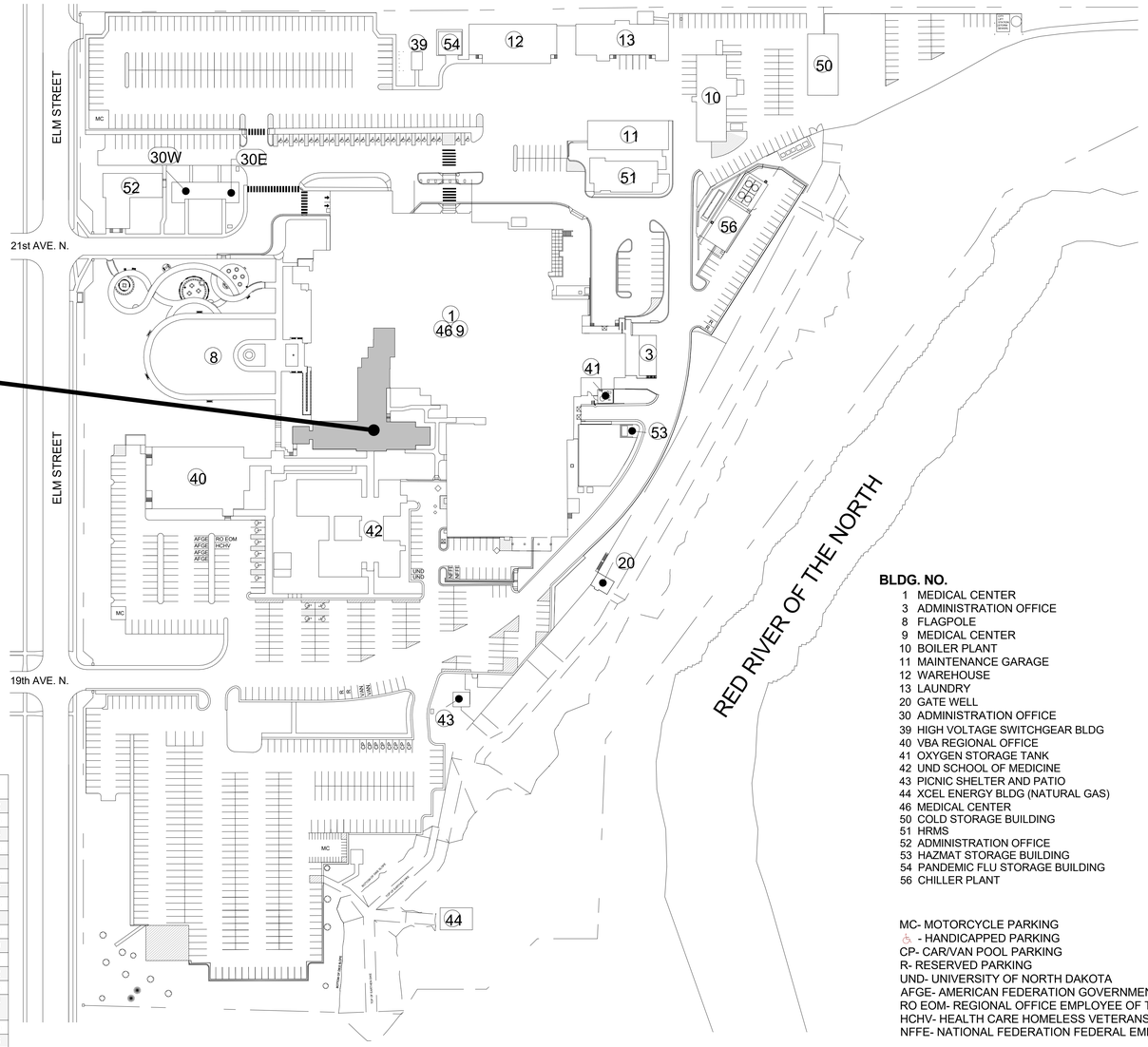
EHRM TRAINING & ADMIN SPACE SUPPORT

FARGO VA HEALTH CARE SYSTEM
2101 ELM STREET N.
FARGO, ND 58102

PROJECT NO. 437-21-225

VA | U.S DEPARTMENT OF VETERAN'S AFFAIRS
VETERAN'S HEALTH ADMINISTRATION

PROJECT LOCATION



BLDG. NO.
1 MEDICAL CENTER
3 ADMINISTRATION OFFICE
8 FLAGPOLE
9 MEDICAL CENTER
10 BOILER PLANT
11 MAINTENANCE GARAGE
12 WAREHOUSE
13 LAUNDRY
20 GATE WELL
30 ADMINISTRATION OFFICE
39 HIGH VOLTAGE SWITCHGEAR BLDG
40 VBA REGIONAL OFFICE
41 OXYGEN STORAGE TANK
42 UND SCHOOL OF MEDICINE
43 PICNIC SHELTER AND PATIO
44 XCEL ENERGY BLDG (NATURAL GAS)
46 MEDICAL CENTER
50 COLD STORAGE BUILDING
51 HRMS
52 ADMINISTRATION OFFICE
53 HAZMAT STORAGE BUILDING
54 PANDEMIC FLU STORAGE BUILDING
56 CHILLER PLANT

MC- MOTORCYCLE PARKING
♿ - HANDICAPPED PARKING
CP- CAR/VAN POOL PARKING
R- RESERVED PARKING
UND- UNIVERSITY OF NORTH DAKOTA
AFGE- AMERICAN FEDERATION GOVERNMENT EMPLOYEE
RO EOM- REGIONAL OFFICE EMPLOYEE OF THE MONTH
HCHV- HEALTH CARE HOMELESS VETERANS
NFFE- NATIONAL FEDERATION FEDERAL EMPLOYEE

2 PROJECT LOCATION
1" = 80'-0"

N
TRUE NORTH

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ELECTRICAL ENGINEER
FOURFRONT DESIGN INC.
517 7TH STREET
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PHONE (605) 342-9470

SHEET INDEX

SHEET INDEX

100% CONSTRUCTION DRAWINGS

Revisions:	Date

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Drawing Title: COVER SHEET	Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT	Project Number: 437-21-225	Office of Construction and Facilities Management
FULLY SPRINKLED	Location: FARGO, ND	Building Number: 9	Department of Veterans Affairs
	Date: 01/11/2022 / Checked: JL / Drawn: TC	Drawing Number: G0.00	
		Dwg. 1 of 41	

1/7/2022 10:18:33 AM

VA FORM 08-6231

ABBREVIATIONS

#	POUND OR NUMBER
&	AND
@	AT
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN
AFF	ABOVE FINISH FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALUM	ALUMINUM
ANOD	ANODIZED
ASD	ALTERNATE STRESS DESIGN
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BD	BOARD
BLK	BLOCK
BM	BEAM
B.O.	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BSMT	BASEMENT
BLDG	BUILDING
BYND	BEYOND
CAB	CABINET
CER	CERAMIC
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMPR	COMPRESSIBLE
CONC	CONCRETE
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CPT	CARPET
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CT	CERAMIC TILE
DBL	DOUBLE
DEMO	DEMOLISH OR DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DN	DOWN
DR	DOOR
DWG	DRAWING
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR OR ELEVATION
EPDM	ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING)
EQ	EQUAL
ES	EACH SIDE
EXIST	EXISTING
EXP Bolt	EXPANSION BOLT
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FD	FLOOR DRAIN OR FIRE DEPARTMENT
FEC	FIRE EXTINGUISHER CABINET
FIN	FINISH
FIXT	FIXTURE
FLR	FLOOR
FM	FILLED METAL
FND	FOUNDATION
F.O.	FACE OF
FT	FOOT OR FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GP	GUSSET PLATE
GR	GRADE
GYP	GYPSUM
HC	HOLLOW CORE
HDR	HEADER
HEF	HORIZONTAL EACH FACE
HI	HIGH
HIF	HORIZONTAL INSIDE FACE
HM	HOLLOW METAL
HOF	HORIZONTAL OUTSIDE FACE
HOR	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HS	HIGH STRENGTH
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
ID	INSIDE DIAMETER
ILO	IN LIEU OF
IN	INCH
INCL	INCLUDE
INSUL	INSULATED OR INSULATION
INT	INTERIOR
INV	INVERT
IRGWB	IMPACT RESISTANT GYPSUM WALL BOARD
JST	JOIST
JT	JOINT
K	KIP (1000 POUNDS)
LLV	LONG LEG VERTICAL
LP	LOW POINT
LVL	LEVEL
LW	LIGHT WEIGHT
LWC	LIGHT WEIGHT CONCRETE
MAS	MASONRY
MAX	MAXIMUM
MCB	METAL CORNER BEAD
MECH	MECHANICAL
MEMBR	MEMBRANE
MEZZ	MEZZANINE
MFR	MANUFACTURED
MIN	MINIMUM
MO	MASONRY OPENING
MRGWB	MOISTURE-RESISTANT GYPSUM WALL BOARD
MTL	METAL
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OZ	OUNCE
PC	PILE CAP
PCC	PRE-CAST CONCRETE
PL	PLATE
P.LAM	PLASTIC LAMINATE
PLUMB	PLUMBING
PLY	PLYWOOD
PORC	PORCELAIN
PNL	PANEL
PNT	PAINT OR PAINTED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PT	POINT
PR	PAIR
PROP	PROPERTY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RE	RIGHT END
REINF	REINFORCED
REF	REFERENCE
REQD	REQUIRED
RET	RETURN
RETG	RETAINING
RM	ROOM
R.O.	ROUGH OPENING
ROW	RIGHT OF WAY
SC	SOLID CORE
SDI	STEEL DECK INSTITUTE
SECT	SECTION
SF	STEP FOOTING OR SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SL	SPLICE LENGTH
SLV	SHORT LEG VERTICAL
SOG	SLAB ON GRADE
SPEC	SPECIFIED OR SPECIFICATION
SPK	SPRINKLER OR SPEAKER
SQ	SQUARE
SSTL	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STR	STAIR
STRUCT	STRUCTURE OR STRUCTURAL
SUP	SUPPORT
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TBD	TO BE DETERMINED
T/D	TELEPHONE/DATA
TEL	TELEPHONE
TEMP	TEMPERATURE
THK	THICK OR THICKNESS
THRD	THREADED
TLT	TOILET
T.O.	TOP OF
T.O.C	TOP OF CONCRETE
T.O.F	TOP OF FRAMING
T.O.S	TOP OF STEEL/STUD
T.O.W	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TYP	TYPICAL
U/S	UNDERSIDE
UNO	UNLESS NOTED OTHERWISE
US	UNDERSIDE
VB	VAPOR BARRIER
VCT	VINYL COMPOSITE TILE
VEF	VERTICAL EACH FACE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VOF	VERTICAL OUTSIDE FACE
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W/	WITH
WD	WOOD
WDW	WINDOW
WP	WORKING POINT
WRB	WEATHER RESISTANT BARRIER
WWF	WELDED WIRE FABRIC

MATERIAL LEGEND

PLAN AND SECTION

- EARTH/ENGINEERED FILL
- GRAVEL
- BRICK
- CONCRETE MASONRY
- STEEL/METAL
- RIGID INSULATION
- BATT INSULATION

ELEVATION

- CONCRETE

CEILING

- ACOUSTIC CEILING TILE
- GYPSUM BOARD

FLOORING

- CPT - CARPET
- CONC - CONCRETE
- WM - WALK OFF MAT
- PT - PORCELAIN TILE
- LVT-1 - LUXURY VINYL TILE

LINE SYMBOLS

- CENTER LINE
- CUT LINE
- GRID LINE
- PROPERTY LINE
- BID ALTERNATE

ARCHITECTURAL SYMBOLS

V.A. SYMBOLS

- FIRE RESISTIVE RATED LINE, 1 HOUR
- FIRE RESISTIVE RATED LINE, 2 HOUR
- FIRE-RATED, SMOKE BARRIER LINE, 1 HOUR
- FIRE-RATED, SMOKE BARRIER LINE, 2 HOUR
- V V ITEM - VA SUPPLIED AND INSTALLED
- VC ITEM - VA SUPPLIED AND CONTRACTOR INSTALLED
- CC ITEM - CONTRACTOR SUPPLIED AND INSTALLED
- DIMENSION LINE
- N — NORTH ARROW
- ℄ — CENTER LINE

LEGEND NOTES:

1. THESE LEGENDS ARE COMPOSED OF STANDRD SYMBOLS AND ARE PERTINENT TO THE CONDITIONS ON THIS SET OF DRAWINGS TO THE EXTENT APPLICABLE.
2. ADDITIONAL LEGENDS AND/OR OTHER LEGENDS MAY APPEAR IN THIS SET OF DRAWINGS TO INDICATE SPECIFIC CONDITIONS IN LIEU OF SYMBOLS SHOWN ON THIS SHEET.

GENERAL NOTES:

1. SHEET SIZE FOR PROPER SCALE IS 30X42.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
4. SEE ENLARGED AREA PLANS FOR WALL TYPE INDICATIONS AND DIMENSIONS.
5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

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Drawing Title: ABBREVIATIONS, SYMBOLS, LEGENDS AND ARCHITECTURE GENERAL NOTES

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225

Building Number: 9

Drawing Number: G0.01

Dwg. 2 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

1/7/2022 10:18:33 AM

VA FORM 08-6231

INFECTION CONTROL RISK ASSESSMENT

STEP ONE: TYPE D

USING THE FOLLOWING TABLE, IDENTIFY THE TYPE OF CONSTRUCTION PROJECT ACTIVITY (TYPE A-D)

TYPE A	INSPECTION AND NON-INVASIVE ACTIVITIES. INCLUDES, BUT IS NOT LIMITED TO: • REMOVAL OF CEILING TILES FOR VISUAL INSPECTION ONLY, E.G., LIMITED TO 1 TILE PER 50 SQUARE FEET. • PAINTING (BUT NOT SANDING). • WALL COVERING, ELECTRICAL TRIM WORK, MINOR PLUMBING, AND ACTIVITIES WHICH DO NOT GENERATE DUST OR REQUIRE CUTTING OF WALLS OR ACCESS TO CEILINGS OTHER THAN FOR VISUAL INSPECTION.
TYPE B	SMALL SCALE, SHORT DURATION ACTIVITIES WHICH CREATE MINIMAL DUST INCLUDES, BUT IS NOT LIMITED TO: • INSTALLATION OF TELEPHONE AND COMPUTER CABLING. • ACCESS TO CHASE SPACE. • CUTTING OF WALLS OR OR CEILING WHERE DUST MIGRATION CAN BE CONTROLLED.
TYPE C	WORK THAT GENERATES A MODERATE TO HIGH LEVEL OF DUST OR REQUIRES DEMOLITION OR REMOVAL OF OF ANY FIXED BUILDING COMPONENTS OR ASSEMBLIES. INCLUDES, BUT IS NOT LIMITED TO: • SANDING OF WALLS FOR PAINTING OR WALL COVERING. • REMOVAL OF FLOOR COVERINGS, CEILING TILES AND CASEWORK. • NEW WALL CONSTRUCTION. • MINOR DUCT WORK OR E?ECU?CA? WORK ABOVE CEILINGS. • MAJOR CABLING ACTIVITIES. • ANY ACTIVITY WHICH CANNOT BE COMPLETED WITHIN A SINGLE WORK SHIFT.
TYPE D	MAJOR DEMOLITION AND CONSTRUCTION PROJECTS INCLUDES, BUT IS NOT LIMITED TO: • ACTIVITIES WHICH REQUIRE CONSECUTIVE WORK SHIFTS • REQUIRES HEAVY DEMOLITION ON REMOVAL OF A COMPLETE CABLING SYSTEM • NEW CONSTRUCTION

STEP TWO: HIGHEST RISK

USING THE FOLLOWING TABLE, *IDENTIFY* THE PATIENT RISK GROUPS THAT WILL BE AFFECTED. IF MORE THAN ONE RISK GROUP WILL BE AFFECTED, SELECT THE HIGHER RISK GROUP

LOW RISK	MEDIUM RISK	HIGH RISK	HIGHEST RISK
• OFFICE AREA	• CARDIOLOGY • ECHOCARDIOGRAPHY • ENDOSCOPY • NUCLEAR MEDICINE • PHYSICAL THERAPY • RADIOLOGY / MRI • RESPIRATORY THERAPY	• CCU • EMERGENCY ROOM • LABOR AND DELIVERY • LABORATORIES (SPECIMEN) • MEDICAL UNITS • NEWBORN NURSERY • OUTPATIENT SURGERY • PEDIATRICS • PHARMACY • POST ANESTHESIA CARE UNITS • SURGICAL UNITS	• ANY AREA CARING FOR IMMUNOCOMPROMISED PATIENTS • BURN UNITS • CARDIAC CATH LAB • CENTRAL STERILE SUPPLY • INTENSIVE CARE UNIT • NEGATIVE PRESSURE ISOLATION ROOMS • ONCOLOGY • OPERATING ROOMS INCLUDING C SECTION ROOMS

STEP THREE:

MATCH THE PATIENT RISK GROUP (LOW, MEDIUM, HIGH, HIGHEST) WITH THE PLANNED ...

CONSTRUCTION PROJECT TYPE (A, B, C, D) ON THE FOLLOWING MATRIX, TO FIND THE ...

CLASS OF PRECAUTIONS (I, II, III OR IV) OR LEVEL *OF* INFECTION CONTROL ACTIVITIES REQUIRED.

CLASS I - IV OR COLOR-CODED PRECAUTIONS ARE DELINEATED ON THE FOLLOWING PAGE.

IC MATRIX - CLASS OF PRECAUTIONS: CONSTRUCTION PROJECT BY PATIENT RISK

	CONSTRUCTION PROJECT TYPE			
PATIENT RISK GROUP	TYPE A	TYPE B	TYPE C	TYPE D
LOW RISK GROUP	I	II	II	III / IV
MEDIUM RISK GGROUP	I	II	III	IV
HIGH RISK GROUP	I	II	III / IV	IV
HIGHEST RISK GROUP	II	III / IV	III / IV	IV

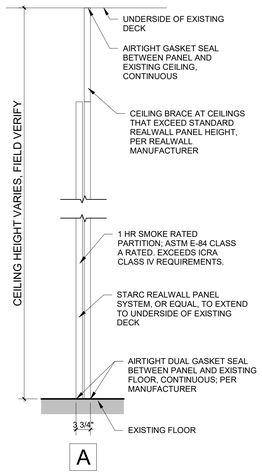
NOTE: INFECTION CONTROL APPROVAL WILL BE REQUIRED WHEN THE CONSTRUCTION ACTIVITY AND RISK LEVEL INDICATE THAT **CLASS III** OR **CLASS IV** CONTROL PROCEDURES ARE NECESSARY.

STEP THREE: CLASS IV

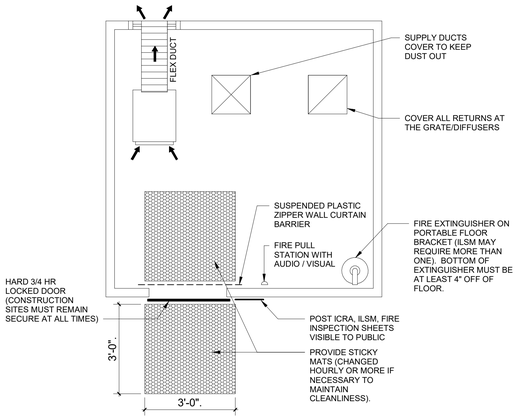
DESCRIPTION OF REQUIRED INFECTION CONTROL PRECAUTIONS BY CLASS

	DURING CONSTRUCTION PROJECT	UPON COMPLETION OF PROJECT
CLASS I	1. EXECUTE WORK BY METHODS TO MINIMIZE RAISING DUST FROM CONSTRUCTION OPERATIONS 2. IMMEDIATELY REPLACE A CEILING TILE DISPLACED FOR VISUAL INSPECTION	1. CLEAN WORK AREA UPON COMPLETION OF TASK.
CLASS II	1. PROVIDE ACTIVE MEANS TO PREVENT AIRBORNE DUST FROM DISPERSING INTO ATMOSPHERE. 2. WATER MIST WORK SURFACE 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.	1. WIPE WORK SURFACES WITH CLEANER / DISINFECTANT. 2. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS. 3. WET MOP AND / OR VACUUM WITH HEPA VACUUM BEFORE LEAVING WORK AREA. 4. UPON COMPLETION, RESTORE HVAC SYSTEM WHERE WORK WAS PERFORMED
CLASS III	1. REMOVE OR ISOLATE HVAC SYSTEM IN AREA WHERE WORK I.E. 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.	1. DO NOT REMOVE BARRIERS FROM WORK AREA UNTIL COMPLETED PROJECT IS INSPECTED BY THE OWNER'S SAFETY DEPARTMENT AND INFECTION PREVENTION AND 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 CLEANER / DISINFECTANT. 5. UPON COMPLETION, RESTORE HVAC SYSTEM WHERE WORK WAS PERFORMED
CLASS IV	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. 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 THE WORK SITE ARE REQUIRED TO WEAR SHOE COVERS. SHOE COVERS MUST BE CHANGED EACH TIME THE WORKER EXITS THE WORK AREA.	1. DO NOT REMOVE BARRIERS FROM WORK AREA UNTIL COMPLETED PROJECT IS INSPECTED BY THE OWNER'S SAFETY DEPARTMENT AND INFECTION PREVENTION AND CONTROL DEPARTMENT AND THOROUGHLY CLEANED BY THE OWNER'S ENVIRONMENTAL SERVICES DEPT. 2. REMOVE BARRIER MATERIAL CAREFULLY TO MINIMIZE SPREADING OF DIRT AND DEBRIS ASSOCIATED WITH CONSTRUCTION. 3. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN COVERED CONTAINERS. 4. COVER TRANSPORT RECEPTACLES OR CARTS. TAPE COVERING UNLESS SOLID LID. 5. VACUUM WORK AREA WITH I-EPA FILTERED VACUUMS. 6. WET MOP AREA WITH CLEANER / DISINFECTANT. 7. UPON COMPLETION, RESTORE HVAC SYSTEM WHERE WORK WAS PERFORMED

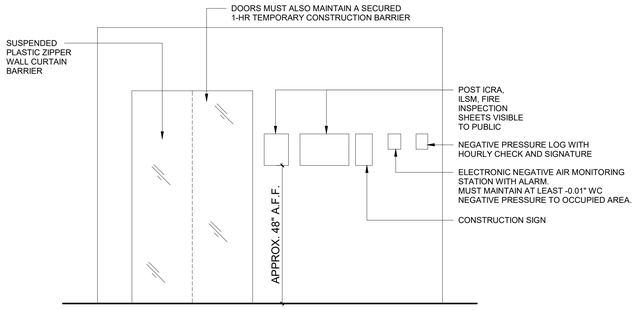
1 ICRA SCHEDULE
1/4" = 1'-0"



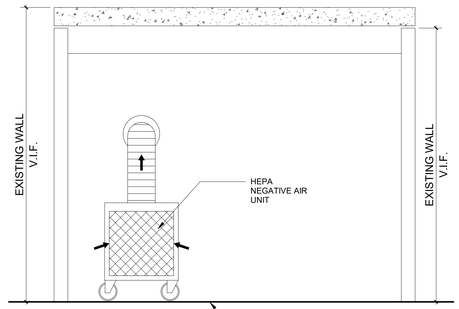
2 ICRA BARRIER WALL TYPES
3/4" = 1'-0"



3 TYPICAL CONSTRUCTION PLAN LAYOUT
1/2" = 1'-0"



4 ROOM ELEVATION (TYPICAL)
1/2" = 1'-0"



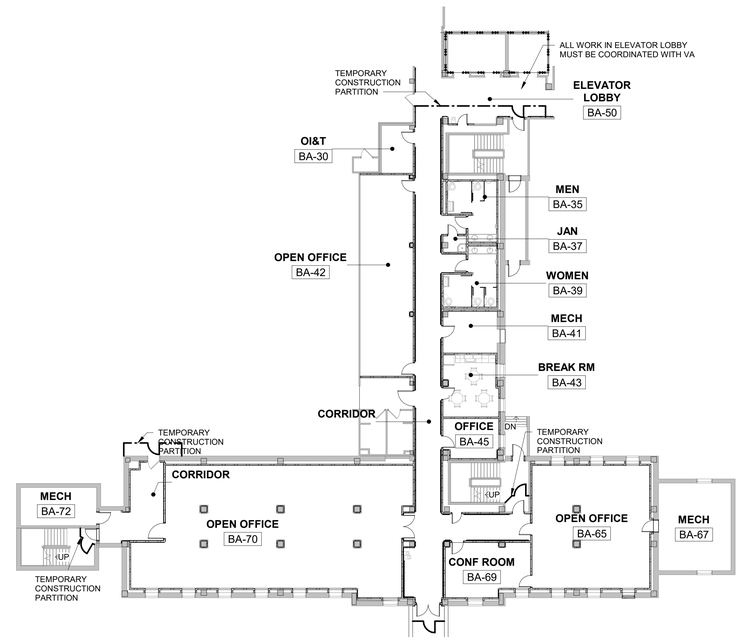
5 CROSS SECTION 'A'
1/2" = 1'-0"

TEMPORARY CONSTRUCTION BARRIER

1 HOUR SMOKE RATED TEMPORARY CONSTRUCTION PARTITION. PROVIDE AT AREAS ONLY REQUIRED BY IMMEDIATE WORK AND REMOVE WHEN NOT IN USE. EXTENT OF TEMPORARY PARTITION WALLS SHOULD BE MINIMIZED TO ONLY PROVIDE THE NECESSARY CONTAINMENT AND LIMITED CONTRACTOR ACCESS. CONTRACTOR SHALL VERIFY PRIOR TO BIDDING AS TO THE CONDITION OF ANY EXISTING WALLS TO BE USED AS THE BARRIER. VERIFY THAT WALLS ARE CONSTRUCTED TO DECK AND SEALED TIGHT AGAINST THE PASSAGE OF SMOKE.

INFECTION CONTROL NOTES - CLASS IV CONSTRUCTION:

A. THE ONE-HOUR FIRE-RATED CONSTRUCTION BARRIERS SHALL BE CONSTRUCTED PRIOR TO BEGINNING OTHER WORK.
B. FIRE PROTECTION SYSTEMS SHALL REMAIN FUNCTIONAL.
C. PROVIDE FIRE EXTINGUISHERS IN CONSTRUCTION AREA; REVIEW WITH COR AND VA SAFETY GROUP.
D. CONTRACTOR SHALL PROVIDE FIRE WATCH FOR ALL HOT WORK ACTIVITIES AND WHEN FIRE ALARM OR SPRINKLER SYSTEMS ARE IMACTED MORE THAN 4HOURS IN A 24 HOUR PERIOD.
E. MAINTAIN NEGATIVE AIR PRESSURE IN CONSTRUCTION AREA AT ALL TIMES (24/7), WHETHER OCCUPIED OR NOT, THROUGHOUT DURATION OF PROJECT USING HEPA EQUIPPED AIR FILTRATION UNITS (-0.01" WC WITH ALARM).
F. MAINTAIN EXIT LIGHTS IN CONSTRUCTION AREA.
G. CONSTRUCTION AREA SHALL REMAIN ISOLATED FROM THE OTHER AREAS OF THE MEDICAL CENTER; NO RETURN AIR OR EXHAUST SHALL PASS INTO THE AREAS OUTSIDE THE CONSTRUCTION AREA.
H. REDIRECT ALL MEDICAL CENTER PERSONNEL, PATIENTS, AND VISITORS SO THEY DO NOT EXIT THROUGH THE CONSTRUCTION AREA. PROVIDE SIGNS ON DOORS INTO THE CONSTRUCTION AREA THAT READ: "CONSTRUCTION AREA DO NOT ENTER".
I. GENERAL CONTRACTOR SHALL MAINTAIN DAILY LOGS AND ACQUIRE A HOT WORK PERMIT WHEN NEEDED FROM ENGINEERING.
J. TACKY MATS SHALL BE PLACED AT ALL DOORS INTO THE CONSTRUCTION AREA AND SHALL BE REPLACED HOURLY OR SOONER IF NEEDED.
K. MAINTAIN A CLEAN AND ORDERLY CONSTRUCTION AREA TO PREVENT CONTAMINATION OF EXISTING DUCT SYSTEMS.
L. OBTAIN INFECTION CONTROL PERMIT PRIOR TO BEGINNING WORK.
M. ISOLATE HVAC SYSTEM WITHIN CONSTRUCTION AREA TO PREVENT CONTAMINATION OF EXISTING DUCT SYSTEM.
N. COMPLETE ALL CRITICAL BARRIERS I.E. SHEETROCK, PLASTIC, ETC. 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 EXITING OR BEFORE CONSTRUCTION BEGINS.
O. AFTER COMPLETION OF WORK AND BEFORE REMOVING VACUUM CONSTRUCTION AREA WITH HEPA FILTERED VACUUMS, WET MOP WITH DISINFECTANT, REMOVE CONSTRUCTION BARRIERS (UPON APPROVAL), PATCH OR REPAIR ANY DAMAGE FROM CONSTRUCTION BARRIER REMOVAL, AND REMOVE ISOLATION OF HVAC SYSTEM. UPON COMPLETION, RESTORE HVAC SYSTEM WHERE WORK WAS PERFORMED.
P. SEAL ALL HOLES, PUNCTURES, AND PENETRATIONS FROM PIPES AND/OR CONDUITS APPROPRIATELY AND IMMEDIATELY TO MAINTAIN DUCT PROTECTION AND NEGATIVE AIR PRESSURE.
Q. CONSTRUCT ANTEROOM ENTRANCES TO CONSTRUCTION AREAS AND REQUIRE ALL CONSTRUCTION PERSONNEL TO PASS THROUGH THIS ROOM TO BE VACUUMED WITH A HEPA VACUUM CLEANER PRIOR TO LEAVING THE SITE OR THEY CAN WEAR CLOTH OR PAPER COVERALLS THAT ARE REMOVED EACH TIME THEY LEAVE WORK SITE.
   Q.A. CONSTRUCTION WORKERS WILL NOT BE ENTERING ANY OCCUPIED VA SPACES.
   Q.B. DIRECT ACCESS TO OUT THROUGH ANTEROOM(EXIT/ENTRANCE)
R. ALL PERSONNEL ENTERING WORK SITE (ONLY IF ENTERING VA SPACE). ARE REQUIRED TO WEAR SHOE COVERING.
S. CONSTRUCTION BARRIERS SHALL NOT BE REMOVED UNTIL PROJECT IS COMPLETED AND INSPECTION BY VA SAFETY PERSONNEL, INFECTION CONTROL GROUP, AND COR.
T. REMOVE BARRIERS MATERIAL CAREFULLY TO MINIMIZE SPREADING OF DIRT AND DEBRIS ASSOCIATED WITH CONSTRUCTION. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINERS. COVER TRANSPORT RECEPTACLES OR CARTS. TAPE COVERING UNLESS SOLID LID.
U. ALL TEMPORARY CONSTRUCTION BARRIERS SHALL BE 1-HR RATED, AND DOORS SHALL REMAIN TAPED SHUT



7 FLOOR PLAN - INFECTION CONTROL RISK ASSESSMENT
1/16" = 1'-0"

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

STATE OF MISSOURI
TIM DAVID CUMMINS NUMBER A-5408
REGISTERED ARCHITECT

ARCHITECT

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Drawing Title: INFECTION CONTROL RISK ASSESSMENT

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225

Building Number: 9

Drawing Number: G0.02

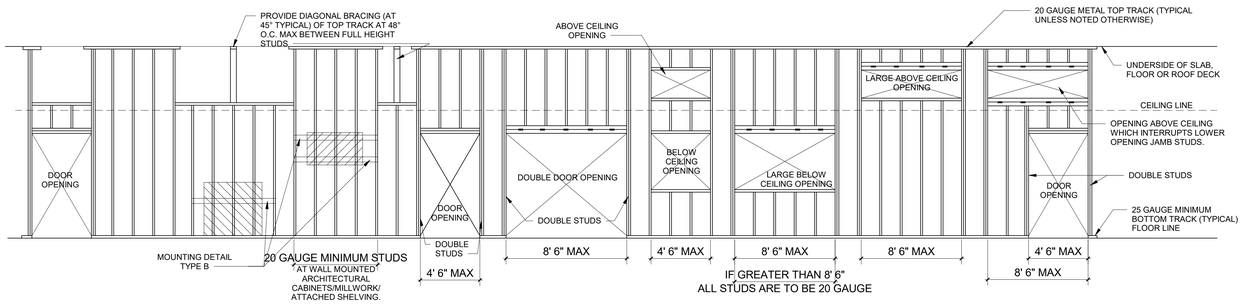
Dwg. 3 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

1/7/2022 10:18:43 AM

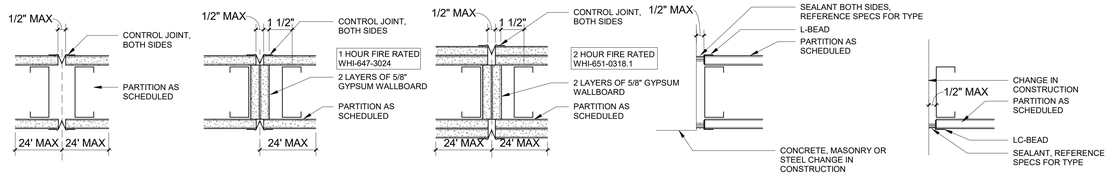
VA FORM 08-6231



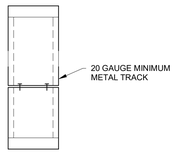
NOTES:
1. ALL STUDS ARE SPACED 16" OC MAXIMUM.
2. ALL STUDS SHALL BE "C" STUDS WITH 1/4" RETURN FLANGE MINIMUM.
3. ▨ INDICATES SHELVING OR CABINETRY.
4. DOUBLE STUDS AT SIDES OF OPENING **SHALL NOT** BE CUT FOR DUCT WORK OR ANY OTHER MECHANICAL SYSTEMS.
5. PROVIDE PARTITION BRACING AT ALL ASSEMBLIES OVER 16'-0" IN HEIGHT, UNLESS NOTED OTHERWISE.

1 TYPICAL INTERIOR PARTITION FRAMING
1/4" = 1'-0"

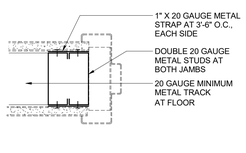
ADDITIONAL NOTES:
1. ALL PARTITIONS SHALL BE SEALED TO STRUCTURE TO SUCCESSFULLY "LIMIT THE PASSAGE OF SMOKE" CONDITIONS INDICATED TO SHOW DESIGN INTENT, AND NOT INTENDED TO BE PROPRIETARY. CONTRACTOR MAY EMPLOY SIMILAR UL-APPROVED CONTROL JOINTS DESIGNS THAT ARE APPROPRIATE FOR THE SPECIFIC CONDITION. JOINTS TO BE SIZED TO ACCOMMODATE MOVEMENT CAPABILITIES OF FIRESTOP ASSEMBLY.
2. SEE WALL TYPES AND PLAN FOR LOCATIONS OF RATED WALLS.



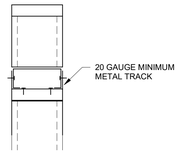
2 GYPSUM WALLBOARD CONTROL JOINT DETAILS
3" = 1'-0"



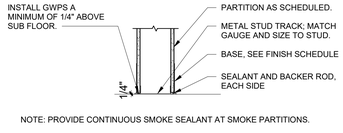
3 OPEN HEADER
1" = 1'-0"



4 DOOR OPENING JAMB STUDS
1" = 1'-0"

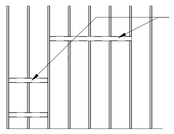


5 DOOR OPENING HEADER
1" = 1'-0"

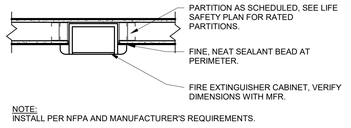


NOTE: PROVIDE CONTINUOUS SMOKE SEALANT AT SMOKE PARTITIONS.

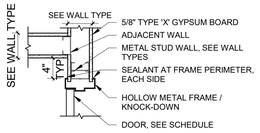
6 SMOKE PARTITION - WALL DETAILS
1" = 1'-0"

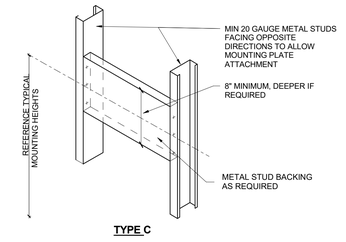


METAL STUD
BLOCKING FOR WALL MOUNTED ITEMS SUCH AS CABINETS, TELEVISION BRACKETS, COUNTERS, WHITE BOARDS, AND SIMILAR ITEMS. COORDINATE REQUIREMENTS WITH ITEM TO BE MOUNTED

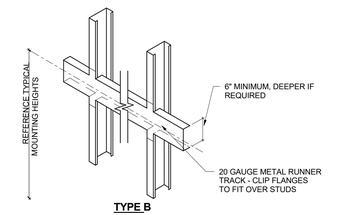


NOTE:
INSTALL PER NFPA AND MANUFACTURER'S REQUIREMENTS.

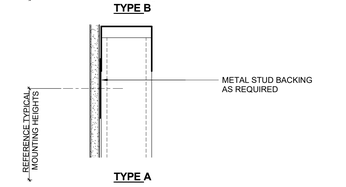




TYPE C

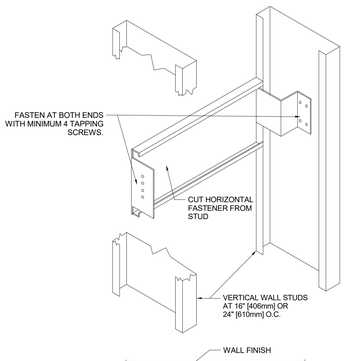


TYPE B



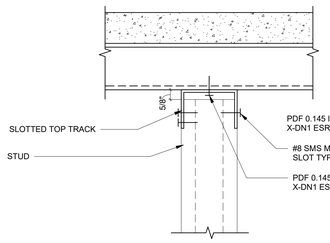
TYPE A

11 METAL BACKING DETAILS FOR ACCESSORIES AND EQUIPMENT
1" = 1'-0"

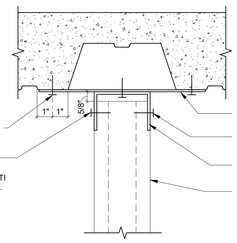


GENERAL NOTES:
1. CONTRACTOR SHALL COORDINATE LOCATIONS OF HORIZONTAL FASTENERS.

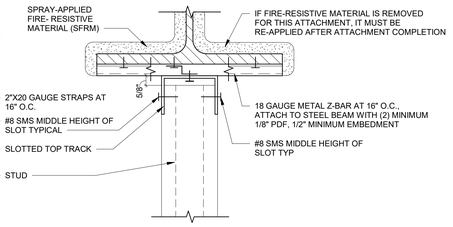
13 DETAIL - ANCHORAGE - GRAB BARS, HANDRAILS AND CABINETS
1" = 1'-0"



METAL DECK
(PERPENDICULAR TO FLUTES)

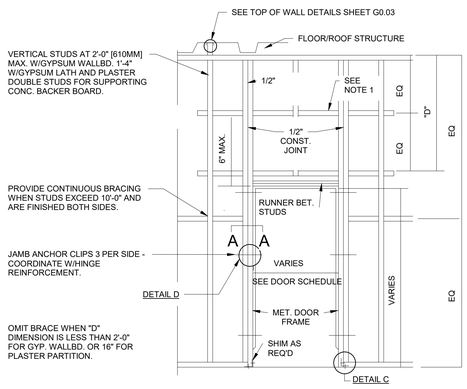


METAL DECK
(PARALLEL TO FLUTES)



STEEL BEAM

8 FRAMING ELEVATION
1/4" = 1'-0"

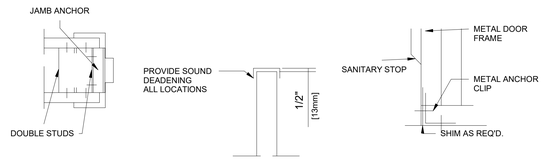


ELEVATION AT DOOR FRAME

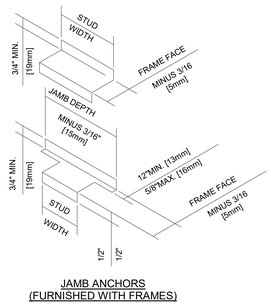
CONTROL JOINTS ON EACH SIDE OF DOOR, BOTH SIDES, AS REQUIRED; REVIEW LOCATIONS IN THE FIELD.

9 FIRE EXTINGISHER CABINET SP METAL STUD
1" = 1'-0"

10 DOOR DETAIL TYPE
1" = 1'-0"



14 HEAD OF WALL DETAILS
1" = 1'-0"



JAMB ANCHORS
(FURNISHED WITH FRAMES)

DETAIL D

12 PARTITION FRAMING DETAILS
3/8" = 1'-0"

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

STATE OF MISSOURI
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REGISTERED ARCHITECT

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Drawing Title: PARTITION FRAMING DETAILS

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225

Building Number: 9

Drawing Number: G0.03

Dwg. 4 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

1/7/2022 10:16:44 AM

VA FORM 08-6231

BUILDING CODE SUMMARY
2021 INTERNATIONAL BUILDING CODE
2021 N.F.P.A. 101 LIFE SAFETY CODE

PROJECT NAME: EHRM TRAINING AND ADMIN SPACE SUPPORT

A/E PROJECT NO.: 437-21-225
PREPARED BY: TIM CUMMINS
DATE: 01/07/2022

1. APPLICABLE CODES/STANDARDS:
   - A. VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL) (HTTP://WWW.CFM.VA.GOV/TIL/).
     - a. ARCHITECTURAL (AUG. 2, 2014); ASBESTOS ABATEMENT (JULY 2011); ELECTRICAL (DEC 2015); FIRE PROTECTION (DEC 2016) HVAC (MAR 2011); INTERIOR DESIGN (MAY 2008); LIGHTING DESIGN (DEC 2015); PHYSICAL SECURITY (JAN 2015); PLUMBING (NOV 20140; SIGNAGE (OCT 2013)
     - b. PG-18-14 ROOM FINISH, DOOR HARDWARE SCHEDULE
     - c. PG-18-12 PHARMACY SERVICES DESIGN GUIDE
     - d. PG-18-9 SPACE PLANNING CRITERIA – 268; PHARMACY SERVICES
   - B. INTERNATIONAL BUILDING CODE IBC (2018)
   - C. NFPA 1 – FIRE CODE (2018)
   - D. NFPA 101 - LIFE SAFETY CODE (LSC) – (2018)
   - E. NFPA 220 – STANDARDS ON TYPES OF BUILDING CONSTRUCTION – (2018)
   - F. NFPA 10 – STANDARD FOR PORTABLE FIRE EXTINGUISHERS – (2018)
   - G. NFPA 241 – STANDARD FOR SAFEGUARDING CONSTRUCTION (2019)
   - H. REFER TO FIRE PROTECTION/LIFE SAFETY/ACCESSIBILITY CODE REVIEW FOR ADDITIONAL CODES & STANDARDS.
   - I. NFPA 13 – STANDARDS FOR THE INSTALLATION OF SPRINKLER SYSTEMS (2019)

2. OCCUPANCY GROUP (SECTION 304) - GROUP B OCCUPANCY (NFPA 101 CHAPTER 38 - NEW BUSINESS OCCUPANCY.

3. OCCUPANCY CLASSIFICATION:
   - A. NFPA 101 (CHAPTER 38) – NEW BUSINESS OCCUPANCY – BASEMENT
   - B. NFPA 101 (CHAPTER 39) – EXISTING BUSINESS OCCUPANCY – BASEMENT

4. TYPE OF CONSTRUCTION:
   - A. NFPA 220 (TABLE 4.1.1) – TYPE I (332)

5. FIRE RESISTANCE OF EXTERIOR WALLS (SECTION 602.1, TABLE 602) – NO RATING REQUIRED

6. ALLOWABLE BUILDING AREA: UNLIMITED

7. ALLOWABLE STORES/HEIGHT: UNLIMITED IF BUILDING IS FULLY SPRINKLED
   - A. ACTUAL STORIES/HEIGHT: 4 STORIES

8. OCCUPANCY SEPARATIONS:
   - A. IBC (SECTIONS 508 & 508.4) – FIRE BARRIERS - N.R. NON-SEPARATED USES AS PER SECTION 508.3 INCIDENTAL USE AREAS AS PER TABLE 509. WHEN INCIDENTAL USE AREAS ARE SPRINKLED, THE AREA IS TO BE SEPARATED BY WALLS TO RESIST THE PASSAGE OF SMOKE (509.4.2)
   - B. IBC SECTION (SECTION 508.2.5) – FIRE SEPARATION NOT REQUIRED WHERE MECHANICAL ROOMS ARE REQUIRED WITH AUTOMATIC SPRINKLER SYSTEM.

