 4. PROVIDE HIGH, MIDDLE, AND LOW HUMIDITY SENSORS IN RACK.

5. SPACE TEMPERATURE AND HUMIDITY SENSORS MAY BE PROVIDED AS SEPARATE SENSORS OR COMBINED SENSOR UNITS.

6. RACK TEMPERATURE AND HUMIDITY SENSORS MAY BE PROVIDED AS SEPARATE SENSORS OR COMBINED SENSOR UNITS. . WALL MOUNTED REFRIGERANT LEAK DETECTION SENSOR. 8. FIRE ALARM SHUTDOWN IS FOR RETURN AIR DUCT SMOKE DETECTORS IN UNITS RATED OVER 2,000 CFM.

SEQUENCE OF OPERATIONS

MERV 8 | 38 A | 48 A | 50 A | 208 V | 1 | 225

MERV 8 | 38 A | 48 A | 50 A | 208 V | 1 | 225

COMPUTER ROOM AIR CONDITIONING UNIT - MCR SPACES

1.1 DESCRIPTION: COMPUTER ROOM AIR CONDITIONING UNITS TO PROVIDE TEMPERATURE AND HUMIDITY CONTROL TO THE SPACES THAT THEY SERVE.

1.2 SPACE CONDITIONING: CRAC UNITS SHALL RECEIVE TEMPERATURE AND HUMIDITY SETPOINTS FROM THE BUILDING DDC SYSTEM. THE UNITS SHALL OPERATE DURING BOTH OCCUPIED AND UNOCCUPIED HOURS USING MANUFACTURER'S PRE-PROGRAMMED SEQUENCES TO HEAT, COOL, HUMIDIFY, AND DE-HUMIDIFY THE SPACE TO MAINTAIN SPACE CONDITION REQUIREMENTS SPECIFIED FOR THE DATA CENTER EQUIPMENT.

1.3 MULTI-UNIT OPERATION AND STAGING:

1.3.1 CRAC UNITS SERVING MCR SPACE SHALL BE CONNECTED TO CRAC UNIT MANUFACTURER'S WALL-MOUNTED NETWORK SWITCH WITH TOUCH-SCREEN DISPLAY.

1.3.2 CRAC UNITS SHALL BE CONFIGURED USING MANUFACTURER'S CONTROLS FOR AUTOMATIC UNIT STAGING AND REDUNDANT OPERATION, AS WELL AS MOST EFFICIENT SPACE CONDITIONING OPERATION. INITIAL PROGRAMMING SHALL BE ONE UNIT IN OPERATION, SECOND UNIT ON STAND-BY, AND THIRD UNIT ON LAG ROTATION.

1.4 SPACE MONITORING:

1.4.1 THE DDC SYSTEM SHALL MONITOR THE SPACE USING DEDICATED TEMPERATURE AND HUMIDITY SENSORS. IF CONDITIONS IN THE SPACE ARE ABOVE OR BELOW THE ALLOWABLE CONDITIONS (USER ADJUSTABLE MIN AND MAX SETPOINTS FOR TEMPERATURE AND HUMIDITY) FOR 5 MIN. (ADJUSTABLE) OR MORE, AN ALARM SHALL BE INITIATED ON THE DDC SYSTEM.

1.4.2 THE CRAC UNITS SHALL MONITOR RACK INLET TEMPERATURE AND HUMIDITY USING WIRED RACK-MOUNTED SENSORS. EACH UNIT SHALL BE PROVIDED WITH A MINIMUM OF (3) SENSORS; TO BE LOCATED AT LOW / MID / HIGH LEVELS AT A SPECIFIC RACK.

1.5 FIRE ALARM SHUTDOWN: THE HVAC SYSTEM SHALL BE DE-ACTIVATED ON A FIRE ALARM SIGNAL FROM THE BUILDING FIRE ALARM SYSTEM (INCLUDING THE CLEAN AGENT SUPPRESSION SYSTEM SERVING THE MCR). THIS IS DONE THROUGH AN INTER-LOCKING SAFETY RELAY THAT REMOVES CONTROL POWER TO THE

1.6 EMERGENECY SHUTDOWN: THE CRAC UNITS WILL BE DE-ACTIVATED IF ANY OF THE EMERGENCY SHUT-OFF BUTTON(S) IN THE MCR ARE PRESSED.