9. TYPE OF CONSTRUCTION - FIRE-RESISTIVE REQUIREMENTS (NFPA 220 TABLE 4.1.1)

A.	EXTERIOR WALLS - BEARING	= NA
B.	INTERIOR WALLS - BEARING	= NA
C.	EXTERIOR WALLS - NON-BEARING	= 0 HOURS
D.	INTERIOR WALLS – NON-BEARING	= 0 HOURS
E.	STRUCTURAL FRAME	= 3 HOURS
F.	FLOORS/FLOOR-CEILINGS	= 2 HOURS
G.	ROOFS/ROOF-CEILING	= 2 HOURS
H.	ROOF CONSTRUCTION-INCLUDING SECONDARY FRAMING):	=1 1/2 HOURS
I.	VERTICAL OPENING (SHAFTS)	=2 HOUR

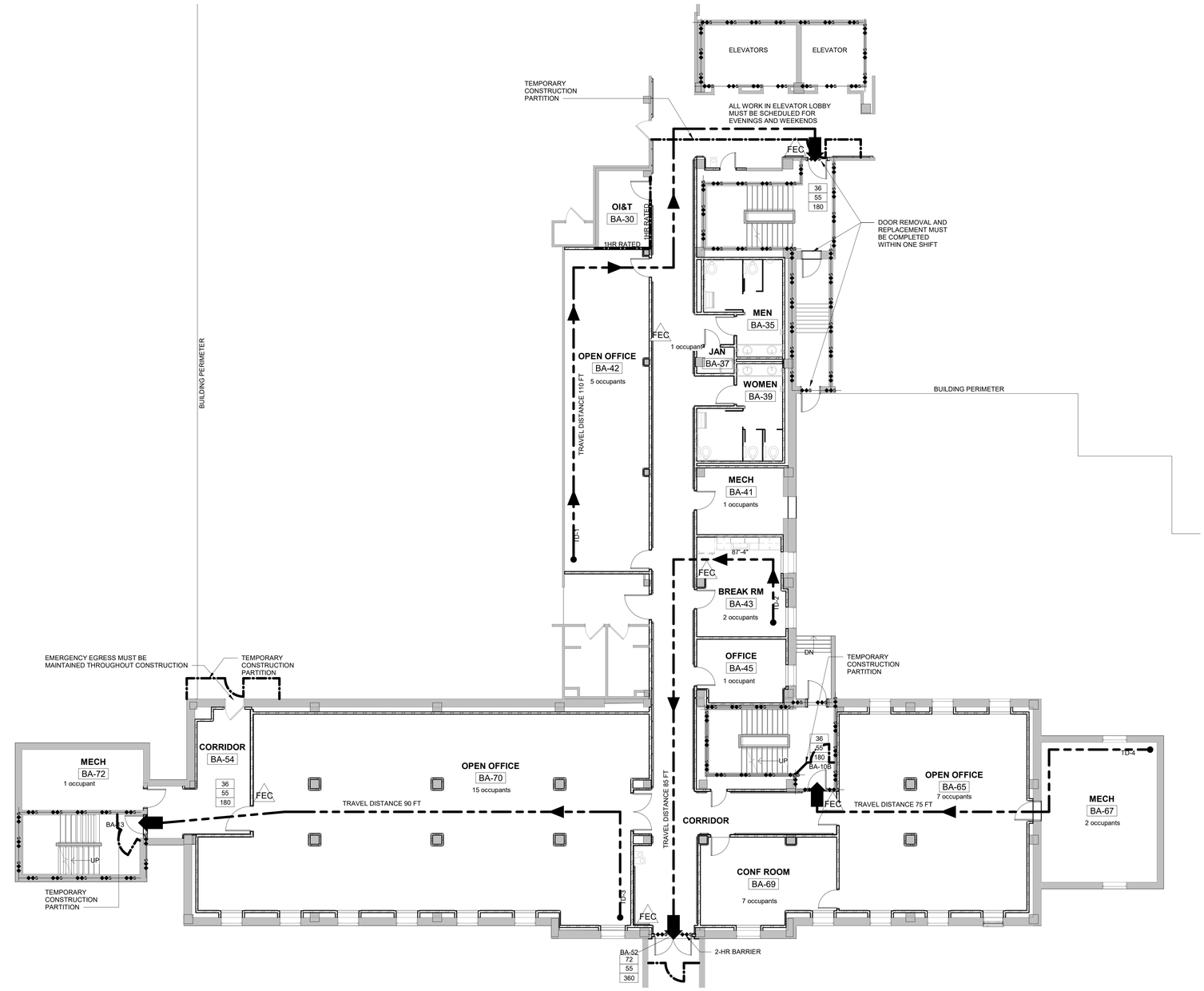
10. FIRE-RESISTANT MATERIALS AND CONSTRUCTION (CHAPTER 7) (L.S.C. 8.2.3)
    - A. FIRE RESISTIVE ASSEMBLIES AS PER CHAPTER 7 –SMOKE PARTITIONS, SECTION 710 (L.S.C. SECTION 8.4)

11. FIRE PROTECTION REQUIREMENTS:
    - A. BUILDING IS CURRENTLY FULLY SPRINKLERED WITH AN AUTOMATIC STANDPIPE SYSTEM AND WILL REMAIN SO UPON COMPLETION OF THE PROJECT.
    - B. CABINETS WITH EXTINGUISHERS ARE SHOWN ON DRAWINGS.
    - C. NFPA 101 (8.5.5.2, 8.7.12.1)
    - D. NFPA 10 (TABLE 6.2.1.1) – MECHANICAL ROOMS AND LARGE STORAGE ROOMS SHALL BE PROTECTED UTILIZING ORDINARY EXTINGUISHER PLACEMENT FOR CLASS A HAZARD. A MAXIMUM TRAVEL DISTANCE TO FIRE EXTINGUISHER OF 75 FEET.

12. MEANS OF EGRESS/EXITING:
    - A. EXISTING MEANS OF EGRESS TO THREE EXISTING STAIRWAYS WILL BE MAINTAINED AS IS.
      1. TRAVEL DISTANCE TO EXITS:
         - a. BUSINESS OCCUPANCY - NFPA 101 (38.2.6.2.1) –MAX ALLOWED 300FT. PROVIDED: 110FT
      2. MEANS OF EGRESS WIDTH CAPACITY:
         - a. NFPA 101 (TABLE 7.3.3.1)
         - b. 0.2 INCHES/OCCUPANT FOR DOORS IN BUILDINGS THAT ARE FULLY SPRINKERLED.
         - c. 0.3 INCHES/OCCUPANT FOR STAIRWAYS IN BUILDINGS THAT ARE FULLY SPRINKLERED
      3. MEANS OF EGRESS ILLUMINATION:
         - a. NFPA 101 (7.8) –REQUIRE BY CHAPTER 18 & 38, PROVIDE IN ACCORDANCE WITH 7.8
      4. EMERGENCY LIGHTING
         - a. NFPA 101 (7.9) –REQUIRED BY CHAPTER 18 & 38, PROVIDE IN ACCORDANCE WITH 7.9.

13. OCCUPANT LOAD:
    - A. NFPA 101 (TABLE 7.3.1.2) – BUSINESS USE: 150 SQ. FT. /PERSON GROSS FLOOR AREA
      STORAGE USE: 300 SQ. FT. / PERSON GROSS FLOOR AREA
    - B. OCCUPANT LOAD CALCULATIONS SEE CODE REVIEW PLAN.

14. EXIT EGRESS WIDTH SECTION
    - A. MINIMUM WIDTH:
      - a. NFPA 101 (7.3.4.1 (2)) - NOT LESS THAN 36 FOR ANY MEANS OF EGRESS.
      - b. NFPA 101 (7.2.1.2.3.2) – NOT LESS THAN 32" DOOR CLEAR WIDTH FOR DOORS IN PATH OF EGRESS.
    - B. NFPA 101 (TABLE 7.3.3.1)
      - a. MEANS OF EGRESS WIDTH CAPACITY
        1. EXIT BD-117A = MAX OCCUPANT LOAD SHALL BE 400 PERSONS: 400 X .2 = 80"
           EXIT CO-01 = MAX OCCUPANT LOAD SHALL BE 400 PERSONS: 400 X .2 = 80"
           EXIT BD-109A = MAX OCCUPANT LOAD SHALL BE 170 PERSONS: 170 X .2 = 34"
           STAIR 1D-200 = MAX OCCUPANT LOAD SHALL BE 153 PERSONS: 153 X .3 = 46"



1 LIFE SAFETY PLAN
1/8" = 1'-0"

LIFE SAFETY NOTES:

1. FOR EXIT LIGHTS AND EMERGENCY LIGHTING, SEE ELECTRICAL LIGHTING DRAWINGS (E SERIES).
2. ALL TEMPORARY CONSTRUCTION BARRIERS SHALL BE 1-HR RATED, AND DOORS SHALL REMAIN TAPED SHUT

LIFE SAFETY SYMBOLS:

EXIT DOOR TAG
- 0 PROVIDED CLEAR DOOR/STAIR WIDTH (INCHES)
- 0 PROVIDED OCCUPANT LOAD CAPACITY (NO. OF PEOPLE)
- 0 MAX OCCUPANT LOAD CAPACITY (NO. OF PEOPLE)

FEC FIRE EXTINGUISHER IN CABINET, RECESSED

LINE TYPES FOR MEANS OF EGRESS:
- TRAVEL DISTANCE — TD #
- COMMON PATH — CP #
- EXIT DISCHARGE

MEANS OF EGRESS ARRANGEMENT DISTANCE SCHEDULE - BUILDING SUMMARY

EGRESS PATH ID	PROVIDED TRAVEL DISTANCE	MAXIMUM DISTANCE PERMITTED
TD-1	110 FT	300'-0"
TD-2	85 FT	300'-0"
TD-3	90 FT	300'-0"
TD-4	75 FT	300'-0"

MEANS OF EGRESS WIDTH CAPACITY

DOOR NUMBER	EGRESS CAPACITY FACTOR	OCCUPANT LOAD MAXIMUM CAPACITY
BA-9A	0.2	180
BA-52	0.2	180
BA-13	0.2	360
BA-10B	0.2	180

LIFE SAFETY ZONE SIZE: 22,306 SF

CODE PLAN LEGEND
- FIRE WALL 2HR RATED
- FIRE WALL 1HR RATED
- EGRESS ROUTE

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

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Drawing Title: LIFE SAFETY PLAN
FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT
Location: FARGO, ND
Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225
Building Number: 9
Drawing Number: G1.00
Dwg. 5 of 41

Office of Construction and Facilities Management
Department of Veterans Affairs

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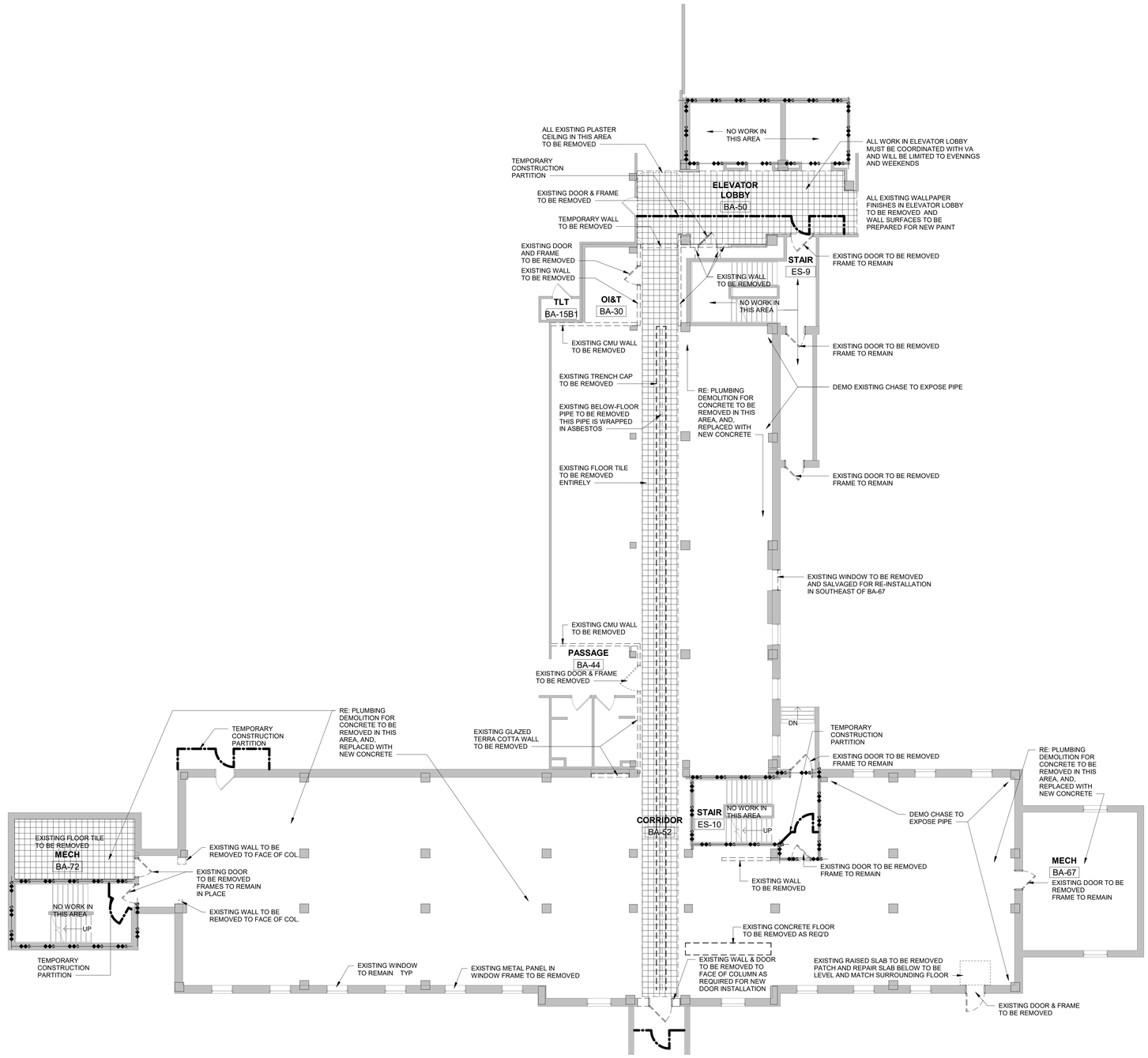

1 DEMOLITION PLAN
1/8" = 1'-0"

GENERAL NOTES:

1. SHEET SIZE FOR PROPER SCALE IS 30X42.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
4. SEE ENLARGED AREA PLANS FOR WALL TYPE INDICATIONS AND DIMENSIONS.
5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

DEMOLITION LEGEND:

- AREA OF WORK NOT IN THE SCOPE. EXISTING TO REMAIN.
- ITEMS TO BE DEMOLISHED
- EXISTING TRENCH CAP TO BE REMOVED
- FLOOR TILE TO BE REMOVED

SHEET SPECIFIC NOTES:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS.
2. THE DEMOLITION PLAN INDICATES GENERAL INFORMATION AND INTENT. THE CONTRACTOR SHALL COORDINATE DEMOLITION WITH NEW CONSTRUCTION TO ENSURE QUALITY OF FINAL PRODUCT.
3. DASHED LINES INDICATE EXTENT OF DEMOLITION.
4. GENERAL CONTRACTOR SHALL COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
5. ALL DEMOLITION AND REMODEL WORK MUST BE CLOSELY COORDINATED WITH THE COR.
6. THE GENERAL CONTRACTOR SHALL INSPECT AND FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK, INCLUDING ELEMENTS SUBJECT TO DAMAGE OR MOVEMENT DURING DEMOLITION, CUTTING OR PATCHING.
7. MATERIAL PRODUCT FROM DEMOLITION SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR WITH THE EXCEPTION OF SPECIFIED ITEMS DESIGNATED EITHER IN THE PLANS OR VERBALLY REQUESTED BY THE (COR) TO BE RETAINED BY THE VA. VA MAINTAINS FIRST RIGHT OF SALVAGE.
8. OFFSITE DISPOSAL OF THE DEMOLISHED ITEMS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DISPOSED OF LAWFULLY.
9. DEMOLITION MATERIALS SHALL BE REMOVED FROM SITE ON A DAILY BASIS. COORDINATE WITH THE COR THE IDENTIFICATION AND TRANSFER OF ANY ITEMS THAT NEED TO BE SALVAGED.
10. VERIFY LOCATION OF EXISTING UTILITY LINES PRIOR TO STARTING DEMOLITION. MAY NOT BE LIMITED TO UTILITIES SHOWN ON ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL PLANS. REFER TO THE THESE DRAWINGS FOR ADDITIONAL INFORMATION.
11. UPON ENCOUNTERING UNFORESEEN CONDITIONS DURING REMODEL WORK, THE CONTRACTOR SHALL NOTIFY THE (COR) BEFORE PROCEEDING.
12. COORDINATE DEMOLITION SHOWN ON THIS SHEET WITH DEMOLITION SHOWN ON MECHANICAL, PLUMBING, AND ELECTRICAL DEMOLITION DRAWINGS. CREATE PENETRATIONS AS REQUIRED FOR NEW CONSTRUCTION ON MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.
13. THE CONTRACTOR SHALL PROTECT EXISTING CONSTRUCTION TO REMAIN. DAMAGE TO EXISTING CONSTRUCTION SHALL BE REPAIRED TO EXISTING OR BETTER CONDITION.
14. ERECT AND MAINTAIN TEMPORARY PARTITIONS AND ENCLOSURES FOR EXTERIOR OPENINGS TO PREVENT THE TRANSMISSION OF DUST, ODOR, AND NOISE AND MAINTAIN WEATHER TIGHT CONDITIONS.
15. PROVIDE TEMPORARY MECHANICAL EXHAUST SYSTEMS TO MAINTAIN A NEGATIVE PRESSURE WITHIN CONSTRUCTION ZONES.
16. AT INTERSECTIONS OF REMOVED WALLS WITH WALL TO REMAIN, REPAIR REMAINING WALLS TO MATCH ADJACENT FINISHED WALLS OR BETTER.
17. REFER TO HAZARDOUS ABATEMENT SPECIFICATIONS FOR REMOVAL OF HAZARDOUS MATERIALS.
18. CONTRACTOR SHALL PROVIDE TEMPORARY SEAL AT ALL DOOR AND WALL OPENINGS AT PERIMETER WALLS DURING DEMOLITION WORK TO PROTECT ADJACENT AREAS FROM DUST INTRUSION.
19. SOLID SHADED (GRAY) REGIONS DEPICT EXISTING CONSTRUCTION TO REMAIN.
20. SEE MECHANICAL, ELECTRICAL AND FIRE PROTECTION DRAWINGS FOR OTHER DEMOLITION WORK.
21. REMOVE ALL UNUSED UTILITIES AND CAP. COORDINATE WITH PROPOSED NEW CONSTRUCTION CONDITIONS.
22. CONTRACTOR SHALL PROTECT ADJACENT ROOMS FROM DAMAGE DURING CONSTRUCTION. RESTORE ALL DAMAGE TO ORIGINAL CONDITION.
23. ALL INFILL AND PATCHWORK SHALL MATCH ADJACENT SURFACES, IE. WALL, CEILINGS, FLOORS, ETC. COORDINATE WITH NEW FINISHES WHERE REQUIRED; SEE FINISH SCHEDULE FOR DISTURBED/DAMAGED BY DEMOLITION AND NEW CONSTRUCTION.
24. STAIRWAY DOORS ARE TO BE REPLACED (EXISTING FRAMES TO REMAIN IN PLACE). EACH EXISTING DOOR MUST BE REMOVED AND THE NEW DOOR INSTALLED AND FULLY FUNCTIONAL WITHIN ONE WORK SHIFT.
25. ALL TEMPORARY CONSTRUCTION BARRIERS SHALL BE 1-HR RATED, AND DOORS SHALL REMAIN TAPED SHUT.

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

STATE OF MISSOURI
TIM DAVID CUMMINS
NUMBER A-5408
REGISTERED ARCHITECT

ARCHITECT

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Drawing Title	DEMOLITION PLAN
	FULLY SPRINKLED
Project Title	EHRM TRAINING AND ADMIN SPACE SUPPORT
Location	FARGO, ND
Project Number	437-21-225
Building Number	9
Drawing Number	AD1.00
Date	01/11/2022
Checked	JL
Drawn	TC
Dwg.	6 of 41

Office of Construction and Facilities Management

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1/7/2022 10:22:24 AM

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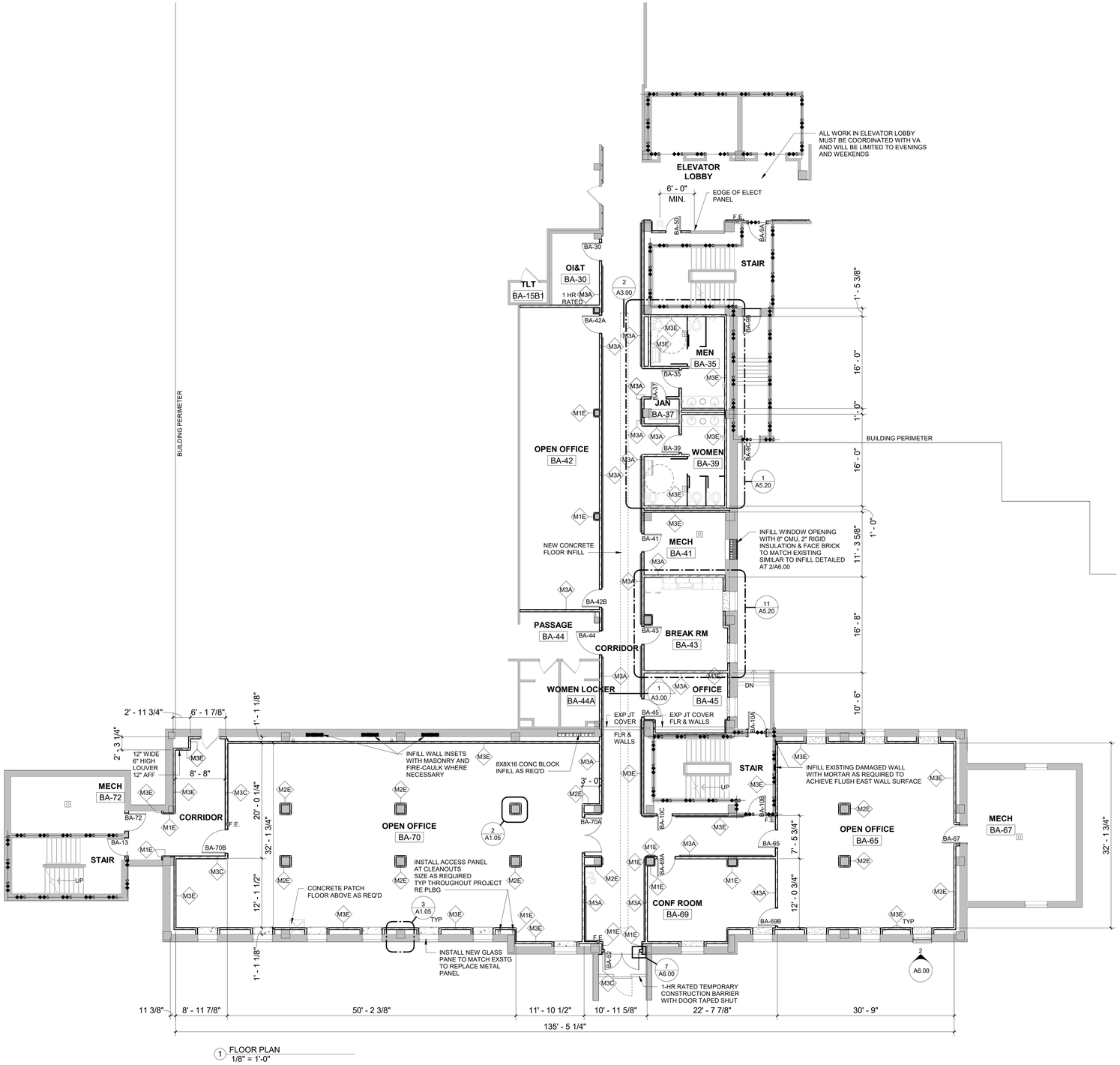

1 FLOOR PLAN
1/8" = 1'-0"

BUILDING PERIMETER

GENERAL NOTES:

1. SHEET SIZE FOR PROPER SCALE IS 30X42.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
4. SEE ENLARGED AREA PLANS FOR WALL TYPE INDICATIONS AND DIMENSIONS.
5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

SHEET SPECIFIC NOTES:

1. ALL DIMENSIONS ARE FACE OF STUD OR FACE OF MASONRY UNLESS NOTED OTHERWISE.
2. OPENINGS ARE DIMENSIONED TO FRAME WIDTH. CONTRACTOR TO COORDINATE ROUGH OPENING DIMENSIONS AS REQUIRED.
3. FIRESTOPPING IS REQUIRED AT ALL PENETRATIONS THROUGH RATED WALLS, FLOORS, AND CEILINGS, INCLUDING NEW, ABANDONED, EXISTING, ETC.
4. SPRAY-PAINT WALL TAG ABOVE CEILING AT ALL RATED WALLS:
   - 1-HR RATED
   - 2-HR RATED
5. ALL TEMPORARY CONSTRUCTION BARRIERS SHALL BE 1-HR RATED, AND DOORS SHALL REMAIN TAPED SHUT

FLOOR PLAN LEGEND:

- AREA OF WORK NOT IN THE SCOPE. EXISTING TO REMAIN.
- FLOOR DRAIN

100% CONSTRUCTION DRAWINGS

Revisions:	Date

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Drawing Title: FLOOR PLAN

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225

Building Number: 9

Drawing Number: A1.00

Dwg. 7 of 41

Office of Construction and Facilities Management

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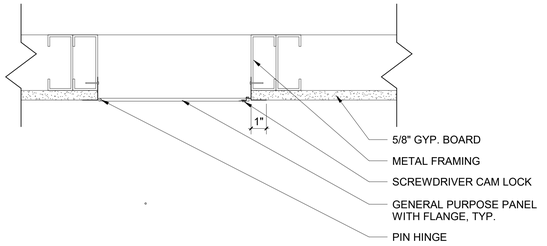
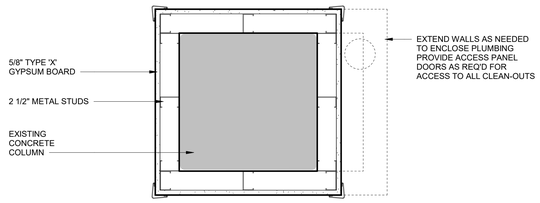
1/7/2022 10:21:40 AM

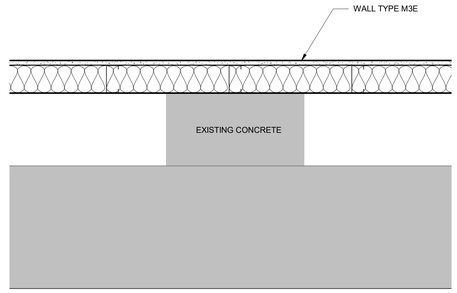
VA FORM 08-6231



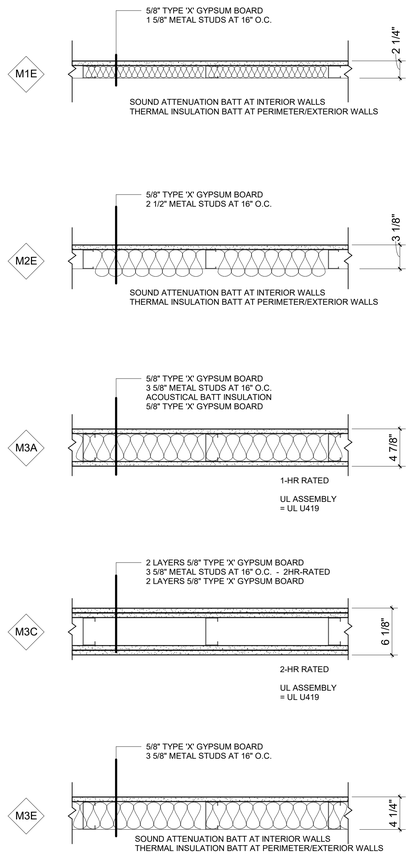
4 ACCESS DOOR PANEL DETAIL
3" = 1'-0"



2 TYPICAL COLUMN DETAIL
1 1/2" = 1'-0"



3 TYPICAL NEW WALL LOCATION AT PERIMETER COLUMNS
1 1/2" = 1'-0"



GENERAL NOTE:
ALL WALLS TO BE BUILT FROM FLOOR TO STRUCTURAL DECK ABOVE

1 PARTITION TYPES
1 1/2" = 1'-0"

GENERAL NOTES:

1. SHEET SIZE FOR PROPER SCALE IS 30X42.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
4. SEE ENLARGED AREA PLANS FOR WALL TYPE INDICATIONS AND DIMENSIONS.
5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

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Drawing Title: WALL TYPES AND PLAN DETAILS

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225

Building Number: 9

Drawing Number: A1.05

Dwg. 8 of 41

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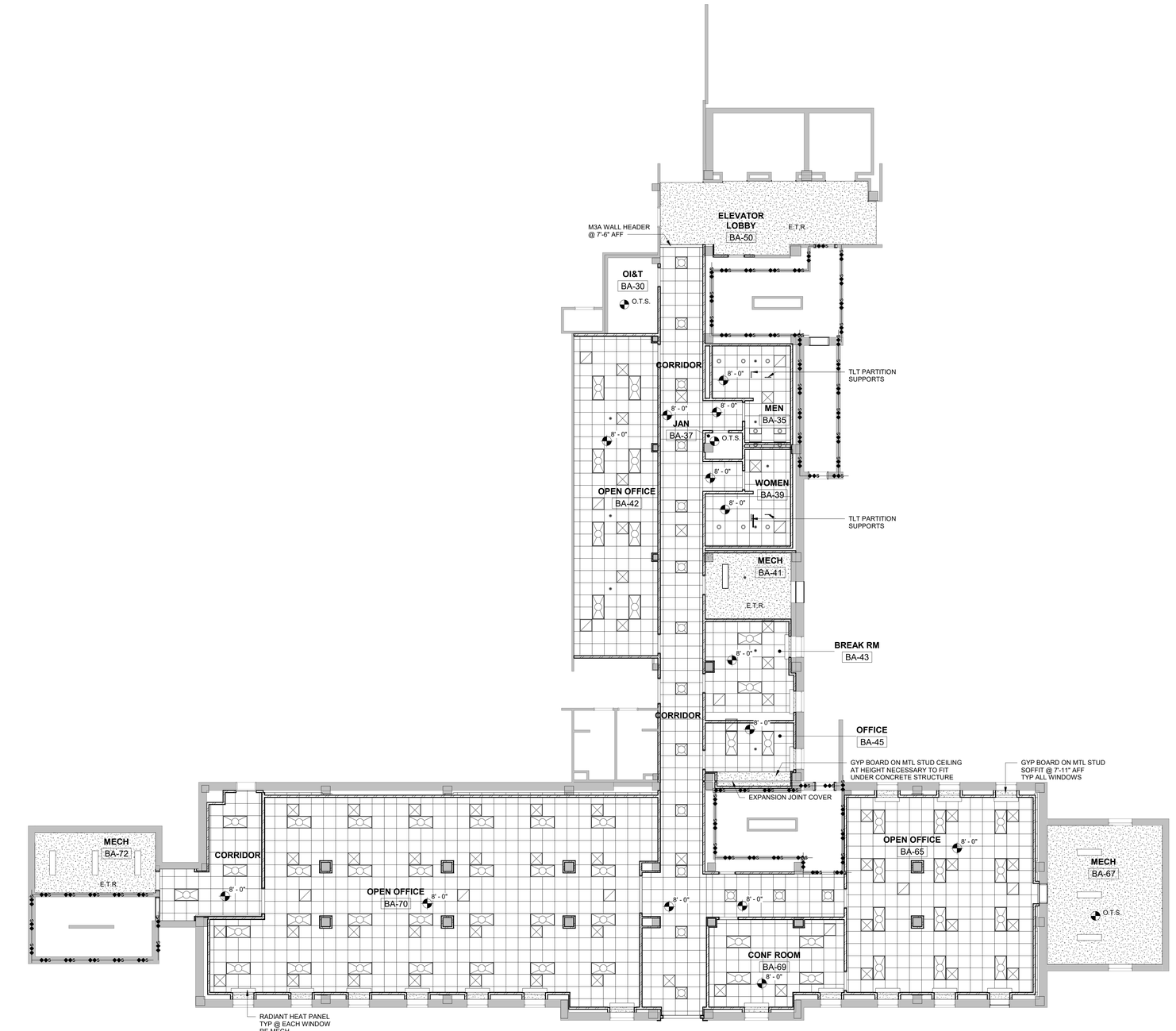

1 REFLECTED CEILING PLAN
1/8" = 1'-0"

GENERAL NOTES:

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SHEET SPECIFIC NOTES:

1. CEILING FIXTURES SHOWN FOR REFERENCE ONLY, SEE MECHANICAL / ELECTRICAL DRAWINGS.
2. REFER TO A1.05 FOR PARTITION TYPES.
3. SPRAY APPLIED FIREPROOFING AT ALL EXPOSED STEEL STRUCTURE, INCLUDING UNDERSIDE OF OVERHEAD METAL DECK. NOT SHOWN IN REFLECTED CEILING PLAN FOR CLARITY, SEE DETAILS.
4. ALL LAY-IN ACOUSTICAL TILE CEILINGS SHALL BE AT 8'-0" ABOVE FINISHED FLOOR. IF THIS IS NOT POSSIBLE IN SOME SPACES, THE CEILING SHALL BE AS HIGH AS POSSIBLE.
5. AT SPACES OPEN TO STRUCTURE ABOVE, PAINT EXPOSED STRUCTURE AND DECK ABOVE, WHITE.

REFLECTED CEILING LEGEND:

- GYPSUM BOARD - PAINTED, SEE FINISH SCHEDULE, AND SPECIFICATIONS
- ACOUSTICAL CEILING TILE
- HEIGHT — CEILING HEIGHT
- O.T.S. — OPEN TO STRUCTURE ABOVE
- 2X4 CEILING LIGHT FIXTURE
- 2X2 CEILING LIGHT FIXTURE
- 4' SURFACE MOUNTED LIGHT FIXTURE
- 6" RECESSED CAN LIGHT FIXTURE
- HVAC DIFFUSER
- HVAC RETURN DUCT
- AREA OF WORK NOT IN THE SCOPE. EXISTING TO REMAIN.
- FIRE SPRINKLER HEAD
- E.T.R. — EXISTING TO REMAIN

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Revisions:	Date

CONSULTANTS:

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Drawing Title	REFLECTED CEILING PLAN
	FULLY SPRINKLED
Project Title	EHRM TRAINING AND ADMIN SPACE SUPPORT
Location	FARGO, ND
Date	01/11/2022
Checked	JL
Drawn	TC
Project Number	437-21-225
Building Number	9
Drawing Number	A1.10
	Dwg. 9 of 41

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1/7/2022 10:21:42 AM

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GENERAL NOTES:

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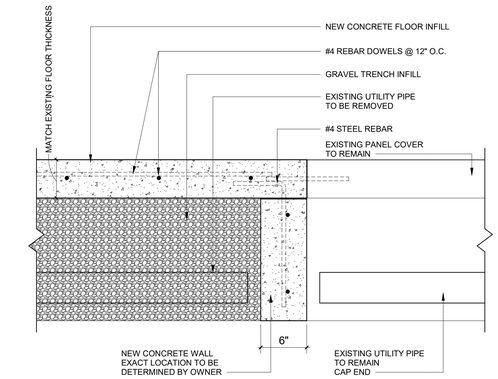
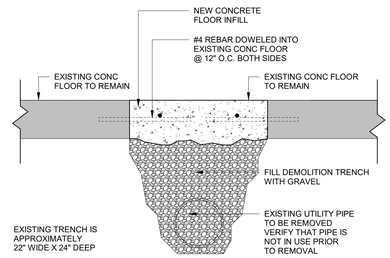


2 TRENCH ENDWALL SECTION
1 1/2" = 1'-0"



1 TRENCH DEMO FLOOR INFILL
1 1/2" = 1'-0"

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Revisions:	Date

CONSULTANTS:

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Drawing Title: SECTION DETAILS

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225

Building Number: 9

Drawing Number: A3.00

Dwg. 10 of 41

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VA FORM 08-6231

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	WALLS				CEILING FINISH	COMMENTS
				NORTH	EAST	SOUTH	WEST		
BA-15B1	TLT	-	-	-	-	SEE COMMENTS	-	-	PATCH AND REPAIR SOUTH WALL AS NEEDED
BA-30	OI&T	EXISTING	-	EXISTING	P-2	P-2	EXISTING	-	3/4" FIRE RATED PLYWOOD ON EAST AND SOUTH WALLS
BA-35	MEN	PT-1	PT-COVE	P-1/PT-2/PT-3	P-1/PT-2/PT-3	P-1/PT-2/PT-3	P-1/PT-2/PT-3	GYP/P-2	6" BAND OF PT-3 TO START AT 54"AFF, PT-2 TO 66" AFF WITH SCHLUTER ALUMINUM BULLNOSE ABOVE, SEE SHEET A5.20
BA-37	JAN	QT-1	QT-COVE	P-2/FRP	P-2/FRP	P-2/FRP	P-2/FRP	GYP/P-2	FRP TO 48"AFF
BA-39	WOMEN	PT-1	PT-COVE	P-1/PT-2/PT-3	P-1/PT-2/PT-3	P-1/PT-2/PT-3	P-1/PT-2/PT-3	ACT-1	6" BAND OF PT-3 TO START AT 54"AFF, PT-2 TO 66" AFF WITH SCHLUTER ALUMINUM BULLNOSE ABOVE, SEE SHEET A5.20
BA-41	MECH	CS	RB-1	P-1	P-1	P-1	P-1	P-2	
BA-42	OPEN OFFICE	CPT-1	RB-1	P-1	P-1	P-1	P-3	ACT-1	
BA-43	BREAK RM	LVT-1	RB-1	P-1	P-1	P-3	P-1	ACT-1	
BA-44	PASSAGE	EXISTING	EXISTING/RB-1	P-1	P-1	EXISTING	EXISTING	EXISTING	NEW RB-1 ON NORTH AND EAST WALLS ONLY
BA-44A	WOMEN LOCKER	EXISTING	EXISTING	EXISTING	PT	EXISTING	EXISTING	EXISTING	MATCH EXISTING TILE AND TILE BASE ON EAST WALL
BA-45	OFFICE	CPT-1	RB-1	P-3	P-1	P-1	P-1	ACT-1	
BA-50	ELEVATOR LOBBY	LVT-1	RB-1	P-3	P-1	P-1	P-1	-	REMOVE EXISTING WALLCOVERING, PATCH AND REPAIR WALL SURFACE AS NEEDED
BA-52	CORRIDOR	LVT-1	RB-1	P-1	P-1	P-1	P-1	ACT-1	
BA-54	CORRIDOR	LVT-1	RB-1	P-1	P-1	P-1	P-1	ACT-1	
BA-65	OPEN OFFICE	LVT-1	RB-1	P-3	P-1	P-3	P-1	ACT-1	
BA-67	MECH	CS	RB-1	P-2	P-2	P-2	P-2	P-2	
BA-69	CONF ROOM	CPT-1	RB-1	P-1	P-1	P-3	P-1	ACT-1	
BA-70	OPEN OFFICE	LVT-1	RB-1	P-3	P-1	P-3	P-1	ACT-1	
BA-72	MECH	CS	RB-1	P-2	P-2	P-2	P-2	P-2	
ES-9	STAIR	-	-	-	-	-	-	-	-
ES-10	STAIR	-	-	-	-	-	-	-	-
ES-13	STAIR	-	-	-	-	-	-	-	-

ROOM FINISH SCHEDULE LEGEND:

MATERIAL DESCRIPTION:

ACT-1	ACOUSTIC CEILING TILE
CS	CONCRETE, SEALED
CPT-1	CARPET TILE
EXP	EXPOSED
FRP	FIBERGLASS REINFORCED PANEL
GWB	GYPSUM WALL BOARD
LVT-1	LUXURY VINYL PLANK TILE
P-1	PAINT 1, BALANCED BEIGE
P-2	PAINT 2, PURE WHITE
P-3	PAINT 3, MAGNETIC GRAY
PLAM-1	PLASTIC LAMINATE
PT-1	PORCELAIN TILE, FLOOR
PT-2	PORCELAIN TILE, WALL
PT-3	MOSAIC ACCENT TILE
PT-COVE	PT COVE BASE
QT-1	QUARRY TILE
QT-COVE	QUARRY TILE COVE BASE
RB-1	RESILIENT BASE
SDT-1	STATIC DISSIPATIVE VINYL TILE
SS-1	SOLID SURFACE COUNTERTOPS

GENERAL NOTES:

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2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
4. SEE ENLARGED AREA PLANS FOR WALL TYPE INDICATIONS AND DIMENSIONS.
5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

SHEET SPECIFIC NOTES:

1. SEE WALL PROTECTION PLAN, SHEET A5.15, FOR SPECIFIC LOCATIONS OF WALL PANELS, CORNER GUARDS, BUMPER RAILS AND HANDRAILS.
2. PORCELAIN TILE AND QUARRY TILE APPLICATION OVER CONCRETE BACKER BOARD, SEE SPECIFICATIONS.

100% CONSTRUCTION DRAWINGS

Revisions: | Date

CONSULTANTS:

STATE OF MISSOURI
TIM DAVID CUMMINS
NUMBER A-5408
REGISTERED ARCHITECT

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Drawing Title: ROOM FINISH SCHEDULE

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: MD

Project Number: 437-21-225

Building Number: 9

Drawing Number: A5.00

Dwg. 11 of 41

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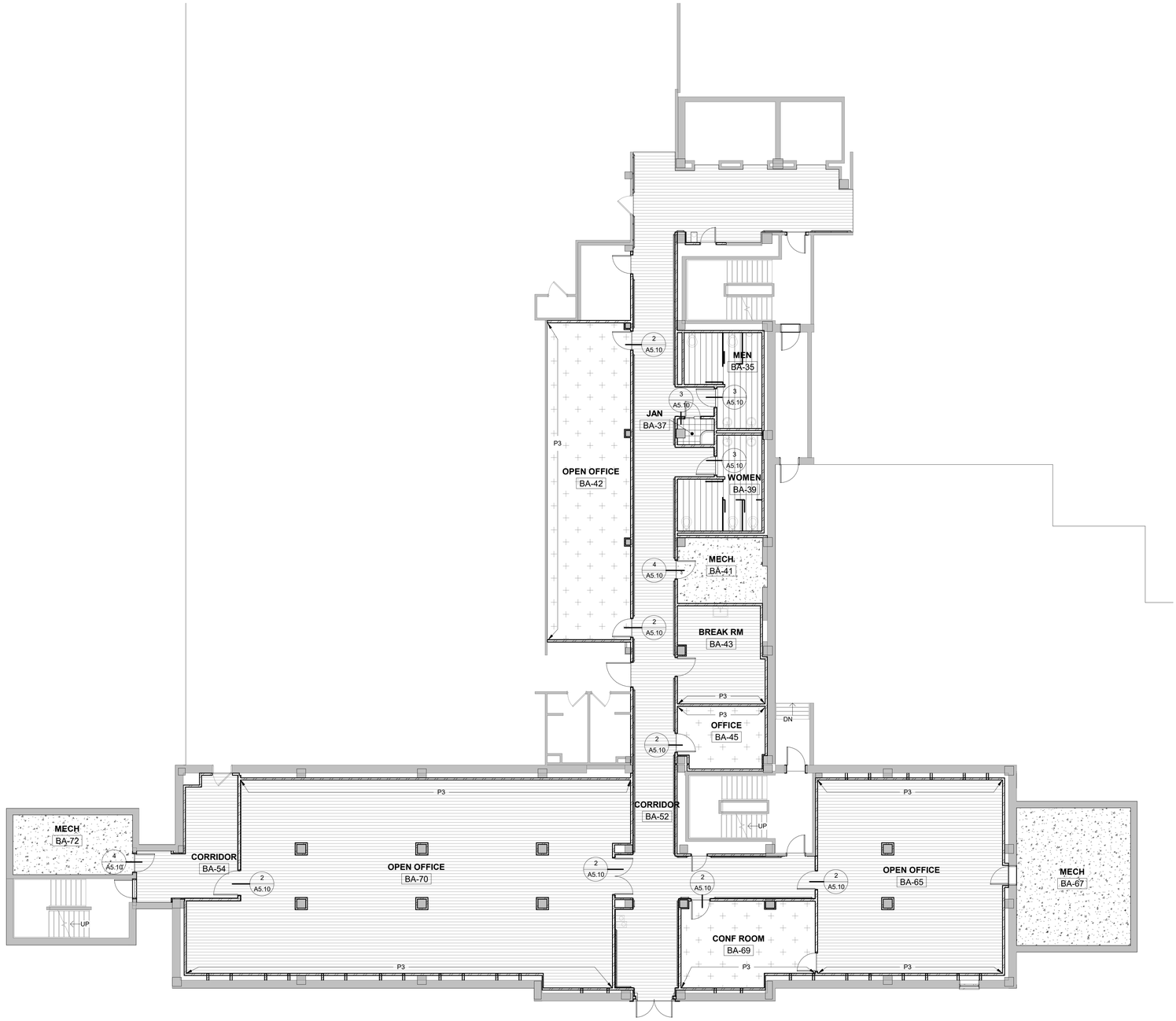
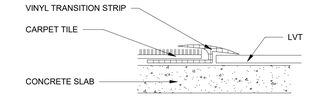
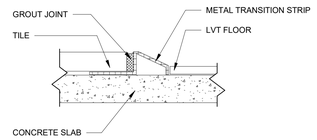


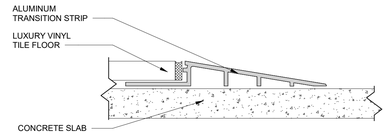
1 FLOOR FINISH PLAN
1/8" = 1'-0"



2 CARPET TILE TO LVT
12" = 1'-0"



3 TILE TO LVT
12" = 1'-0"



4 LVT TO CONCRETE
12" = 1'-0"

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7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

SHEET SPECIFIC NOTES:

1. SEE WALL PROTECTION PLAN, SHEET A5.15, FOR SPECIFIC LOCATIONS OF WALL PANELS, CORNER GUARDS, BUMPER RAILS AND HANDRAILS.
2. PORCELAIN TILE APPLICATION OVER CONCRETE BACKER BOARD, SEE SPECIFICATIONS.
3. FLOORS TO BE LEVELED PRIOR TO NEW FLOORING INSTALLATION, SEE SPECIFICATIONS.