1.7 HUMIDITY SENSOR AND TEMPERATURE SENSOR

1.7.1 DDC MONITORING (TE): DDC TO MONITOR AND TREND THE ROOM AND RACK TEMPERATURE.

1.7.2 DDC MONITORING (HE): DDC TO MONITOR AND TREND THE ROOM AND RACK RELATIVE HUMIDITY.

1.7.3 ALARM: TEMPERATURE (TE): DDC TO MONITOR TEMPERATURE AND SEND AN ALARM IF TEMPERATURE EXCEEDS TEMPERATURE SETPOINT BY 5 °F FOR MORE THAN 5 MINUTES (USER ADJUSTABLE FOR TIME AND VALUE OUTSIDE RANGE).

1.7.4 ALARM: HUMIDITY SENSOR (HE): DDC TO MONITOR RELATIVE HUMIDITY AND SEND AN ALARM IF HUMIDITY EXCEEDS TEMPERATURE SETPOINT BY 2% FOR MORE THAN 5 MINUTES (USER ADJUSTABLE FOR TIME AND VALUE OUTSIDE RANGE).

1.8 HUMIDITY AND TEMPERATURE SETPOINTS - MCR SPACES

1.8.1 TEMPERATURE

1.8.1.1 LOW TEMPERATURE SETPOINT: 65°F (USER ADJUSTABLE)

1.8.1.2 HIGH TEMPERATURE SETPOINT: 75 °F (USER ADJUSTABLE)

1.8.2 HUMIDITY

1.8.2.1 LOW HUMIDITY SETPOINT 30% RH (USER ADJUSTABLE)

1.8.2.2 HIGH HUMIDITY SETPOINT 60% RH (USER ADJUSTABLE)

1.9 LEAK DETECTORS

1.9.1 DDC SHALL MONITOR LEAK DETECTORS. IF REFRIGERANT IS DETECTED BY LEAK DETECTOR, AN ALARM SHALL BE TRIGGERED ON THE DDC SYSTEM.

COMPUTER ROOM AIR CONDITIONING UNIT - TR SPACES

2.1 DESCRIPTION: COMPUTER ROOM AIR CONDITIONING UNITS TO PROVIDE TEMPERATURE AND HUMIDITY CONTROL TO THE SPACES THAT THEY SERVE.

2.2 SPACE CONDITIONING: CRAC UNITS SHALL RECEIVE TEMPERATURE AND HUMIDITY SETPOINTS FROM THE BUILDING DDC SYSTEM. THE UNITS SHALL OPERATE DURING BOTH OCCUPIED AND UNOCCUPIED HOURS USING MANUFACTURER'S PREPROGRAMMED SEQUENCES TO HEAT, COOL, DEHUMIDIFY, AND HUMIDIFY THE SPACE TO MAINTAIN CONDITION REQUIREMENTS SPECIFIED FOR THE DATA CENTER EQUIPMENT.

2.3 SPACE CONDITIONING MONITORING: THE DDC SYSTEM SHALL MONITOR THE SPACE USING DEDICATED TEMPERATURE AND HUMIDITY SENSORS. IF CONDITIONS IN THE SPACE ARE ABOVE OR BELOW THE ALLOWABLE CONDITIONS (USER ADJUSTABLE MIN AND MAX SEPOINTS FOR TEMPERATURE AND HUMIDITY) FOR 5 MIN (ADJUSTABLE) OR MORE, AN ALARM SHALL BE INITIATED ON THE DDC SYSTEM.

2.4 FIRE ALARM SHUTDOWN: THE HVAC SYSTEM WILL SHUTDOWN ON A FIRE ALARM SIGNAL FROM THE BUILDING FIRE ALARM SYSTEM. THIS IS DONE THRU AN INTERLOCKING SAFETY RELAY THAT REMOVES CONTROL POWER TO THE DDC.

2.4.1 FAN(S) SHALL BE DE-ACTIVATED.

2.4.2 COMPRESSOR(S) SHALL BE DE-ACTIVATED.

2.5 HUMIDITY SENSOR AND TEMPERATURE SENSOR:

2.5.1 DDC MONITORING (TE): DDC TO MONITOR AND TREND THE ROOM TEMPERATURE.

2.5.2 DDC MONITORING (HE): DDC TO MONITOR AND TREND THE ROOM RELATIVE HUMIDITY.

2.5.3 ALARM: TEMPERATURE SENSOR (TE): DDC TO MONITOR TEMPERATURE AND SEND AN ALARM IF TEMPERATURE EXCEEDS TEMPERATURE SETPOINT BY 5 °F FOR MORE THAN 5 MINUTES (USER ADJUSTABLE FOR TIME AND VLUE OUTSIDE OF RANGE).

2.5.4 ALARM: HUMDITY SENSOR (HE): DDC TO MONITOR RELATIVE HUMIDITY AND SEND AN ALARM UPON FAILURE TO MEET HUMIDITY SETPOINTS.

2.6 HUMIDITY AND TEMPERATURE SETPOINTS - TR SPACES

2.6.1 TEMPERATURE

2.6.1.1 LOW TEMPERATURE SETPOINT: 41 °F

2.6.1.2 HIGH TEMPERATURE SETPOINT: 95 °F

2.6.2 HUMIDITY

2.6.2.1 LOW HUMIDITY SETPOINT: 30% RH

2.6.2.2 HIGH HUMIDITY SETPOINT: 80% RH

ROOF TOP UNIT

3.1 DESCRIPTION: ROOF TOP UNIT PROVIDES HEATED AND COOLED SUPPLY AIR TO REMODELED OIT OFFICE SPACES.

3.2 OPERATION MODE: UNIT SHALL BE CONTROLLED BY THE DDC VIA AN OCCUPIED/UNOCCUPIED SCHEDULE.

3.2.1 DAY MODE:

3.2.1.1 THE OUTSIDE AIR DAMPERS SHALL OPEN PAST MINIMUM TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

3.2.1.2 THE RETURN AIR DAMPER SHALL MODULATE WITH THE OUTSIDE AIR DAMPER SUCH THAT WHEN THE OUTSIDE AIR DAMPER IS OPEN, THE RETURN AIR DAMPER IS CLOSED.

3.2.1.3 THE SUPPLY AIR TEMPERATURE SHALL BE LINEARLY RESET BETWEEN THE TWO POINTS AS FOLLOWS: WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 60 °F THE SUPPLY AIR TEMPERATURE SHALL BE MAINTAINED AT 55 °F. WHEN THE OUTSIDE AIR TEMPERATURE IS AT 30 °F THE SUPPLY AIR TEMPERATURE SHALL BE MAINTAINED AT 65 °F.