FLOOR FINISH LEGEND:

- CS - SEALED CONCRETE
- LVT-1 - LUXURY VINYL TILE
- PT-1 - PORCELAIN TILE
- CPT-1 - CARPET TILE
- QT-1 - QUARRY TILE

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

STATE OF MISSOURI
TIM DAVID CUMMINS
NUMBER A-5408
REGISTERED ARCHITECT

ARCHITECT

FOURFRONT DESIGN, INC.
517 7TH STREET
RAPID CITY, SOUTH DAKOTA
57701
PH: (605) 342-9470
FAX: (605) 342-2377
WWW.FOURFRONTDESIGN.COM

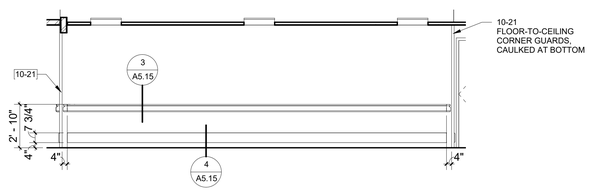
Drawing Title	FLOOR FINISH PLANS
	FULLY SPRINKLED
Project Title	EHRM TRAINING AND ADMIN SPACE SUPPORT
Location	FARGO, ND
Date	01/11/2022
Checked	JL
Drawn	MD
Project Number	437-21-225
Building Number	9
Drawing Number	A5.10
Dwg.	12 of 41

Office of Construction and Facilities Management

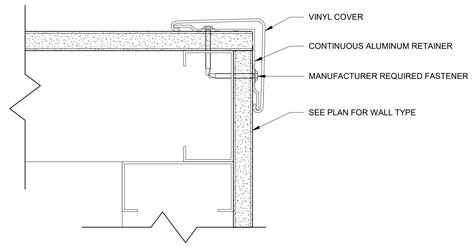
Department of Veterans Affairs

1/7/2022 10:21:53 AM

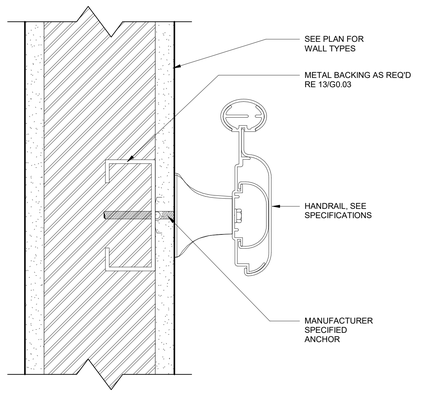
VA FORM 08-6231



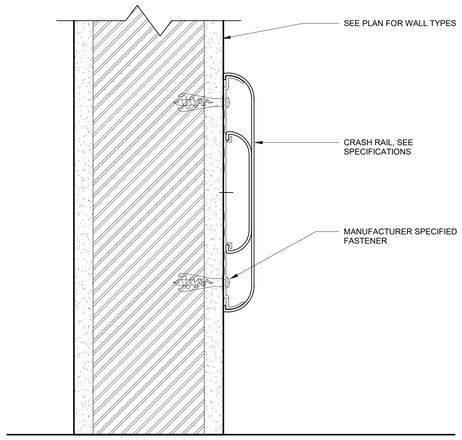
2 TYPICAL WALL PROTECTION ELEVATION
1/4" = 1'-0"



5 CORNER GUARD DETAIL
6" = 1'-0"



3 HANDRAIL DETAIL
6" = 1'-0"



4 CRASHRAIL DETAIL
6" = 1'-0"

1 WALL PROTECTION PLAN
1/8" = 1'-0"

GENERAL NOTES:

1. SHEET SIZE FOR PROPER SCALE IS 30X42.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
4. SEE ENLARGED AREA PLANS FOR WALL TYPE INDICATIONS AND DIMENSIONS.
5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

KEYNOTES:

10-21 CORNER GUARD

LEGEND - WALL PROTECTION

HANDRAIL

CRASHRAIL

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

STATE OF MISSOURI
TIM DAVID CUMMINS
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FAX: (605) 342-2377
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Drawing Title: WALL PROTECTION PLAN AND DETAILS

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: MD

Project Number: 437-21-225

Building Number: 9

Drawing Number: A5.15

Dwg. 13 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

1/7/2022 10:22:05 AM

VA FORM 08-6231

GENERAL NOTES:

1. SHEET SIZE FOR PROPER SCALE IS 30X42.
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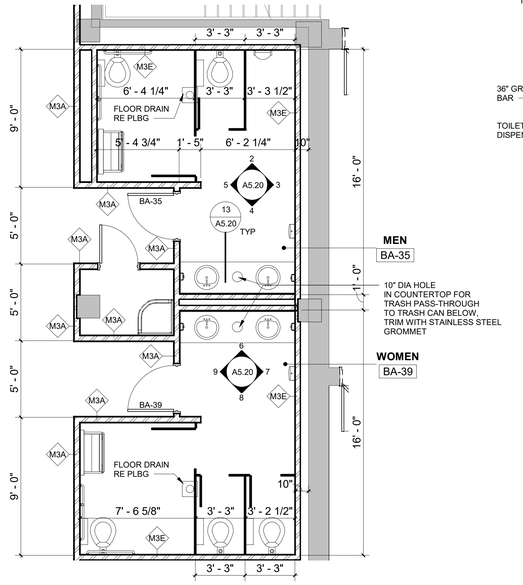
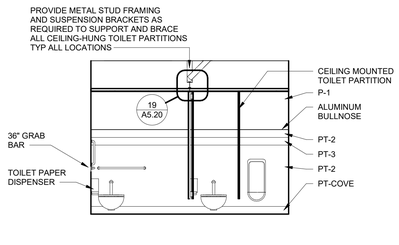
8. EXISTING WALL SHADED FOR CLARITY.

SHEET SPECIFIC NOTES:

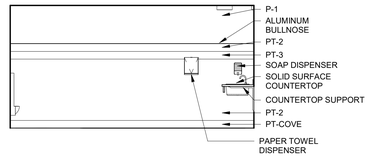
1. CORNER GUARDS TO BE FULL HEIGHT, WITH A CAULK JOINT AT THE BASE.
2. SOAP DISPENSERS AND PAPER TOWEL DISPENSERS TO BE VA PROVIDED, VA INSTALLED.



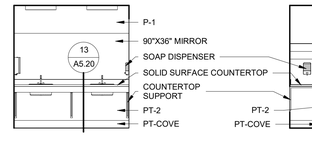
1 ENLARGED PLAN - RESTROOMS
1/4" = 1'-0"



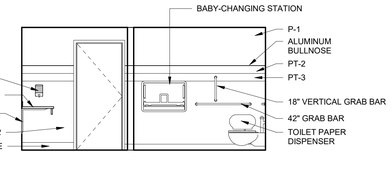
2 MENS RESTROOM ELEVATION - NORTH
1/4" = 1'-0"



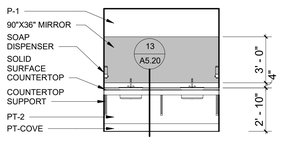
3 MENS RESTROOM ELEVATION - EAST
1/4" = 1'-0"



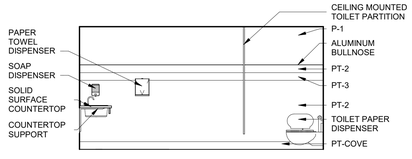
4 MENS RESTROOM ELEVATION - SOUTH
1/4" = 1'-0"



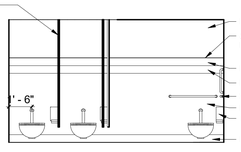
5 MENS RESTROOM ELEVATION - WEST
1/4" = 1'-0"



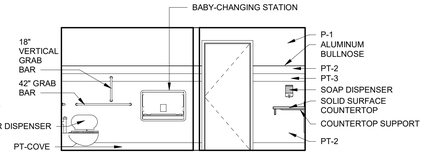
6 WOMENS RESTROOM ELEVATION - NORTH
1/4" = 1'-0"



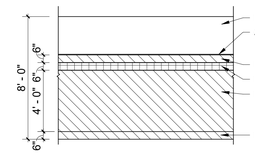
7 WOMENS RESTROOM ELEVATION - EAST
1/4" = 1'-0"



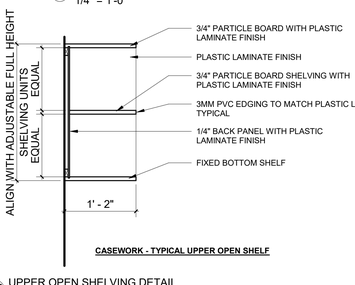
8 WOMENS RESTROOM ELEVATION SOUTH
1/4" = 1'-0"



9 WOMENS RESTROOM ELEVATION - WEST
1/4" = 1'-0"

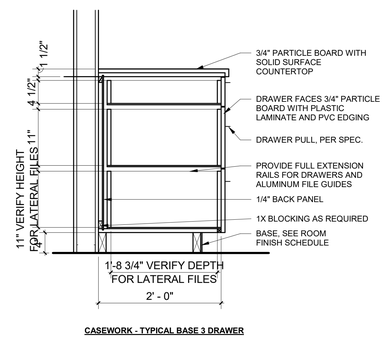


10 TYPICAL TILE ELEVATION
1/4" = 1'-0"



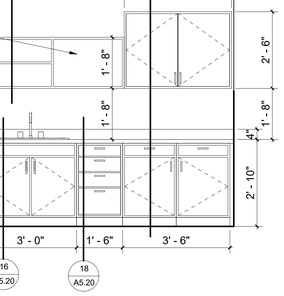
CASEWORK - TYPICAL UPPER OPEN SHELF

17 UPPER OPEN SHELVING DETAIL
1" = 1'-0"



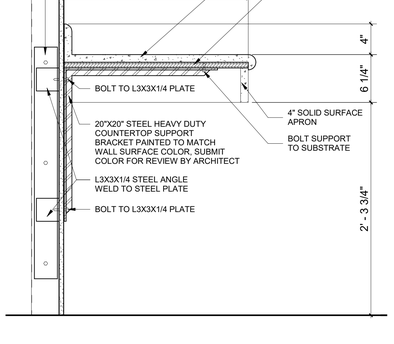
CASEWORK - TYPICAL BASE 3 DRAWER

18 BASE 3 DRAWER
1" = 1'-0"

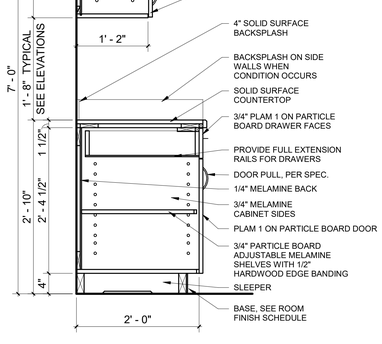


11 ENLARGED PLAN - BREAK ROOM
1/4" = 1'-0"

12 BREAKROOM ELEVATION NORTH
1/2" = 1'-0"

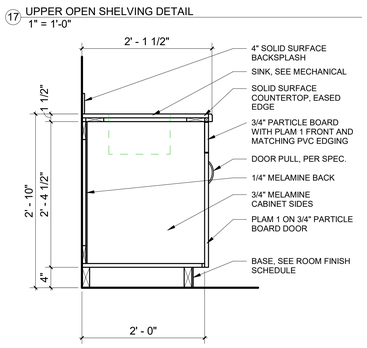


13 LAVATORY COUNTER SECTION
1 1/2" = 1'-0"



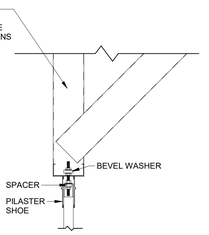
CASEWORK - TYPICAL BASE AND UPPER CABINET

15 TYPICAL CASEWORK - BASE AND UPPER
1" = 1'-0"

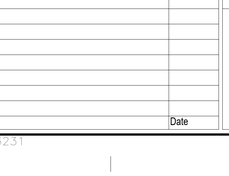


CASEWORK - TYPICAL SINK BASE

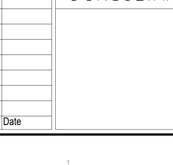
16 BASE CABINET WITH SINK
1" = 1'-0"

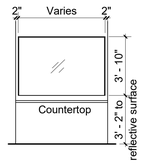


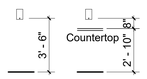
19 TOILET PARTITION - CEILING HUNG DETAIL
1 1/2" = 1'-0"



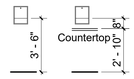
ADA Water Closet





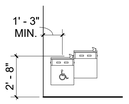


Soap Dispenser



Paper Towel Dispenser

Baby Changing Station



Drinking Fountain

Fire Extinguisher w/ Cabinet, Fire Extinguisher Handle on Bracket

14 Mounting Heights
1/4" = 1'-0"

TOILET ACCESSORY SCHEDULE	
A	42" Grab bar
B	18" Grab bar
C	Toilet paper dispenser
D	36" Grab bar

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

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WWW.FOURFRONTDESIGN.COM

Drawing Title: ENLARGED PLANS AND INTERIOR ELEVATIONS

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: MD

Project Number: 437-21-225

Building Number: 9

Drawing Number: A5.20

Dwg. 14 of 41

Office of Construction and Facilities Management

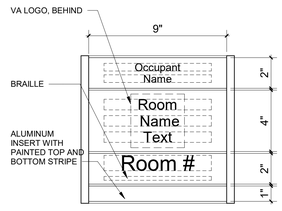
Department of Veterans Affairs

1/7/2022 10:22:10 AM

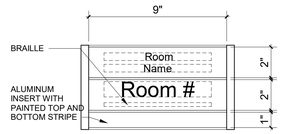
VA FORM 08-6231

SIGNAGE SCHEDULE

Number	Name	Name on sign	Sign Type
BA-15B1	TLT	-	NO SIGN
BA-30	OI&T	OI&T CLOSET	A16
BA-35	MEN	MEN'S RESTROOM	A16
BA-37	JAN	HAC	A16
BA-39	WOMEN	WOMEN'S RESTROOM	A16
BA-41	MECH	MECHANICAL ROOM	A16
BA-42	OPEN OFFICE	OFFICE	A1
BA-43	BREAK RM	BREAK ROOM	A16
BA-44	PASSAGE	-	NO SIGN
BA-44A	WOMEN LOCKER	-	NO SIGN
BA-45	OFFICE	OFFICE	A1
BA-50	ELEVATOR LOBBY	-	NO SIGN
BA-52	CORRIDOR	-	NO SIGN
BA-54	CORRIDOR	-	NO SIGN
BA-65	OPEN OFFICE	OFFICE	A1
BA-67	MECH	MECHANICAL ROOM	A16
BA-69	CONF ROOM	CONFERENCE ROOM	A16, F
BA-70	OPEN OFFICE	OFFICE	A1
BA-70B	RESTROOM	-	NO SIGN
BA-72	MECH	MECHANICAL ROOM	A16
ES-9	STAIR		C
ES-10	STAIR		C
ES-13	STAIR		C



TYPE A1



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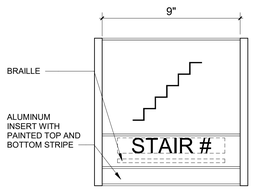
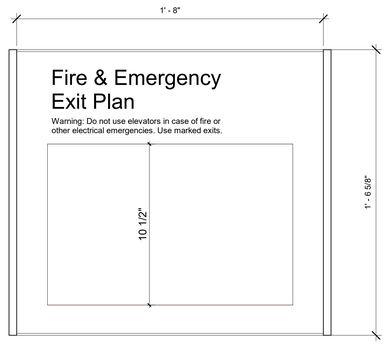
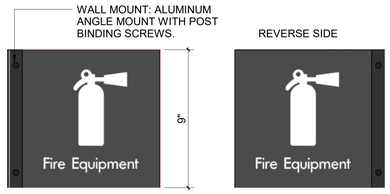


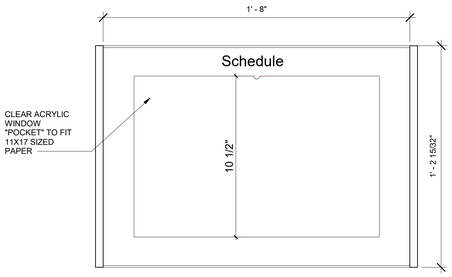
TYPE C



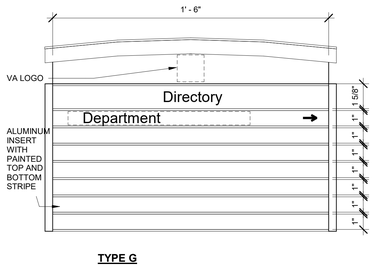
TYPE D



TYPE E

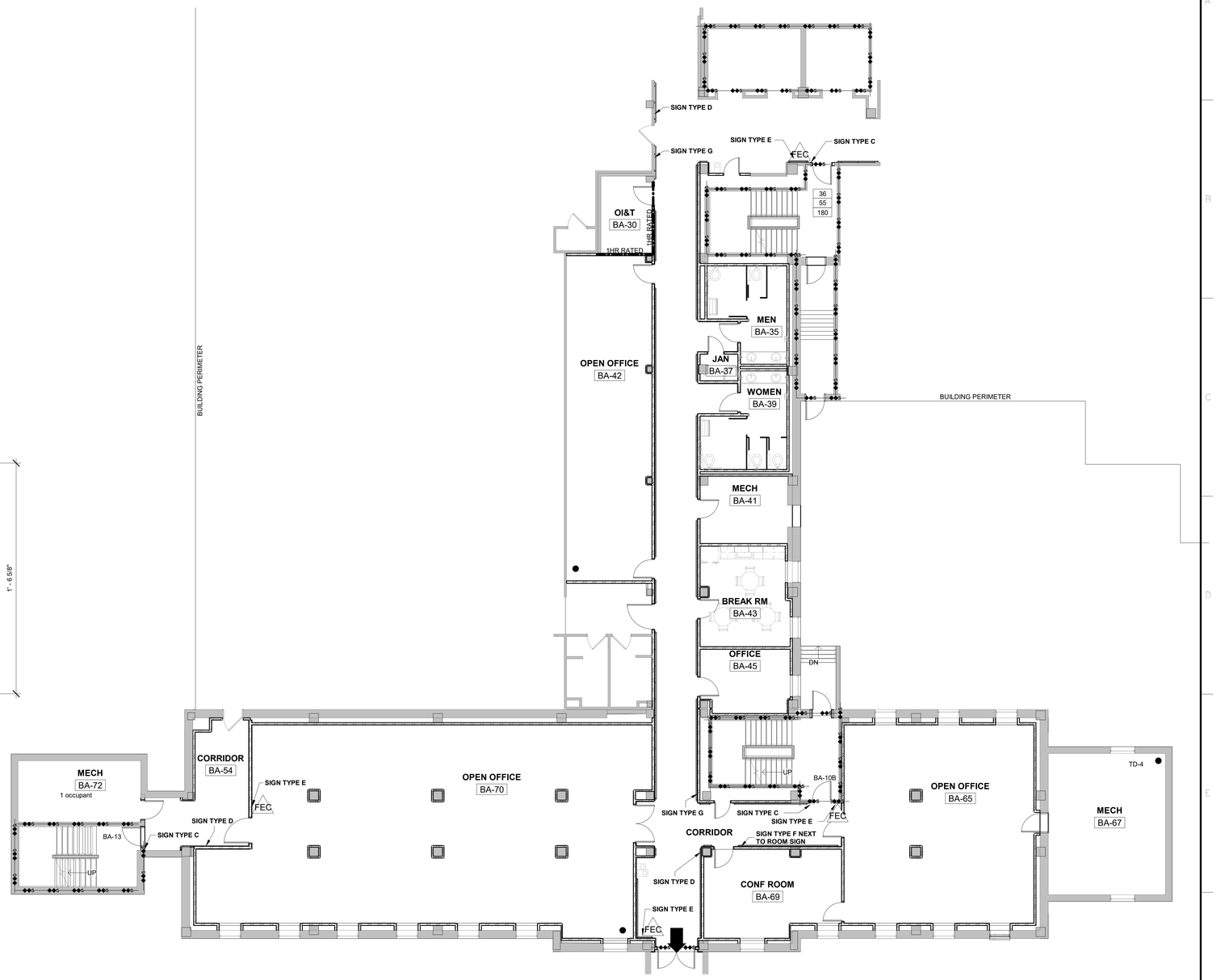


TYPE F



TYPE G

1 SIGNAGE DETAILS
3" = 1'-0"



2 SIGNAGE FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES:

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2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
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5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

100% CONSTRUCTION DRAWINGS

Revisions: | Date

CONSULTANTS:

STATE OF MISSOURI
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WWW.FOURFRONTDESIGN.COM

Drawing Title: SIGNAGE SCHEDULE AND DETAILS

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: Checker | Drawn: MD

Project Number: 437-21-225

Building Number: 9

Drawing Number: A5.25

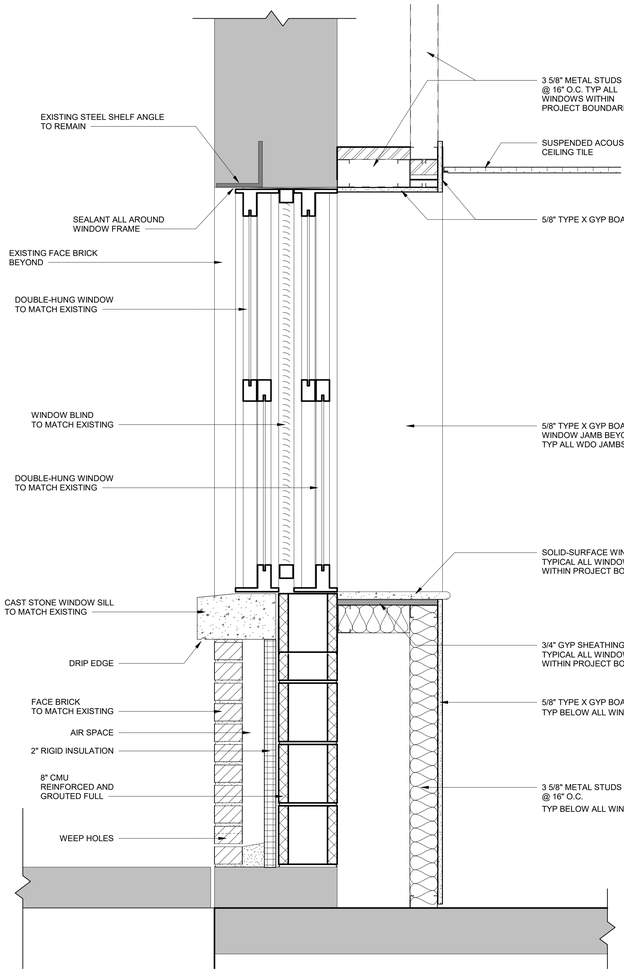
Dwg. 15 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

1/7/2022 10:22:22 AM

VA FORM 08-6231



1 NEW WINDOW SECTION
1 1/2" = 1'-0"

DOOR SCHEDULE

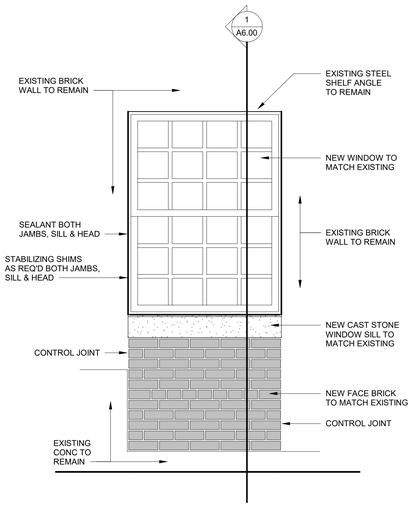
DOOR NUMBER	ROOM NAME	FIRE RATING	WIDTH	HEIGHT	PANEL TYPE	FRAME TYPE	GLAZING TYPE	HARDWARE GROUP	COMMENTS	HEAD	JAMB	SILL
BA-9A	ELEVATOR LOBBY	1.5 HR	3' - 0"	7' - 0"	HM-F	EXIST		2	ADD 34"W x 36"H, 16GA STAINLESS STEEL KICK PLATE TO EACH SIDE OF DOOR PANEL BASE			
BA-9B	STAIR	1.5 HR	3' - 0"	7' - 0"	HM-F	EXIST		2	ADD 34"W x 36"H, 16GA STAINLESS STEEL KICK PLATE TO EACH SIDE OF DOOR PANEL BASE			
BA-9C	STAIR	1.5 HR	3' - 0"	7' - 0"	HM-F	EXIST		2	ADD 34"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE			
BA-10A	STAIR	1.5 HR	3' - 0"	7' - 0"	HM-F	EXIST		2	ADD 34"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE			
BA-10B	STAIR	1.5 HR	3' - 0"	7' - 0"	HM-F	EXIST		2	ADD 34"W x 36"H, 16GA STAINLESS STEEL KICK PLATE TO EACH SIDE OF DOOR PANEL BASE			
BA-10C	CORRIDOR	-	2' - 6"	7' - 0"	WD-F	HM-001		4	ADD 34"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE	3/A6.00	5/A6.00	
BA-13	STAIR	1.5 HR	3' - 0"	7' - 0"	HM-F	EXIST		2	ADD 34"W x 36"H, 16GA STAINLESS STEEL KICK PLATE TO EACH SIDE OF DOOR PANEL BASE	4/A6.00	6/A6.00	
BA-30	OI&T	3/4 HR	3' - 0"	7' - 6"	WD-F	HM-001		3		3/A6.00	5/A6.00	
BA-35	MEN	-	3' - 0"	7' - 0"	WD-F	HM-001		16	ADD 34"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE. UNDERCUT DOOR 1 INCH.	3/A6.00	5/A6.00	
BA-37	CORRIDOR	-	2' - 6"	7' - 0"	HM-F	HM-001		4	ADD 28"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE	3/A6.00	5/A6.00	
BA-39	WOMEN	-	3' - 0"	7' - 0"	WD-F	HM-001		16	ADD 34"W x 36"H, 16GA STAINLESS STEEL KICK PLATE TO EACH SIDE OF DOOR PANEL BASE. UNDERCUT DOOR 1 INCH.	3/A6.00	5/A6.00	
BA-41	MECH	-	3' - 0"	7' - 0"	HM-F	HM-001		5	ADD 34"W x 36"H, 16GA STAINLESS STEEL KICK PLATE TO EACH SIDE OF DOOR PANEL BASE	3/A6.00	5/A6.00	
BA-42A	OPEN OFFICE	-	3' - 0"	7' - 0"	WD-F	HM-001		11		3/A6.00	5/A6.00	
BA-42B	OPEN OFFICE	-	3' - 0"	7' - 0"	WD-F	HM-001		12		3/A6.00	5/A6.00	
BA-43	BREAK RM	-	3' - 0"	7' - 0"	WD-F	HM-001		15		3/A6.00	5/A6.00	
BA-44	CORRIDOR	-	4' - 0"	7' - 0"	HM-F	HM-001		7	ADD 46"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE	3/A6.00	5/A6.00	
BA-45	OFFICE	-	3' - 0"	7' - 0"	WD-F	HM-001		11		3/A6.00	5/A6.00	
BA-50	ELEVATOR LOBBY	-	2' - 6"	7' - 0"	WD-F	HM-001		4		3/A6.00	5/A6.00	
BA-52	CORRIDOR	1.5 HR	6' - 0"	7' - 0"	HM-F	HM-001		1	ADD 34"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE	4/A6.00	6/A6.00	
BA-65	OPEN OFFICE	-	3' - 0"	7' - 0"	WD-F	HM-001		13		3/A6.00	5/A6.00	
BA-67	MECH		3' - 0"	7' - 0"	HM-F	EXIST		6	ADD 34"W x 12"H, CLEAR ACRYLIC KICK PLATE TO EACH SIDE OF DOOR PANEL BASE			
BA-69A	CONF ROOM	-	3' - 0"	7' - 0"	WD-F	HM-001		8		3/A6.00	5/A6.00	
BA-69B	OPEN OFFICE	-	3' - 0"	7' - 0"	WD-F	HM-001		9		3/A6.00	5/A6.00	
BA-70A	OPEN OFFICE	-	6' - 0"	7' - 0"	WD-F	HM-001		10		3/A6.00	5/A6.00	
BA-70B	OPEN OFFICE	-	4' - 0"	7' - 0"	HM-F	HM-001		14		3/A6.00	5/A6.00	
BA-72	MECH	-	3' - 0"	7' - 0"	HM-F	EXIST		6	ADD 34"W x 36"H, 16GA STAINLESS STEEL KICK PLATE TO EACH SIDE OF DOOR PANEL BASE	3/A6.00	5/A6.00	

GENERAL NOTES:

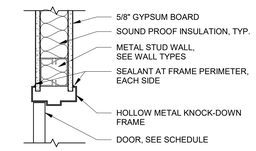
1. SHEET SIZE FOR PROPER SCALE IS 30X42.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VISIT THE PROJECT AND VERIFY EXISTING CONDITIONS/DIMENSIONS AND PROPOSED CONDITIONS. COORDINATE DEMOLITION BETWEEN ALL TRADES. NOTIFY A/E IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
3. WALL PARTITIONS EXTEND TO THE UNDERSIDE OF DECK.
4. SEE ENLARGED AREA PLANS FOR WALL TYPE INDICATIONS AND DIMENSIONS.
5. SEE CODE PLAN FOR CODE INFORMATION.
6. SEE DIMENSION PLAN FOR DIMENSIONS AND WALL TYPES.
7. EXISTING DOORS SHOW AT 45 DEGREE ANGLE FOR CLARITY WITH THE EXCEPTION OF TOILET PARTITIONS.
8. EXISTING WALL SHADED FOR CLARITY.

DOOR LEGEND:

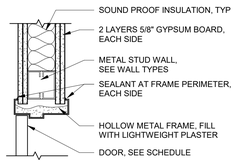
HM	HOLLOW METAL
HM-F	HOLLOW METAL - FLUSH FULL
WD-F	WOOD - FLUSH FULL
EXIST	EXISTING TO REMAIN



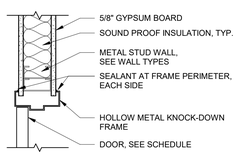
2 NEW WINDOW ELEVATION
3/4" = 1'-0"



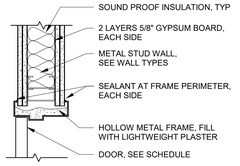
3 DOOR HEAD DETAIL, TYPICAL
1 1/2" = 1'-0"



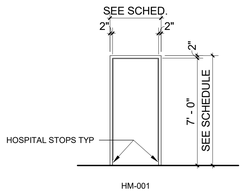
4 DOOR HEAD @ 2 HR RATED WALL
1 1/2" = 1'-0"



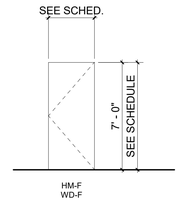
5 DOOR JAMB DETAIL, TYPICAL
1 1/2" = 1'-0"



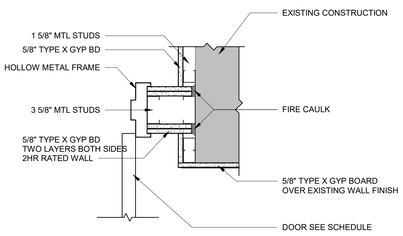
6 DOOR JAMB @ 2 HR RATED WALL
1 1/2" = 1'-0"



DOOR FRAME ELEVATIONS
1/4" = 1'-0"



DOOR PANEL ELEVATIONS
1/4" = 1'-0"



7 2HR WALL AT SOUTH DOOR
1 1/2" = 1'-0"

100% CONSTRUCTION DRAWINGS

Revisions:	Date

CONSULTANTS:

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Drawing Title: DOOR SCHEDULE, ELEVATIONS AND DETAILS

FULLY SPRINKLED

Project Title: EHRM TRAINING AND ADMIN SPACE SUPPORT

Location: FARGO, ND

Date: 01/11/2022 | Checked: JL | Drawn: TC

Project Number: 437-21-225

Building Number: 9

Drawing Number: A6.00

Dwg. 16 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

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VA FORM 08-6231

ABBREVIATIONS:

AC	AIR CURTAIN
ADJ.	ADJUSTABLE
AS	AIR SEPARATOR
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
BHP	BRAKE HORSEPOWER
BMS	BUILDING MANAGEMENT SYSTEM
CA	COMPRESSED AIR
CFM	CUBIC FEET PER MINUTE
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
C/L	CENTERLINE
CO	CLEANOUT
COEF	COEFFICIENT
COMLINK	COMMUNICATION LINK
COND	CONDENSATION
CONFIG	CONFIGURED
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CV	CONTROL VALVE
CV	FLOW COEFFICIENT
DAMP.	DAMPER
DC	DIRECT CURRENT
DEG	DEGREES
DIFF.	DIFFERENTIAL
(E)	EXISTING
EA	EXHAUST AIR
ECC	ENERGY CONTROL CENTER
ELECT.	ELECTRICAL
ELEV	ELEVATION
ENT	ENTERING
F	FAHRENHEIT
FD	FLOOR DRAIN
FS	FLOOR SINK
FILT.	FILTER
FPM	FEET PER MINUTE
FT	FEET
GAL	GALLONS
G.C.	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HR	HOUR
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
HX	HEAT EXCHANGER
HWS	HYDRONIC HEATING SUPPLY
HWR	HYDRONIC HEATING RETURN
Hz	HERTZ
IBC	INTERNATIONAL BUILDING CODE
IECC	INTERNAIONAL ENERGY CONSERVATION CODE
IFB	INTEGRAL FACE AND BYPASS
IMC	INTERNATIONAL MECHANICAL CODE
I/O	INPUT/OUTPUT
IPC	INTERNATIONAL PLUMBING CODE
L	LENGTH
LA	LABORATORY EQUIPMENT COMPRESSED AIR
LBS	POUNDS
LPS	LOW PRESSURE STEAM
LPR	LOW PRESSURE CONDENSATE RETURN
MA	MEDICAL AIR
MAX	MAXIMUM
MBH	
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFG	MANUFACTURER
MIN	MINIMUM
MIN	MINUTE
mm	MILLIMETER
MV	MEDICAL VACUUM
N.C.	NORMALLY CLOSED
NC	NOISE CRITERIA LEVEL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NG	NATURAL GAS
N.O.	NORMALLY OPEN
NPT	NATIONAL PIPE THREAD
O2	OXYGEN
ORD	OVERFLOW ROOF DRAIN
OSHA	
Pa	PASCAL
PD	PRESSURE DROP
PRESS.	PRESSURE
PSIG	POUNDS PER SQUARE INCH - GAUGE
QUANT.	QUANTITY
RA	RETURN AIR
RC	REHEAT STEAM COIL - AHU
RD	ROOF DRAIN
RE	RESIDENT ENGINEER
REQ'D	REQUIRED
RPM	REVOLUTIONS PER MINUTE
S	SUPPLY
SF	SQUARE FEET
SPEC	SPECIFICATION
SS	STAINLESS STEEL
	THOUSAND BRITISH THERMAL UNITS PER HOUR
T	THERMOSTAT
TYP	TYPICAL
V	VOLTS
VAC	MEDICAL VACUUM
W/	WITH
WB	WET BULB
WG	INCHES OF WATER
ZAP	ZONE ALARM PANEL
ZVB	ZONE VALVE BOX
ZC	VALVE OR DAMPER CONTROLLER

PLUMBING SYMBOLS

- 3-WAY CONTROL VALVE
- 2-WAY CONTROL VALVE
- CHECK VALVE
- VALVE
- BALANCING VALVE
- FLOW CONTROL VALVE
- PRESSURE REDUCING VALVE
- REDUCED PRESSURE ZONE VALVE
- PRESSURE RELIEF VALVE
- SOLENOID VALVE
- PRESSURE GAUGE
- THERMOMETER
- CONCENTRIC REDUCER
- PIPE UNION
- PIPE DOWN
- PIPE UP
- PIPE TEE DOWN
- GLOBE VALVE
- GLOBE VALVE -MANUAL
- GLOBE VALVE - ON/OFF
- GLOBE VALVE - MODULATING
- TEMPERATURE SENSOR
- TEST PLUG
- POINT OF CONNECTION
- POINT OF DISCONNECTION
- PLUMBING PLAN NOTE
- TEE

GENERAL MECHANICAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), INTERNATIONAL PLUMBING CODE (IPC), INTERNATIONAL FUEL GAS CODE (IFGC), NFPA 99, NFPA 101 LIFE SAFETY CODE, AND ANY AUTHORITY HAVING JURISDICTION. THIS IS A FEDERAL PROJECT, AS SUCH ALL CODE REQUIREMENTS ARE REQUIRED.
2. ALL EQUIPMENT, MATERIALS, AND ARTICLES INCORPORATED IN THE WORK SHALL BE NEW AND OF COMPARABLE QUALITY AS SPECIFIED. ALL WORKMANSHIP SHALL BE FIRST-CLASS AND SHALL BE PERFORMED BY MECHANICS SKILLED AND REGULARLY EMPLOYED IN THEIR RESPECTIVE TRADES.
3. ALL WORK SHALL BE COORDINATED WITH ALL AFFECTED TRADES PRIOR TO STARTING WORK. REWORK REQUIRED DUE TO COORDINATION ISSUES SHALL BE PERFORMED BY THE INSTALLATION CONTRACTOR WITHOUT INCREASED COST TO THE OWNER.
4. THESE DRAWINGS ARE GENERAL IN NATURE. ALTHOUGH EVERY ATTEMPT HAS BEEN MADE TO INDICATE THE EXACT ROUTING AND LOCATION OF PROPOSED SYSTEMS, NOT ALL OFFSETS, REQUIRED FITTINGS AND/OR CONDITIONS CAN BE SHOWN. THE CONTRACTOR SHALL COORDINATE WORK AND MAKE REQUIRED CHANGES TO THE ROUTING IN ORDER TO AVOID CONFLICTS WITHOUT ANY INCREASED COST TO THE OWNER.
5. SYSTEMS DESIGNATED TO BE PROVIDED AND INSTALLED WITHIN THESE CONTRACT DOCUMENTS ARE INTENDED TO BE COMPLETE AND OPERATIONAL. PROVIDE EVERYTHING ESSENTIAL FOR THE COMPLETION OF THE WORK TO MAKE THE SYSTEM READY FOR NORMAL AND PROPER OPERATION, INCLUDING ALL WORK OR MATERIALS NOT DIRECTLY SHOWN ON THE DRAWINGS OR IN THE SPECIFICATIONS, BUT NECESSARY FOR THE PROPER OPERATION OF THE SYSTEM.
6. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER MAINTENANCE CLEARANCES ARE MAINTAINED. CORRIDORS SHALL NOT BE COMPLETELY BLOCKED BY DUST BARRIERS. AT LEAST HALF OF THE CORRIDORS SHALL BE OPEN. CLOSE COORDINATION WILL BE REQUIRED WITH THE MECHANICAL PIPING, HVAC, FIRE PROTECTION, ELECTRICAL CONTRACTOR AND VA COR.
7. THE CONTRACTOR WILL BE ADDING NEW WALL PENETRATIONS IN A VARIETY OF WALL TYPES TO COMPLETE THIS PROJECT. ALL NEW AND EXISTING PENETRATIONS WILL BE SEALED MINIMALLY FOR SMOKE AND FIRE SPREAD. FOR RATED WALLS, THE CONTRACTOR SHALL SUBMIT AND PROVIDE UL LISTED PENETRATION FOR EACH APPROPRIATE RATED ASSEMBLY PENETRATION. ALL PENETRATIONS SHALL BE SEALED AT THE END OF WORK SHIFT TO AVOID LEAVING AN OPENING OVERNIGHT.
8. ANY AND ALL STEAM WORK MUST HAVE DOUBLE ISOLATION VALVES TO RENDER SAFE TO PERFORM WORK.
9. CONTRACTOR TO COORDINATE ALL PHASING AND SHUTDOWNS WITH THE COR TO MINIMIZE DOWNTIME. THIS INCLUDES DISRUPTIONS TO CHILLER PIPING LEAVING THE PROJECT SPACE TO THE NORTH AND TO THE WEST TO BUILDING #40. THIS ALSO INCLUDES DISRUPTIONS TO THE LOW PRESSURE STEAM AND CONDENSATE PIPING SERVING THE FLOORS ABOVE THE PROJECT SPACE.

DUCTWORK SYMBOLS

- UP / DN — SUPPLY DUCT (UP & DOWN)
- UP / DN — EXHAUST DUCT (UP & DOWN)
- UP / DN — RETURN DUCT (UP & DOWN)
- ROUND AND SQUARE 4-WAY CEILING DIFFUSERS
- SQUARE 3-WAY CEILING DIFFUSERS
- SQUARE 2-WAY CEILING DIFFUSERS
- SQUARE 1-WAY CEILING DIFFUSERS
- LINEAR SLOT DIFFUSER
- SUPPLY TOP REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN CEILING REGISTER OR GRILLE
- EXHAUST OR RETURN BOTTOM REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN REGISTER OR TOP GRILLE (WALL TYPE)
- VANED ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- CONNECT NEW DUCT TO EXISTING DUCT
- INCLINED RISE, IN DIRECTION OF AIR FLOW
- INCLINED DROP, IN DIRECTION OF AIR FLOW
- LIMIT OF DEMOLITION
- HYDRONIC HOT WATER CEILING RADIANT PANEL

DUCTWORK SYMBOLS

- FLEXIBLE CONNECTION, EQUIPMENT, VIBRATION, OR SEISMIC
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
- VANED ELBOW (SHORT RADIUS)
- STANDARD RADIUS ELBOW (LONG RADIUS)
- NEW DUCT (INSIDE DIMENSIONS: WIDTH x DEPTH)
- EXISTING DUCT TO REMAIN
- EXISTING DUCT TO BE REMOVED
- LOUVER (LOUVER SPECIFIED IN ARCHITECTURAL SECTION.)
- FLEXIBLE DUCTWORK (INSULATED)
- MANUAL VOLUME DAMPER
- FIRE DAMPER
- BACK DRAFT DAMPER
- STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)

SHEET INDEX

SHEET #	PAGE #	SHEET TITLE
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M0.01	18	MECHANICAL DETAILS
M0.02	19	MECHANICAL DETAILS
M0.03	20	MECHANICAL SCHEDULES
MD1.00	21	HVAC DEMOLITION PLAN
MH1.00	22	NEW DRYSIDE HVAC PLAN
MP1.00	23	NEW HVAC PIPING PLAN
M2.00	24	HVAC DDC PLAN
M2.10	25	HVAC CONTROL DETAILS
PD1.00	26	PLUMBING DEMOLITION PLAN
P1.00	27	NEW BELOW FLOOR PLUMBING PLAN
P1.10	28	NEW ABOVE FLOOR PLUMBING PLAN AND DETAILS

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Drawing Title: MECHANICAL SYMBOLS, ABBREVIATIONS AND GENERAL NOTES

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: PM

Project Number: 437-21-225

Building Number: 9

Drawing Number: M0.00

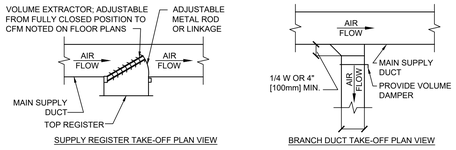
Dwg. 17 of 41

Office of Construction and Facilities Management

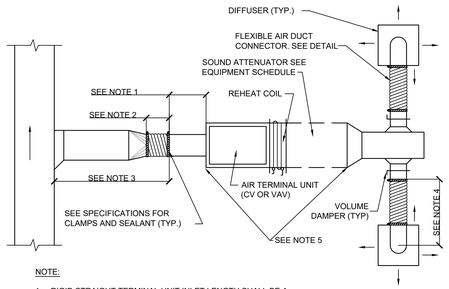
Department of Veterans Affairs

5/24/2021 3:54:42 PM

VA FORM 08-6231



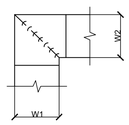
11 SUPPLY DUCT TAKEOFF DETAILS
SCALE: NTS



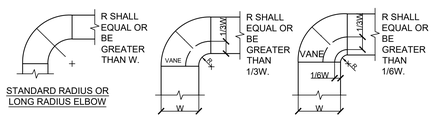
NOTE:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0" [900mm].
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET (3 METERS). FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100' [1.64Pa/m].
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 5'-0" [1500mm]. USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.