3.2.2 NIGHT MODE:

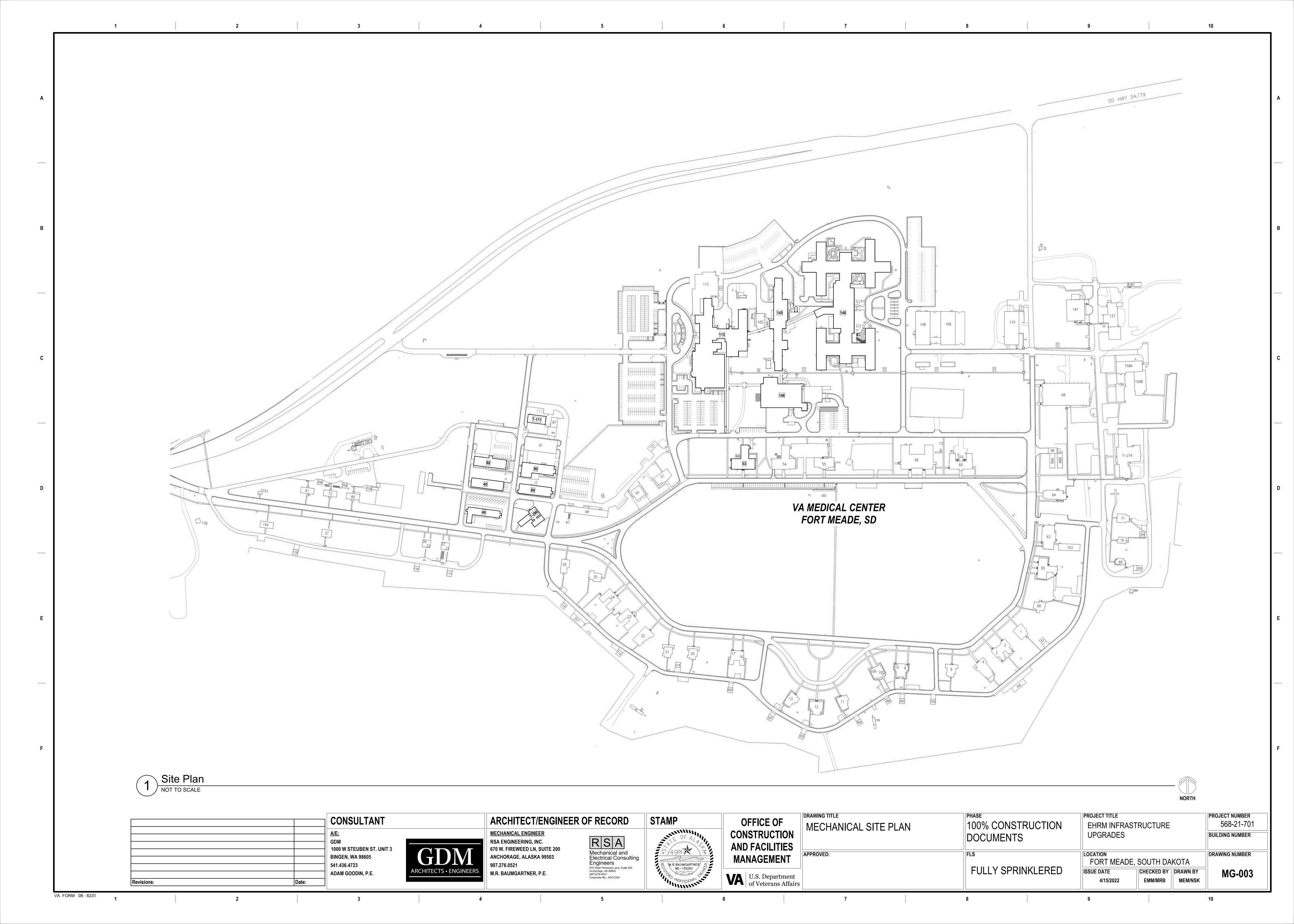
3.2.2.1 DURING NIGHT MODE OF OPERATION, RTU WILL RUN BASED UPON ZONE NIGHT SET BACK TEMPERATURE. IF ANY ZONE DROPS BELOW NIGHT SET BACK SETPOINT THE UNIT SHALL START AND RUN WITH THE OUTSIDE AIR DAMPERS FULL CLOSED AND THE RETURN AIR DAMPERS 100% OPEN.