13 AIR TERMINAL UNIT DUCT CONNECTION DETAIL
SCALE: NTS



STANDARD RADIUS OR LONG RADIUS ELBOW



STANDARD RADIUS OR LONG RADIUS ELBOW

SHORT RADIUS ELBOW WITH ONE VANE

SHORT RADIUS ELBOW WITH TWO VANES

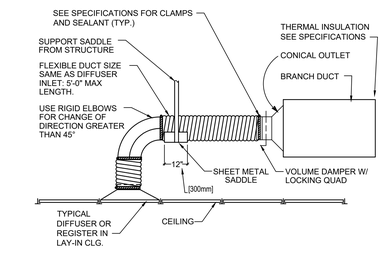
NOTE:

1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" [50mm] RADIUS, 1 1/2" [40mm] MAXIMUM SPACE BETWEEN VANES AND A 3/4" [20mm] TRAILING EDGE.
4. WHEN W EQUALS W2 AND W1 IS GREATER THAN 20" [500mm] VANES SHALL BE DOUBLE VANE TYPE.

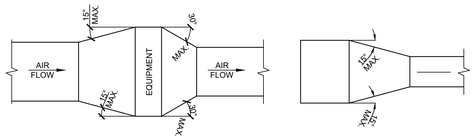
NOTE:

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.

8 DUCTWORK ELBOW DETAILS
SCALE: NTS



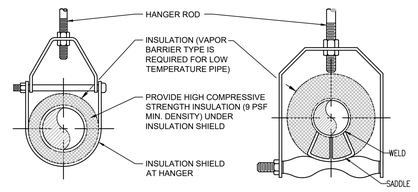
12 FLEXIBLE AIR DUCT CONNECTOR DETAIL
SCALE: NTS



TYPICAL DUCTWORK TRANSITION WITH EQUIPMENT MOUNTED IN DUCT PLAN OR SIDE VIEW

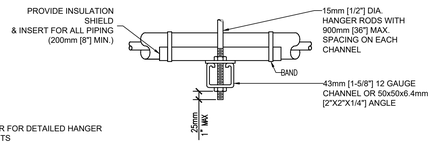
TYPICAL DUCTWORK TRANSITION PLAN OR SIDE VIEW

9 DUCTWORK TRANSITIONS W/ EQUIPMENT IN DUCT DETAILS
SCALE: NTS



ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS

ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS

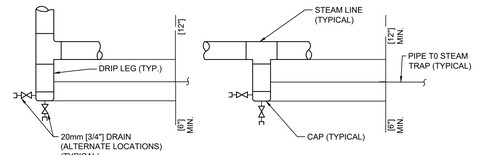


NOTE:
SEE SPECIFER FOR DETAILED HANGER REQUIREMENTS

SIDE VIEW TRAPEZE HANGER FOR UP TO 453KG [1000 LB.] UNIFORM LOAD

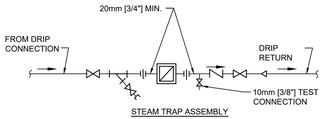
MAXIMUM PIPE/TUBING SUPPORT SPACING																				
NOM. SIZE	mm [IN]	THRU 20 [THRU ¾]	25 [1]	32 [1¼]	40 [1½]	50 [2]	65 [2½]	75 [3]	100 [4]	125 [5]	150 [6]	200 [8]	250 [10]	300 [12]	350 [14]	400 [16]	450 [18]	500 [20]	600 [24]
PIPE	mm [FT]	2100 [7]	2100 [7]	2100 [7]	2700 [9]	3000 [10]	3400 [11]	3700 [12]	4100 [14]	4900 [16]	5200 [17]	5800 [19]	6700 [22]	7000 [23]	7600 [25]	8200 [27]	8500 [28]	9100 [30]	9600 [32]
TUBING	mm [FT]	1500 [5]	1800 [6]	2100 [7]	2400 [8]	2400 [8]	2700 [9]	3000 [10]	3700 [12]	4000 [13]	4100 [14]	4900 [16]	-	-	-	-	-	-	-
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																				

1 PIPE HANGER DETAIL
SCALE: NTS



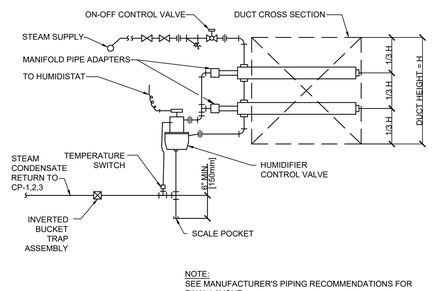
STEAM LINE DRIP POCKET

NOTE:
DRIP POCKET PIPE SIZE SAME AS STEAM MAIN UNLESS OTHERWISE NOTED.



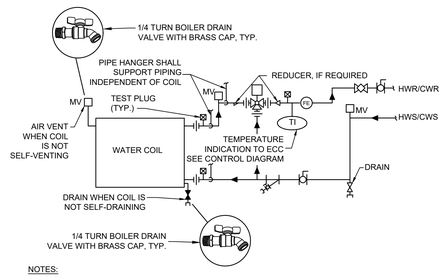
STEAM TRAP ASSEMBLY

3 STEAM TRAP ASSEMBLY DETAIL
SCALE: NTS



NOTE:
SEE MANUFACTURER'S PIPING RECOMMENDATIONS FOR FINAL LAYOUT

7 STEAM HUMIDIFIER PIPING DETAIL
SCALE: 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 100mm [4"]Ø PIPE & SMALLER. TYPE "H-P" FOR 125mm [5"]Ø 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, VALES, 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.

14 AHU WATER COIL PIPING CONNECTIONS DETAIL
SCALE: NTS

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Drawing Title: MECHANICAL DETAILS

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Project Number: 437-21-225

Building Number: 9

Drawing Number: M0.01

Date: 01/11/2022 | Checked: RD | Drawn: PM

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Office of Construction and Facilities Management

Department of Veterans Affairs

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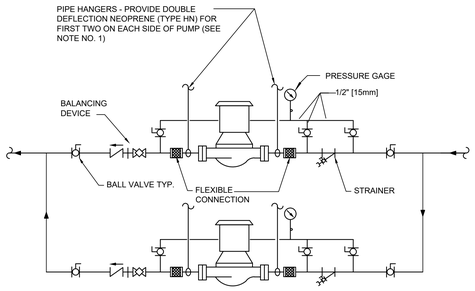
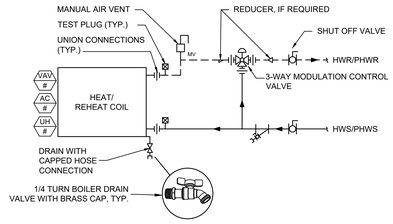
VA FORM 08-6231



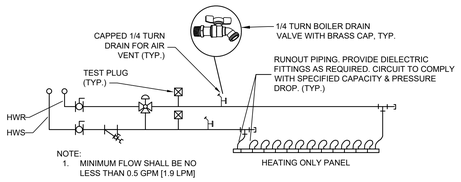
NOTES:

1. SUPPORT PUMP FROM PIPING ONLY. DO NOT SUPPORT PUMP FROM MOTOR.

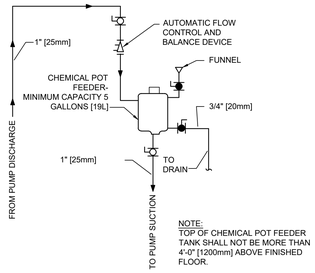
1 IN-LINE PUMP CONNECTIONS DETAIL
SCALE: NTS



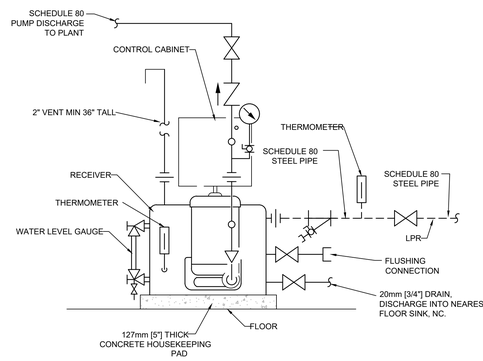
2 TERMINAL UNIT WATER COIL DETAIL
SCALE: NTS



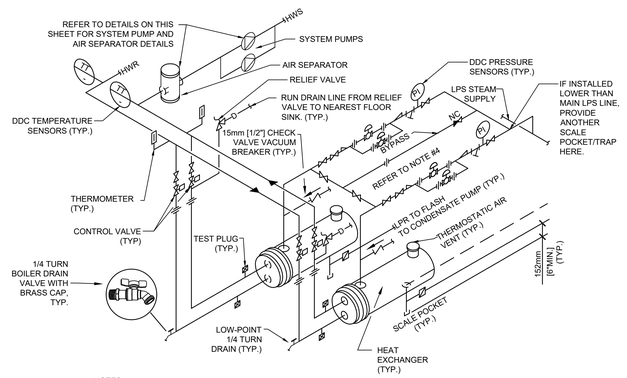
4 CEILING RADIANT PANEL PIPING DETAIL
SCALE: NTS



3 WATER TREATMENT POT FEEDER DETAIL
SCALE: NTS



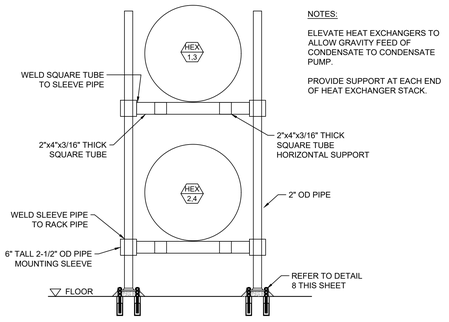
5 CONDENSATE PUMP DETAIL
SCALE: NTS



NOTES:

1. THE ABOVE DETAIL SHOWS REQUIRED PIPING FOR TWO 100% REDUNDANT HEAT EXCHANGERS IN PARALLEL.
2. PROVIDE SADDLE SUPPORTS AND LEGS OR HANGERS FOR HEAT EXCHANGER. MOUNTING HEIGHT SHALL BE ADJUSTED TO FACILITATE GRAVITY RETURN OF STEAM CONDENSATE.
3. MAKE THE BYPASS THE SAME SIZE AS THE CONNECTIONS TO THE CONTROL VALVES.
4. CONTROL VALVES SHALL BE IN A 1/3 AND 2/3 SIZE ARRANGEMENT.
5. STACK HEAT EXCHANGERS VERTICALLY TO REDUCE FOOTPRINT IN MECHANICAL ROOM.

7 STEAM TO HOT WATER HEAT EXCHANGER DETAIL
SCALE: NTS

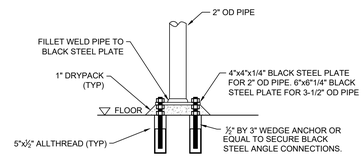


NOTES:

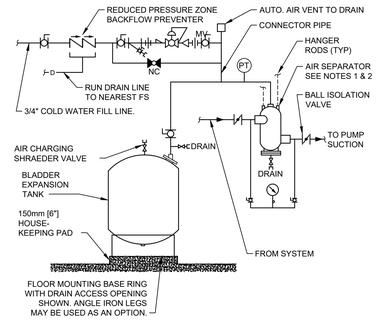
ELEVATE HEAT EXCHANGERS TO ALLOW GRAVITY FEED OF CONDENSATE TO CONDENSATE PUMP.

PROVIDE SUPPORT AT EACH END OF HEAT EXCHANGER STACK.

6 DRY PACK AT WELDED PIPE STAND BASE DETAIL
SCALE: NTS



8 DRY PACK AT WELDED PIPE STAND BASE DETAIL
SCALE: NTS



NOTES:

1. SEE EXPANSION TANK SYSTEM SCHEDULE FOR COMPONENT SIZES.
2. FOR HOT WATER SYSTEMS 50mm [2"] AND SMALLER AND CHILLED WATER SYSTEMS USE IN-LINE AIR PURGER IN LIEU OF AIR SEPARATOR.
3. SET PRESSURE REDUCING VALVE SO PRESSURE AT HIGHEST POINT IN SYSTEM HAS A MINIMUM OF 28kPa [4 PSIG].
4. PROVIDE STRAINER IN AIR SEPARATOR.

9 AIR SEPARATOR/EXPANSION TANK DETAIL
SCALE: NTS

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Date: 01/11/2022 | Checked: RD | Drawn: PM

Project Number: 437-21-225

Building Number: 9

Drawing Number: M0.02

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LOUVER SCHEDULE

EQUIP. NO.	SERVICE	WIDTH	HEIGHT	THICKNESS OF WALL	MATERIAL	SCREEN	MANUFACTURER & MODEL	OPTIONS-ACCESSORIES
LV-1	RELIEF AIR	36"	30"	6"	ALUM	BIRD	NAILOR EHH-601	1,2,3
LV-2	RELIEF AIR	28"	28"	6"	ALUM	BIRD	NAILOR EHH-601	1,2,3
LV-3	RELIEF AIR	24"	24"	6"	ALUM	BIRD	NAILOR EHH-601	1,2,3
LV-4	OUTSIDE AIR	24"	24"	6"	ALUM	BIRD	NAILOR EHH-601	1,2,3

NOTES:
1. PROVIDE WITH FLANGED FRAME. PROVIDE ANNODIZED COLOR.
2. FINAL SELECTION OF COLOR BY ARCHITECT.
3. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED

HYDRONIC AIR CURTAIN SCHEDULE

EQUIP. NO.	SERVICE	GPM	MBH	CFM	ELECTRICAL				MANUFACTURER & MODEL	NOTES
					AMP	W	dBA	VOLT.-PH.-CY.		
AC-1	AIR SEAL	0.5	5.0	955	0.7	160	54	208-1-60	SCHWANKAIR 2066WH	1,2,3,4,5

NOTES:
1. PROVIDE WITH FACTORY DOOR SWITCH.
2. PROVIDE WITH FACTORY MODBUS MODULE FOR BMS CONTROL.
3. PROVIDE WITH FACTORY EEPROM MODULE TO MODULATE HEAT AND AIR FLOW.
4. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED.
5. PROVIDE BACNET INTEGRATION MODULE AND EXPOSE ALL POINTS FOR TEMPERATURE CONTROL CONTRACTOR TO INTEGRATE. ALTERNATIVELY COORDINATE WITH TEMPERATURE CONTROL CONTRACTOR TO PROVIDE SEPARATE PARALLEL CONTROLLER.

VERTICAL WALL HYDRONIC UNIT HEATER SCHEDULE

EQUIPMENT TAG	SERVICE	GPM	MBH	NOMINAL CFM	ELECTRIC		MANUFACTURER & MODEL	OPTIONS-ACCESSORIES
					FLA	VOLT.-PH.-CY.		
UH-1	HALLWAY HEAT	0.5	12.2	350	1.0	120/1/60	ENGINEERED COMFORT 41VS-Z-1ROWHW	1,2,3

NOTES:
1. PROVIDE WITH FACTORY PROPORTIONAL ECM FAN MOTOR.
2. PROVIDE WITH FACTORY 1 ROW HOT WATER COIL.
3. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED

PUMP SCHEDULE

ITEM NO.	SERVICE	LOCATION	GPM	FT HEAD	SIZE	GLYCOL %	MOTOR				MANUFACTURER & MODEL	NOTES
							HP	RPM	VOLT.-PH.-CY.	FLA		
P-1,2	RADIANT HEAT	MECH BA-35	9.5	20	1-1/4"	35	1/6	-	120-1-60	1.4	GRUNDFOS APLHA2 26-99F	1,2,3,4
P-3,4	VAV, AHU HEAT	MECH BA-65A	55	115	2"	35	3	-	208-3-60	9.1	GRUNDFOS CRE 10-4 A-BN-A	1,2,3,4
CP-1,2,3	COND RETURN	MECH ROOMS	6	15	2"	NA	1/3	-	120-1-60	8.5	SHIPCO 40DC	4,5

NOTES:
1. PROVIDE WITH FLANGES SELECTED BY INSTALLING CONTRACTOR.
2. INSTALL PER MANUFACTURERS INSTRUCTIONS.
3. CONTRACTOR SHALL SET PUMP TO ENABLE ON ANY ZONE DEMAND CALL FOR HEAT.
4. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED.
5. PROVIDE WITH FACTORY CONTROL PANEL.

EXPANSION TANK SCHEDULE

EQUIP TAG	MFGR	MODEL	TYPE	TANK VOLUME (GAL)	TANK ACCEPT (GAL)	HEIGHT (IN)	DIAMETER (IN)	WEIGHT (LBS)	NOTES
ET-1	TACO	CBX84-125	BLADDER	22	12	39	16	150	1
ET-2	TACO	CBX170-125	BLADDER	45	24	44	20	240	1
NOTES:	1. MANUFACTURER IS BASIS OF DESIGN. OTHER MANUFACTURERS ALLOWED.								

AIR SEPARATOR SCHEDULE

EQUIP TAG	MFGR	MODEL	SYSTEM	CONNECTION SIZE (IN)	FLOW (GPM)	HEIGHT (IN)	DIAMETER (IN)	NOTES
AS-1	TACO	49-100	HOT WATER	1	9.5	6	5	
AS-2	TACO	49025ADT-125	HOT WATER	2.5	55	17	10	
NOTES:	1. MANUFACTURER IS BASIS OF DESIGN. OTHER MANUFACTURERS ALLOWED.							

STEAM TO HOT WATER HEAT EXCHANGER SCHEDULE

ITEM NO.	SERVICE	LOCATION	GPM	EWT °F	LWT °F	BTU/HR	LBS/HR STEAM	AREA FT2	MANUFACTURER & MODEL	OPTIONS-ACCESSORIES
HEX-1,2	RADIANT HEAT	MECH BA-37	55	160	180	95K	100	3.2	ARMSTRONG WS-0402-200-1	1,2,3,4,5
HEX-3,4	VAV, AHU HEAT	MECH BA-65A	9.5	160	180	526K	530	14.8	ARMSTRONG WS-0603-200-1	1,2,3,4,5

NOTES:
1. PROVIDE VACUUM BREAKER.
2. PROVIDE WITH MANUFACTURERS STAND AND RACK.
3. SET RELIEF VALVE AT 15PSI.
4. PROVIDE WITH ALL EQUIPMENT SHOWN ON M-0.01.
5. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED

GRILLE/REGISTER/DIFFUSER SCHEDULE

RG=RETURN GRILLE SD=SUPPLY DIFFUSER EG=EXHAUST GRILLE

TAG NO.	NECK SIZE	TYPE	MANUFACTURER & MODEL	MATL/FINISH	OPTIONS & ACCESSORIES
SD-1	VARIES	CEILING SUPPLY DIFFUSER LAY-IN	NAILOR ARNS-L-O	WHITE	1,2,3
RG-1	20" X 20"	CEILING LOUVERED RETURN GRILLE LAY-IN	NAILOR 5145H-24x24-L-O	WHITE	2,3
EG-1	20" X 20"	CEILING LOUVERED RETURN GRILLE LAY-IN	NAILOR 5145H-24x24-L-O	WHITE	2,3

NOTES:
1. REFER TO PLANS FOR NECK SIZE, TO MATCH DUCT SIZE SERVING DIFFUSER.
2. -O IN MODEL REFERS TO OPPOSED BLADE DAMPER.
3. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED.

FAN SCHEDULE

EQUIP. NO.	SERVICE	LOCATION	CFM	STATIC PRESS. (IN. W.G.)	MOTOR				MANUFACTURER & MODEL	NOTES
					AMP	HP-W	SONES	VOLT.-PH.-CY.		
EF-1	EXHAUST (INLINE)	RESTROOM CEILING	560	0.30	0.63	75	5.4	120-1-60	GREENHECK SQ-100-VG	1,2,3

NOTES:
1. PROVIDE WITH DISCONNECT, BACKDRAFT DAMPER, SPEED CONTROL, AND VIBRATION ISOL HANGING KIT.
2. ANY ONE OF 3 OCCUPANCY SENSORS IN BA-31, BA-33, OR BA-35 TO ENABLE FAN.
3. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED

AIR HANDLING UNIT SCHEDULE

EQUIP. NO.	SERVICE	LOCATION	MIN OUTSIDE AIR (CFM)	FAN			CHILLED WATER COOLING COIL						HOT WATER PREHEAT COIL						HUMIDIFIER (STEAM)			ELECTRICAL				MANUFACTURER & MODEL	OPTIONS-ACCESSORIES
				CFM	E.S.P. (IN. W.G.)	HP	MBH	EAT °F	LAT °F	EWT °F	LWT °F	GPM	MBH	EAT °F	LAT °F	EWT °F	LWT °F	GPM	PSI	CFM	LBS/HR	V.-PH.-CY.	FLA	MCA	MOCP		
AHU-19	H/C/V	BA-70A	300	3600	1.00	3	154	80	53	45	55	33.4	120	45	76	180	150	8.4	5	3600	69.4	208-3-60	28.8	36	50	TRANE CSAA010	1,2,3,4,5,6
AHU-90	H/C/V	BA-65A	230	2000	1.00	5	86	80	53	45	55	18.6	120	45	76	180	150	8.4	5	2000	38.6	208-3-60	28.8	36	50	TRANE CSAA006	1,2,3,4,5,6
AHU-91	H/C/V	BA-35	420	1200	1.00	3	52	80	53	45	55	11.2	50	45	83	180	150	3.5	5	1200	12.1	208-3-60	19.4	24.3	40	TRANE CSAA010	1,2,3,4,5,6

NOTES:
1. PROVIDE WITH FULL ECONOMIZER MIXING SECTION WITH DAMPERS, AND STEAM HUMIDIFIER SECTION.
2. PROVIDE WITH WITH VFD AND FUSED DISCONNECT.
3. PROVIDE WITH INTERIOR ENCLOSURE, TOP SUPPLY AND MIXING SECTION, AND FLOOR MOUNT OPTION.
4. PROVIDE WITH SUPPLY AND RETURN AIR STREAM SMOKE DETECTORS.
5. PROVIDE WITH MERV 8 PRE-FILTER, MERV11 SECOND PRE-FILTER, AND MERV 15 PRIMARY FILTER.
6. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED.

PLUMBING FIXTURE SCHEDULE

FIXTURE TAG	DESCRIPTION	PIPING CONNECTIONS TRAP	S/W	VENT	C.W.	H.W.	REMARKS
P-420	APPROX. 19" DIAMETER SELF RIMMING COUNTERTOP LAVATORY. VITREOUS CHINA		2"	2"			2
	HARDWIRED SENSOR FAUCET. CHROME PLATE GOOSENECK 4"-5" ABOVE RIM LEVEL				½"	½"	
	REFER TO SPECIFICATION SECTION 22 40 00 FOR TRAP, STOPS, AND MIXING VALVE REQUIREMENTS.						1
P-528	APPROX. 21"x22" OUTSIDE, 16"x19" INSIDE, SELF RIMMING, BACK LEDGE FAUCET SINK. 18GA SS MIN.		2"	2"			2
	DECK MOUNTED FAUCET W/ 4" WRIST BLADES. CHROME PLATE GOOSENECK WITH 8" REACH 6" ABOVE DECK.				½"	½"	
	REFER TO SPECIFICATION SECTION 22 40 00 FOR TRAP, STOPS, AND MIXING VALVE REQUIREMENTS.						1
P-502	FLOOR MOUNTED CORNER TERRAZZO SERVICE SINK. APPROX 28"x28"x12" W/ 6" DROP FRONT		3"	2"			2
	WALL MOUNTED COMBINATION FAUCET WITH INTEGRAL CHECKS/STOPS, HOSE THREADS, VACUUM BREAKER, AND PAIL HOOK.				½"	½"	
	REFER TO SPECIFICATION SECTION 22 40 00 FOR TRAP, STOPS, AND MIXING VALVE REQUIREMENTS.						
P-103	WALL HUNG TOILET. ELONGATED BOWL W/ HARDWIRED1.6 GAL/FLUSH SIPHON JET FLUSH VALVE		3"	2"	1"		2
	ELONGATED OPEN FRONT-ADA SEAT						
	REFER TO SPECIFICATION SECTION 22 40 00 FOR SEAT, FLUSH VALVE, CARRIER REQUIREMENTS.						
P-201	WALL HUNG URINAL. INTEGRAL TRAP AND BACK OUTLET 0.5 GAL/FLUSH SIPHON JET FLUSH VALVE.		2"	2"	¾"		2
	REFER TO SPECIFICATION SECTION 22 40 00 FOR FLUSH VALVE, CARRIER REQUIREMENTS.						
P-609	ELECTRIC WATER COOLER. DUAL HEIGHT STAINLESS STEEL FOUNTAIN WITH BOTTLE FILLER.		2"	2"	½"		2
	REFER TO SPECIFICATION SECTION 22 40 00 FOR ADDITIONAL REQUIREMENTS.						
FD-C	MEDIUM DUTY FLOOR DRAIN. CAST IRON BODY, NICKEL BRONZE STRAINER. ROUND OR SQUARE, MIN 6" WIDTH OR DIAMETER		3"	2"			
	REFER TO SPECIFICATION SECTION 22 13 00 FOR ADDITIONAL REQUIREMENTS.						
FD-S	FLOOR SINK. 304 SS, 12" SQUARE AND 8" DEEP. HEAVY DUTY NON-TILTING GRATE W/ INTERNAL DOME STRAINER.		3"	2"			
	REFER TO SPECIFICATION SECTION 22 13 00 FOR ADDITIONAL REQUIREMENTS.						

NOTES:
1. PROVIDE ADA OFFSET TRAP ASSEMBLY WITH INSULATION KIT.
2. COORDINATE COLOR OF FIXTURE DURING SUBMITTAL PROCESS. ARCHITECT TO SELECT COLORS.

OVERHEAD RADIANT PANEL SCHEDULE

EQUIPMENT NO.	PANEL SIZE	HEATING CAPACITY TOTAL BTU/HR.	WATER ENT.(F)	GPM	MANUFACTURER & MODEL	OPTIONS-ACCESSORIES
RAD-1	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-2	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-3	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-4	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-5	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-6	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-7	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-8	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-9	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-10	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-11	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-12	NOT USED					
RAD-13	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-14	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-15	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-16	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-17	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-18	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4
RAD-19	12"x48"	980	180	0.5	ZEHNDER RITTLING LINEAR RADIANT PANEL	1,2,3,4

NOTES:
1. TO BE MOUNTED IN LAY-IN CEILING FRAME, MODIFY CEILING PANEL TO ACCOMODATE.
2. PROVIDE WITH SOV'S AND CONTROL VALVE.
3. SUPPORT PANEL AS PER MANUFACTURERS WRITTEN INSTRUCTIONS.
4. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED

VARIABLE AIR VOLUME BOX SCHEDULE

EQUIPMENT NO.	INLET SIZE "Ø	DESIGN CFM	ESP (IN)	HEATING CAPACITY AIR ENTERS (°F)	AIR LEAVES MAX (°F)	TOTAL BTU/HR.	WATER ENT.(F)	WATER LVG.(°F)	GPM	MANUFACTURER & MODEL	OPTIONS-ACCESSORIES
VAV-1	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-2	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-3	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-4	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-5	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-6	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-7	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-8	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-9	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-10	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-11	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-12	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-13	6	280	0.23	60	132.3	12.2K	180	165	1.74	TRANE VCWF	1,2,3,4
VAV-14	6	270	0.22	60	134.2	11.8K	180	165	1.62	TRANE VCWF	1,2,3,4
VAV-15	6	270	0.22	60	134.2	11.8K	180	165	1.62	TRANE VCWF	1,2,3,4
VAV-16	6	270	0.22	60	134.2	11.8K	180	165	1.62	TRANE VCWF	1,2,3,4
VAV-17	6	270	0.22	60	134.2	11.8K	180	165	1.62	TRANE VCWF	1,2,3,4
VAV-18	6	270	0.22	60	134.2	11.8K	180	165	1.62	TRANE VCWF	1,2,3,4
VAV-19	6	270	0.22	60	134.2	11.8K	180	165	1.62	TRANE VCWF	1,2,3,4
VAV-20	6	360	0.36	60	135.9	15.8K	180	172.5	4.5	TRANE VCWF	1,2,3,4
VAV-21	4	160	.08	60	135.6	7.0K	180	156	0.61	TRANE VCWF	1,2,3,4
VAV-22	4	160	.08	60	135.6	7.0K	180	156	0.61	TRANE VCWF	1,2,3,4
VAV-23	8	600	.56	60	136.1	26.4K	180	161.2	2.95	TRANE VCWF	1,2,3,4
VAV-24	6	240	.18	60	135.6	10.5K	180	162.2	1.24	TRANE VCWF	1,2,3,4
VAV-25	6	350	.34	60	136.2	15.4	180	172	4.1	TRANE VCWF	1,2,3,4
VAV-26	6	350	.34	60	136.2	15.4	180	172	4.1	TRANE VCWF	1,2,3,4
VAV-27	6	350	.34	60	136.2	15.4	180	172	4.1	TRANE VCWF	1,2,3,4

NOTES:
1. PROVIDE WITH FACTORY DISCONNECT AND ELECTRIC ACTUATOR.
2. DDC CONTROL (CONTROLLER BY TC CONTRACTOR).
3. PROVIDE WITH SPRING VIBRATION ISOLATION AND ALL-THREAD HANGING RODS.
4. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED

100% CONSTRUCTION DOCUMENTS

Revisions: | Date

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FOURFRONT DESIGN INC.

Drawing Title: MECHANICAL SCHEDULES

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Project Number: 437-21-225

Building Number: 9

Location: FARGO, ND

Drawing Number: M0.03

Date: 01/11/2022 | Checked: RD | Drawn: PM

Office of Construction and Facilities Management

Department of Veterans Affairs

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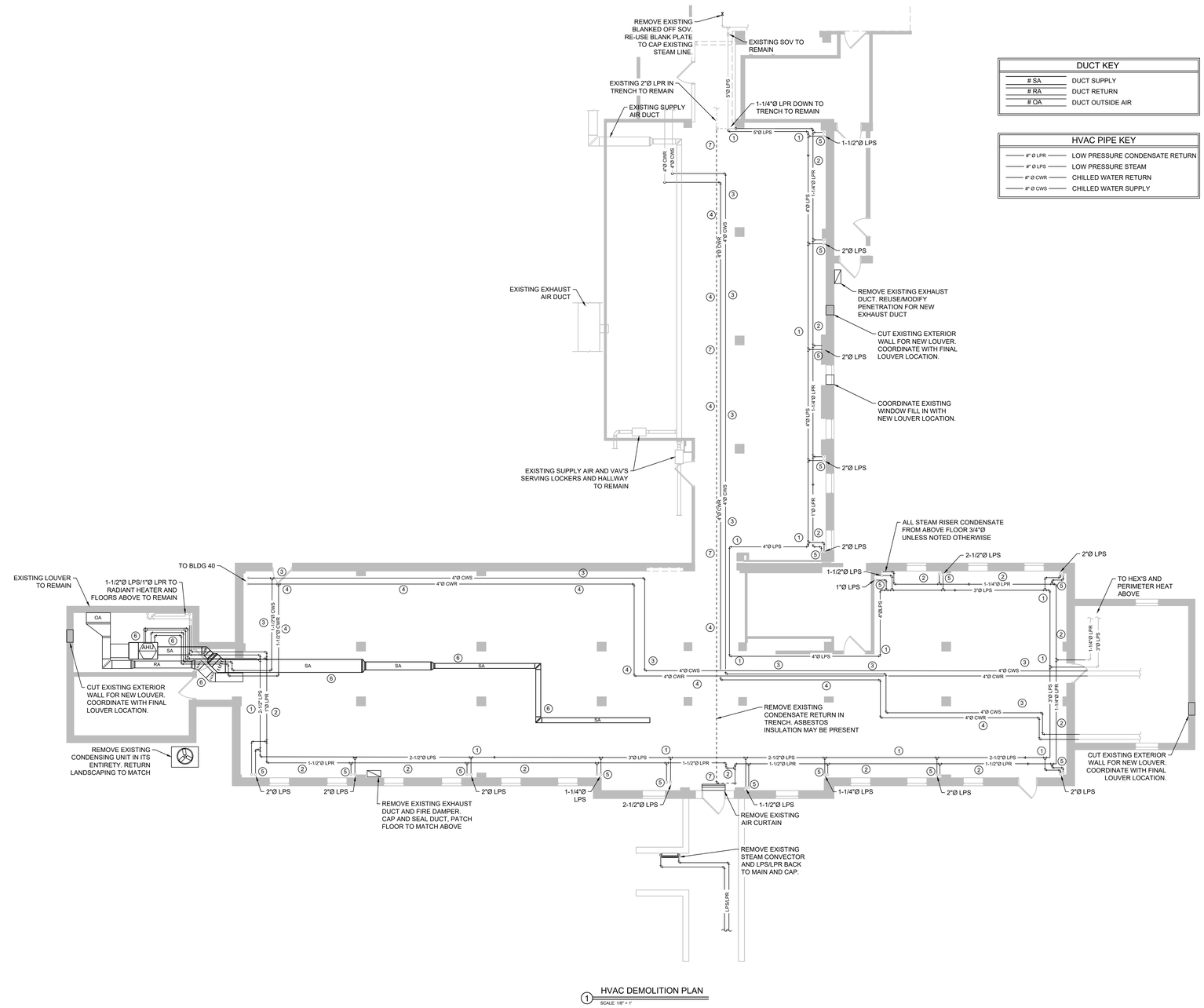

1 HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'

DUCT KEY	
# SA	DUCT SUPPLY
# RA	DUCT RETURN
# OA	DUCT OUTSIDE AIR

HVAC PIPE KEY	
# Ø LPR	LOW PRESSURE CONDENSATE RETURN
# Ø LPS	LOW PRESSURE STEAM
# Ø CWR	CHILLED WATER RETURN
# Ø CWS	CHILLED WATER SUPPLY

KEYED MECHANICAL DEMOLITION NOTES

1. REMOVE EXISTING LOW PRESSURE STEAM PIPE SHOWN BY DARK LINES LABELED LPS.
2. REMOVE EXISTING LOW PRESSURE CONDENSATE RETURN PIPE SHOWN BY DARK LINES LABELED LPR.
3. REMOVE EXISTING CHILLED WATER SUPPLY PIPE SHOWN BY DARK LINES LABELED CWS.
4. REMOVE EXISTING CHILLED WATER RETURN PIPE SHOWN BY DARK LINES LABELED CWR.
5. RETAIN EXISTING STEAM AND CONDENSATE RISERS SERVING FLOORS ABOVE. PREPARE FOR CONNECTION TO NEW PIPING SHOWN IN THESE PLANS.
6. REMOVE EXISTING AIR HANDLER, ALL ASSOCIATED DUCTIACCESSORIES, AND ALL ASSOCIATED COOLING AND HEATING COIL PIPING/ACCESSORIES. ADD UNIONS AND ELBOWS AS REQUIRED TO RECONNECT.
7. REMOVE EXISTING STEAM CONDENSATE LOCATED IN TRENCH BACK TO POINT SHOWN ON THIS PLAN. CAP OR PLUG TEE TO CLOSE.

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Revisions:	Date

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Drawing Title	HVAC DEMOLITION PLAN
Project Title	FARGO EHRM TRAINING AND ADMIN
Project Number	437-21-225
Building Number	9
BUILDING IS FULLY SPRINKLED	
Location	FARGO, ND
Drawing Number	MD1.00
Date	01/11/2022
Checked	RD
Drawn	PM
Dwg.	21 of 41

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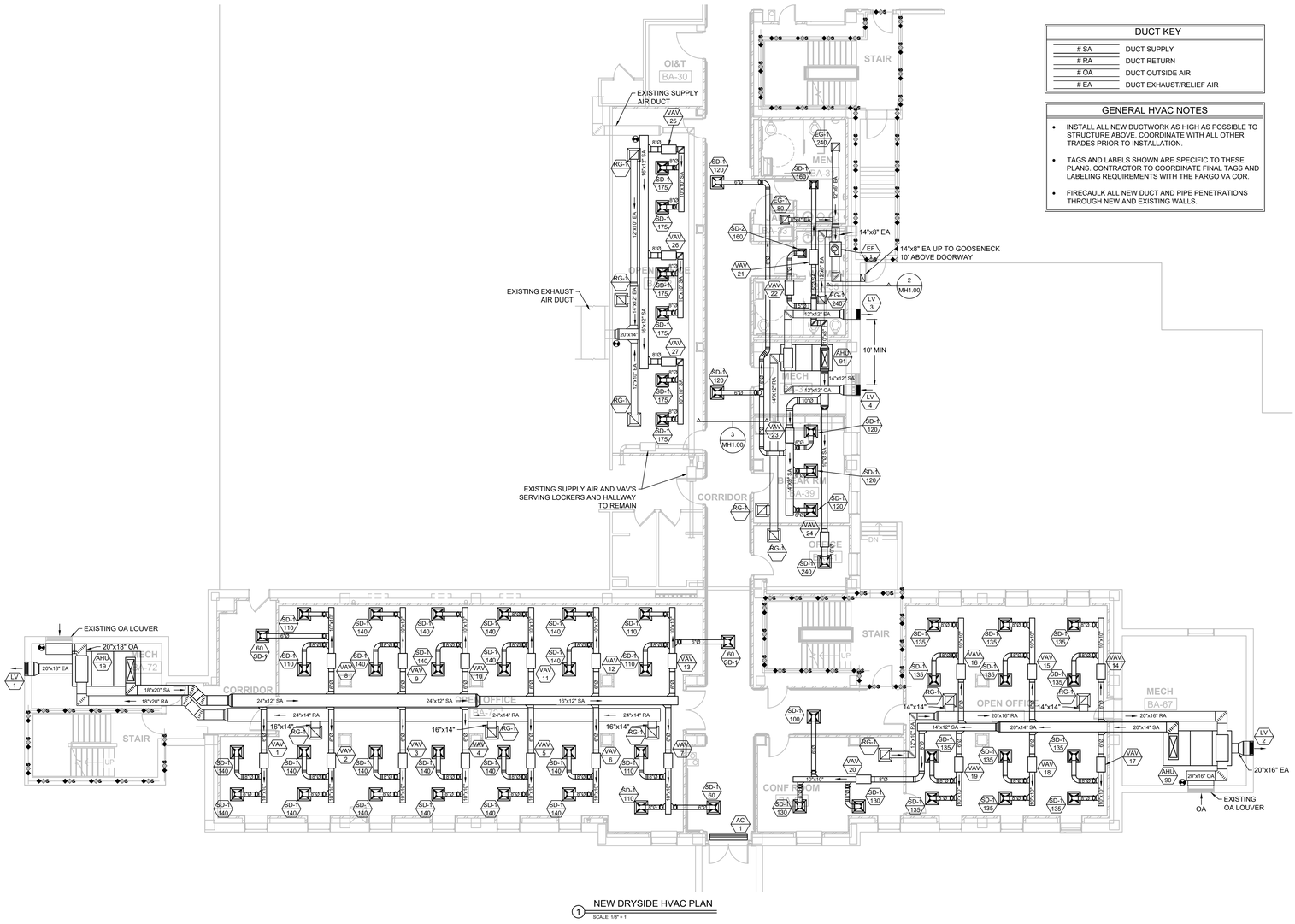
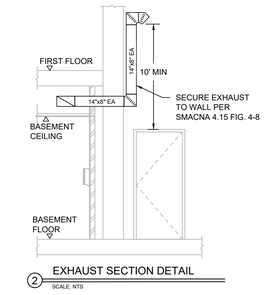


1 NEW DRYSIDE HVAC PLAN
SCALE: 1/8" = 1'

DUCT KEY	
# SA	DUCT SUPPLY
# RA	DUCT RETURN
# OA	DUCT OUTSIDE AIR
# EA	DUCT EXHAUST/RELIEF AIR

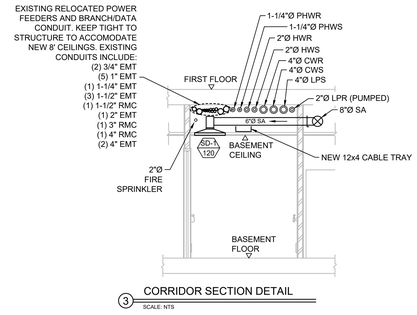
GENERAL HVAC NOTES

- INSTALL ALL NEW DUCTWORK AS HIGH AS POSSIBLE TO STRUCTURE ABOVE. COORDINATE WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
- TAGS AND LABELS SHOWN ARE SPECIFIC TO THESE PLANS. CONTRACTOR TO COORDINATE FINAL TAGS AND LABELING REQUIREMENTS WITH THE FARGO VA COR.
- FIRECAULK ALL NEW DUCT AND PIPE PENETRATIONS THROUGH NEW AND EXISTING WALLS.



2 EXHAUST SECTION DETAIL
SCALE: NTS

NOTE: INSTALL ALL PIPING AS HIGH AS POSSIBLE. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.



3 CORRIDOR SECTION DETAIL
SCALE: NTS

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Drawing Title	NEW DRYSIDE HVAC PLAN
	BUILDING IS FULLY SPRINKLED
Project Title	FARGO EHRM TRAINING AND ADMIN
Location	FARGO, ND
Date	01/11/2022
Checked	RD
Drawn	PM
Project Number	437-21-225
Building Number	9
Drawing Number	MH1.00
	Dwg. 22 of 41

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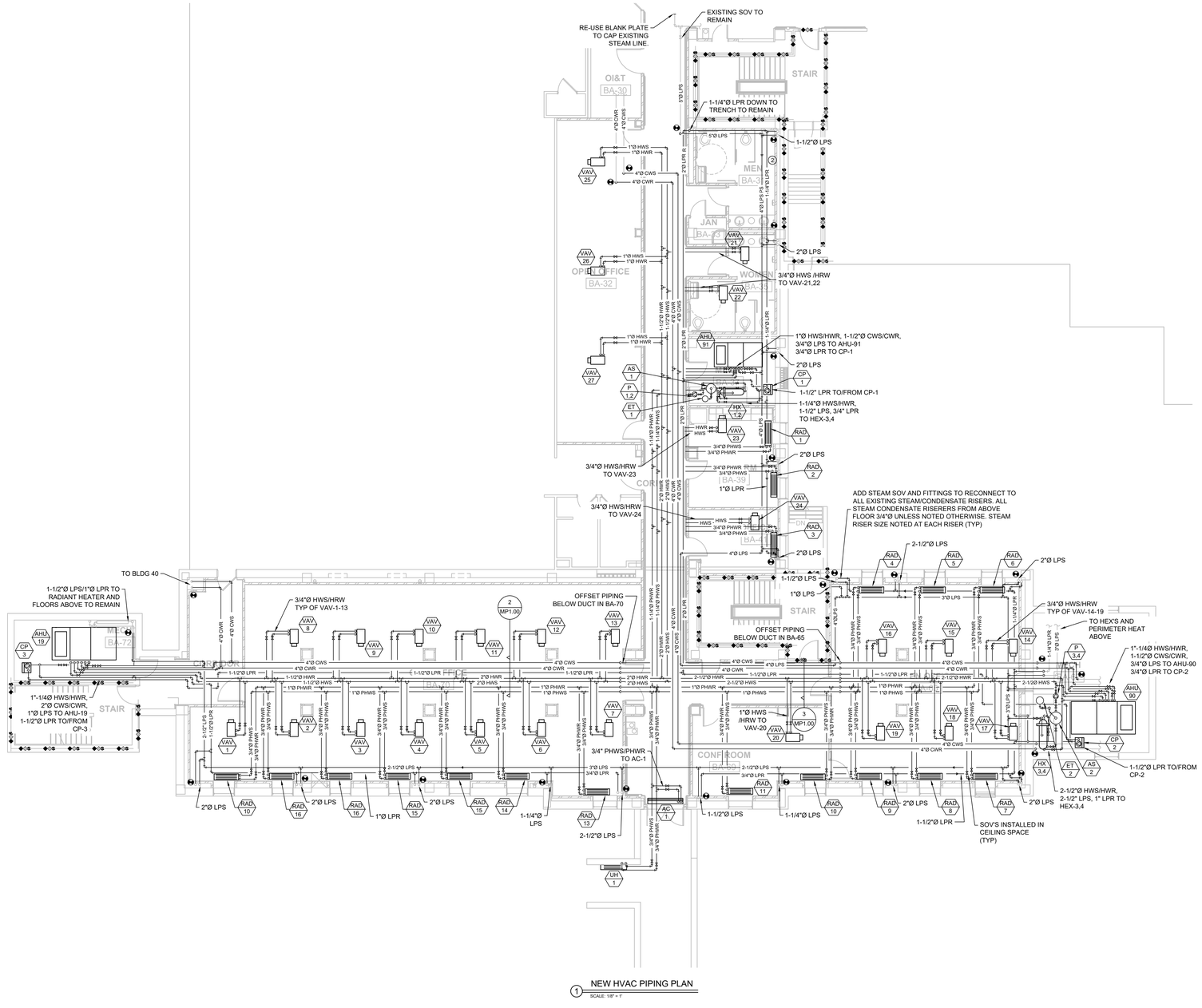
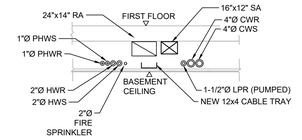
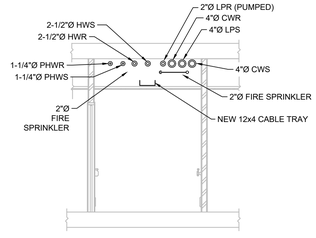


1 NEW HVAC PIPING PLAN
SCALE: 1/8" = 1'



2 BA-70 SECTION DETAIL
SCALE: NTS

NOTE: INSTALL ALL PIPING AS HIGH AS POSSIBLE. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.



3 CORRIDOR SECTION DETAIL
SCALE: 1/8" = 1'

HVAC PIPE KEY

LPR	LOW PRESSURE CONDENSATE RETURN
LPS	LOW PRESSURE STEAM
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
HWS	HYDRONIC HOT WATER SUPPLY
HWR	HYDRONIC HOT WATER RETURN
PHWS	PERIMETER HYDRONIC HOT WATER SUPPLY
PHWR	PERIMETER HYDRONIC HOT WATER RETURN

GENERAL MECHANICAL NOTES

- INSTALL ALL NEW STEAM, CONDENSATE, CHILLED WATER, AND HYDRONIC HOT WATER PIPING AS HIGH AS POSSIBLE TO STRUCTURE ABOVE. INSTALL BELOW DUCT WHERE NEEDED FOR ACCESS TO THE PIPE. COORDINATE WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
- TAGS AND LABELS SHOWN ARE SPECIFIC TO THESE PLANS. CONTRACTOR TO COORDINATE FINAL TAGS AND LABELING REQUIREMENTS WITH THE FARGO VA COR.
- PROVIDE DOUBLE ISOLATION VALVES ON ALL STEAM SERVED EQUIPMENT.
- DOUBLE ISOLATION VALVES ON ALL END EQUIPMENT REQUIRED.
- FIRECAULK ALL NEW DUCT AND PIPE PENETRATIONS THROUGH NEW AND EXISTING WALLS.

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Drawing Title: NEW HVAC PIPING PLAN

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Project Number: 437-21-225

Building Number: 9

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: PM

Drawing Number: MP1.00

Dwg. 23 of 41

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Department of Veterans Affairs

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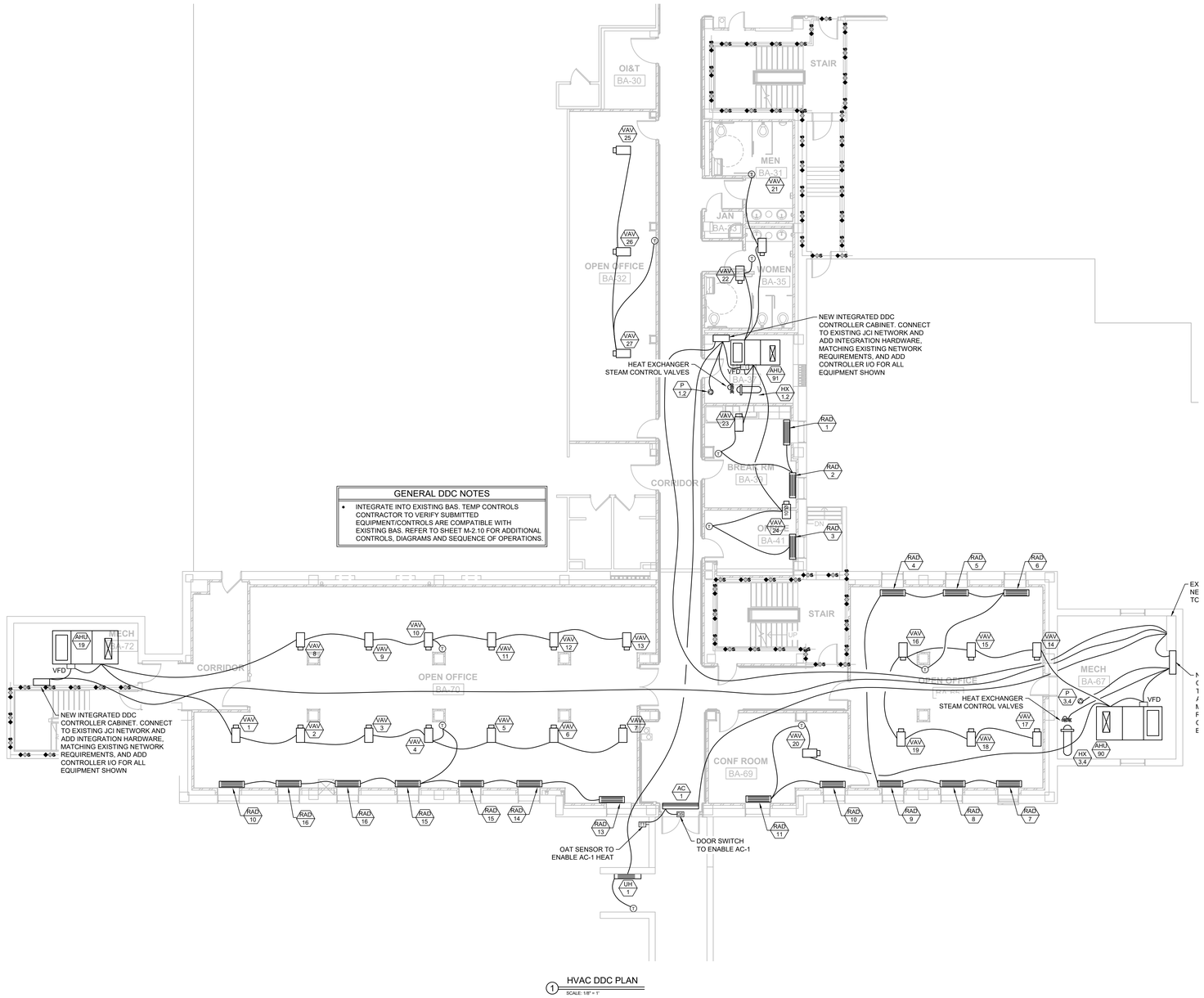

GENERAL DDC NOTES

- INTEGRATE INTO EXISTING BAS. TEMP CONTROLS CONTRACTOR TO VERIFY SUBMITTED EQUIPMENT/CONTROLS ARE COMPATIBLE WITH EXISTING BAS. REFER TO SHEET M-2.10 FOR ADDITIONAL CONTROLS, DIAGRAMS AND SEQUENCE OF OPERATIONS.

1 HVAC DDC PLAN
SCALE: 1/8" = 1'

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Drawing Title: HVAC DDC PLAN	Project Title: FARGO EHRM TRAINING AND ADMIN	Project Number: 437-21-225	Office of Construction and Facilities Management
BUILDING IS FULLY SPRINKLED	Location: FARGO, ND	Building Number: 9	
	Date: 01/11/2022 / Checked: RD / Drawn: PM	Drawing Number: M2.00	Department of Veterans Affairs
		Dwg. 24 of 41	

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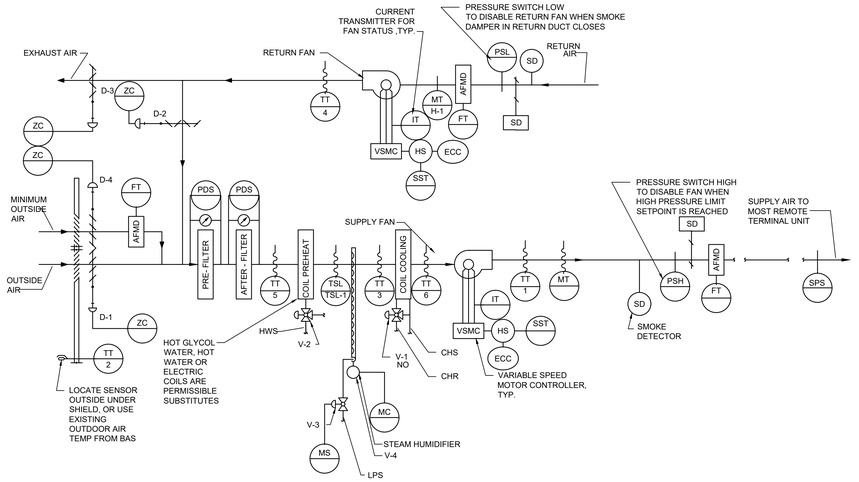
CONTROLS SYMBOLS

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)
TSH	TEMPERATURE SWITCH, HIGH (FREEZESTAT)
LC	LEVEL CONTROLLER
LT	LEVEL TRANSMITTER

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
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
AFMD	AIRFLOW MEASUREMENT DEVICE



1 VARIABLE AIR VOLUME AIR HANDLING UNIT CONTROL DIAGRAM
SCALE: NTS

SEQUENCE OF OPERATION FOR VARIABLE AIR VOLUME AIR HANDLING UNIT WITH MINIMUM OUTSIDE AIR (AHU-19,90,91)

1. GENERAL

1.1 UNIT IS NORMALLY STARTED AND STOPPED REMOTELY AT THE ECC. H-O-A SWITCH SHALL BE KEPT IN THE "AUTO" POSITION. "HAND" AND "OFF" POSITIONS SHALL BE USED ONLY FOR MAINTENANCE. WHEN THE UNIT IS "OFF" D-1, D-3, SHALL BE FULLY CLOSED. WHEN THE UNIT IS "ON" D-1, SD-1 AND SD-2 SHALL BE FULLY OPEN. D-2 AND D-3 SHALL MODULATE IN ACCORDANCE WITH THE FOLLOWING SEQUENCE:

2. TEMPERATURE CONTROL

2.1 SUPPLY AIR TEMPERATURE, SENSED BY TT-1, SHALL BE MAINTAINED AT SETPOINT VIA DIGITAL CONTROL PANEL BY MODULATING V-1 OR D-2 AND D-3 OR V-2 IN SEQUENCE.

2.2 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS ABOVE 75°F (ADJ) [23.8°C], THE DIGITAL CONTROL PANEL SHALL PREVENT THE MODULATION OF D-2 AND D-3 AND SHALL ASSUME THE MINIMUM OUTSIDE AIR POSITION (D-2 FULLY OPENED AND D-3 FULLY CLOSED). THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

2.3 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS BETWEEN 65°F [18.3°C] AND THE SUPPLY AIR TEMPERATURE SENSED BY TT-1, DAMPER D-2 SHALL FULLY CLOSE AND D1 AND D3 SHALL BE FULLY OPEN (MAXIMUM OUTSIDE AIR POSITION). THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

2.4 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS BELOW THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1, DAMPERS D1, D-2 AND D-3 SHALL MODULATE TO MAINTAIN THE SCHEDULED SUPPLY AIR TEMPERATURE. IF D-2 IS OPEN AND D-3 IS CLOSED TO MINIMUM OUTSIDE AIR, V-2 SHALL MODULATE OPEN TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

3. AIR FLOW CONTROL

3.1 THE SUPPLY AIR FLOW SHALL BE CONTROLLED BY THE DIGITAL CONTROL PANEL MODULATING THE SUPPLY FAN VARIABLE SPEED MOTOR CONTROLLER TO MAINTAIN 1.0" [25mm] OF DUCT STATIC PRESSURE (FIELD ADJUSTABLE), SENSED BY SPS-1. RESET STATIC PRESSURE BASED ON ACTUAL BUILDING LOAD BY POLLING ALL AIR TERMINAL UNITS

3.2 THE DIGITAL CONTROL PANEL, USING TOTAL SUPPLY AIR AND RETURN AIR FLOW SIGNALS, SHALL RESET THE RETURN AIR FAN VSMC TO MAINTAIN A CONSTANT AIR FLOW DIFFERENCE BETWEEN THE SUPPLY AIR AND THE RETURN AIR EQUAL TO MINIMUM OUTSIDE AIR.

3.3 USING HIGH PRESSURE SENSOR SPS-2 LOCATED AT THE SUPPLY FAN DISCHARGE, SHALL PREVENT THE SUPPLY FAN FROM DEVELOPING OVER 3" [75mm] OF STATIC PRESSURE (FIELD ADJUSTABLE). IF STATIC PRESSURE AT SPS-2 DOES EXCEED 3" [75mm] THE SUPPLY AIR FAN SHALL STOP. SPS-2 SHALL BE HARDWIRED TO THE SUPPLY FAN VSMC AND UNIT SHALL BE SHUTDOWN IN HAND,AUTO OR BYPASS MODE. SPS-2 WILL REQUIRE MANUAL RESET AT THE DEVICE.

4. HUMIDITY CONTROL

4.1 WHEN THE DIGITAL CONTROL PANEL IS NOT CALLING FOR HUMIDITY, SENSED BY RETURN AIR HUMIDITY H-1, 2-WAY "ON-OFF" CONTROL VALVE V-3 SHALL REMAIN CLOSED. WHEN THE DIGITAL CONTROL PANEL IS CALLING FOR HUMIDITY, V-3 SHALL REMAIN OPEN.

4.2 RETURN AIR HUMIDITY SHALL BE MAINTAINED AT SETPOINT OF 35% RH (ADJ) VIA DIGITAL CONTROL PANEL BY MODULATING CONTROL VALVE V-4 TO MAINTAIN THE DESIRED HUMIDITY. THE DCP SHALL OVERRIDE THIS CONTROL TO MAINTAIN HUMIDITY OF 80% AS SENSED BY H-2. DCP SHALL CLOSE VALVE V-3 WHENEVER THE SUPPLY FAN IS OFF. VALVE V-4 SHALL BE INTERLOCKED WITH A TEMPERATURE SWITCH TO KEEP THE HUMIDIFIER OFF UNTIL CONDENSATE TEMPERATURE APPROACHES STEAM TEMPERATURE.

5. FREEZE PROTECTION

5.1 IF THE AIR TEMPERATURE AS SENSED BY TT-3 FALLS BELOW 45°F [7°C], AN ALARM SIGNAL SHALL INDICATE AT THE DCP AND ECC. IF THIS TEMPERATURE FALLS BELOW 40°F [4.4°C], AS SENSED BY THE TSL THE HEATING COIL SHALL OPEN TO FULL AND A CRITICAL ALARM SHALL INDICATE AT THE DIGITAL CONTROL PANEL AND ECC.

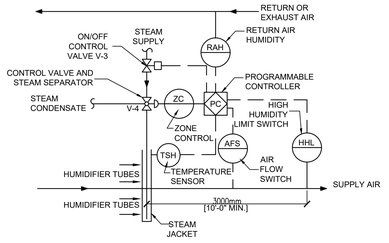
6. AUTOMATIC SHUTDOWN/RESTART

6.1 WHEN SMOKE IS DETECTED BY DUCT SMOKE DETECTOR, SD, THE SUPPLY AND RETURN FANS SHALL SHUT "OFF" AND AN ALARM SIGNAL SHALL BE TRANSMITTED TO THE FIRE ALARM SYSTEM.

6.2 EXHAUST FANS SERVING AREA OF THE SUPPLY FAN SHALL CONTINUE TO RUN. SUPPLY AND RETURN FANS SHALL RESTART AND DAMPERS SHALL OPEN WHEN FIRE ALARM CIRCUIT IS RESET.

7. VFD FAILURE CONSTANT SPEED OPERATION

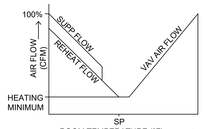
7.1 UPON FAILURE OF THE VFD, THE SUPPLY AND RETURN FANS SHALL BE STARTED/STOPPED MANUALLY AT THE DIGITAL CONTROL PANEL OR THE ECC THROUGH THE BY-PASS STARTER. FANS SHALL THEN BE OPERATED AT CONSTANT SPEED.



STEAM HUMIDIFIER CONTROL NOTES:
RETURN (OR EXHAUST) AIR HUMIDITY SHALL BE MONITORED. ON A CALL FOR HUMIDIFICATION, HUMIDIFIER VALVE V-1 SHALL MODULATE TO MAINTAIN THE RETURN (OR EXHAUST) AIR HUMIDITY SET POINT TO 30% (ADJUSTABLE). PRIOR TO ACTIVATION OF V-4, THE ON/OFF CONTROL VALVE V-3 SHALL BE ENABLED THROUGH ECC AND JACKET TEMPERATURE SENSED BY TSH SHALL BE WARM ENOUGH TO PREVENT CONDENSATION. THE HIGH LIMIT HUMIDITY SENSOR, LOCATED IN THE SUPPLY AIR DUCT 3000MM [10 FEET] AWAY FROM THE HUMIDIFIER SHALL DISABLE THE HUMIDIFIER AND GIVE AN ALARM SIGNAL TO THE ECC, IF THE SUPPLY AIR HUMIDITY EXCEEDS 90% RH (ADJUSTABLE). THE AIRFLOW SWITCH SHALL PROVE AIRFLOW BEFORE HUMIDITY CONTROLS ARE ACTIVATED.

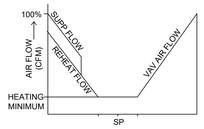
2 STEAM HUMIDIFIER CONTROL DETAIL
SCALE: NTS

			POINT LEGEND	SYSTEM OUTPUTS		SYSTEM INPUTS			SYSTEM SOFTWARE/CONTROL			PAGE:
				BINARY	ANA-LOG	BINARY	ANALOG		ALARM PROCESSING	APPLICATION/FUNCTION		
SYSTEM: VAV AIR HANDLER												
SYSTEM COMPONENT:	POINT ID	ABBREVIATION	PERSONNEL ACCESS (LOCKOUT) DEV.	SUPPLY FAN CONTROL	RETURN FAN CONTROL	OUTSIDE AIR DAMPER CONTROL	HUMIDIFIER CONTROL	PRE-HEAT VALVE CONTROL	SUPPLY FAN STATUS	RETURN FAN STATUS	HUMIDITY HIGH LIMIT	FREEZESTAT (TSL)	STATIC PRESSURE HIGH LIMIT	SUPPLY FAN VSMC	RETURN FAN VSMC	OUTSIDE AIR DAMPER	RETURN AIR DAMPER	EXHAUST AIR DAMPER	MINIMUM OUTSIDE AIR DAMPER	PRE-HEAT VALVE	COILING VALVE	STEAM HUMIDIFIER VALVE	REMARKS
Return air Temperature	AI-1	RAT				●				●							●							
Return Air Humidity	AI-2	RAH				●												●						
Return Air Flow (cfm)	AI-3	RAF				●													●					
Mixed Air Temperature	AI-4	MAT				●				●														
Pre-Heat Temperature	AI-5	PHT				●				●														
Cooiling Coil Temperature	AI-6	CCT				●				●														
Discharge Air Temperature	AI-7	DAT				●				●														
Discharge Static Pressure	AI-8	DASP				●																		
Discharge Air Humidity	AI-9	DAH				●																		
Supply Air Flow (cfm)	AI-10	SAF				●																		
OUTSIDE AIR TEMPERATURE	AI-11	OAT								●														
RETURN LOW PRESSURE	BI-1	RLP					●																	
RETURN FAN STATUS	BI-2	RF-STS			●																			
SUPPLY FAN STATUS	BI-3	SF-STS		●																				
MIXED AIR LOW LIMIT	BI-4	TSL-1						●																
STATIC PRESSURE HIGH LIMIT	BI-5	SPS-2																						
HUMIDITY HIGH LIMIT	BI-6	HHL																						
SUPPLY FAN VSMC ALARM	BI-7	SF-ALA																						
RETURN FAN VSMC ALARM	BI-8	RF-ALA																						
RETURN FAN VSMC	AO-1	RF-SPD			●																			FULL COMMUNICATION
SUPPLY FAN VSMC	AO-2	SF-SPD		●																				FULL COMMUNICATION
OUTSIDE AIR DAMPER	AO-3	OAD				●																		
RETURN AIR DAMPER	AO-4	RAD				●																		
EXHAUST AIR DAMPER	AO-5	EAD				●																		
MINIMUM OUTSIDE AIR DAMPER	AO-7	MIN-OAD				●																		
PRE-HEAT VALVE V-2	AO-8	PHT-V1						●																
COILING VALVE V-1	AO-9	CLG-V1						●																
STEAM HUMIDIFIER VALVE V-4	AO-10	HUM-V4						●																
RETURN FAN START/STOP	BO-1	RF-SST			●																			
SUPPLY FAN START/STOP	BO-2	SF-SST		●																				
STEAM ISOLATION VALVE V-3	BO-3	HUM-ISO-V3					●																	



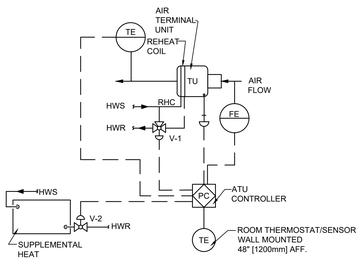
VAV BOX CONTROL SEQUENCE
NO DEADBAND

A. UPON FALL IN SPACE TEMPERATURE THE VAV DAMPER WILL MODULATE TO MINIMUM POSITION.
B. UPON FURTHER DROP IN SPACE TEMPERATURE VALVE V-1 WILL MODULATE TO MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING
C. VALVE V-2 SHALL BE ENABLED WHEN OUTSIDE AIR FALLS BELOW 40° F (ADJ) AND VALVE V-1 HAS BEEN MODULATED OPEN ABOVE 30% (ADJ). VALVE V-2 SHALL MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5°F HAS BEEN SELECTED TO PREVENT VALVE HUNTING. THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE.



VAV BOX CONTROL SEQUENCE
W/DEADBAND

A. SET POINTS SHALL BE SET AS FOLLOWS:
COOLING 75°F (ADJ)
HEATING 70°F(ADJ)
DEADBAND OF 5° F BETWEEN HEATING AND COOLING SET POINTS WILL BE MAINTAINED.
B. UPON FALL IN SPACE TEMPERATURE THE VAV DAMPER WILL MODULATE TO MINIMUM POSITION.
C. UPON FURTHER DROP IN SPACE TEMPERATURE VALVE V-1 WILL MODULATE TO MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING
D. VALVE V-2 SHALL BE ENABLED WHEN OUTSIDE AIR FALLS BELOW 40° F (ADJ) AND VALVE V-1 HAS BEEN MODULATED OPEN ABOVE 30% (ADJ). VALVE V-2 SHALL MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5°F HAS BEEN SELECTED TO PREVENT VALVE HUNTING.
E. THE REVERSE SHALL OCCUR ON THE RISE IN SPACE TEMPERATURE.



WITH SUPPLEMENTAL HEATING

3 VAV TERMINAL UNIT CONTROL DETAIL
SCALE: NTS

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Drawing Title	HVAC CONTROL DETAILS
Project Title	FARGO EHRM TRAINING AND ADMIN
Project Number	437-21-225
Building Number	9
BUILDING IS FULLY SPRINKLED	
Location	FARGO, ND
Date	01/11/2022
Checked	RD
Drawn	PM
Drawing Number	M2.10
Dwg.	25 of 41

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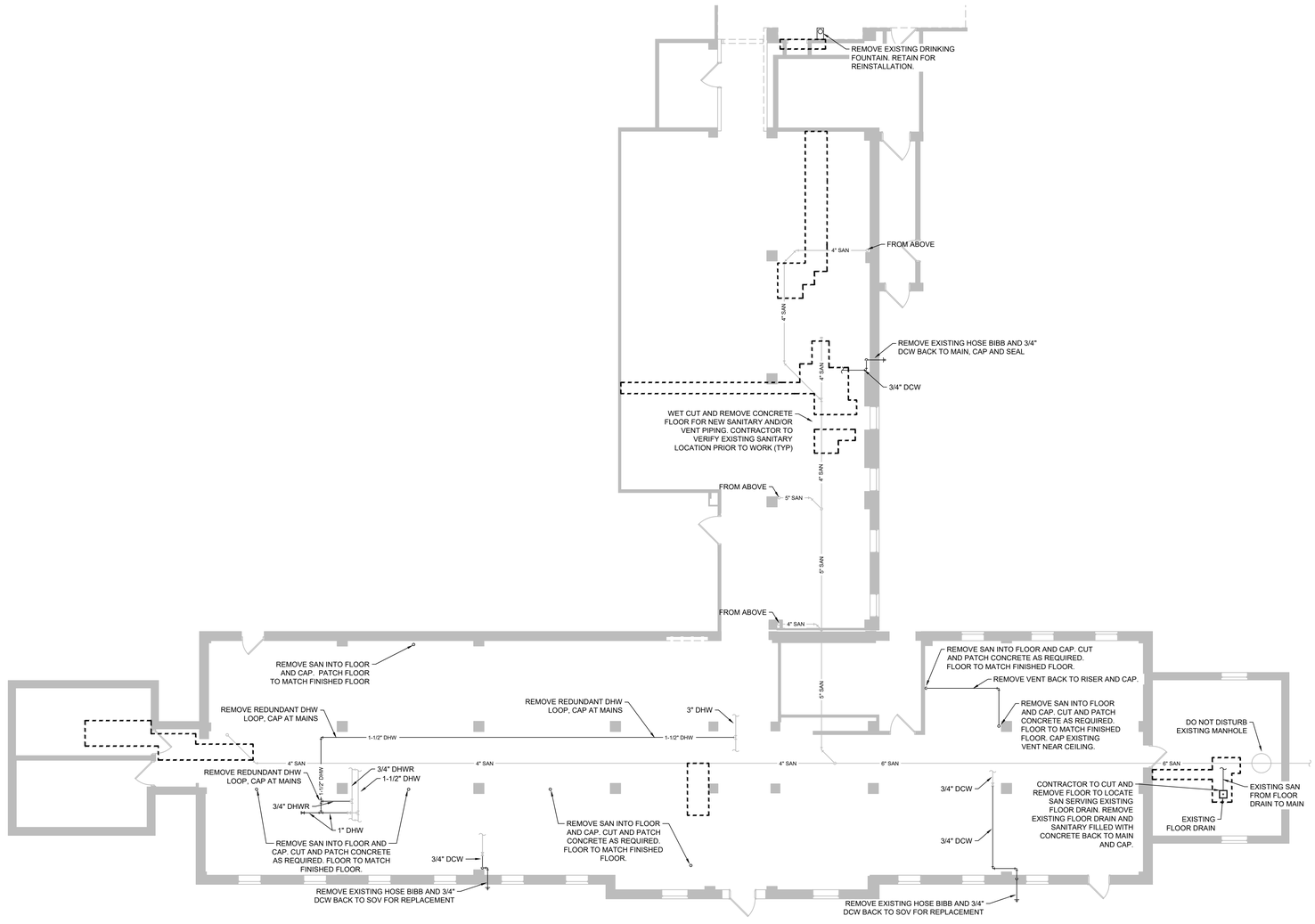

1 PLUMBING DEMOLITION PLAN
SCALE: 1/8" = 1'

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

CONSULTANTS:

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Drawing Title: PLUMBING DEMOLITION PLAN

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Project Number: 437-21-225

Building Number: 9

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: PM

Drawing Number: PD1.00

Dwg. 26 of 41

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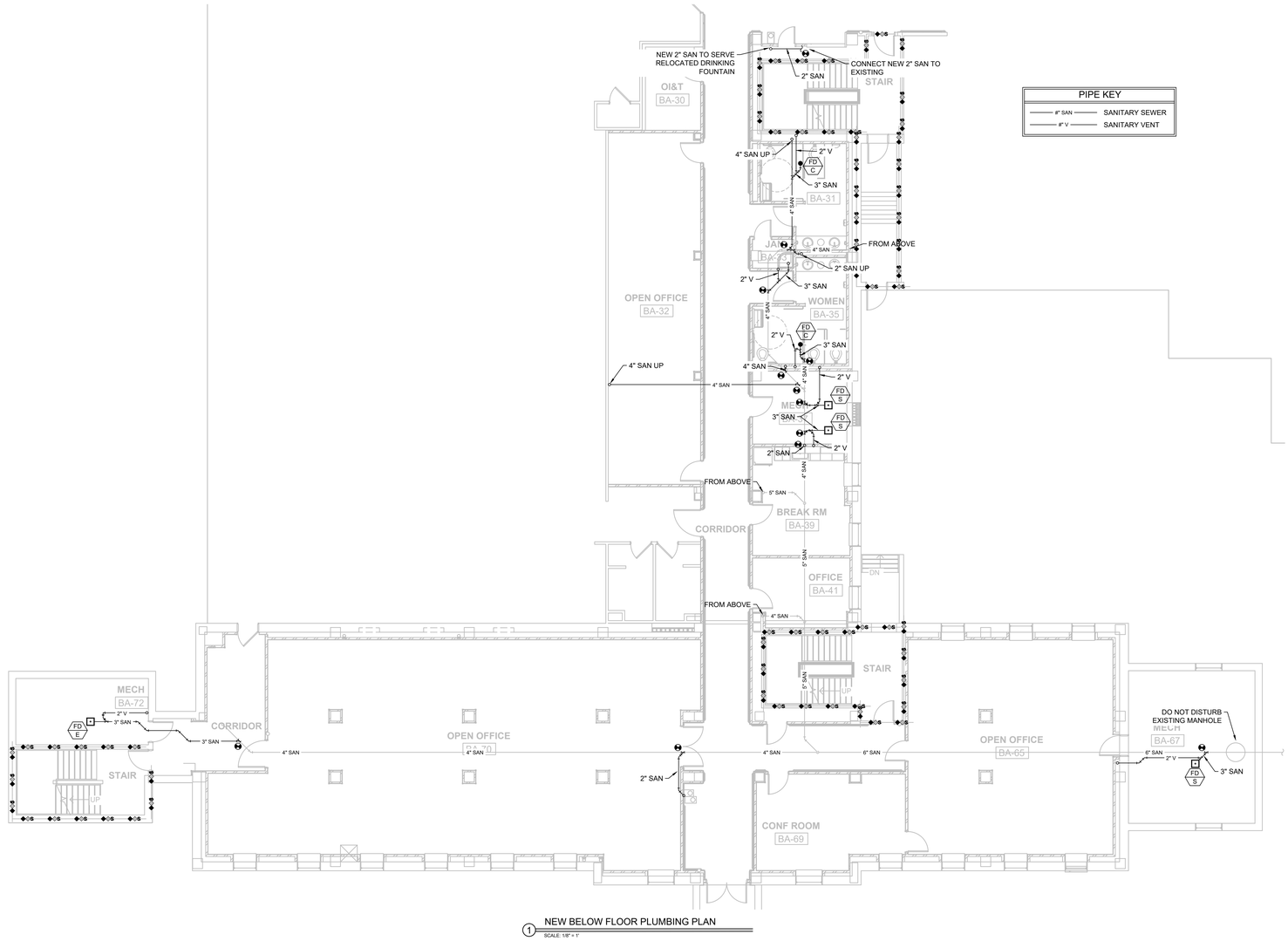

1 NEW BELOW FLOOR PLUMBING PLAN
SCALE: 1/8" = 1'

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Drawing Title: NEW BELOW FLOOR PLUMBING PLAN

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Project Number: 437-21-225

Building Number: 9

Drawing Number: P1.00

Dwg. 27 of 41

Date: 01/11/2022 | Checked: RD | Drawn: PM

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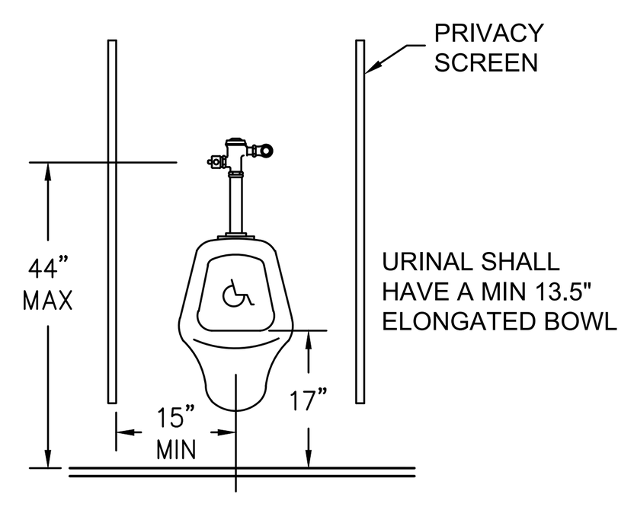
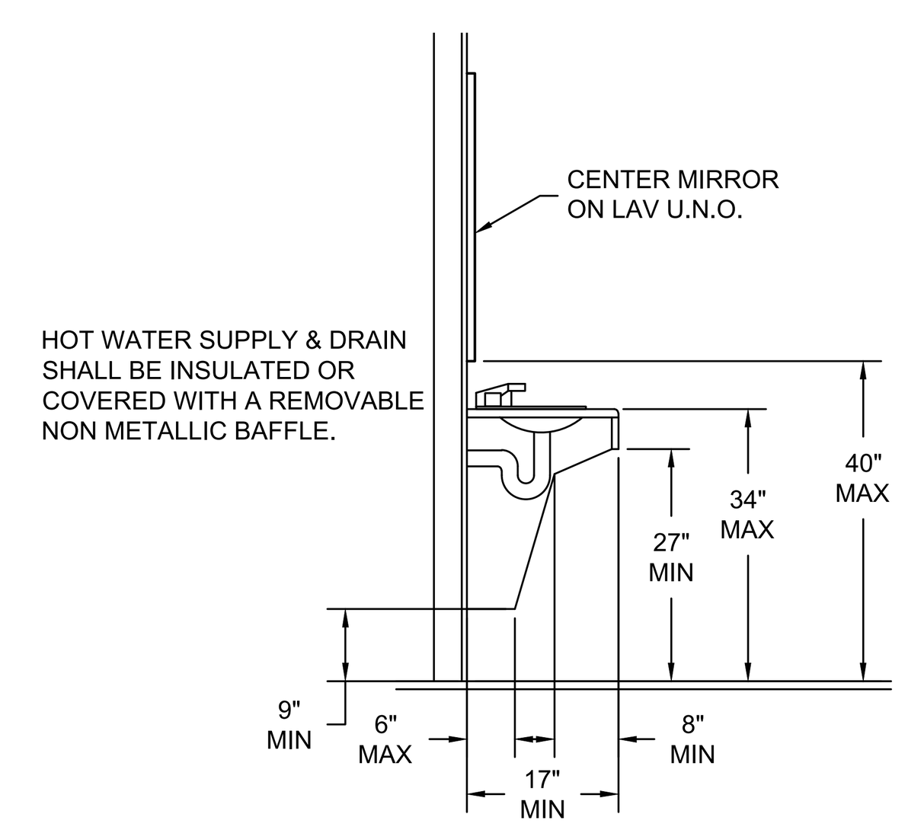
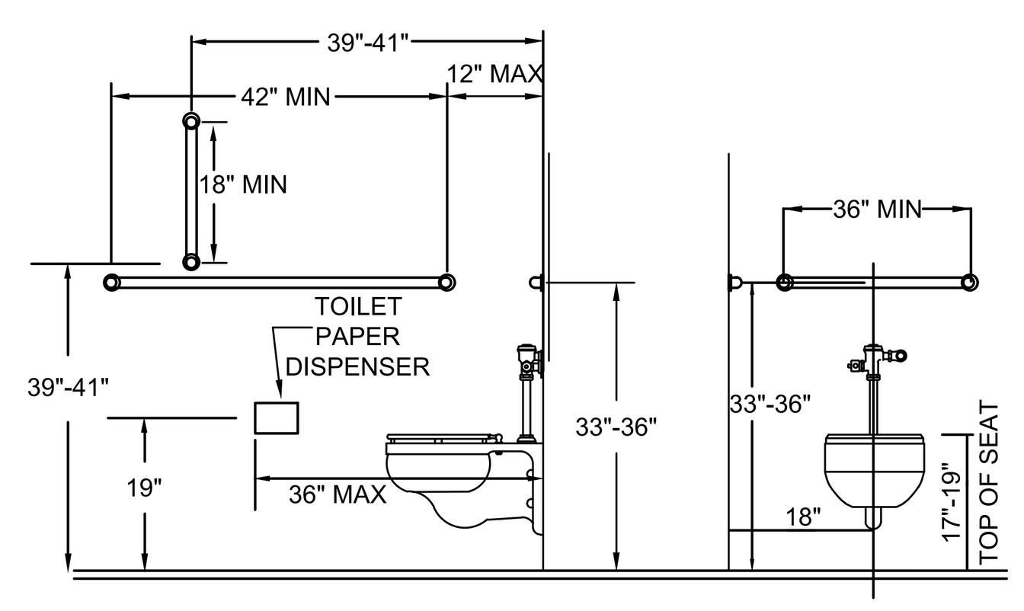


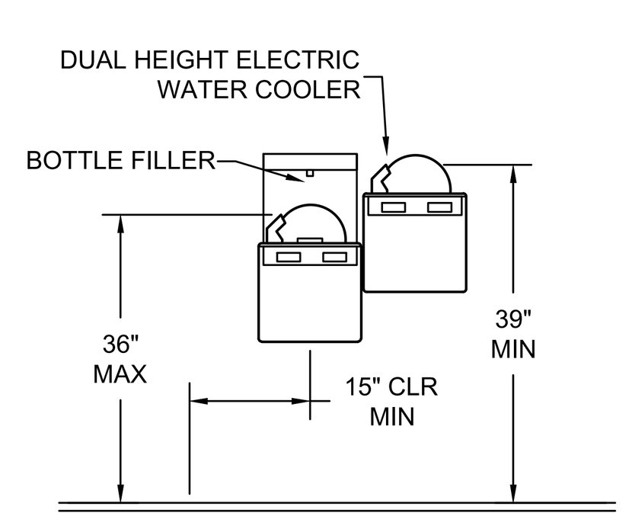
1 ADA URINAL MOUNTING DETAIL
SCALE: NTS



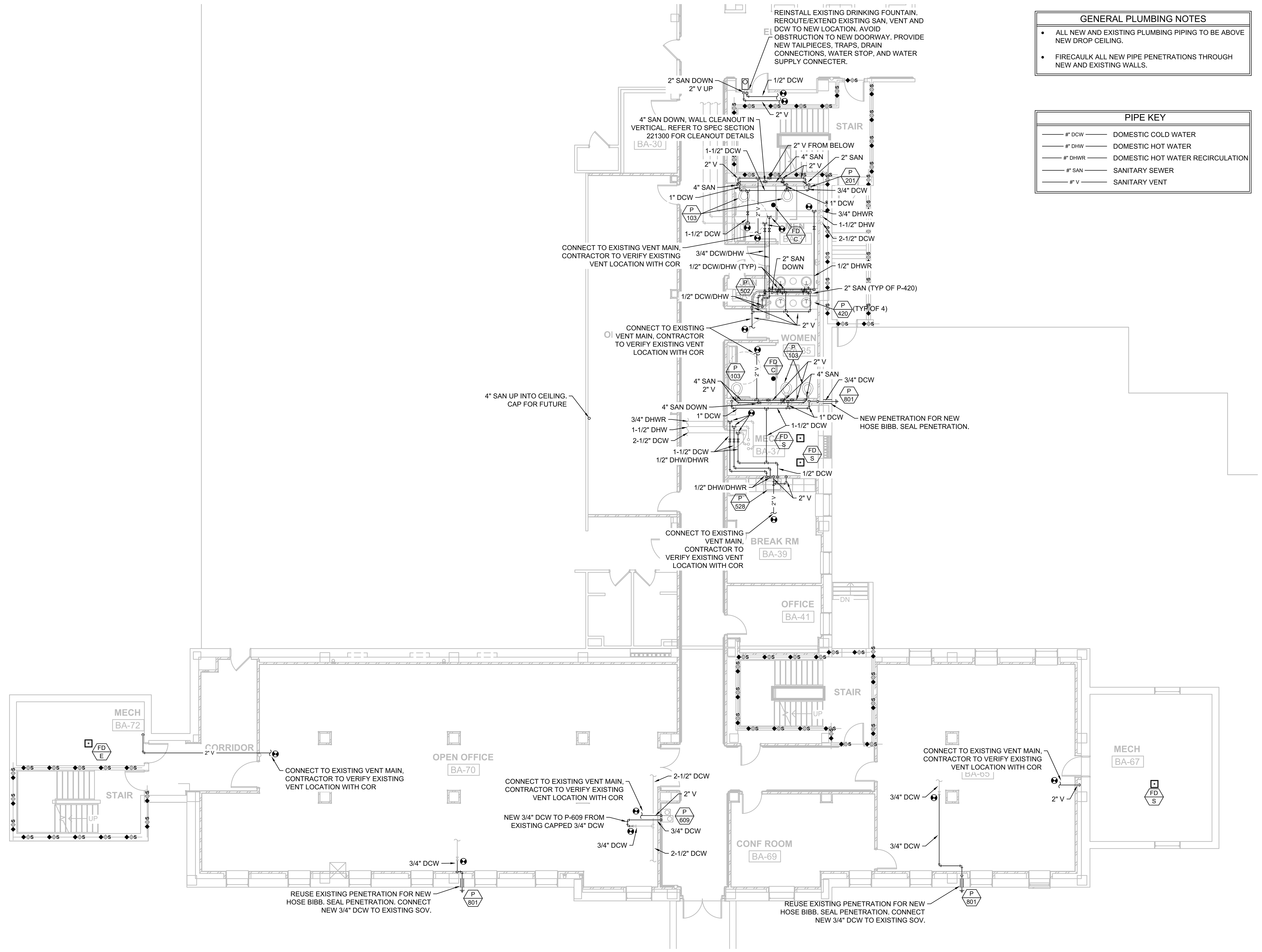
2 ADA COUNTER LAVATORY MOUNTING DETAIL
SCALE: NTS



3 ADA WATER CLOSET MOUNTING DETAIL
SCALE: NTS



4 ADA DUAL HEIGHT DRINKING FOUNTAIN MOUNTING DETAIL
SCALE: NTS



5 NEW ABOVE FLOOR PLUMBING PLAN
SCALE: 1/8" = 1'

GENERAL PLUMBING NOTES

- ALL NEW AND EXISTING PLUMBING PIPING TO BE ABOVE NEW DROP CEILING.
- FIRECAULK ALL NEW PIPE PENETRATIONS THROUGH NEW AND EXISTING WALLS.