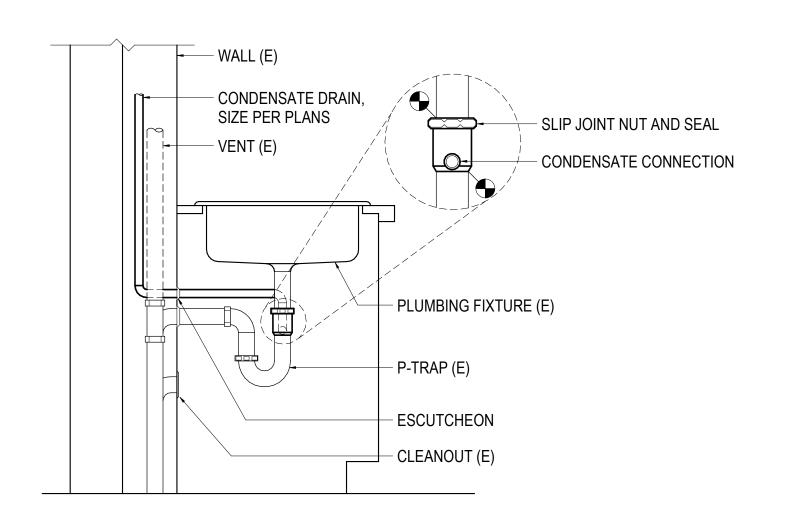
3.3 ON LOW SUPPLY AIR TEMPERATURE ALARM (INITIALLY 40 °F, ADJUSTABLE), DELAY TWO MINUTES, THEN O/A DAMPER WILL FULL CLOSE, R/A DAMPER WILL FULLY OPEN, AND ALARM SHALL SIGNAL. PROVIDE AUTOMATIC RESET OF ALARM AFTER FIVE MINUTES.

3.4 ON SMOKE DETECTION, THE FAN SHALL STOP, O/A DAMPERS WILL FULLLY CLOSE AND R/A DAMPERS WILL FULLY OPEN. INTERCONNECT WITH FIRE ALARM SYSTEM SUCH THAT UPON SMOKE DETECTION FIRE ALARM SYSTEM SHALL BE SIGNALED AND CONVERSELY UPON ACTIVATION OF THE FIRE ALARM, SYSTEM SHALL STOP THE FAN AS INDICATED ABOVE. COORDINATE WITH THE FIRE ALARM SYSTEM.

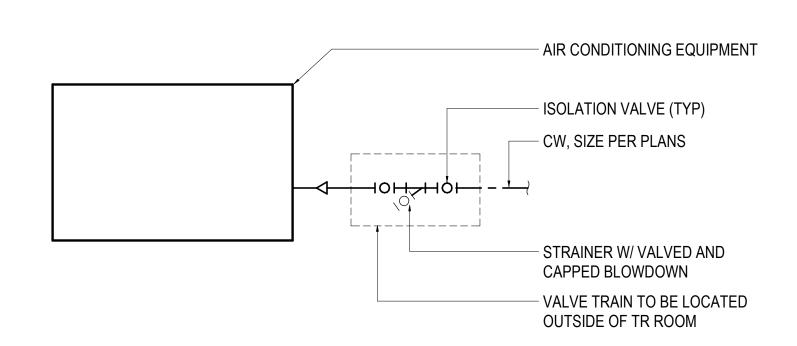
	CONSULTAN	T	ARCHITECT/ENGINEE	R OF RECORD	STAMP	OFFICE OF	MECHANICAL SCHEDULES	PHASE 100% CONSTRUCTION	PROJECT TITLE EHRM INFRASTRUCTURE	PROJECT NUMBER 568-21-701
	A/E: GDM 1000 W STEUBEN ST.	INIT 2	MECHANICAL ENGINEER RSA ENGINEERING, INC. 670 W. FIREWEED LN, SUITE 200	RSA Mechanical and	OF A	CONSTRUCTION AND FACILITIES		DOCUMENTS	UPGRADES	BUILDING NUMBER
	BINGEN, WA 98605 541.436.4723	GDM	ANCHORAGE, ALASKA 99503 907.276.0521	Electrical Consulting Engineers 670 West Fireweed Lane Suite 200	M.R.BAUMGARTNER® ME-135263	MANAGEMENT	APPROVED:	FLS CODDING FORD	FORT MEADE, SOUTH DAKOTA	
Revisions:	ADAM GOODIN, P.E. Date:	ARCHITECTS • ENGINEERS	M.R. BAUMGARTNER, P.E.	Anchorage, AK 99503 (907)276-0521 Corporate No.: AECC542	S S S S S S S S S S S S S S S S S S S	U.S. Department of Veterans Affairs	S	FULLY SPRINKLERED	ISSUE DATE 4/15/2022 CHECKED BY EMM/MRB MEM/N	

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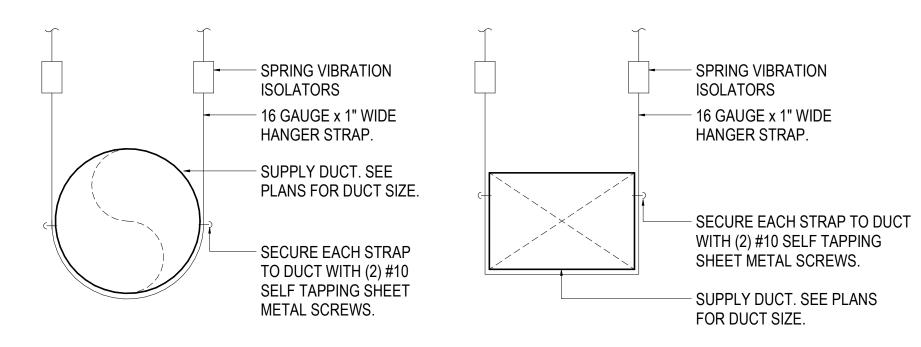




INDIRECT DRAIN DETAIL NOT TO SCALE

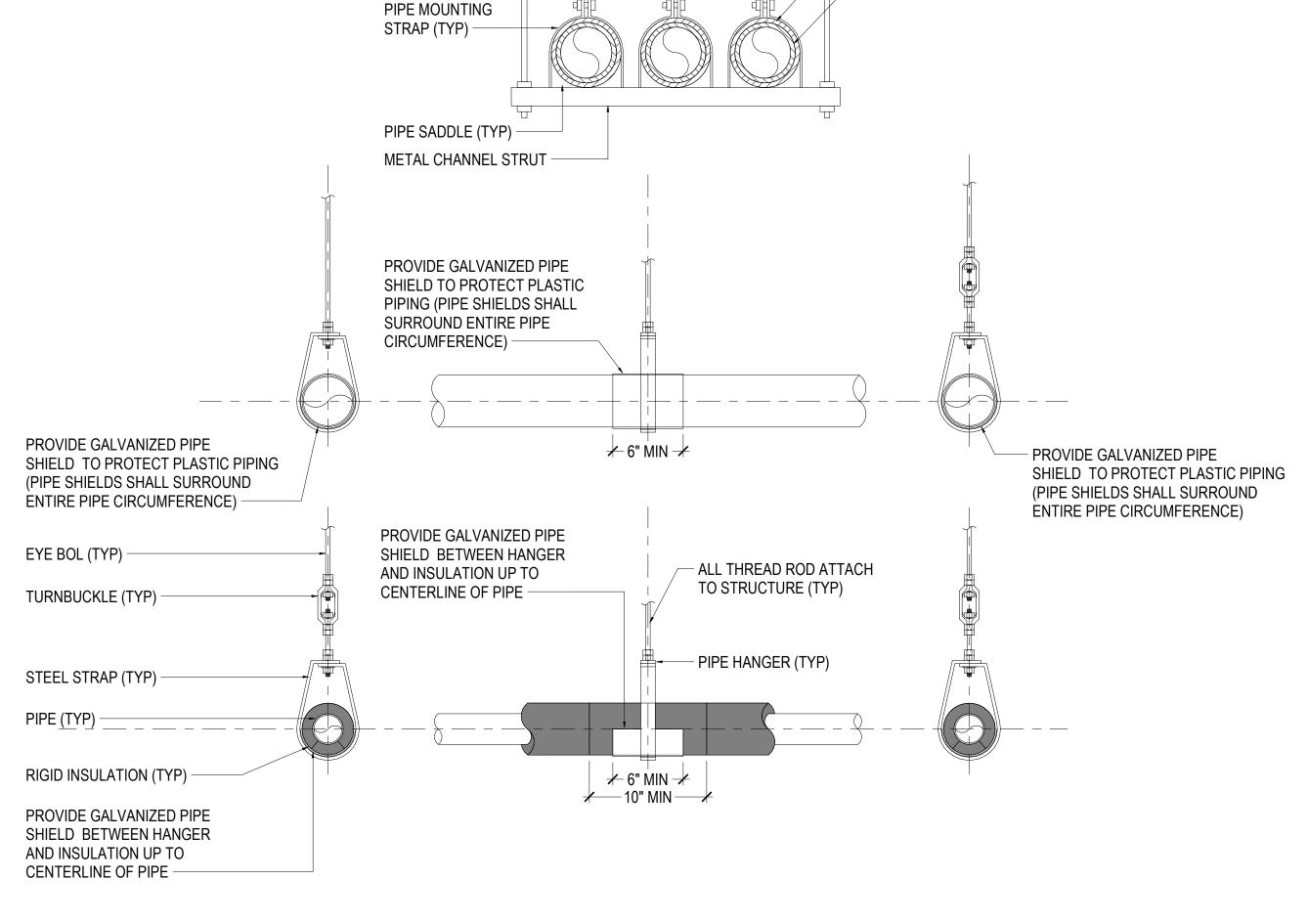


HUMIDIFIER WATER CONNECTION DETAIL NOT TO SCALE



1. PROVIDE AND CONSTRUCT DUCT HANGERS AND SUPPORTS PER 2006 SMACNA HVAC DUCT CONSTRUCTION STANDARDS FIGURE 5-5. 