PIPE KEY

#" DCW	DOMESTIC COLD WATER
#" DHW	DOMESTIC HOT WATER
#" DHWR	DOMESTIC HOT WATER RECIRCULATION
#" SAN	SANITARY SEWER
#" V	SANITARY VENT

100% CONSTRUCTION DOCUMENTS

Revisions: | Date

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Drawing Title: NEW ABOVE FLOOR PLUMBING PLAN AND DETAILS

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: PM

Project Number: 437-21-225

Building Number: 9

Drawing Number: P1.10

Dwg. 28 of 41

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ELECTRICAL LEGEND (FLOORPLAN)

SYMBOL	DESCRIPTION
	ITEMS SHOWN IN GRAY ARE EXISTING TO REMAIN
	DASHED ITEMS ARE INSTALLED BELOW REFERENCED PLAN
	DEMOLITION PLANS: SOLID DARK ITEMS ARE TO BE REMOVED OR MODIFIED. NEW PLANS: SOLID DARK ITEMS ARE TO BE ADDED OR MODIFIED.
	MOTOR, SINGLE-PHASE
	MOTOR, THREE-PHASE
	TRANSFORMER
	WYE CONNECTION
	EARTH GROUND
J	JUNCTION BOX
	BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH LEG CONDUCTORS. ONE SEPARATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN: NOT SHOWN
	PANELBOARD CABINET, FLUSH MOUNTED
	PANELBOARD CABINET, SURFACE MOUNTED
C	RECEPTACLE, CLOCK HANGER
	RECEPTACLE, DUPLEX
	RECEPTACLE, DUPLEX ON EMERGENCY POWER
	RECEPTACLE, GFCI DUPLEX
	RECEPTACLE, QUADRAPLEX
A	RECEPTACLE, SPECIAL PURPOSE 208V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R.
S	RECEPTACLE, SWITCHED DUPLEX
	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).
F	DISCONNECT SWITCH, FUSED
F	DISCONNECT SWITCH, UNFUSED
F	STARTER, COMBINATION WITH DISCONNECT SWITCH
	STARTER OR MOTOR CONTROLLER
VFD	VARIABLE FREQUENCY DRIVE
TC	TIME CLOCK
$	SWITCH, SPST
$D	SWITCH, DIMMER
$F	SWITCH, FUSED
$OS	SWITCH, OCCUPANCY SENSOR
$OSD	SWITCH, OCCUPANCY SENSOR DIMMER
M	COMMUNICATIONS FLOOR RECEPTACLE
M	COMMUNICATIONS WALL RECEPTACLE
M	COMMUNICATIONS CEILING RECEPTACLE
M	TELEVISION FLOOR RECEPTACLE C =CAMERA (CCTV SYSTEM) M =MONITOR (CATV SYSTEM). AV= AUDIOVISUAL (CONFERENCE ROOM CONNECTION RECEPTACLES)
M	TELEVISION WALL RECEPTACLE C =CAMERA (CCTV SYSTEM) M =MONITOR (CATV SYSTEM). AV= AUDIO VISUAL (CONFERENCE ROOM CONNECTION RECEPTACLES)
M	TELEVISION CEILING RECEPTACLE C =CAMERA (CCTV SYSTEM) M =MONITOR (CATV SYSTEM). AV= AUDIO VISUAL (CONFERENCE ROOM CONNECTION RECEPTACLES)
	PAGING SPEAKER, CEILING MOUNTED
	PAGING SPEAKER, WALL MOUNTED
M T	CARD ACCESS READER; 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 K- KEYPAD M-MAG STRIP F-ELEVATOR FLOOR CALL P-PROXIMITY H-ELEVATOR HALL CALL S-SMART CARD T-TOKEN

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE	EMCP	EMERGENCY MONITORING CONTROL	NA	NOT APPLICABLE
1P	SINGLE POLE		PANEL	NEC	NATIONAL ELECTRICAL CODE
2/C	TWO-CONDUCTOR	EMER	EMERGENCY	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
3/C	THREE-CONDUCTOR	EMI	ELECTROMAGNETIC INTERFERENCE		
3PH	THREE-PHASE	EMT	ELECTRICAL METALLIC TUBING	NEUT OR N	NEUTRAL
4/C	FOUR-CONDUCTOR	ENCL	ENCLOSURE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
4W	FOUR-WIRE	EPO	EMERGENCY POWER OFF		
		EPRF	EXPLOSION PROOF	NIC	NOT IN CONTRACT
AAP	ALARM ANNUNCIATOR PANEL	ESMT	EASEMENT	NL	NIGHT LIGHT
AC	ALTERNATING CURRENT OR ARMORED CABLE	EWC	ELECTRIC WATER COOLER	NO	NORMALLY OPEN
		EWH	ELECTRIC WATER HEATER	NS	NO SCALE
ACC	ACCESSIBLE	EXIST	EXISTING	NTS	NOT TO SCALE
AFC	ABOVE FINISHED COUNTER, AUTOMATIC FREQUENCY CONTROL, OR AVAILABLE FAULT CURRENT	FA	FIRE ALARM	OC	ON CENTER
		FAAP	FIRE ALARM ANNUNCIATOR PANEL	OD	OUTSIDE DIAMETER
AFF	ABOVE FINISHED FLOOR	FABL	FIRE ALARM BELL	OF	OWNER FURNISHED
AFG	ABOVE FINISHED GRADE	FABX	FIRE ALARM BOX	OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
AH	AMPERE HOUR	FACP	FIRE ALARM CONTROL PANEL		
AHJ	AUTHORITY HAVING JURISDICTION	FC	FOOTCANDLE	OF/OI	OWNER FURNISHED/OWNER INSTALLED
AIC	AMPERE INTERRUPTING CAPACITY	FIXT	FIXTURE	OL	OVERLOAD
AMP	AMPERE	FLA	FULL LOAD AMPS	OS	OCCUPANCY SENSOR
AT	AMPERE TRIP	FLEX	FLEXIBLE METALLIC CONDUIT		
ATS	AUTOMATIC TRANSFER SWITCH	FLT	FLOODLIGHT	P	POLE
AUTO	AUTOMATIC	FLUOR	FLUORESCENT	PA	PUBLIC ADDRESS
AV	AUDIO VISUAL	FLUOR FIX	FLUORESCENT FIXTURE	PB	PANELBOARD, PULL BOX, OR PUSHBUTTON
		FOUTT	TELEPHONE FLOOR OUTLET		
BAS	BUILDING AUTOMATION SYSTEM	FP	FIRE PROTECTION	PBPU	PREFABRICATED BEDSIDE PATIENT UNIT
BFF	BELOW FINISH FLOOR	FT	FEET OR FOOT	PCB	POLYCHLORINATED BIPHENYL
BLDG	BUILDING	FU SW	FUSED SWITCH	PEC	PHOTOELECTRIC CELL
BPIP	BOILER PLANT INSTRUMENTATION PANEL	FVNR	FULL VOLTAGE NON-REVERSING	PED	PEDESTAL
BRKR	BREAKER	FVR	FULL VOLTAGE REVERSING	PEND	PENDANT
BYP	BY PASS			PF	POWER FACTOR
		G OR GND	GROUND	PH	PHASE
C	CONDUIT	GEN	GENERATOR	PNL	PANEL
CAB	CABINET	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	POD	POWER OPERATED DAMPER
CALC	CALCULATE	GTB	GROUND TERMINAL BOX	PT	POTENTIAL TRANSFORMER
CAP	CAPACITY			PTRV	POWER TYPE ROOF VENTILATION
CAT	CATALOG	HID	HIGH INTENSITY DISCHARGE	PVC	POLYVINYL CHLORIDE (PLASTIC)
CATV	COMMUNITY ANTENNA TELEVISION	HOA	HAND-OFF-AUTOMATIC	PWR	POWER
CCR	CONTROL CONTACTOR	HP	HORSEPOWER		
CCTV	CLOSED CIRCUIT TELEVISION	HT	HEIGHT	RCP	REFLECTED CEILING PLAN
cd	CANDELA	HZ	HERTZ	REC	RECESSED
CD	CONSTRUCTION DOCUMENTS			RECPT	RECEPTACLE
CF	CONTRACTOR FURNISHED	IESNA	ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA	RGS	RIGID GALVANIZED STEEL
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED	IMC	INTERMEDIATE METAL CONDUIT	RM	ROOM
		INCAND	INCANDESCENT	RMS	ROOT MEAN SQUARE
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED	IR	INFRARED	REQD	REQUIRED
		IWH	INSTANTANEOUS WATER HEATER		
CHW	CHILLED WATER			SCC	SHORT CIRCUIT CAPACITY
CHWP	CHILLED WATER PUMP	J-BOX	JUNCTION BOX	SES	SERVICE ENTRANCE SECTION
CKT	CIRCUIT			SD	SMOKE DETECTOR
CKT BRKR	CIRCUIT BREAKER	kV	KILOVOLT	SF	SQUARE FOOT (FEET)
CLF	CURRENT LIMITING FUSE	kVA	KILOVOLT AMPERE	SHT	SHEET
CLG	CEILING	kVAH	KILOVOLT AMPERE PER HOUR	SI	INTERNATIONAL SYSTEM OF UNITS
CMU	CONCRETE MASONRY UNIT	kVAR	KILOVOLT AMPERE REACTIVE	SPEC	SPECIFICATION
COAX	COAX CABLE	kW	KILOWATT	SPST	SINGLE POLE, SINGLE THROW
COMM	COMMUNICATION	kWH	KILOWATT HOUR	SPDT	SINGLE POLE, DOUBLE THROW
CONC	CONCRETE	kWHM	KILOWATT HOUR METER	SURF	SURFACE
CONT	CONTINUE			SW	SWITCH
CONTR	CONTRACTOR	LED	LIGHT EMITTING DIODE	SWBD	SWITCHBOARD
COORD	COORDINATE	LF	LINEAR FEET (FOOT)	SWGR	SWITCHGEAR
CPT	CONTROL POWER TRANSFORMER	LM	LUMEN		
CRI	COLOR RENDERING INDEX	LP	LIGHT POLE	TC	TIME CLOCK
CT	CURRENT TRANSFORMER	LPS	LOW PRESSURE SODIUM	TEL	TELEPHONE
CTV	CABLE TELEVISION	LRA	LOCKED ROTOR AMPS	TP	TWISTED PAIR
CU	COPPER	LTCP	LOCAL TEMPERATURE CONTROL PANEL	TPS	TWISTED PAIR SHIELDED
CU FT	CUBIC FEET	LT	LIGHT	TTB	TELEPHONE TERMINAL BOARD
CUR	CURRENT	LTG	LIGHTING	TV	TELEVISION
		LTG PNL	LIGHTING PANEL	TYP	TYPICAL
DAS	DISTRIBUTED ANTENNA SYSTEM	LTNG	LIGHTNING		
DB	DECIBEL	LV	LOW VOLTAGE	UFD	UNDERFLOOR DUCT
DC	DIRECT CURRENT			UGND	UNDERGROUND
DCP	DIMMER CONTROL PANEL	MATV	MASTER ANTENNA TELEVISION SYSTEM	UL	UNDERWRITERS LABORATORY
DEG C	DEGREES CELSIUS	MAX	MAXIMUM	UON	UNLESS OTHERWISE NOTED
DEG F	DEGREES FAHRENHEIT	MC	METAL-CLAD	UPS	UNINTERRUPTIBLE POWER SUPPLY
DEMO	DEMOLITION	MCA	MINIMUM CIRCUIT AMPS	UTIL	UTILITY
DIAG	DIAGRAM	MCB	MAIN CIRCUIT BREAKER		
DISC	DISCONNECT	MCC	MOTOR CONTROL CENTER	V	VOLT
DISTR	DISTRIBUTION	MDP	MAIN DISTRIBUTION PANEL	VA	VOLT AMPERE
DISTR PNL	DISTRIBUTION PANEL	MECH	MECHANICAL	VAR	VOLT AMPERE REACTIVE
DMR SW	DIMMER SWITCH	MG	MOTOR GENERATOR	VFD	VARIABLE FREQUENCY DRIVE
DN	DOWN	MH	MANHOLE	VOLT	VOLTAGE
DPDT	DOUBLE POLE, DOUBLE THROW	MIN	MINIMUM	VS	VACANCY SENSOR
DPST	DOUBLE POLE, SINGLE THROW	MOCP	MAXIMUM OVERCURRENT PROTECTION	W	WATT
DRSW	DOOR SWITCH	MLO	MAIN LUGS ONLY	WH	WATER HEATER
DS	DISCONNECT SWITCH	MT	MOUNT	WP	WEATHERPROOF
DWG	DRAWING	MTD	MOUNTED		
		MTG	MOUNTING	XFER	TRANSFER
EC	EMPTY CONDUIT	MTS	MANUAL TRANSFER SWITCH	XFMR	TRANSFORMER
EG	EQUIPMENT GROUND	MVA	MEGAVOLT-AMPERE		
EL	ELEVATION	MW	MEGAWATT MICROWAVE		
ELEC	ELECTRIC OR ELECTRICAL				
ELEV	ELEVATOR				

SHEET INDEX

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Drawing Title: ELECTRICAL LEGENDS AND ABBREVIATIONS

Approved: Project Director: FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: JS/WW

Project Number: 437-21-225

Building Number: 9

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Dwg. 29 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

5/24/2021 3:54:42 PM

VA FORM 08-6231

NEW PANEL "EC90S1"

PANEL LOCATION: MECH BA-72 | L-L VOLT: 208 | PHASE: 3 | MAIN: LUG Y | BREAKER N
MFR/MODEL: SQUARE D NF (OR APPROVED EQUAL) | L-N VOLT: 120 | WIRES: 4 | WIRE SIZE: (4) 4/0 THHN | FED FROM: CRITICAL BRANCH SWBD
AIC: 2,200 | RATED AMP: 225 | NEURAL 100% | COND. SIZE: 2" EMT | MOUNT: RECESSED

DESCRIPTION	BREAKER TYPE	POLE	AMP	BRANCH WIRE SIZE	INSULATION	GND	L-LOAD	R-LOAD	O-LOAD	T/S/O/M A/E/H	PHASE			T/S/O/M A/E/H	O-LOAD	R-LOAD	L-LOAD	BRANCH WIRE SIZE	INSULATION	GND	BREAKER AMP	POLE	TYPE	DESCRIPTION
BA-42 EM RECPS		1	20				1080				1	A	2			360					20	1		BA-41 EM RECPS
BA-65 & BA-69 EM RECPS		1	20				1080				3	B	4			1440					20	1		BA-70 EM RECPS
SPARE		1	20								5	C	6								20	1		SPARE
SPARE		1	20								7	A	8								20	1		SPARE
SPARE		1	20								9	B	10								20	1		SPARE
SPARE		1	20								11	C	12								20	1		SPARE
SPARE		1	20								13	A	14								20	1		SPARE
SPARE		1	20								15	B	16								20	1		SPARE
SPARE		1	20								17	C	18								20	1		SPARE
SPARE		1	20								19	A	20								20	1		SPARE
SPARE		1	20								21	B	22								20	1		SPARE
SPARE		1	20								23	C	24								20	1		SPARE
SPACE											25	A	26											
SPACE											27	B	28								60	3		FACTORY SURGE PROTECTION
SPACE											29	C	30											
SUMMARY CONNECTED LOADS							2160	0	0 0 0 0 0 0 0	M A S E H T O	LOAD (VOLT-AMPERES)			M A S E H T O	0 0 0 0 0 0 0	1800	0							SUMMARY CONNECTED LOADS

DESCRIPTION	CONN. KVA	D.F	DEM. KVA
LIGHTING	2.2	1.25	2.7
RECEPTACLES (FIRST 10KW)	1.8	1.0	1.8
RECEPTACLES (REMAINDER)	0.0	0.5	0.0
MOTORS	0.0	1.0	0.0
LARGEST MOTOR	0.0	1.25	0.0
APPLIANCES	0.0	1.0	0.0
SUBFEED	0.0	0.8	0.0
EQUIPMENT	0.0	1.0	0.0
HEATING	0.0	1.0	0.0
TRANSFORMER	0.0	1.0	0.0
OTHER	0.0	1.0	0.0
TOTAL KVA	4.0 KVA		4.5 KVA
TOTAL AMP	11.0 AMP		12.5 AMP
DESIGN (MAX)			100 AMP
SPARE			87.5 AMP

AMPERAGE FED TO PANEL	100 AMP	
TOTAL CONNECTED LOAD	11.0 AMP	4.0 KVA
TOTAL DEMAND LOAD	12.5 AMP	4.5 KVA
DESIGN (MAX)	100 AMP	36.0 KVA
SPARE LOAD	88 AMP	31.5 KVA
CONNECTED LOAD BALANCE SUMMARY		
PHASE A	12.0 AMP	1.44 KVA
PHASE B	21.0 AMP	2.52 KVA
PHASE C	0.0 AMP	0 KVA
A TO B	-75 %	
B TO C	100 %	
C TO A	#DIV/0! %	

NOTE: ALL BRANCH WIRE SIZING IS BASED ON CIRCUIT SHOWN BEING THE ONLY CIRCUIT WITHIN THE CONDUIT. AT CONTRACTOR OPTION UP TO 3 CIRCUITS MAY BE RUN TOGETHER IN A SINGLE CONDUIT AS LONG AS THEY DO NOT SHARE A NEUTRAL AND CONDUCTORS ARE DERATED BASED ON 2016 NEC TABLE 310.15(B)(3)(a)

LEGEND/KEY
T=TRANSFORMER
S=SUBFEED
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A=APPLIANCE
E=EQUIPMENT
H=HEATING
R=RECEPTACLES
L=LIGHTING
CONN.=CONNECTED
DEM=DEMAND
SPR=SPARE
SPC=SPACE
D.F.=DEMAND FACTOR
GFCI=GROUND FAULT CIRCUIT
ST-SHUNT TRIP

REMODEL PANEL "90S2"

PANEL LOCATION: MECH BA-65 | L-L VOLT: 208 | PHASE: 3 | MAIN: LUG Y | BREAKER N
MFR/MODEL: SQUARE D NF (OR APPROVED EQUAL) | L-N VOLT: 120 | WIRES: 4 | WIRE SIZE: EXISTING | FED FROM: BLDG 9 SWGR
AIC: 22,000 | RATED AMP: 225 | NEURAL 100% | COND. SIZE: EXISTING | MOUNT: SURFACE

DESCRIPTION	BREAKER TYPE	POLE	AMP	BRANCH WIRE SIZE	INSULATION	GND	L-LOAD	R-LOAD	O-LOAD	T/S/O/M A/E/H	PHASE			T/S/O/M A/E/H	O-LOAD	R-LOAD	L-LOAD	BRANCH WIRE SIZE	INSULATION	GND	BREAKER AMP	POLE	TYPE	DESCRIPTION
AHU-90	3	50	(4)#6	THHN	#8				1997	M	1	A	2	M	1997						1080			
									1997	M	3	B	4	M	1997			(4)#6	THHN	#8	50	3		AHU-91
									1997	M	5	C	6	M	1997									
BAS SIEMANS PANEL	1	20	(E)	(E)	(E)				500	S	7	A	8								20	1		SPARE
AHU-19	3	40	(4)#5	THHN	#8				1345	M	9	B	10								20	1		SPARE
									1345	M	11	C	12	E	500			(E)	(E)	(E)	20	1		HOT WELL
									1345	M	13	A	14	E	1500									
RECIRCULATOR	1	20	(E)	(E)	(E)				1080		15	B	16	E	1500			(E)	(E)	(E)	15	2		M-DAC-15B
SW BAS	1	20							500	S	17	C	18	M	336			(2)#12	THHN	#12	20	1		P-1,2
N BAS	1	20							500	S	19	A	20	S	5340									
M-DAC-15A	2	30	(E)	(E)	(E)				1500	E	21	B	22	S	5599			(4)#2	THHN	#6	100	3		PANEL 90S3
			(E)	(E)	(E)				1500	E	23	C	24	S	3780									
CWP-14.15	3	80	(E)	(E)	(E)		4992			M	25	A	26	M	1875									
							4992			M	27	B	28	M	1500									
							4992			M	29	C	30	E	80			(3)#12	THHN	#12	20	2		AC-1
P-3	3	25	(3)#12	THHN	#12				1093	M	31	A	32	E	80									
									1093	M	33	B	34								20	1		OFF/SPARE
									1093	M	35	C	36	M	76			(2)#12	THHN	#12	20	1		EF-1
P-4	3	25	(3)#12	THHN	#12				1093	M	37	A	38	M	120			(2)#12	THHN	#12	20	1		UH-1
									1093	M	39	B	40								20	1		OFF/SPARE
									1093	M	41	C	42	M	600			(2)#12	THHN	#12	20	1		CP-1,2,3
SUMMARY CONNECTED LOADS							0	16056	16584 0 1500 3000 0 0 0	M A S E H T O	LOAD (VOLT-AMPERES)			M A S E H T O	10123 0 14719 3660 0 0 0	0	0							SUMMARY CONNECTED LOADS

DESCRIPTION	CONN. KVA	D.F	DEM. KVA
LIGHTING	0.0	1.25	0.0
RECEPTACLES (FIRST 10KW)	10.0	1.0	10.0
RECEPTACLES (REMAINDER)	6.1	0.5	3.0
MOTORS	24.7	1.0	24.7
LARGEST MOTOR	2.0	1.25	2.5
APPLIANCES	0.0	1.0	0.0
SUBFEED	16.2	0.8	13.0
EQUIPMENT	6.7	1.0	6.7
HEATING	0.0	1.0	0.0
TRANSFORMER	0.0	1.0	0.0
OTHER	0.0	1.0	0.0
TOTAL KVA	65.6 KVA		59.9 KVA
TOTAL AMP	182.2 AMP		166.2 AMP
DESIGN (MAX)			200 AMP
SPARE			33.8 AMP

AMPERAGE FED TO PANEL	200 AMP	
TOTAL CONNECTED LOAD	182.2 AMP	65.6 KVA
TOTAL DEMAND LOAD	166.2 AMP	59.9 KVA
DESIGN (MAX)	200 AMP	72.1 KVA
SPARE LOAD	34 AMP	12.2 KVA
CONNECTED LOAD BALANCE SUMMARY		
PHASE A	183.8 AMP	22.057 KVA
PHASE B	197.5 AMP	23.696 KVA
PHASE C	165.7 AMP	19.889 KVA
A TO B	-7 %	
B TO C	16 %	
C TO A	-11 %	

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CONN.=CONNECTED
DEM=DEMAND
SPR=SPARE
SPC=SPACE
D.F.=DEMAND FACTOR
GFCI=GROUND FAULT CIRCUIT
ST-SHUNT TRIP

REMOVE DOWNSTREAM CONNECTION TO EXISTING CIRCUITS CONNECTED TO THIS PANEL IN THEIR ENTIRETY

NEW PANEL "90S1"

PANEL LOCATION: MECH BA-65A | L-L VOLT: 208 | PHASE: 3 | MAIN: LUG N | BREAKER 200 AMP
MFR/MODEL: SQUARE D NF (OR APPROVED EQUAL) | L-N VOLT: 120 | WIRES: 4 | WIRE SIZE: (4) 4/0 THHN | FED FROM: BUILDING 9 NP SWITCHBOARD
AIC: 22,000 | RATED AMP: 225 | NEURAL 100% | COND. SIZE: 2" EMT | MOUNT: SURFACE

DESCRIPTION	BREAKER TYPE	POLE	AMP	BRANCH WIRE SIZE	INSULATION	GND	L-LOAD	R-LOAD	O-LOAD	T/S/O/M A/E/H	PHASE			T/S/O/M A/E/H	O-LOAD	R-LOAD	L-LOAD	BRANCH WIRE SIZE	INSULATION	GND	BREAKER AMP	POLE	TYPE	DESCRIPTION
OPEN OFFICE BA-65 R1		1	20	(2) #12	THHN	#12		1080			1	A	2			1080		(2) #12	THHN	#12	20	1		OFFICE BA-39 R1
OPEN OFFICE BA-65 R3		1	20	(2) #12	THHN	#12		1080			3	B	4			1080		(2) #12	THHN	#12	20	1		BREAK RM BA-37 R1
OPEN OFFICE BA-65 R3		1	20	(2) #12	THHN	#12		1080			5	C	6			720		(2) #12	THHN	#12	20	1		RESTROOMS BA-31,BA-33 R
CONFERENCE BA65-B R1		1	20	(2) #12	THHN	#12		900			7	A	8			900		(2) #12	THHN	#12	20	1		CONFERENCE BA65-B R2
CONFERENCE BA65-B R2		1	20	(2) #12	THHN	#12		360			9	B	10			540		(2) #12	THHN	#12	20	1		OPEN OFFICE BA-70 R1
OPEN OFFICE BA-70 R2		1	20	(2) #12	THHN	#12		1080			11	C	12			720		(2) #12	THHN	#12	20	1		OPEN OFFICE BA-70 R3
OPEN OFFICE BA-70 R3		1	20	(2) #12	THHN	#12		1080			13	A	14			1080		(2) #12	THHN	#12	20	1		OPEN OFFICE BA-70 R5
OPEN OFFICE BA-70 R4		1	20	(2) #12	THHN	#12		1080			15	B	16			1080		(2) #12	THHN	#12	20	1		OPEN OFFICE BA-70 R7
OPEN OFFICE BA-70 R5		1	20	(2) #12	THHN	#12		1080			17	C	18			1080		(2) #12	THHN	#12	20	1		OPEN OFFICE BA-70 R9
OPEN OFFICE BA-70 R6		1	20	(2) #12	THHN	#12		1080			19	A	20			1080		(2) #12	THHN	#12	20	1		OPEN OFFICE BA-70 R11
MECH BA70A R		1	20	(2) #12	THHN	#12		540			21	B	22								20	1		SPARE
SPARE		1	20								23	C	24			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 1
SPARE		1	20								25	A	26			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 2
SPARE		1	20								27	B	28			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 3
SPARE		1	20								29	C	30			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 4
SPARE		1	20								31	A	32			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 5
SPARE		1	20								33	B	34			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 6
SPARE		1	20								35	C	36			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 7
LIGHTING SW		1	20	(2) #12	THHN	#12	1274				37	A	38			720		(2) #12	THHN	#12	20	1		OPEN OF. PILLAR RECPS 8
LIGHTING SE		1	20	(2) #12	THHN	#12	934				39	B	40								20	1		SPARE
SPARE		1	20								41	C	42								20	1		SPARE
SPARE		1	20								43	A	44								20	1		SPARE
VAV POWER		1	20						1300	T	45	B	46								20	1		SPARE
SPARE		1	20								47	C	48								20	1		SPARE
SPARE		1	20								49	A	50	S	5340						100	1		NEW PANEL 90SX
SPARE		1	20								51	B	52	S	5599									
SPARE		1	20								53	C	54	S	3780									
SUMMARY CONNECTED LOADS							2208	10440	0 0 0 0 1300 0	M A S E H T O	LOAD (VOLT-AMPERES)			M A S E H T O	0 0 0 0 0 0 0	29839	0							SUMMARY CONNECTED LOADS

DESCRIPTION	CONN. KVA	D.F	DEM. KVA
LIGHTING	2.8	1.25	2.8
RECEPTACLES (FIRST 10KW)	10.0	1.0	10.0
RECEPTACLES (REMAINDER)	30.3	0.5	15.1
MOTORS	0.0	1.0	0.0
LARGEST MOTOR	0.0	1.25	0.0
APPLIANCES	0.0	1.0	0.0
SUBFEED	0.0	0.8	0.0
EQUIPMENT	0.0	1.0	0.0
HEATING	0.0	1.0	0.0
TRANSFORMER	1.3	1.0	1.3
OTHER	0.0	1.0	0.0
TOTAL KVA	43.8 KVA		29.2 KVA
TOTAL AMP	121.5 AMP		81.0 AMP
DESIGN (MAX)			200 AMP
SPARE			119.0 AMP

AMPERAGE FED TO PANEL	200 AMP	
TOTAL CONNECTED LOAD	121.5 AMP	43.8 KVA
TOTAL DEMAND LOAD	81.0 AMP	29.2 KVA
DESIGN (MAX)	200 AMP	72.1 KVA
SPARE LOAD	119 AMP	42.9 KVA
CONNECTED LOAD BALANCE SUMMARY		
PHASE A	130.1 AMP	15.614 KVA
PHASE B	119.3 AMP	14.313 KVA
PHASE C	85.5 AMP	10.26 KVA
A TO B	8 %	
B TO C	28 %	
C TO A	-52 %	

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L=LIGHTING
CONN.=CONNECTED
DEM=DEMAND
SPR=SPARE
SPC=SPACE
D.F.=DEMAND FACTOR
GFCI=GROUND FAULT CIRCUIT
ST-SHUNT TRIP

NEW PANEL "90S3"

PANEL LOCATION: MECH BA-35 | L-L VOLT: 208 | PHASE: 3 | MAIN: LUG N | BREAKER 100 AMP
MFR/MODEL: SQUARE D NF (OR APPROVED EQUAL) | L-N VOLT: 120 | WIRES: 4 | WIRE SIZE: (4)#4 THHN + #6 CU | FED FROM:
AIC: 22,000 | RATED AMP: 100 | NEURAL 100% | COND. SIZE: 1-1/2" EMT | MOUNT: SURFACE

DESCRIPTION	BREAKER TYPE	POLE	AMP	BRANCH WIRE SIZE	INSULATION	GND	L-LOAD	R-LOAD	O-LOAD	T/S/O/M A/E/H	PHASE			T/S/O/M A/E/H	O-LOAD	R-LOAD	L-LOAD	BRANCH WIRE SIZE	INSULATION	GND	BREAKER AMP	POLE	TYPE	DESCRIPTION
BA-37 REFRIGERATOR		1	20	(2) #12	THHN	#12			1200	A	1	A	2					1080			20	1		OFFICE BA-39 R1
OFFICE BA-39 R2		1	20	(2) #12	THHN	#12		1080			3	B	4					900			20	1		BREAK RM BA-37 R1
BREAK RM BA-37 R2		1	20	(2) #12	THHN	#12		900			5	C	6					720			20	1		RESTROOMS BA-31,BA-33 R
OPEN OFFICE BA-32 R1		1	20	(2) #12	THHN	#12		900			7	A	8					1080			20	1		OPEN OFFICE BA-32 R2
OPEN OFFICE BA-32 R3		1	20	(2) #12	THHN	#12		1080			9	B	10					1080			20	1		OPEN OFFICE BA-32 R4
OPEN OFFICE BA-32 R5		1	20	(2) #12	THHN	#12		1080			11	C	12					1080			20	1		OPEN OFFICE BA-32 R6
OPEN OFFICE BA-32 R7		1	20	(2) #12	THHN	#12		1080			13	A	14								20	1		SPARE
SPARE		1	20								15	B	16								20	1		SPARE
SPARE		1	20								17	C	18								20	1		SPARE
SPARE		1	20								19	A	20								20	1		SPARE
LIGHTING NORTH & HALL		1	20	(2) #12	THHN	#12	1459				21	B	22								20	1		SPARE
SPARE		1	20								23	C	24								20	1		SPARE
SPARE		1	20								25	A	26								20	1		SPARE
SPARE		1	20								27	B	28								20	1		SPARE
SPARE		1	20								29	C	30								20	1		SPARE
SPARE		1	20								31	A	32								20	1		SPARE
SPARE		1	20								33	B	34								20	1		SPARE
SPARE		1	20								35	C	36								20	1		SPARE
SPARE		1	20								37	A	38								20	1		SPARE
SPARE		1	20								39	B	40								20	1		SPARE
SPARE		1	20								41	C	42								20	1		SPARE
SPARE		1	20								43	A	44								20	1		SPARE
SPARE		1	20								45	B	46								20	1		SPARE
SPARE		1	20								47	C	48								20	1		SPARE
SPARE		1	20								49	A	50								20	1		SPARE
SPARE		1	20								51	B	52								20	1		SPARE
SPARE		1	20								53	C	54								20	1		SPARE
SUMMARY CONNECTED LOADS							1459	6120	0 1200 0 0 0 0	M A S E H T O	LOAD (VOLT-AMPERES)			M A S E H T O	0 0 0 0 0 0 0	5940	0							SUMMARY CONNECTED LOADS

DESCRIPTION	CONN. KVA	D.F	DEM. KVA
LIGHTING	1.5	1.25	1.8
RECEPTACLES (FIRST 10KW)	10.0	1.0	10.0
RECEPTACLES (REMAINDER)	2.1	0.5	1.0
MOTORS	0.0	1.0	0.0
LARGEST MOTOR	0.0	1.25	0.0
APPLIANCES	1.2	1.0	1.2
SUBFEED	0.0	0.8	0.0
EQUIPMENT	0.0	1.0	0.0
HEATING	0.0	1.0	0.0
TRANSFORMER	0.0	1.0	0.0
OTHER	0.0	1.0	0.0
TOTAL KVA	14.7 KVA		14.1 KVA
TOTAL AMP	40.9 AMP		39.0 AMP
DESIGN (MAX)			200 AMP
SPARE			161.0 AMP

AMPERAGE FED TO PANEL	200 AMP	
TOTAL CONNECTED LOAD	40.9 AMP	14.7 KVA
TOTAL DEMAND LOAD	39.0 AMP	14.1 KVA
DESIGN (MAX)	200 AMP	72.1 KVA
SPARE LOAD	161 AMP	58.0 KVA
CONNECTED LOAD BALANCE SUMMARY		
PHASE A	44.5 AMP	5.34 KVA
PHASE B	46.7 AMP	5.599 KVA
PHASE C	31.5 AMP	3.78 KVA
A TO B	-5 %	
B TO C	32 %	
C TO A	-41 %	

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M=MOTOR
A=APPLIANCE
E=EQUIPMENT
H=HEATING
R=RECEPTACLES
L=LIGHTING
CONN.=CONNECTED
DEM=DEMAND
SPR=SPARE
SPC=SPACE
D.F.=DEMAND FACTOR
GFCI=GROUND FAULT CIRCUIT
ST-SHUNT TRIP

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Drawing Title: ELECTRICAL PANEL SCHEDULES
Approved: Project Director: FULLY SPRINKLED
Project Title: FARGO EHRM TRAINING AND ADMIN
Location: FARGO, ND
Date: 01/11/2022 | Checked: RD | Drawn: JS/WW
Project Number: 437-21-225
Building Number: 9
Drawing Number: E0.01
Dwg. 30 of 41

Office of Construction and Facilities Management
Department of Veterans Affairs

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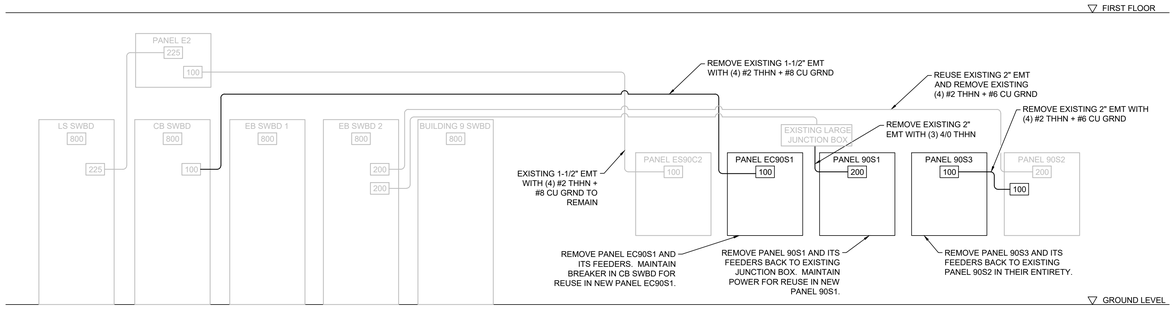
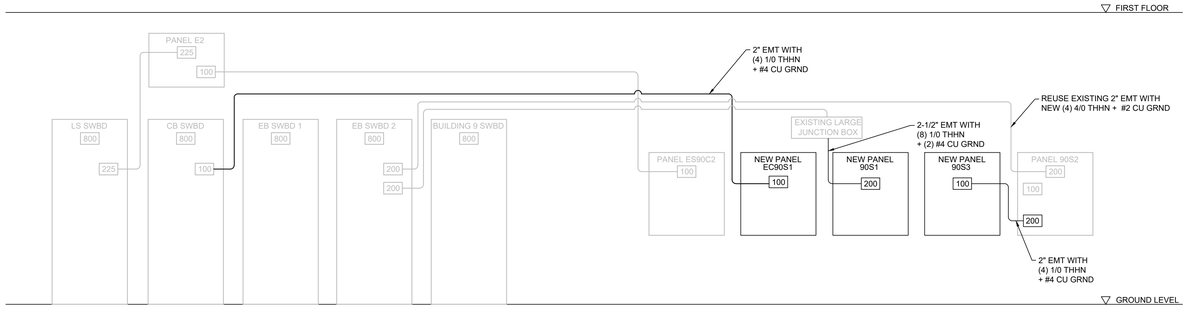
VA FORM 08-6231



1 E-0.02 POWER SCHEMATIC DEMOLITION
NTS



2 E-0.02 POWER SCHEMATIC NEW CONSTRUCTION
NTS

LIGHTING CONTROL SCHEDULE

AON = AUTO ON | AOF = AUTO OFF | MON = MANUAL ON | MOF = MANUAL OFF | MOMO = MANUAL OFF WHILE OCCUPIED | TOO = TIME DELAY OFF | DLO = DAY LIGHT DETECTION | 3W = THREE WAY | 4W = 4 WAY | E = ENABLED | D = DISABLED

SWITCH SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	LIGHTING AMP RATING	FAN AMP RATING	EXISTING + FAN AMP RATING	CONTROL OPTIONS										NOTES	HYPERLINK
							AON	AOF	MON	MOF	MOMO	TOO	DLO	3W	4W	0-10V DIM	TRIAC DIM	
$ov	SPDT OVERRIDE SWITCH W/ CENTER OFF	HUBBELL (OR EQUAL)	4922	20	20	20	-	-	E	E	-	-	-	-	-	-	-	1	SPEC
OS	CEILING OCCUPANCY SENSOR SWITCH	HUBBELL (OR EQUAL)	OMNI-DT-500	.033	.033	.033	E	E	-	-	-	30m	-	-	-	-	-	2	SPEC

NOTES:
1. COORDINATE COLOR WITH OWNER/ARCHITECT.
2. SENSOR IS RATED FOR 24VDC INSTEAD OF LINE VOLTAGE. CONTRACTOR TO PROVIDE NECESSARY RELAYS AND WIRING COMPONENTS FOR A COMPLETE INSTALLATION.

PROVIDE SWITCHES WITH LOW VOLTAGE POWER PACKS AS REQUIRED.

LIGHTING FIXTURE SCHEDULE

SYMBOL	LETTER DESIG.	FIXTURE						LAMP				NOTES		HYPERLINK
		MANUFACTURER	DESCRIPTION	CATALOG NO.	LOCATION	TYPE	HEIGHT	TYPE	NO.	WATTS	LUMEN			
	A	COLUMBIA LIGHITNG	2X4 FLAT PANEL LED	CFP24-55/41/3435	CEILING	RECESSED	-	LED	-	49	5024	1,4	-	SPEC
	AE	COLUMBIA LIGHITNG	2X4 FLAT PANEL EMERGENCY LED	CFP24-55/41/3435	CEILING	RECESSED	-	LED	-	49	5024	1,4	E	SPEC
	B	COLUMBIA LIGHITNG	2X2 FLAT PANEL LED	CFP22-40/33/2835	CEILING	RECESSED	-	LED	-	40	4281	1,5	-	SPEC
	BE	COLUMBIA LIGHITNG	2X2 FLAT PANEL EMERGENCY LED	CFP22-40/33/2835	CEILING	RECESSED	-	LED	-	40	4281	1,5	E	SPEC
	C	NEW STAR LIGHTING	4' LED LINEAR	VIC-4-N-L2-35-1C-RW-UN-WH-DM	CEILING	SURFACE	-	LED	-	50	5400	1	-	SPEC
	CE	NEW STAR LIGHTING	4' LED LINEAR EMERGENCY	VIC-4-N-L2-35-1C-RW-UN-WH-DM	CEILING	SURFACE	-	LED	-	50	5400	1	E	SPEC
	D	NEW STAR LIGHTING	6" LED DOWNLIGHT	DLM-6-D-L135-A-A-B-3-UNV-DM	CEILING	RECESSED	-	LED	-	11	847	1	-	SPEC
	DE	NEW STAR LIGHTING	6" LED DOWNLIGHT	DLM-6-D-L135-A-A-B-3-UNV-DM	CEILING	RECESSED	-	LED	-	11	847	1	E	SPEC
	F	WAC LIGHTING	2' BATHROOM VANITY LIGHT	WS-41125-3500K-19W-1421-821-AL	WALL	SURFACE	7' 6"	LED	-	19	1421	1	-	SPEC
	FE	WAC LIGHTING	2' BATHROOM VANITY LIGHT	WS-41125-3500K-19W-1421-821-AL	WALL	SURFACE	7' 6"	LED	-	19	1421	1	E	SPEC
	X	DUAL-LITE	EXIT SIGN	LE-__-__-G-__-C-E-I	CEILING	SURFACE	7' 6"	LED	-	3.3 - 4.5	-	1,2,3	E	SPEC
	G	-	EXISTING SUSPENDED LUMINAIRE	-	CEILING	SUSPENDED	-	-	-	-	-	-	-	
	H	-	EXIT WALL MOUNT LINEAR LUMINAIRE	-	WALL	SURFACE	-	-	-	-	-	-	-	
	XE	-	EXISTING EXIT SIGN	-	WALL	SURFACE	-	-	-	-	-	-	-	

LUMINAIRE NOTES:
1. PROVIDE ALL NECESSARY HARDWARE OR KITS FOR MOUNTING LUMINAIRE AS NOTED BY LOCATION AND TYPE.
2. CONNECT TO NEAREST UNSWITCHED CIRCUIT.
3. REFER TO PLANS FOR DIRECTIONAL ARROWS, SINGLE OR DOUBLE SIDED, AND MOUNTING TYPE WILL BE WALL MOUNTED UNLESS OTHERWISE NOTED ON PLANS.
4. LUMINAIRE SPECIFIED HAS A SWITCHABLE LUMEN LEVEL. SWITCH LUMENS AT 5024
5. LUMINAIRE SPECIFIED HAS A SWITCHABLE LUMEN LEVEL. SWITCH LUMENS AT 2876

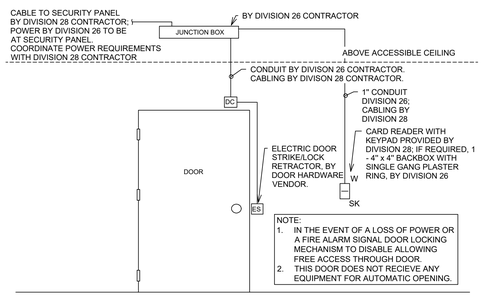
CONTROL NOTES:
A. ON BOARD OCCUPANCY SENSING.
B. ON BOARD PHOTO CONTROL.
C. 0-10 V DIMMING.
D. TRIAC DIMMING.
E. LUMINAIRE TO BE ON LIFE SAFETY POWER

GENERAL LUMINAIRE NOTES:
1. MODEL & MANUFACTURERS ARE LISTED AS BASIS OF DESIGN. EQUAL PRODUCTS WILL BE CONSIDERED. CONTRACTOR TO REFER TO SPECIFICATION, AND SALIENT FEATURES LISTED BOTH ON PLANS AND SPECIFICATIONS WHEN OFFERING EQUAL PRODUCTS.