2. LENGTH OF SUPPORTS, STRAP SIZES, AND SIZES OF STEEL ANGLES AS REQUIRED FOR DUCT SIZE AND CONFIGURATION. 3. MAXIMUM 10' SPACING BETWEEN SUPPORTS.

TYPICAL DUCT SUPPORT DETAIL



HANGER ROD UP TO

STRUCTURE (TYP)

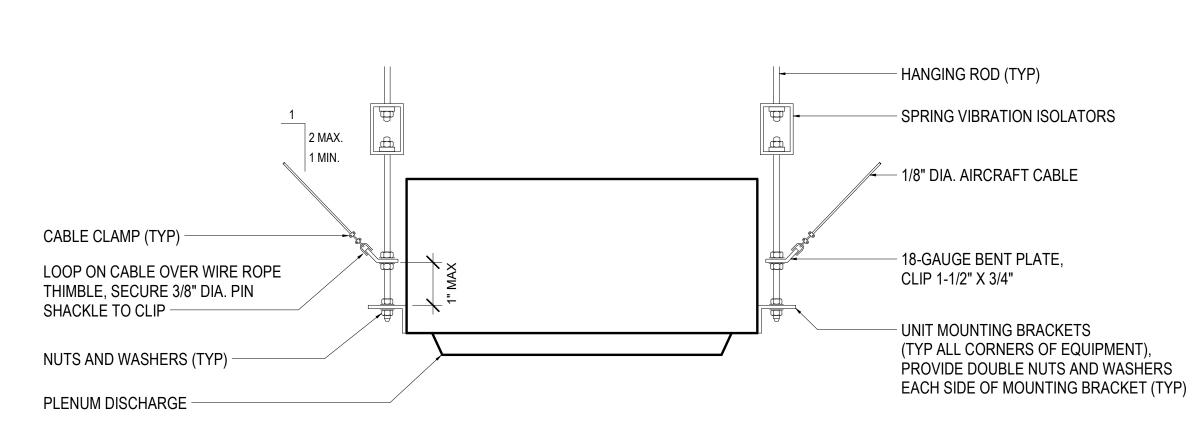
ATTACHMENT TO CEILING

- GALVANIZED PIPE SHIELD TO

- PIPING (TYP)