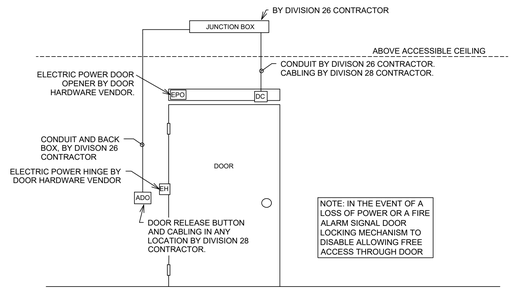
SCHEDULE OF DISCONNECTS

EQUIPMENT	CONNECTED LOAD						DISCONNECT			FUSE			FEEDER			NOTES
	HP	W	FLA	MCA	PH	VOLTS	TYPE	MFR.	CATALOG NO.	TYPE	SIZE	POLES	SIZE	TYPE	GRND	
AHU-19	5	-	28.8	36	3	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D321N	CARTRIDGE CLASS R	50A	3	(4) #6	THHN	#8	1
AHU-90	5	-	28.8	36	3	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D321N	CARTRIDGE CLASS R	50A	3	(4) #6	THHN	#8	1
AHU-91	3	-	19.4	24.3	3	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D321N	CARTRIDGE CLASS R	40A	3	(4) #8	THHN	#8	1
P-1,2	1/6	-	1.4	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	2.5A	1	(2) #12	THHN	#12	1
P-3,4	3	-	9.1	-	3	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D321N	CARTRIDGE CLASS R	25A	2	(3) #10	THHN	#8	1
CP-1,2,3	1/3	-	-	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	15A	1	(2) #12	THHN	#12	1
EF-1	-	-	.63	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	1.5A	1	(2) #12	THHN	#12	1
UH-1	-	-	1	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	2A	1	(2) #12	THHN	#12	1
AC-1	-	160	.7	-	1	208	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	1.5A	2	(3) #12	THHN	#12	1

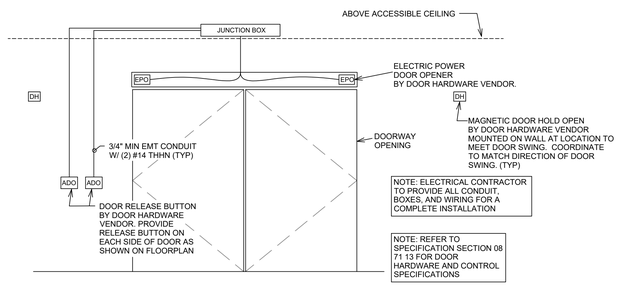
NOTES:
1. SHOWN AS BASIS OF DESIGN, APPROVED EQUAL ALLOWED



3 E-0.02 PHYSICAL ACCESS CONTROL DETAIL
NTS



4 E-0.02 AUTOMATIC DOOR OPENER DETAIL - SINGLE DOOR
NTS



5 E-0.02 AUTOMATIC DOOR OPENER DETAIL - DOUBLE DOOR
NTS

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Dwg. 31 of 41

Office of Construction and Facilities Management
Department of Veterans Affairs

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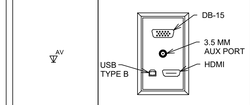
AUDIO/VISUAL FACEPLATE DETAILS



INITIAL CAPACITY: 1 CATV CONNECTION;

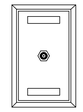
QTY	DESCRIPTION
1	DB-15 OUTLET
1	3.5 MM AUX PORT
1	USB TYPE B
1	HDMI

1 UL LISTED CABLE FOR EACH AV TYPE PULLED TO EACH AB RECEPTACLE FROM ITS CORRESPONDING RECEPTACLE.

REFER TO DETAIL 1-E0.03 FOR CABLE PULL AND CONDUIT REQUIREMENTS

GENERAL NOTES:
G1. CONDUIT AND BACKBOX PROVIDED BY DIVISION 26 CONTRACTOR.
G2. COORDINATE EXACT CONFIGURATION AND OUTLETS IN FACE PLATE WITH A/V VENDOR.
G3. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECTURAL WALL ELEVATIONS.

FACE PLATE, BACK BOX, & CONDUIT REQUIREMENTS



INITIAL CAPACITY: 1 CATV CONNECTION;

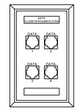
QTY	DESCRIPTION
1	RG6 COAX OUTLET
1	2 PORT COVER PLATE (PROVIDED BY CATV VENDOR)

1 UL LISTED COAX CABLE PULLED TO EACH COAX OUTLET FROM TELECOM ROOM FOR CATV TERMINATION. TO BE INSTALLED BY CATV CONTRACTOR.

PULL CABLE IN 1" EMT WITHIN 12" OF CABLE TRAY.

* COORDINATE ALL DEVICE MOUNTING HEIGHTS WITH ARCHITECTURAL WALL ELEVATIONS AND POWER MOUNTING HEIGHTS ON ELECTRICAL DRAWINGS.

FACE PLATE, BACK BOX, & CONDUIT REQUIREMENTS



INITIAL CAPACITY: 4 CONNECTIONS
MAXIMUM CAPACITY: 4 CONNECTIONS

QTY	DESCRIPTION
4	CAT 6A OUTLET
1	4 PORT COVER PLATE

1. UL LISTED CATEGORY 6A, 4PR CABLE, PULLED FROM EACH OUTLET TO TELECOM ROOM FOR TERMINATION.

DATA JACKS TO BE ORANGE COLOR.

PLATES ARE LABELED AS SHOWN, NUMBER PLATES ARE CLOCKWISE FROM THE DOOR.

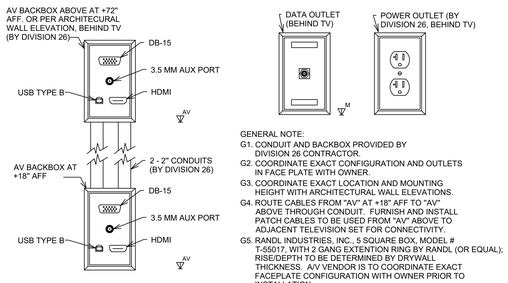
DATA JACKS ARE NUMBERED LEFT TO RIGHT, TOP TO BOTTOM.

LABEL ALL VOICE AND DATA CABLES AT BOTH ENDS WITH "DATA CLOSET# - ROOM # - PLATE# - JACK#"

PULL CABLE IN 1" EMT WITHIN 12" OF CABLE TRAY.

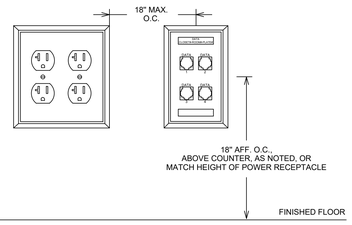
* COORDINATE ALL DATA LOCATIONS, SPECIAL MOUNTING HEIGHT (SMH) DEVICES WITH ARCHITECTURAL WALL ELEVATIONS AND/OR MOUNTING HEIGHTS OF POWER DEVICES ON ELECTRICAL DRAWINGS.

CABLE JACKET/CONDUIT COLOR LEGEND					
DATA	- BLUE	VIDEO SURVEILLANCE	-	PURPLE
WIRELESS	- WHITE	PAGING SPEAKER	-	ORANGE
FIRE ALARM	- RED	BAS & DAS	-	BLACK
NURSE CALL	- GREEN			



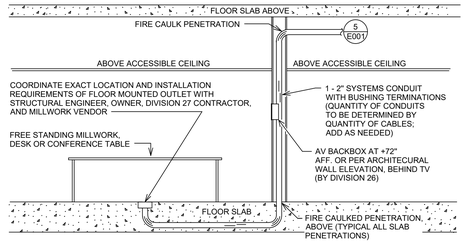
GENERAL NOTE:
G1. CONDUIT AND BACKBOX PROVIDED BY DIVISION 26 CONTRACTOR.
G2. COORDINATE EXACT CONFIGURATION AND OUTLETS IN FACE PLATE WITH OWNER.
G3. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECTURAL WALL ELEVATIONS.
G4. ROUTE CABLES FROM "AV" AT +18" AFF TO "AV" ABOVE THROUGH CONDUIT. FURNISH AND INSTALL PATCH CABLES TO BE USED FROM "AV" ABOVE TO ADJACENT TELEVISION SET FOR CONNECTIVITY.
G5. RANDL INDUSTRIES, INC., 5 SQUARE BOX, MODEL # T-55017, WITH 2 GANG EXTENTION RING BY RANDL (OR EQUAL); RISE/DEPTH TO BE DETERMINED BY DRYWALL THICKNESS. A/V VENDOR IS TO COORDINATE EXACT FACEPLATE CONFIGURATION WITH OWNER PRIOR TO INSTALLATION.

1 E0.03 AUDIO/VISUAL FACE PLATE CONFIGURATION DETAIL NTS



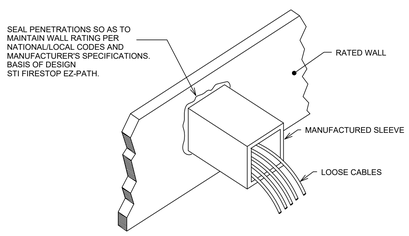
GENERAL NOTE:
G1. DATA OUTLETS TO BE MOUNTED ADJACENT TO POWER OUTLETS WHERE APPLICABLE. COORDINATE ALL MOUNTING HEIGHTS WITH ARCHITECTURAL WALL ELEVATIONS, ELECTRICAL DRAWINGS, AND EQUIPMENT VENDOR DRAWINGS.

2 E0.03 POWER OUTLET COORDINATION REQUIREMENTS NTS

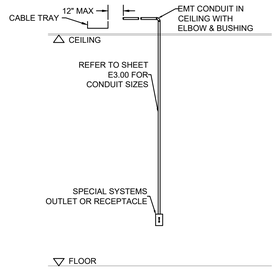


GENERAL NOTES:
G1. ALL CONDUITS AND BACKBOXES TO BE INSTALLED BY DIVISION 26 CONTRACTOR.
G2. ALL CONDUITS IN PATIENT CARE AREAS ARE TO TERMINATE IN CORRIDOR WITH BUSHING TERMINATION.

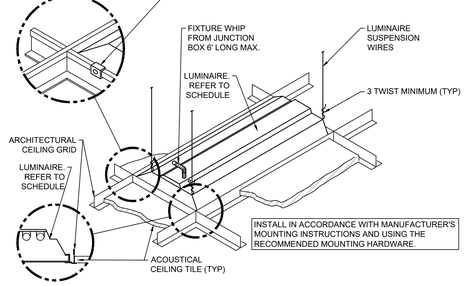
3 E0.03 UNDER SLAB TO FLUSH MOUNT FLOOR BOX DETAIL NTS



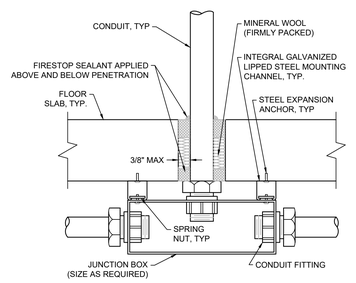
4 E0.03 MANUFACTURED SLEEVE WALL PENETRATION DETAIL NTS



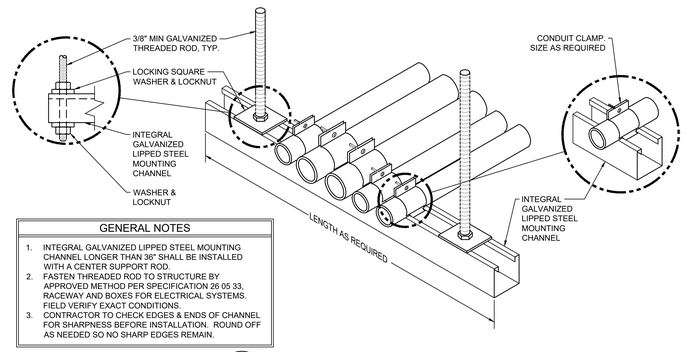
5 E-0.03 CONDUIT TO CABLE TRAY DETAIL NTS



6 E0.03 LAY-IN CEILING LUMINAIRE MOUNTING DETAIL NTS

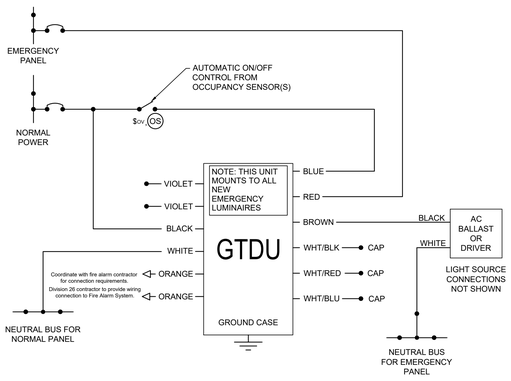


7 E0.03 FLOOR SLAB PENETRATION DETAIL NTS



GENERAL NOTES
1. INTEGRAL GALVANIZED LIPPED STEEL MOUNTING CHANNEL LONGER THAN 36" SHALL BE INSTALLED WITH A CENTER SUPPORT ROD.
2. FASTEN THREADED ROD TO STRUCTURE BY APPROVED METHOD PER SPECIFICATION 26 05 33, RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS. FIELD VERIFY EXACT CONDITIONS.
3. CONTRACTOR TO CHECK EDGES & ENDS OF CHANNEL FOR SHARPNESS BEFORE INSTALLATION. ROUND OFF AS NEEDED SO NO SHARP EDGES REMAIN.

8 E0.03 CONDUIT TRAPEZE MOUNTING DETAIL NTS



9 E-0.03 SWITCHED EMERGENCY APPLICATION DETAIL NTS

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Revisions:	Date

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Drawing Title	ELECTRICAL DETAILS
Approved: Project Director	FULLY SPRINKLED
Project Title	FARGO EHRM TRAINING AND ADMIN
Location	FARGO, ND
Date	01/11/2022
Checked	RD
Drawn	JS/WW
Project Number	437-21-225
Building Number	9
Drawing Number	E0.03
Dwg.	32 of 41

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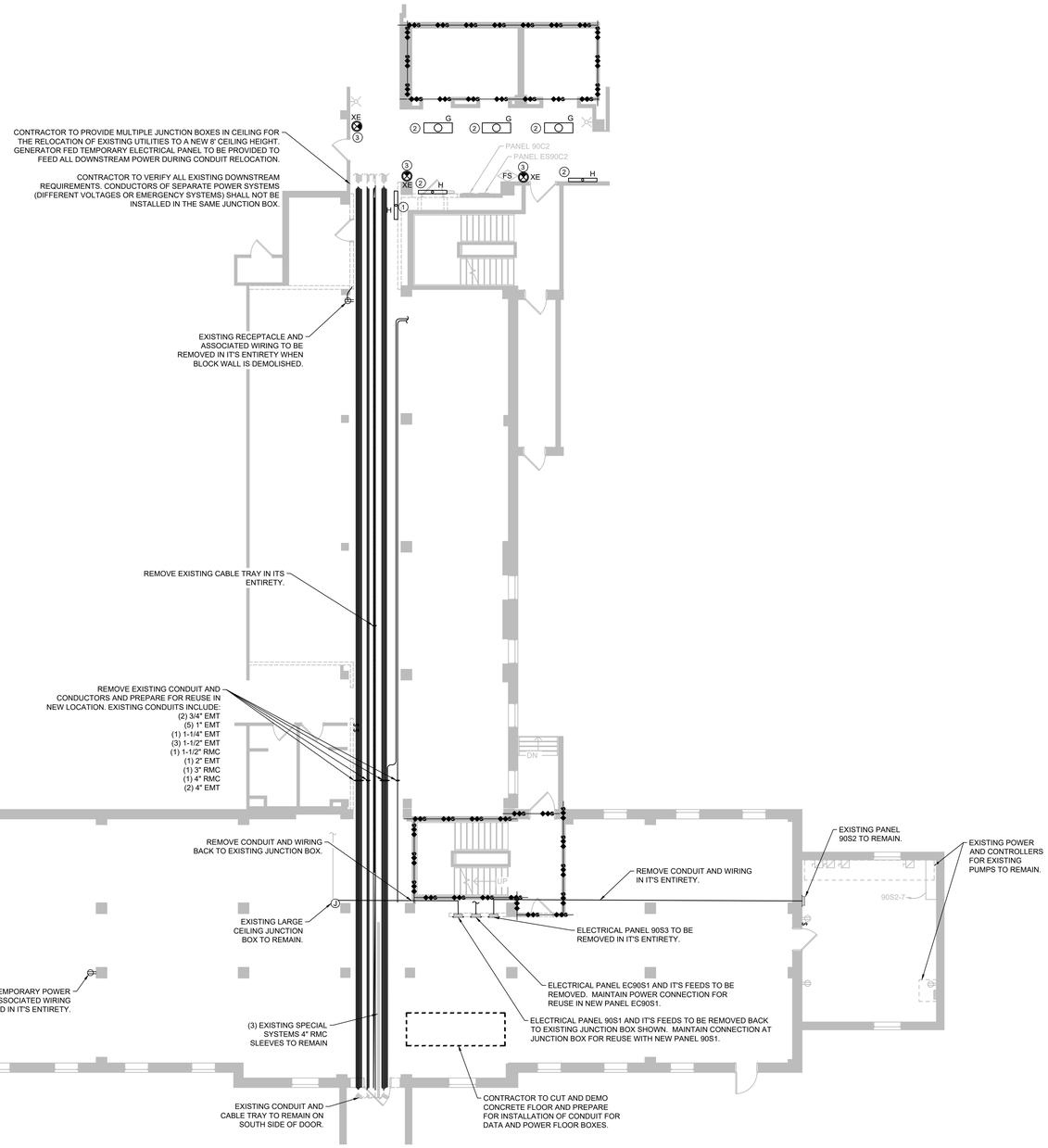
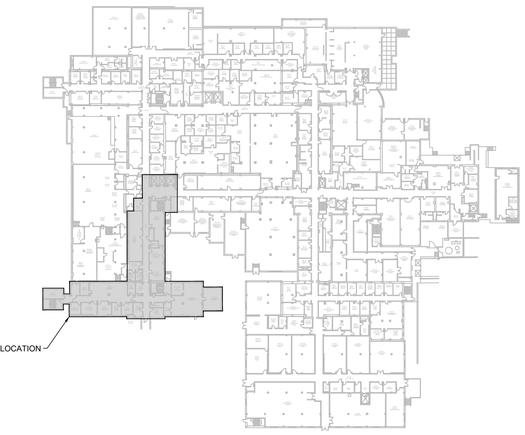
KEYED ELECTRICAL NOTES

1. REMOVE EXISTING TEMPORARY LUMINAIRE AND ASSOCIATED WIRING IN IT'S ENTIRETY.
2. REMOVE EXISTING LUMINAIRE. MAINTAIN EXISTING POWER AND CONDUIT AND PREPARE FOR REUSE.
3. REMOVE EXISTING EXIT LIGHT. MAINTAIN EXISTING POWER AND CONDUIT AND PREPARE FOR REUSE.



1 ED100 BASEMENT LEVEL DEMOLITION PLAN
SCALE: 1/8" = 1'



BASEMENT LEVEL KEY PLAN
SCALE: 1/64" = 1'

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

CONSULTANTS:

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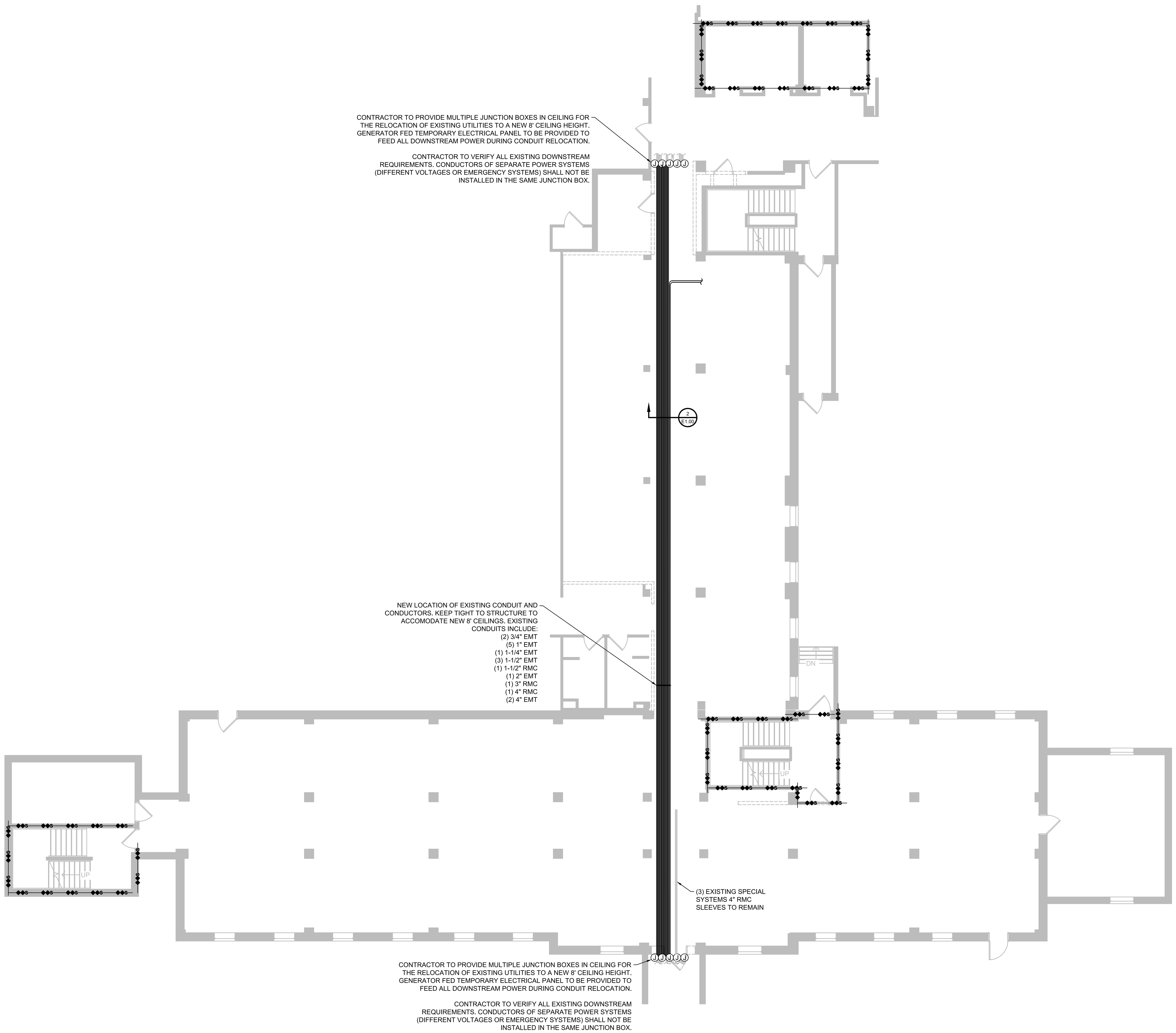
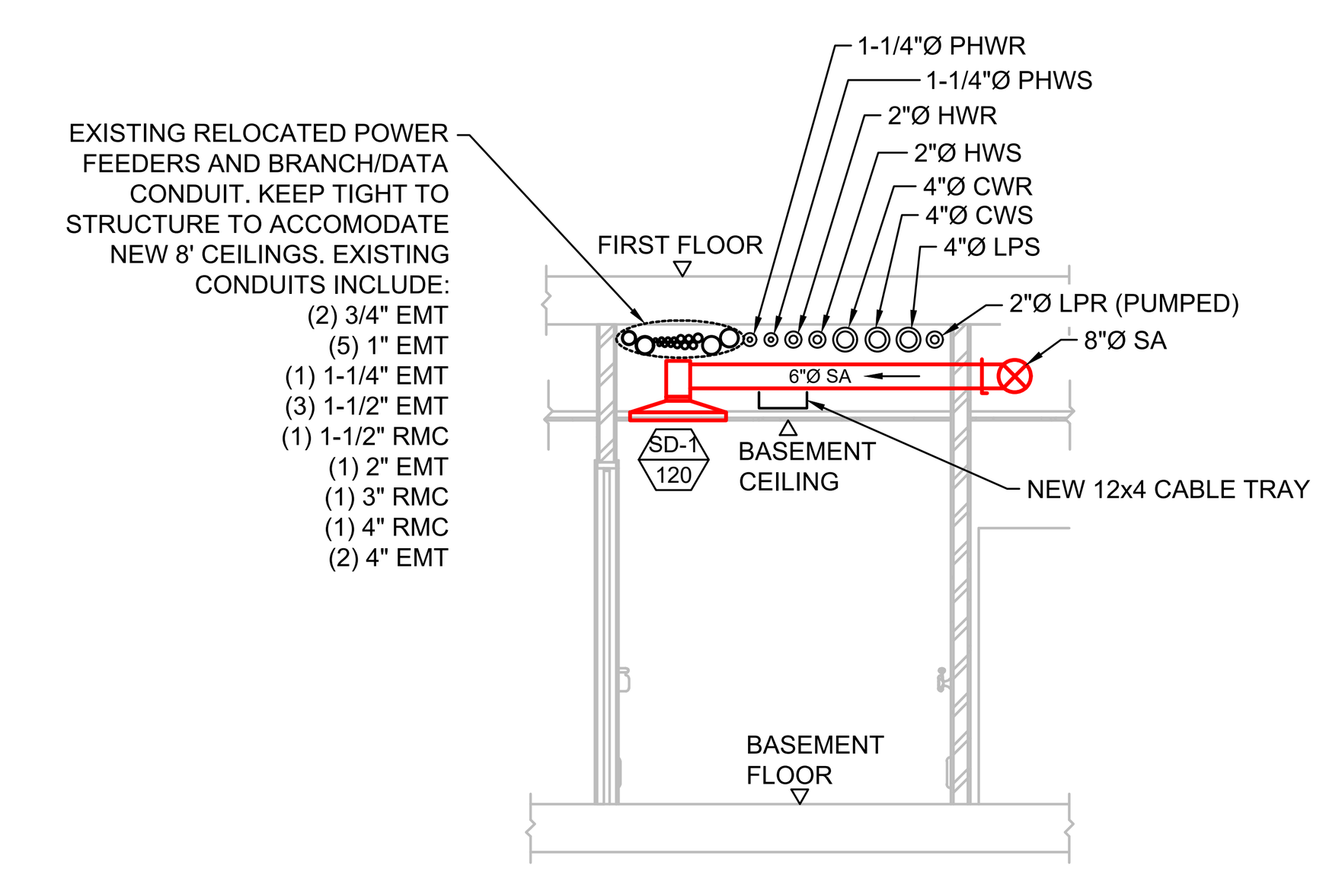


1 E1.00 BASEMENT LEVEL POWER FEEDER AND BRANCH/ DATA CONDUIT RELOCATION

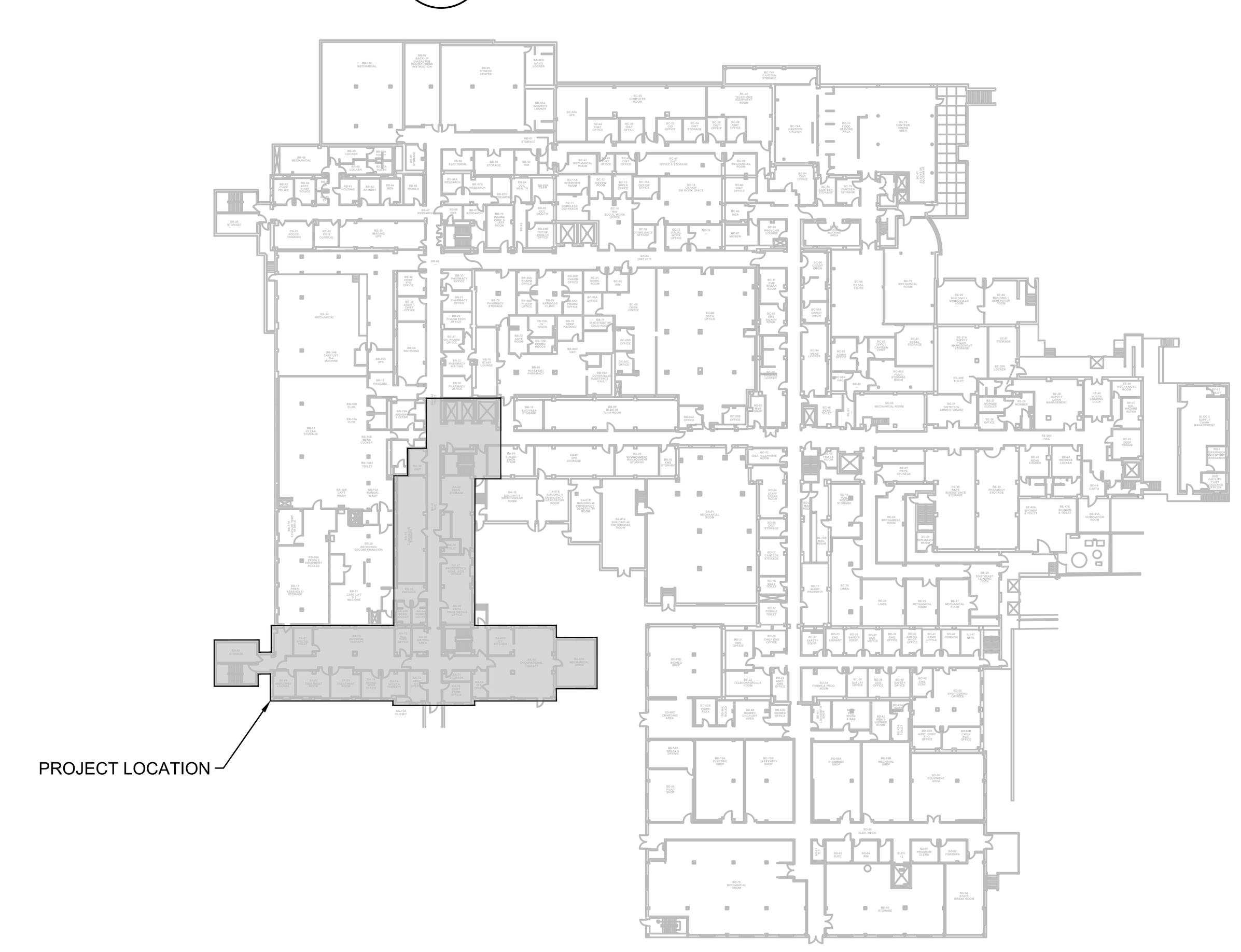
SCALE: 1/8" = 1'

NOTE: INSTALL ALL PIPING AS HIGH AS POSSIBLE. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.



2 E1.00 CORRIDOR CEILING COORDINATION SECTION

SCALE: NTS



BASEMENT LEVEL KEY PLAN

SCALE: 1/64" = 1'

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

CONSULTANTS:

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Drawing Title: BASEMENT LEVEL POWER FEEDER AND BRANCH/ DATA CONDUIT RELOCATION	Project Title: FARGO EHRM TRAINING AND ADMIN	Project Number: 437-21-225	Office of Construction and Facilities Management
		Building Number: 9	
Approved: Project Director: FULLY SPRINKLED	Location: FARGO, ND	Drawing Number: E1.00	Department of Veterans Affairs
	Date: 01/11/2022 / Checked: RD / Drawn: JS/WW	Dwg. 34 of 41	

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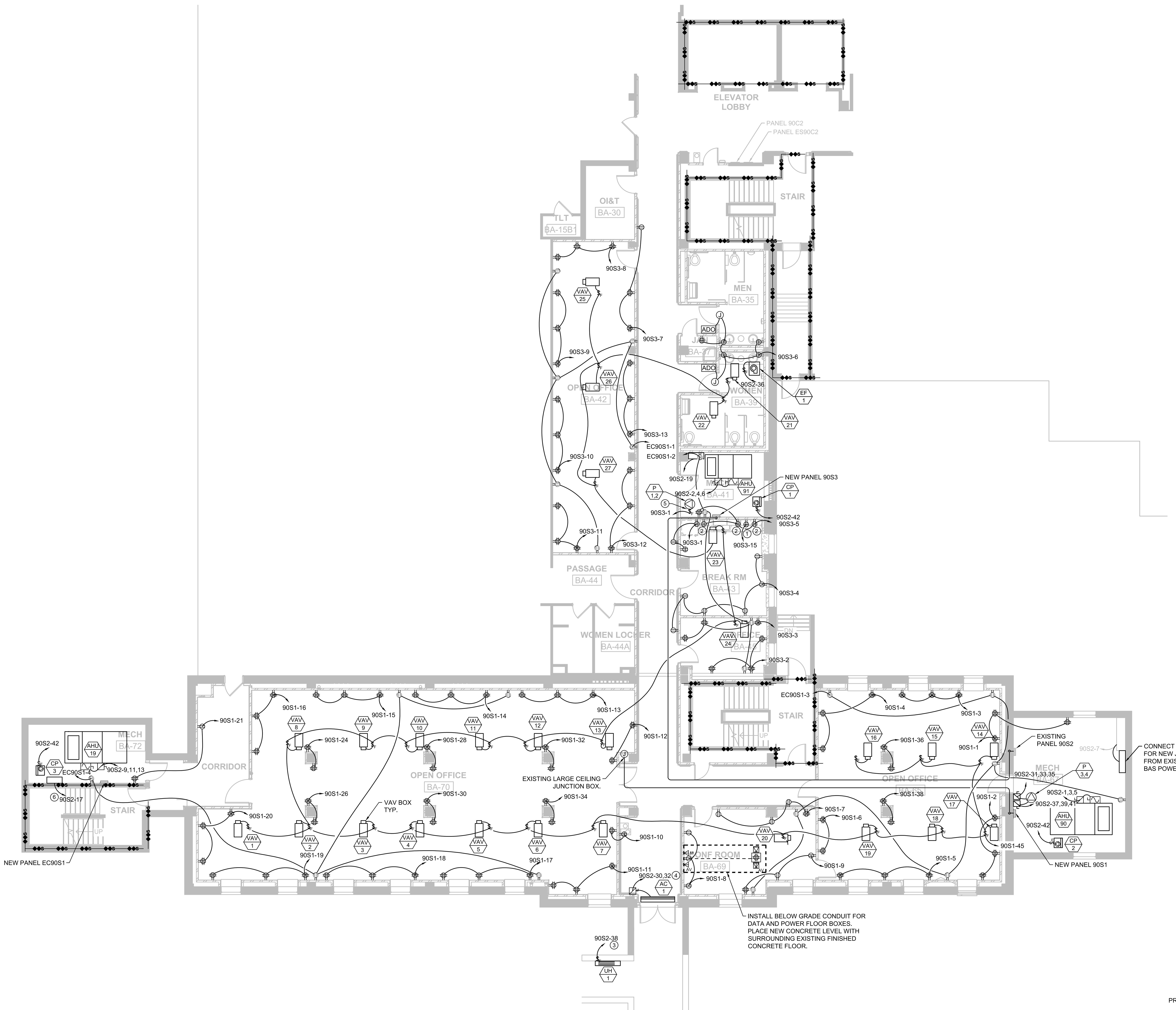
KEYED ELECTRICAL NOTES

1. DEDICATED RECEPTACLE FOR MICROWAVE AT 60" AFF.
2. INSTALL RECEPTACLE AT 6" ABOVE FINISHED COUNTER.
3. CONNECT HOME RUN TO EXISTING SPARE 20 AMP SINGLE POLE BREAKER IN PANEL 90S2.
4. CONNECT HOME RUN TO EXISTING 20 AMP SPARE 2 POLE BREAKER IN PANEL 90S2.
5. PROVIDE SEPERATE FUSESTAT FOR EACH PUMP AND HOMERUN TOGETHER. SINGLE PUMP AND FUSESTAT SHOWN FOR CLARITY ONLY.
6. POWER FOR NEW JCI. REFER TO MECHANICAL.



1 E1.01 BASEMENT LEVEL POWER PLAN
SCALE: 1/8" = 1'

BASEMENT LEVEL KEY PLAN
SCALE: 1/64" = 1'

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

CONSULTANTS:

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Drawing Title	BASEMENT LEVEL POWER PLAN
Approved: Project Director	FULLY SPRINKLED
Project Title	FARGO EHRM TRAINING AND ADMIN
Location	FARGO, ND
Date	01/11/2022
Checked	RD
Drawn	JS/WW
Project Number	437-21-225
Building Number	9
Drawing Number	E1.01
Dwg.	35 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

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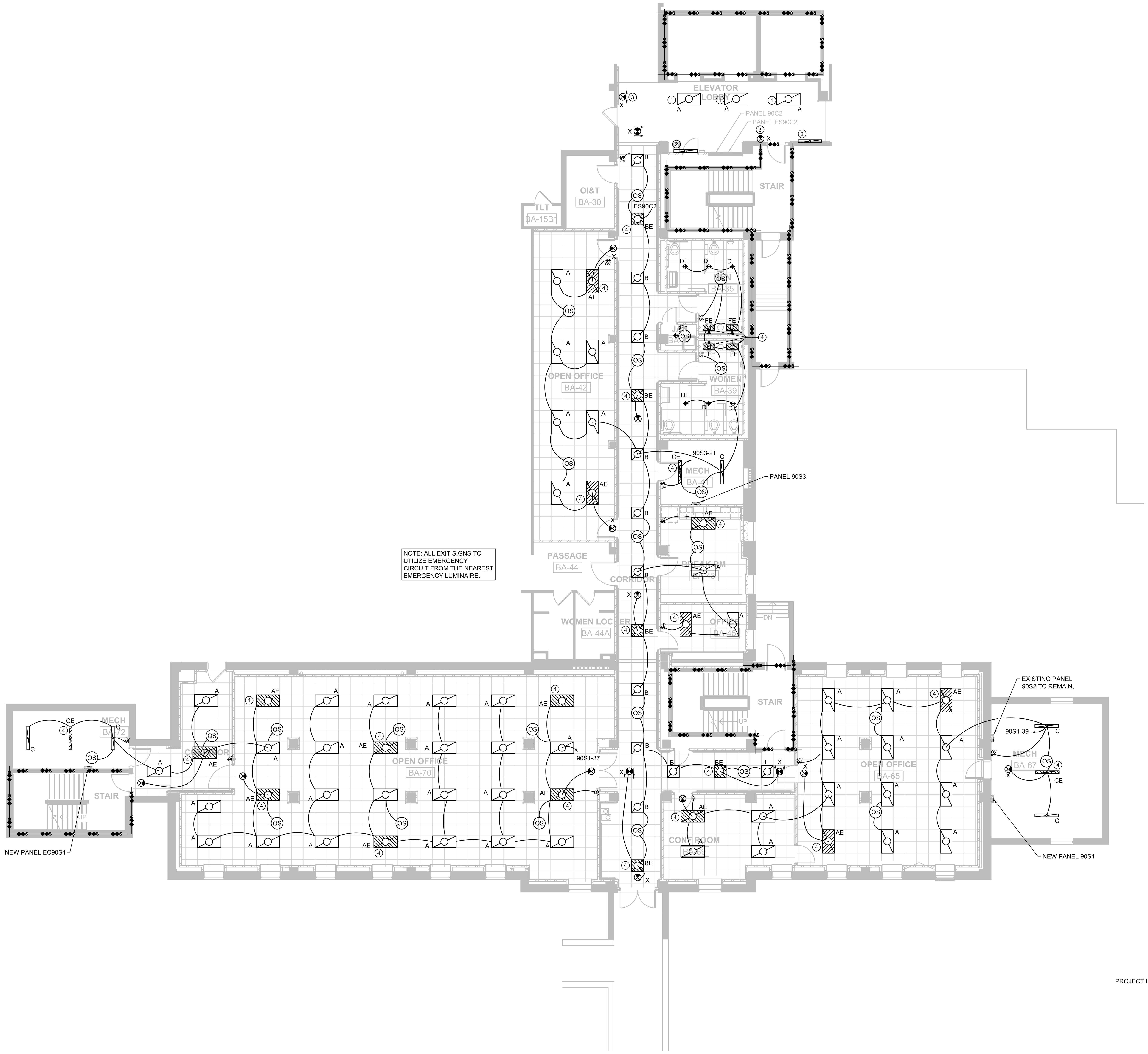
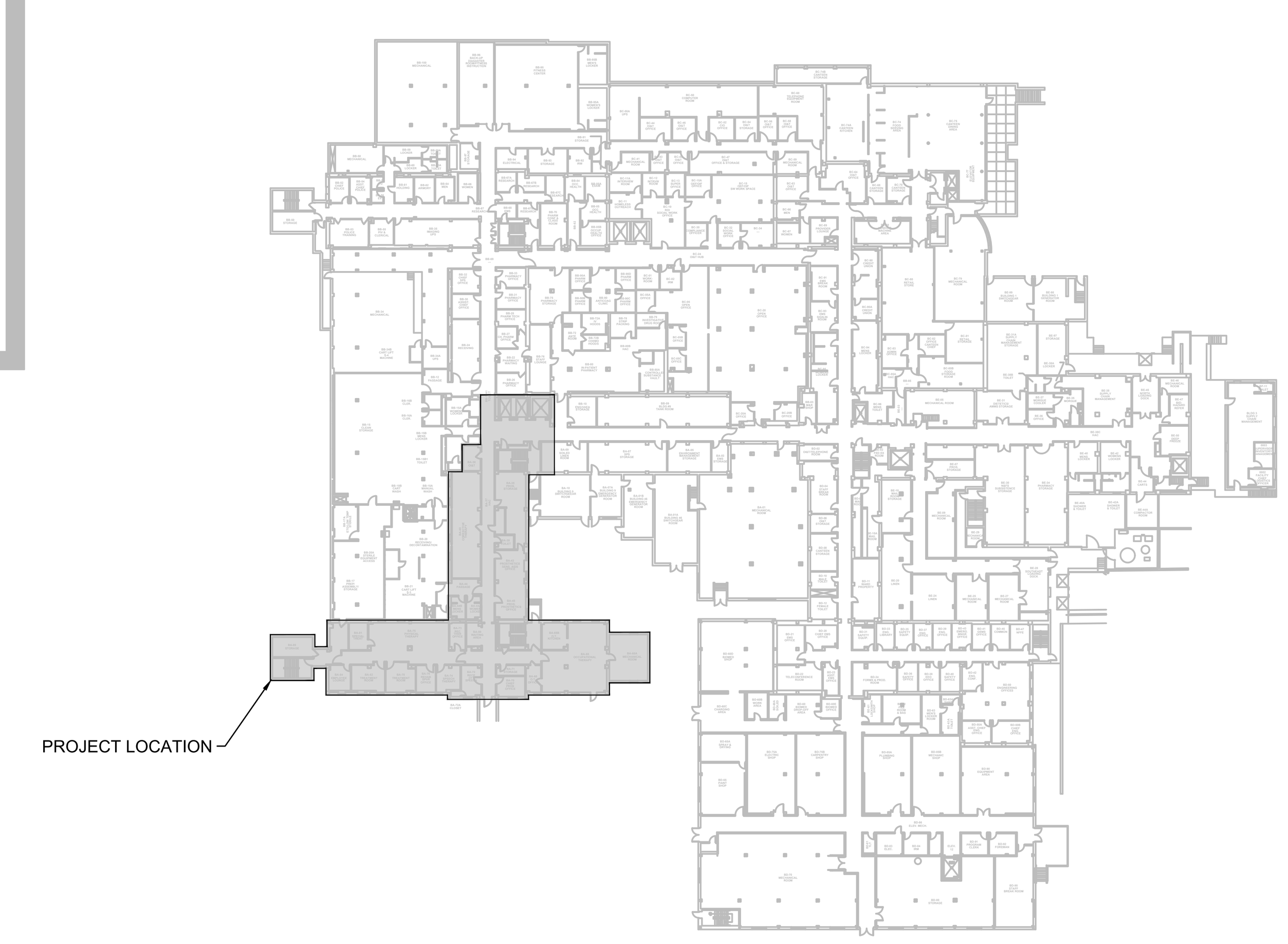
KEYED ELECTRICAL NOTES

1. INSTALL NEW LUMINAIRE IN SAME LOCATION AS PREVIOUS FIXTURE USING CABLE MOUNTING KIT CFPCM36Y SC5F-KIT. REUSE EXISTING CONDUIT, POWER. TIE INTO EXISTING LIGHTING CONTROLS.
2. INSTALL NEW LUMINAIRE IN SAME LOCATION AS PREVIOUS FIXTURE. REUSE EXISTING CONDUIT & POWER. TIE INTO EXISTING LIGHTING CONTROLS.
3. INSTALL NEW EXIT LIGHT IN SAME LOCATION AS PREVIOUS FIXTURE. REUSE EXISTING POWER AND CONDUIT.
4. CONNECT ALL EMERGENCY LUMINAIRES TO BOTH NORMAL POWER SHOWN AND EMERGENCY HOMERUN TO SPARE 20 AMP BREAKER IN PANEL ES90-C2 WITH BODINE GTDU SWITCHED BYPASS UNIT (OR EQUAL). REFER TO DETAIL 9/E0.03



1 E200 BASEMENT LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'



BASEMENT LEVEL KEY PLAN

SCALE: 1/64" = 1'

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

CONSULTANTS:

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FOUR FRONT DESIGN INC.