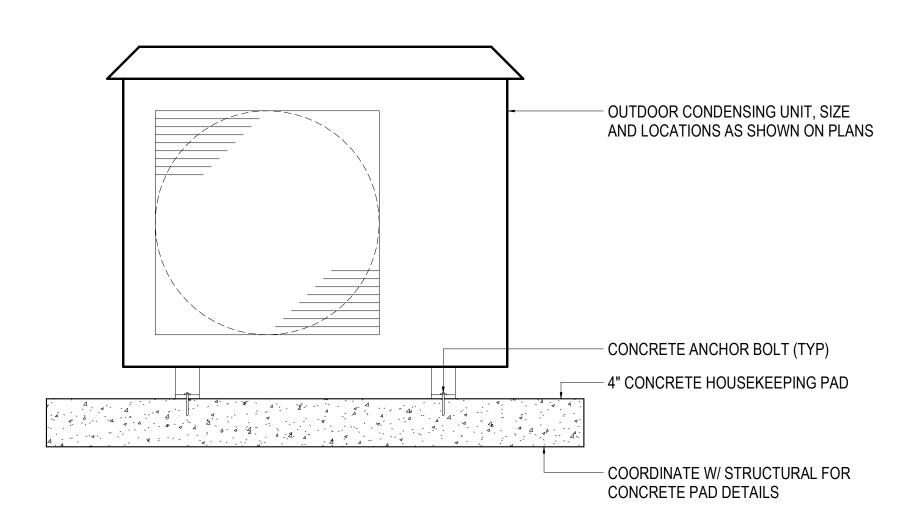
PROTECT PLASTIC PIPING (TYP)



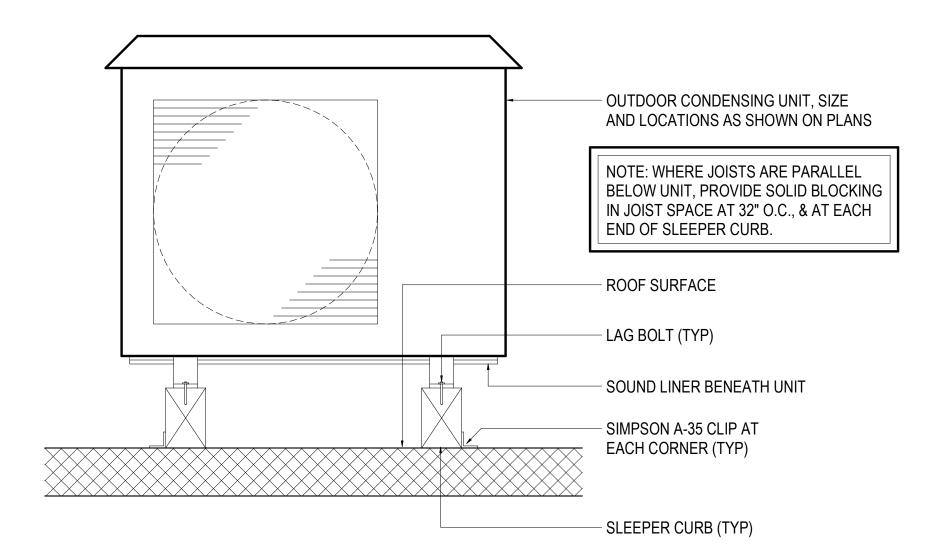


INDOOR UNIT WITH PLENUM MOUNTING DETAIL NOT TO SCALE

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OUTDOOR CONDENSING UNIT PAD INSTALLATION DETAIL (6) NOT TO SCALE



OUTDOOR CONDENSING UNIT ROOF INSTALLATION DETAIL NOT TO SCALE

		CONSULTANT	
		A/E: GDM 1000 W STEUBEN ST. UNIT 3 BINGEN, WA 98605 541.436.4723 ADAM GOODIN, P.E.	GDIV ARCHITECTS · ENGIN
Revisions:	Date:		

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OFFICE OF CONSTRUCTION AND FACILITIES **MANAGEMENT** U.S. Department of Veterans Affairs

	MECHANICAL DETAILS	100% CONSTRUCTION DOCUMENTS	PROJECT TITLE EHRM INFRASTRUC UPGRADES	PROJECT NUMBER 568-21-701 BUILDING NUMBER	
rs	APPROVED:				MG-004