Drawing Title: BASEMENT LEVEL LIGHTING PLAN

Approved: Project Director: FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: JS/WW

Project Number: 437-21-225

Building Number: 9

Drawing Number: E2.00

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Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08–6231

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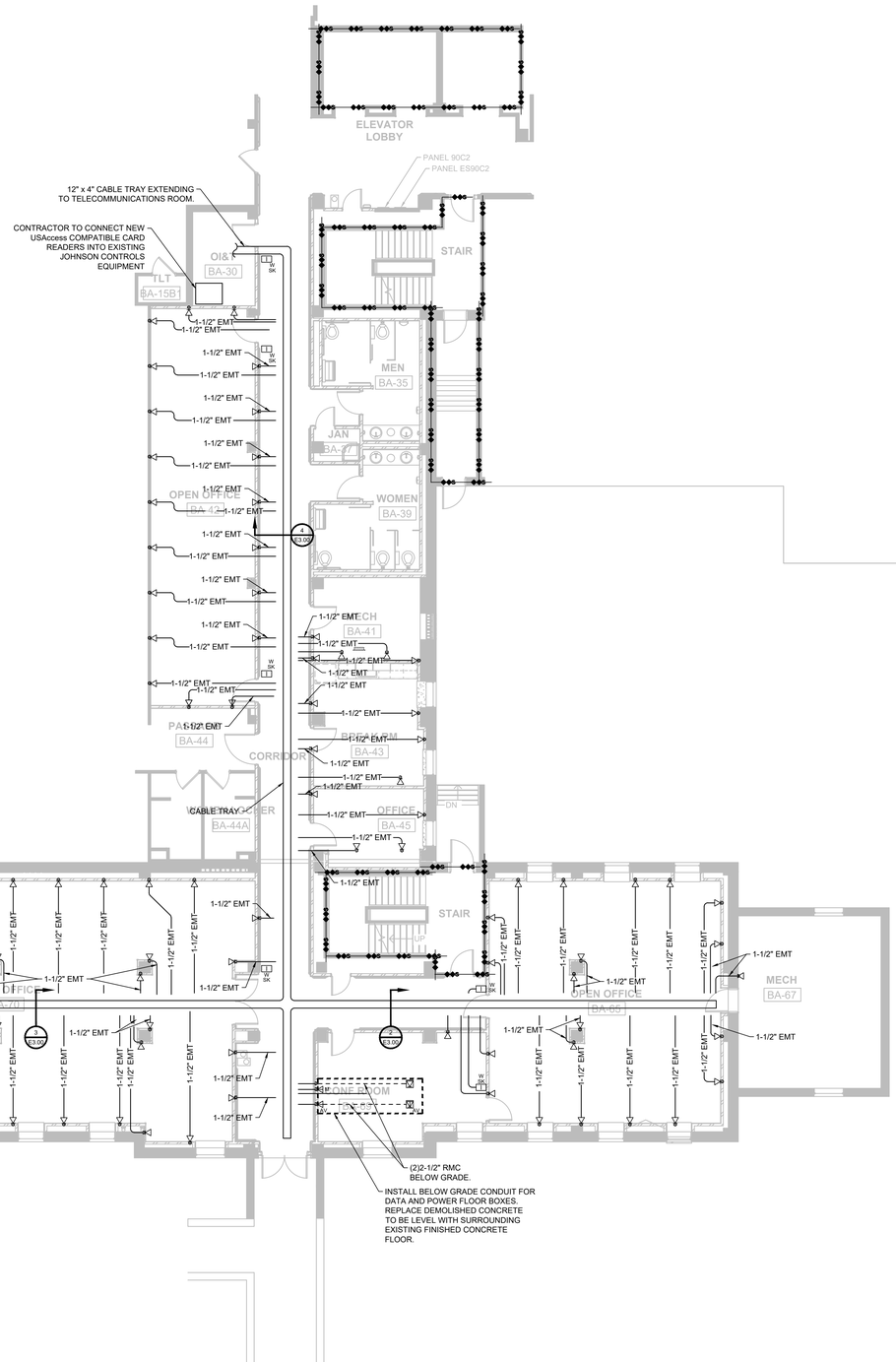
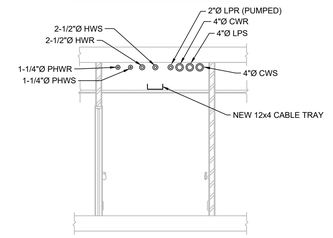
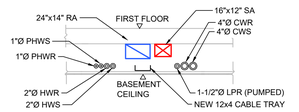


1 E3.00 BASEMENT LEVEL DATA & COMMUNICATIONS PLAN
SCALE: 1/8" = 1'

NOTE: INSTALL ALL PIPING AS HIGH AS POSSIBLE. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.



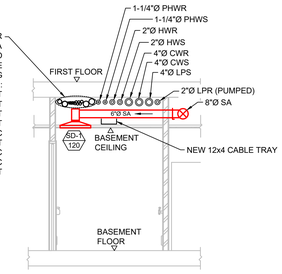
2 E3.00 EAST CORRIDOR CEILING COORDINATION SECTION
SCALE: NTS



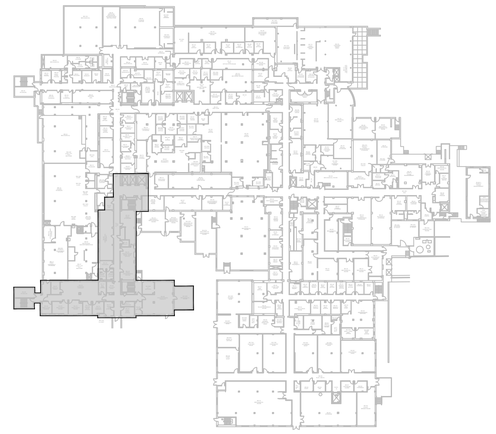
3 E3.00 OPEN OFFICE CEILING COORDINATION SECTION
SCALE: NTS

NOTE: INSTALL ALL PIPING AS HIGH AS POSSIBLE. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.

EXISTING RELOCATED POWER FEEDERS AND BRANCH/DATA CONDUIT. KEEP TIGHT TO STRUCTURE TO ACCOMODATE NEW 8' CEILINGS. EXISTING CONDUITS INCLUDE:
(2) 3/4" EMT
(5) 1" EMT
(1) 1-1/4" EMT
(3) 1-1/2" EMT
(1) 1-1/2" RMC
(1) 2" EMT
(1) 3" RMC
(1) 4" RMC
(2) 4" EMT



4 E3.00 NORTH CORRIDOR CEILING COORDINATION SECTION
SCALE: NTS



BASEMENT LEVEL KEY PLAN
SCALE: 1/64" = 1'

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

CONSULTANTS:

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FOUR FRONT DESIGN INC.

Drawing Title	BASEMENT SPECIAL SYSTEMS PLAN
Approved: Project Director	FULLY SPRINKLED
Project Title	FARGO EHRM TRAINING AND ADMIN
Location	FARGO, ND
Date	01/11/2022
Checked	RD
Drawn	JS/WW
Project Number	437-21-225
Building Number	9
Drawing Number	E3.00
	Dwg. 37 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

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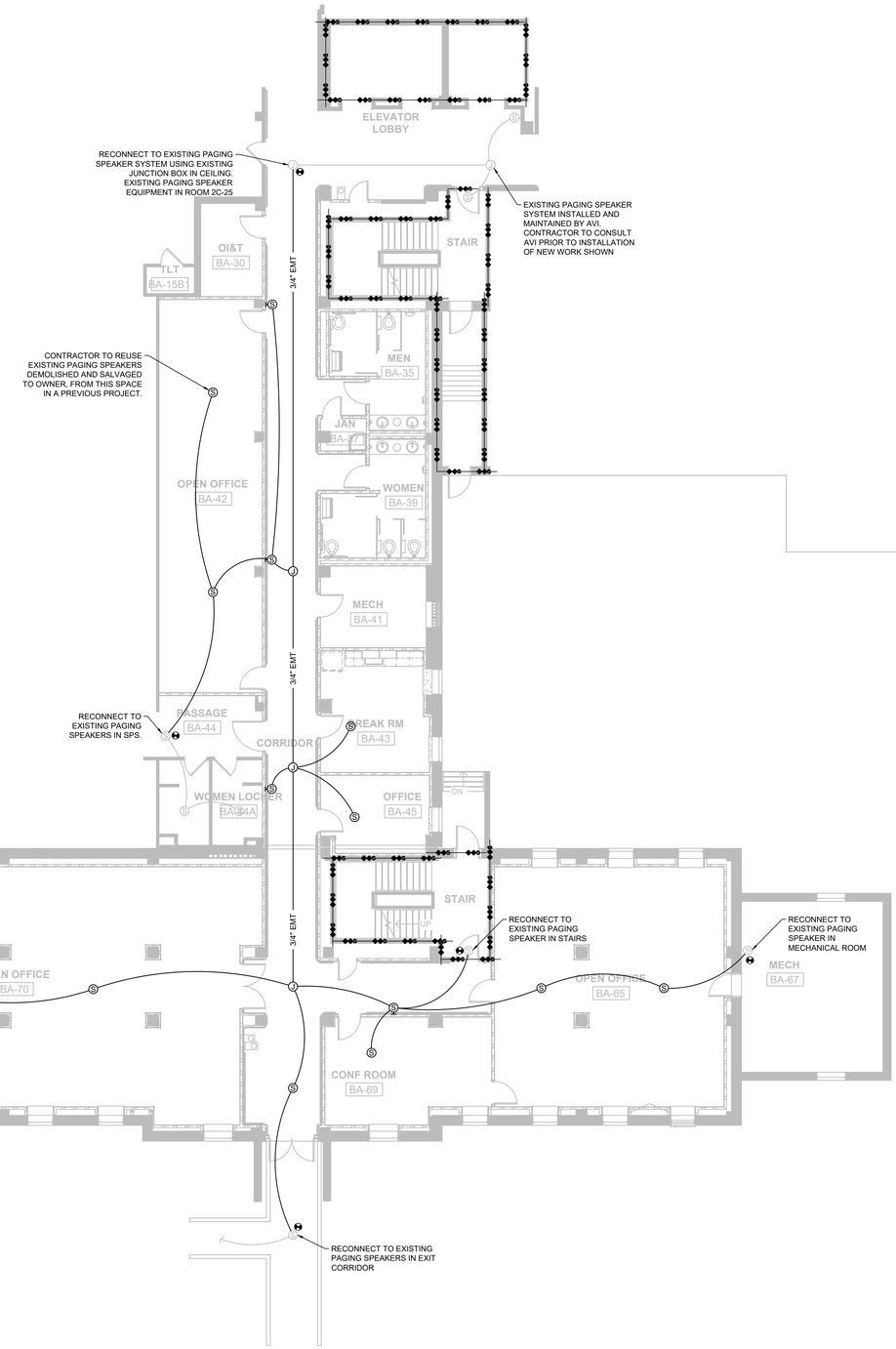
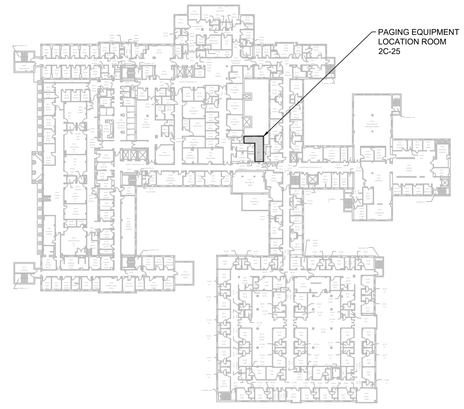


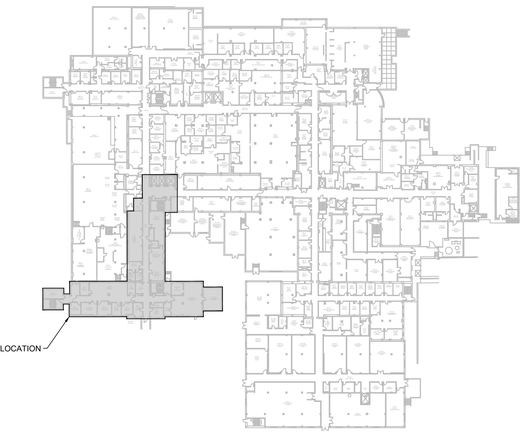
1 E3.01 BASEMENT LEVEL PAGING SPEAKERS PLAN

SCALE: 1/8" = 1'



SECOND LEVEL KEY PLAN

SCALE: 1/64" = 1'



BASEMENT LEVEL KEY PLAN

SCALE: 1/64" = 1'

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Revisions:	Date

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FOUR FRONT DESIGN INC.

Drawing Title	BASEMENT PAGING SPEAKERS PLAN
Approved: Project Director	FULLY SPRINKLED
Project Title	FARGO EHRM TRAINING AND ADMIN
Location	FARGO, ND
Date	01/11/2022
Checked	RD
Drawn	JS/WW
Project Number	437-21-225
Building Number	9
Drawing Number	E3.01
Dwg.	38 of 41

Office of Construction and Facilities Management

Department of Veterans Affairs

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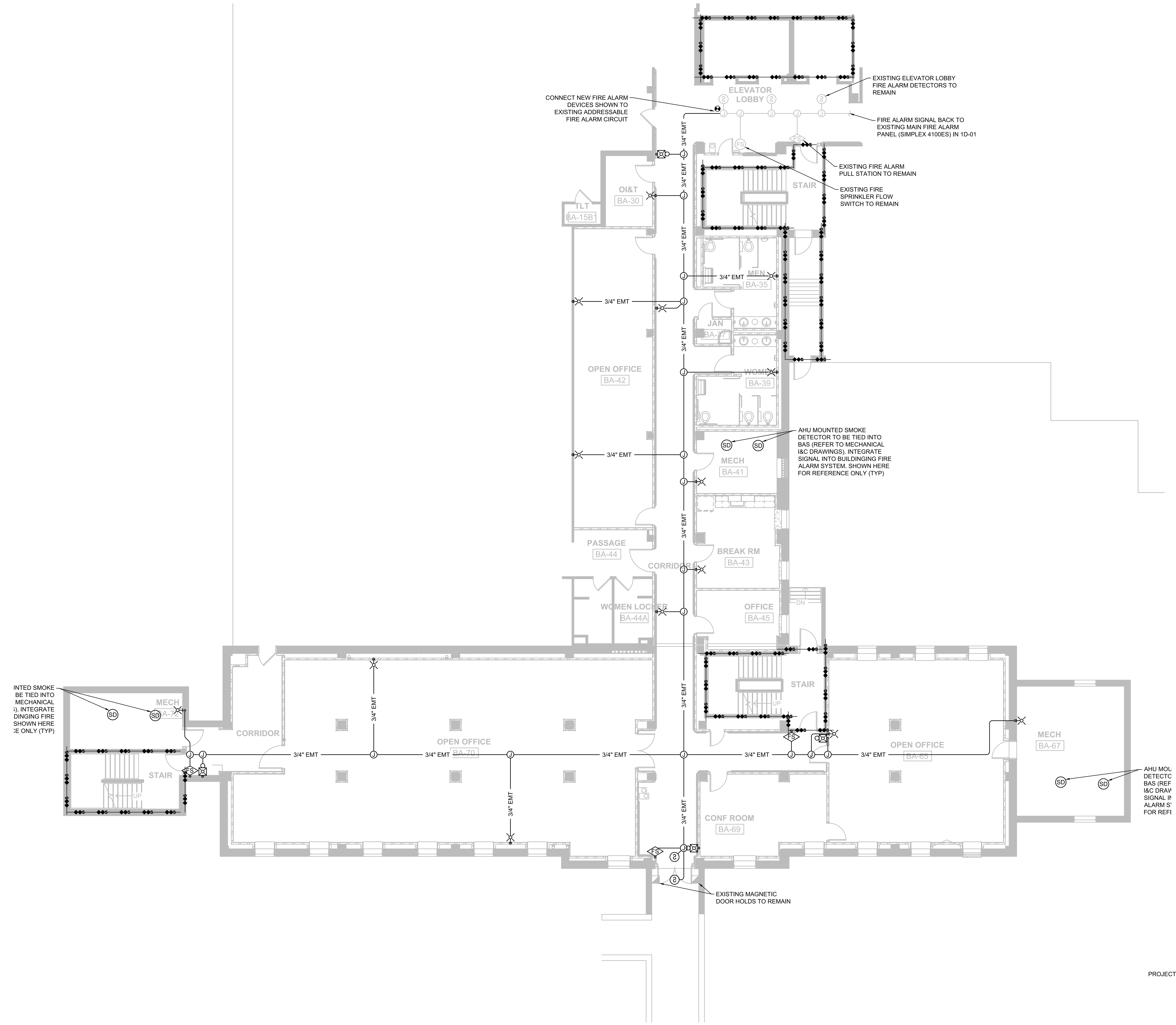


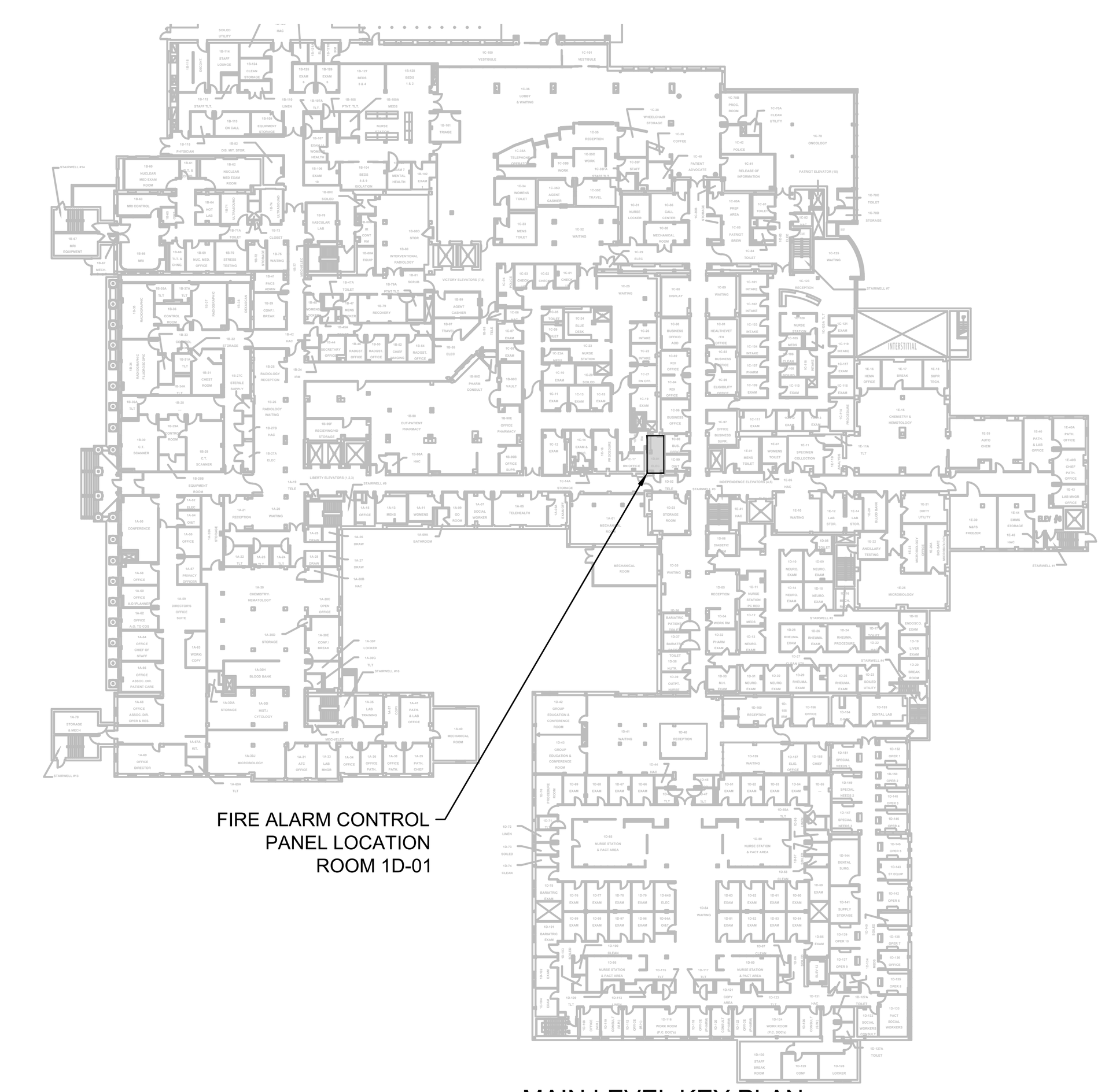
1
FA-000
BASEMENT LEVEL FIRE ALARM PROTECTION PLAN
SCALE: 1/8" = 1'

LEGEND

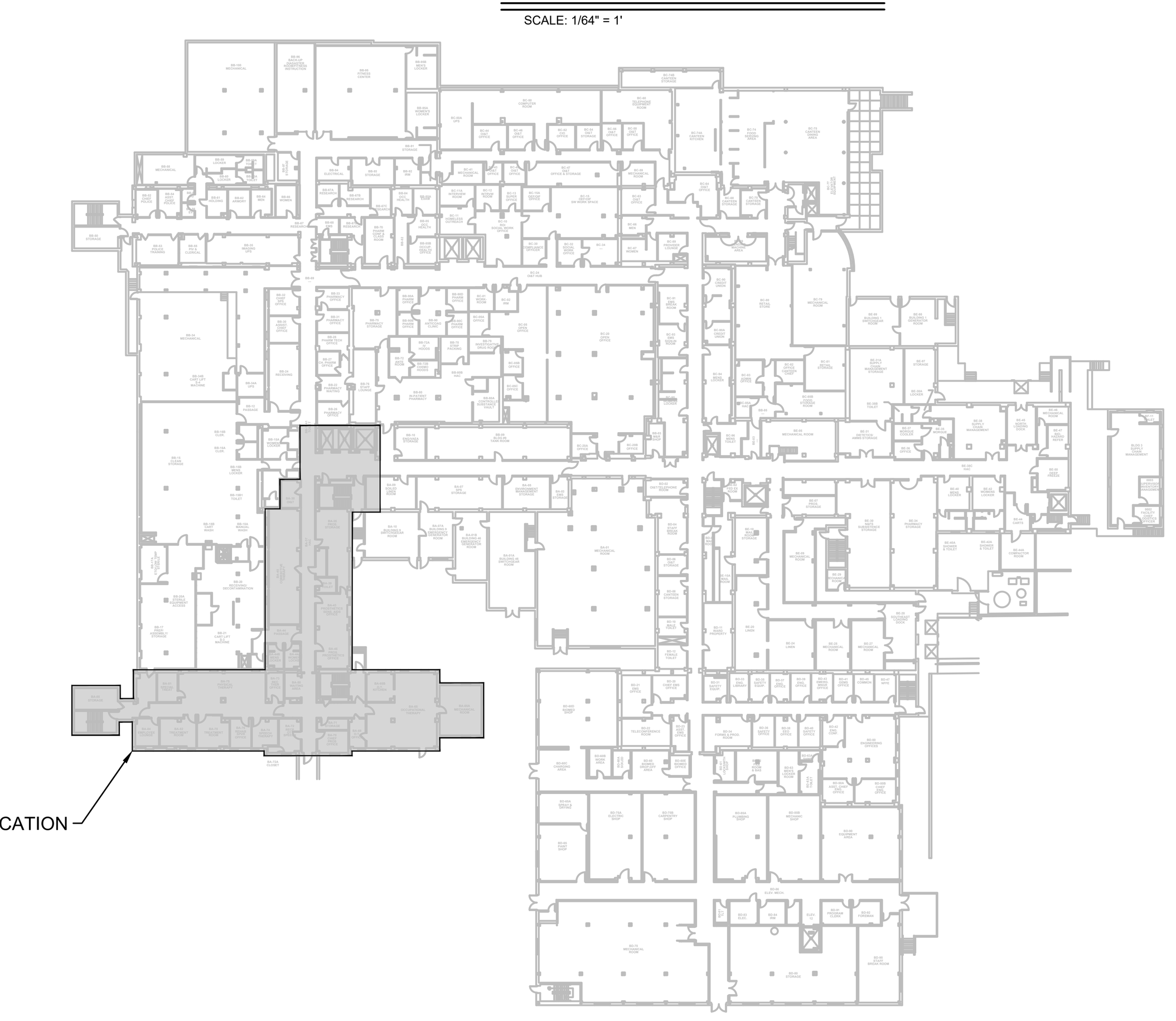
SYMBOL	DESCRIPTION
	FIRE ALARM
	ALARM, LAMP LIGHT, SIGNAL LIGHT, STROBE - WALL MOUNT
	FIRE ALARM AUDIO DEVICE WITH STROBE
	FIRE ALARM STATION, MANUAL PULL
FS	FIRE SPRINKLER FLOW SWITCH
	DETECTOR, SMOKE DETECTOR
	MAGNETIC DOOR HOLDER
SD	DUCT MOUNTED SMOKE DETECTOR
(E)	DENOTES EXISTING EQUIPMENT

FIRE ALARM NOTE

FIRE ALARM SHOP DRAWING SHOWS THE MINIMUM REQUIREMENTS FOR A NEW FIRE ALARM MEETING IBC VERSION 2021 THAT IS FULLY SPRINKLED, AND THE VA FIRE DESIGN MANUAL. IT WILL BE THE REQUIREMENT OF THE CONTRACTOR TO PROVIDE A DEFERRED SUBMITTAL FOR A COMPLETE CODE COMPLIANT PLAN AND INSTALLATION SUBJECT TO INSPECTION AND APPROVAL BY COR.



MAIN LEVEL KEY PLAN
SCALE: 1/64" = 1'



BASEMENT LEVEL KEY PLAN
SCALE: 1/64" = 1'

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Revisions: | Date

CONSULTANTS:

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Drawing Title: BASEMENT FIRE ALARM PROTECTION PLAN

Approved: Project Director

FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: JS/WW

Project Number: 437-21-225

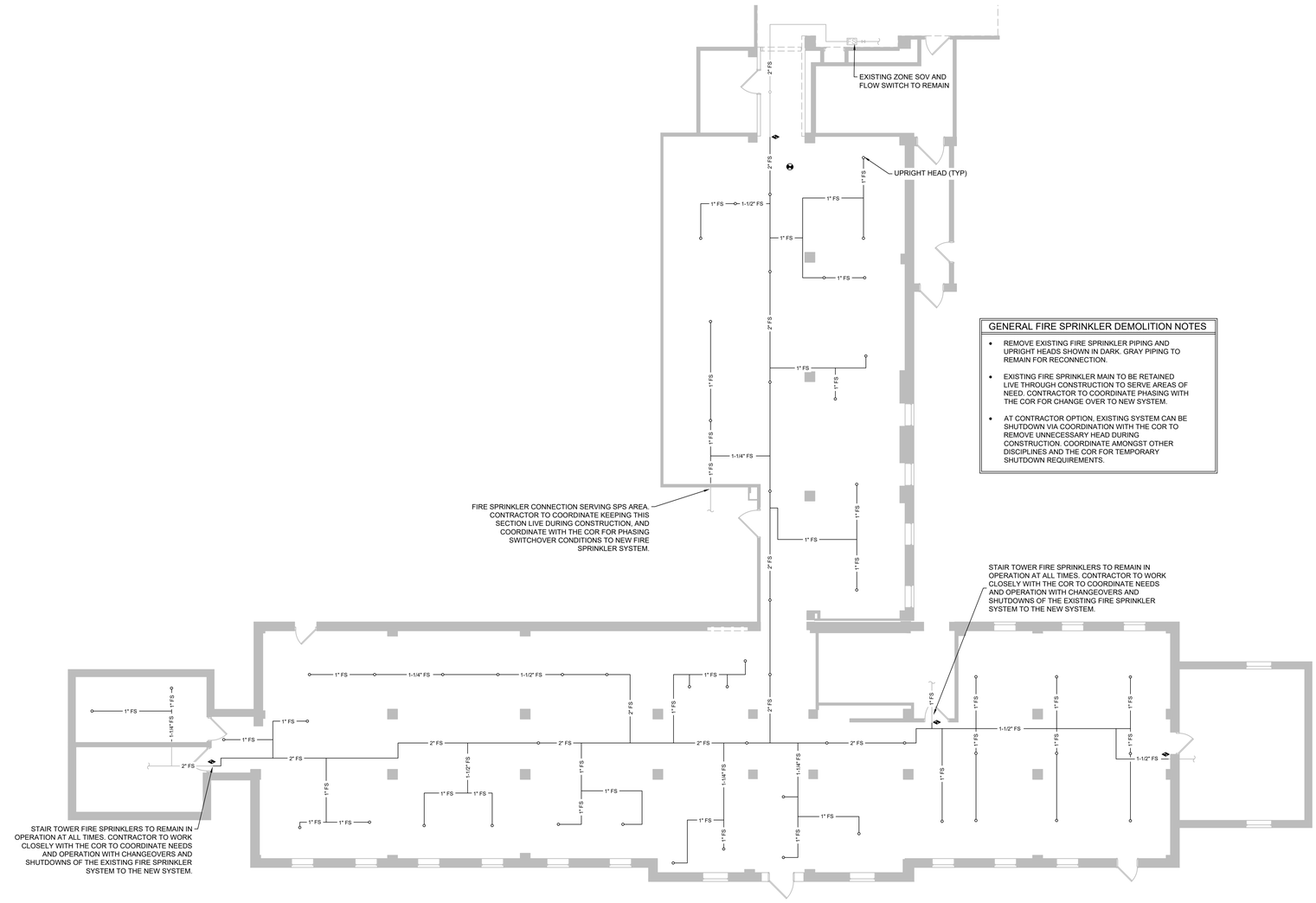
Building Number: 9

Drawing Number: FA0.00

Office of Construction and Facilities Management

Department of Veterans Affairs

SHEET INDEX		
SHEET #	PAGE #	SHEET TITLE
FS1.00	40	FIRE SPRINKLER DEMOLITION PLAN
FS1.10	41	NEW FIRE SPRINKLER PLAN



1 FIRE SPRINKLER DEMOLITION PLAN
SCALE: 1/8" = 1'

GENERAL FIRE SPRINKLER DEMOLITION NOTES

- REMOVE EXISTING FIRE SPRINKLER PIPING AND UPRIGHT HEADS SHOWN IN DARK. GRAY PIPING TO REMAIN FOR RECONNECTION.
- EXISTING FIRE SPRINKLER MAIN TO BE RETAINED LIVE THROUGH CONSTRUCTION TO SERVE AREAS OF NEED. CONTRACTOR TO COORDINATE PHASING WITH THE COR FOR CHANGE OVER TO NEW SYSTEM.
- AT CONTRACTOR OPTION, EXISTING SYSTEM CAN BE SHUTDOWN VIA COORDINATION WITH THE COR TO REMOVE UNNECESSARY HEAD DURING CONSTRUCTION. COORDINATE AMONGST OTHER DISCIPLINES AND THE COR FOR TEMPORARY SHUTDOWN REQUIREMENTS.

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

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Drawing Title: FIRE SPRINKLER DEMOLITION PLAN

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Date: 01/11/2022 | Checked: RD | Drawn: PM

Project Number: 437-21-225

Building Number: 9

Drawing Number: FS-1.00

Dwg. 40 of 41

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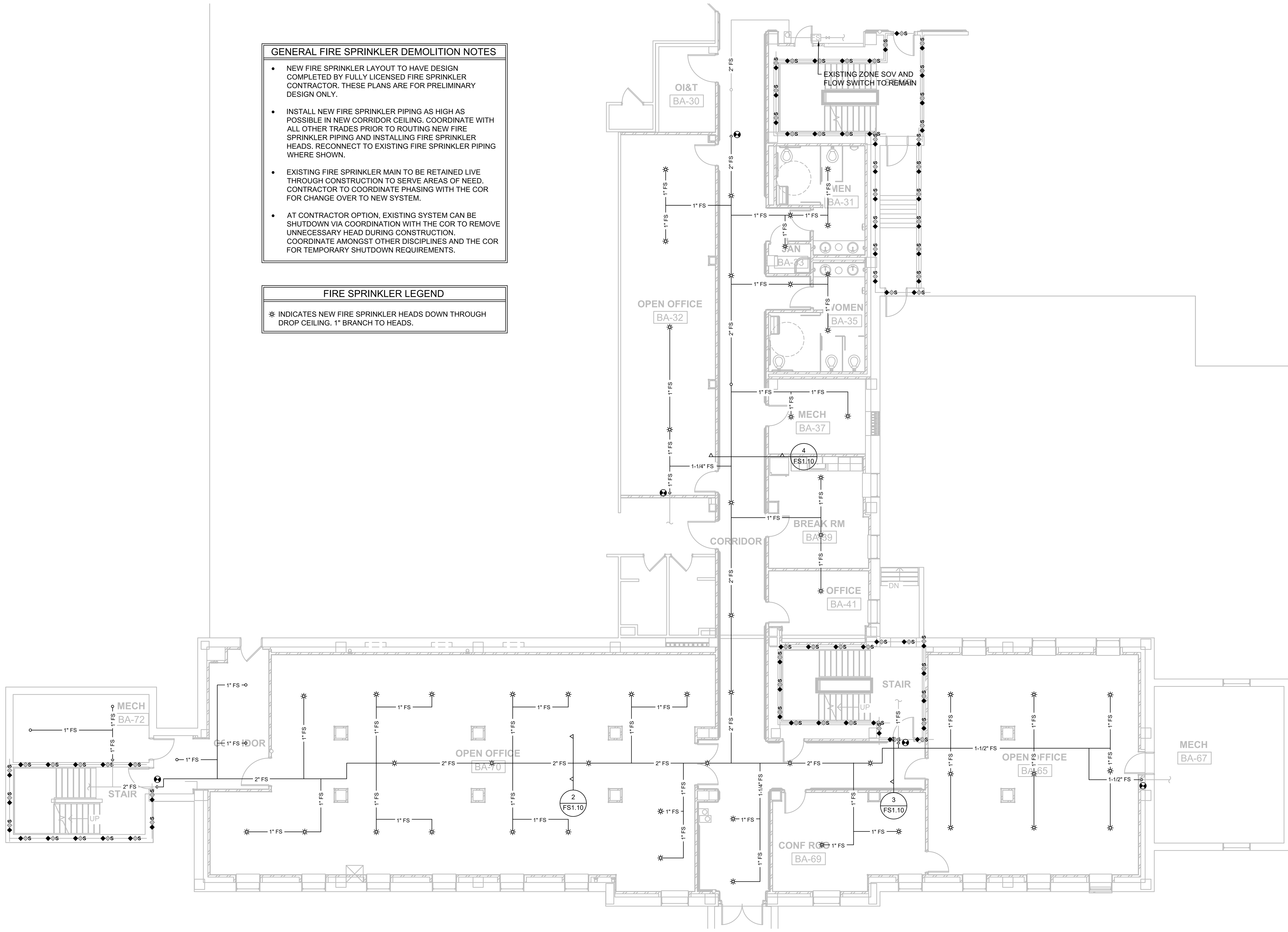
GENERAL FIRE SPRINKLER DEMOLITION NOTES

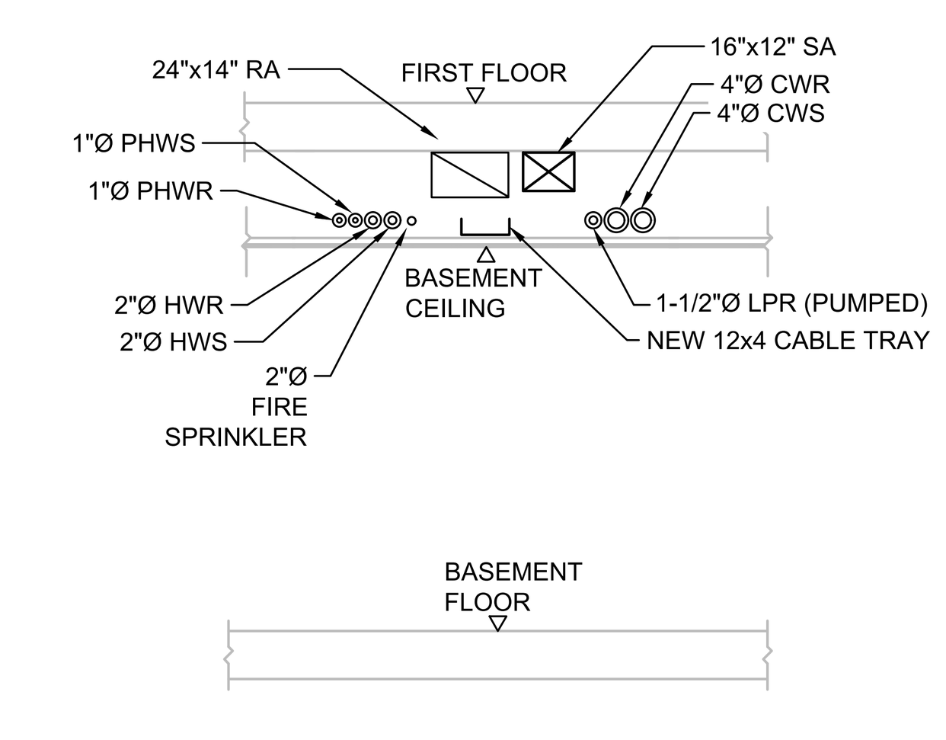
- NEW FIRE SPRINKLER LAYOUT TO HAVE DESIGN COMPLETED BY FULLY LICENSED FIRE SPRINKLER CONTRACTOR. THESE PLANS ARE FOR PRELIMINARY DESIGN ONLY.
- INSTALL NEW FIRE SPRINKLER PIPING AS HIGH AS POSSIBLE IN NEW CORRIDOR CEILING. COORDINATE WITH ALL OTHER TRADES PRIOR TO ROUTING NEW FIRE SPRINKLER PIPING AND INSTALLING FIRE SPRINKLER HEADS. RECONNECT TO EXISTING FIRE SPRINKLER PIPING WHERE SHOWN.
- EXISTING FIRE SPRINKLER MAIN TO BE RETAINED LIVE THROUGH CONSTRUCTION TO SERVE AREAS OF NEED. CONTRACTOR TO COORDINATE PHASING WITH THE COR FOR CHANGE OVER TO NEW SYSTEM.
- AT CONTRACTOR OPTION, EXISTING SYSTEM CAN BE SHUTDOWN VIA COORDINATION WITH THE COR TO REMOVE UNNECESSARY HEAD DURING CONSTRUCTION. COORDINATE AMONGST OTHER DISCIPLINES AND THE COR FOR TEMPORARY SHUTDOWN REQUIREMENTS.

FIRE SPRINKLER LEGEND

☼ INDICATES NEW FIRE SPRINKLER HEADS DOWN THROUGH DROP CEILING. 1" BRANCH TO HEADS.

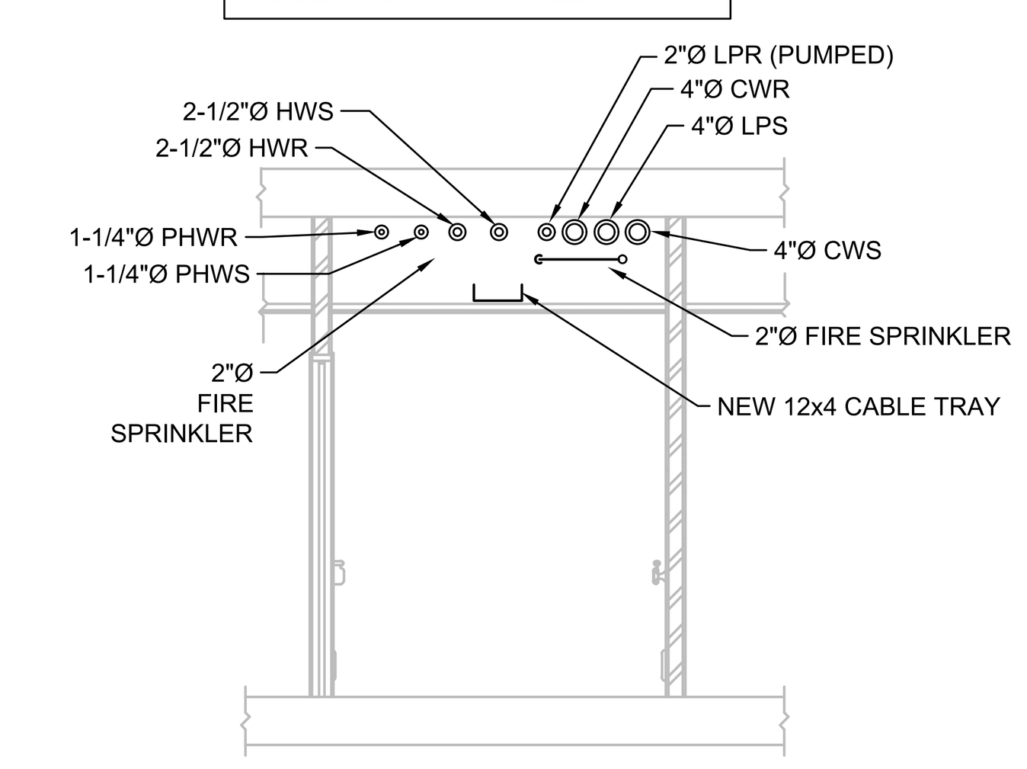


1 NEW FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'



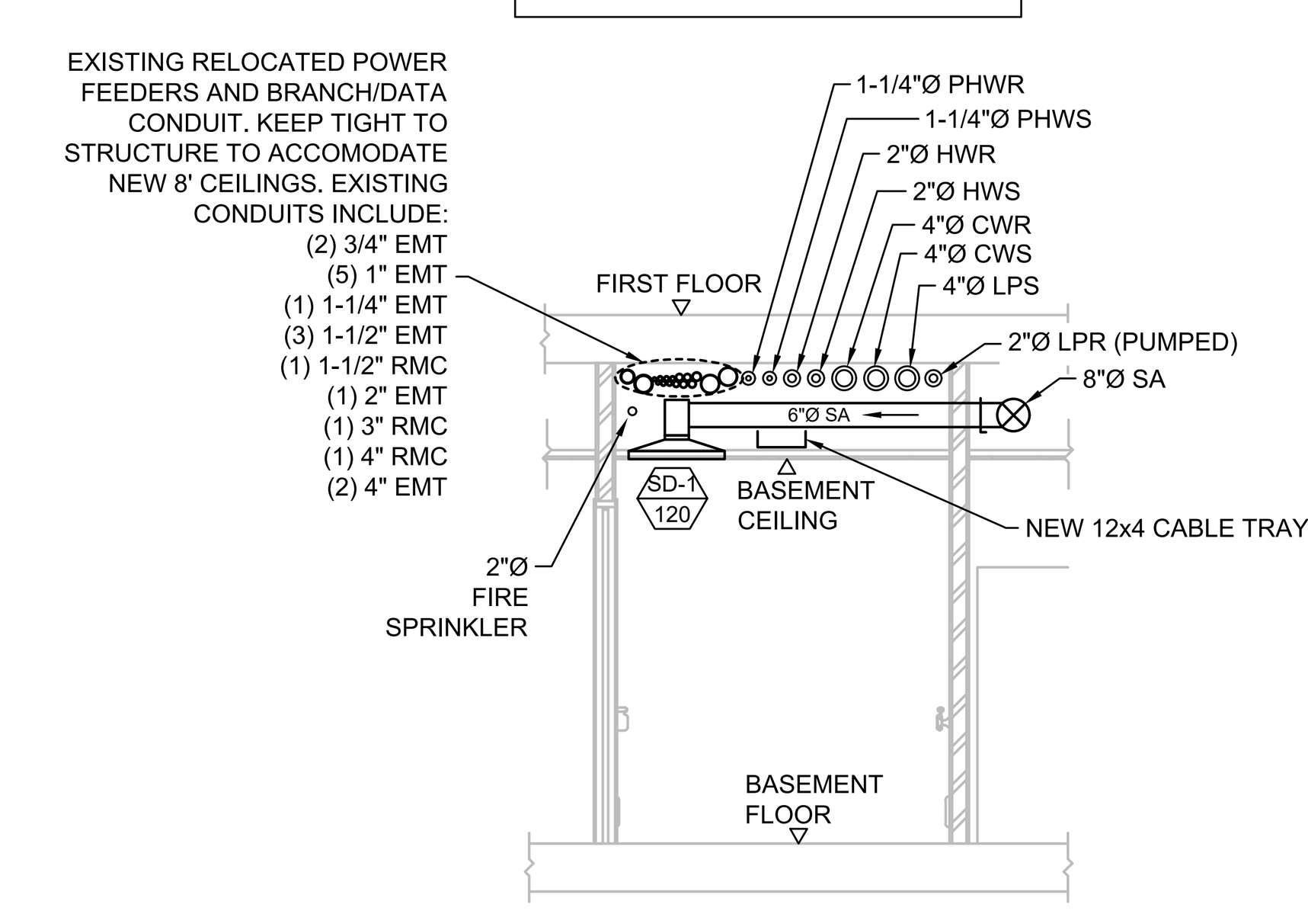
2 BA-70 SECTION DETAIL
SCALE: NTS

NOTE: INSTALL ALL PIPING AS HIGH AS POSSIBLE. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.



3 CORRIDOR SECTION DETAIL
SCALE: 1/8" = 1'

NOTE: INSTALL ALL PIPING AS HIGH AS POSSIBLE. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.



4 CORRIDOR SECTION DETAIL
SCALE: NTS

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Revisions:	Date

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Drawing Title: NEW FIRE SPRINKLER PLAN

BUILDING IS FULLY SPRINKLED

Project Title: FARGO EHRM TRAINING AND ADMIN

Location: FARGO, ND

Date	Checked	Drawn
01/11/2022	RD	PM

Project Number: 437-21-225

Building Number: 9

Drawing Number: FS-1.10

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Office of Construction and Facilities Management

Department of Veterans Affairs

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