U.S. DEPARTMENT OF VETERANS AFFAIRS
FARGO VA MEDICAL CENTER
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

BUILDING #9 & 46
FARGO, NORTH DAKOTA

VA #437-18-101

09/23/2019 - 90% CONSTRUCTION DOCUMENTS

NORTH

F1 SITE PLAN/LOCATION PLAN
1" = 80'-0"

VICINITY MAP

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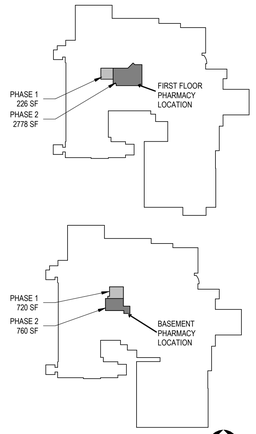

KEYPLAN
NTS

NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

9/23/2019 10:29:49 AM

VA FORM 08-6231

CONSULTANTS:

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Seal

PRELIMINARY NOT FOR CONSTRUCTION

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STONE GROUP ARCHITECTS

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IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: COVER SHEET	Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO		Project Number: VA #437-18-101
			Building Number: 9 & 46
Elec File Name: GI-001.dwg	Location: FARGO, NORTH DAKOTA		Drawing Number: GI-001
	Date: 09/23/2019	Checked: TRS / Drawn: DAN	Drawing # 1 of 31

Veterans Health Administration

Department of Veterans Affairs

PRE-CONSTRUCTION RISK ASSESSMENT (PCRA)

Project #
Project Title: Est. Start Date:
Area of Construction: Est. Duration:
Contractor/Supervisor:
PCRA Completed by:

SAFETY/ENGINEERING

Y	N		IF YES, CIRCLE ILSM from list below or describe other intervention
		Will exits or exit egress routes from occupied areas change?	A, E, H, J, L
		Will the construction area have less than two remote exits?	A, E, H, J, L
		Will there be excessive distance to exit?	A, E, H, J, L
		Will access to Emergency Services become blocked or obstructed?	A, B, I, J, L
		Will any part of the fire protection systems (detection, notification or suppression) be shut down or impaired for >4 hours in a 24-hour period?	C, E, H, I, K
		Will smoke or firewalls be breached?	A, E, G, H
		Will any temporary construction partitions be built?	D
		Will the project result in the accumulation of construction debris?	E, F, G, H
		Will construction affect grounds safety (pits, storage, equipment, etc.)?	H
		Will construction present other life safety hazards?	H, J
		Will protection of hazardous areas be compromised?	H

INTERVENTION

A. Ensure Alternate Egress Routes
B. Ensure Alternate Emergency Access
C. Fire Department Notification
D. Ensure Smoke-Tight Temporary Construction
E. Additional Fire Fighting Equipment
F. Control Combustible Loads
G. Conduct 2 Fire Drills Per Shift in All Areas
H. Increase Hazard Surveillance Rounds
I. Additional Training of Emergency Personnel
J. Ensure Additional Employee Education
K. Institute a Fire Watch w/documentation
L. Post temporary signage

Y	N	CONSTRUCTION ACTIVITY	IF YES, describe intervention
		Does this project involve a patient care area either directly or adjacent to?	
		List:	
		Do areas involved have knowledge of construction?	
		List:	
		Does this project alter patient access building/patient care area, either temporarily or permanently?	

If YES, indicate intervention:

Access
1. The new/temporary access path should be intuitive, i.e. easy to follow.
2. Signage should be adequate for decreased visual acuity and at appropriate viewing levels for both ambulating and w/c bound individuals.
3. The access path should be smooth, without tripping hazards.
4. The access path should be handicap accessible.

Construction Materials
1. Construction areas should not be accessible by unauthorized personnel.
2. Construction areas should be visually identified.
3. Construction materials and tools should be moved and stored appropriately to preclude unauthorized access?

Critical Alarms
Critical clinical alarms shall be functional and audible within and adjacent to the construction zone? Including but not limited to:
a. Emergency CODE Systems
b. Medical Gas Alarms (Oxygen, Air, Suction)
c. Wander guard technology
d. Vital Sign Monitoring/Telemetry Systems
e. Medication/Nutrition Pumps
f. Nurse Call Systems

Additional Requirements:

Additional Requirements:

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INFECTION CONTROL RISK ASSESSMENT

INFECTION CONTROL COORDINATOR

Y	N	CONSTRUCTION ACTIVITY TYPE	Y	N	PATIENT RISK GROUP (may modify as appropriate))
		A: Inspection, non-invasive activity-includes, not limited to removal of ceiling tiles for inspection (1/50 sq ft), painting (not sanding), wall covering, electrical trim work, minor plumbing, activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.			Low Risk- (ex Office Areas)
		B: Small scale, short duration, moderate to high levels-includes but not limited to installation of telephone/computer cabling, access to chase spaces, cutting of walls or ceiling where dust migration can be controlled.			Medium Risk-(ex Cardiology, ECHO, Endoscopy, Nuclear Medicine, Physical Therapy, Radiology/MRI, Respiratory Therapy)
X		C: Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies. Includes but 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 electrical work above the ceilings; major cabling activity; any activity which cannot be completed in a single work shift.	X		High Risk-(ex CCU, ER, Labor & Delivery, Laboratories (specimen), Newborn Nursery, Outpatient Surgery, Pediatrics, Pharmacy Post Anesthesia care, Surgical Units)
X		D: Major duration and construction activities-Includes, but not limited to: activities that require consecutive work shifts; requires heavy demolition or removal of a complete cabling system; new construction.			Highest Risk-(ex Any area caring for Immunocompromised patients, Burn Unit, Cardiac Cath Lab, Central Sterile Supply, ICU, Medical Unit, Negative pressure isolation rooms, Oncology, Operating rooms including C-section)

Project Class	Patient Risk Group	TYPE A	TYPE B	TYPE C	TYPE D
	LOW Risk	I	II	II	III/IV
	MEDIUM Risk	I	II	III	IV
	HIGH Risk	I	II	III/IV	IV
	HIGHEST Risk	II	III/IV	III/IV	IV

During Construction Project	Upon Completion of Project
CLASS I 1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	
CLASS II 1. Include all items from Class I above 2. Provides active means to prevent air-borne dust from dispersing into atmosphere 3. Water mist work surfaces to control dust while cutting. 4. Seal unused doors with duct tape. 5. Block off and seal air vents. 6. Place dust mat at access points of work area. 7. Contain construction waste before transport in tightly covered containers 8. Isolate HVAC system in areas where work is being performed to prevent contamination of duct system.	1. Wipe surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. 3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 4. Remove isolation of HVAC system in areas where work is being performed.
CLASS III 1. Include all items from Class I/II above 2. **Involve Infection Control in design/planning before construction begins.** 3. 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. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Cover transport receptacles or carts. Tape covering unless solid lid.	1. Include all items from Class I/II above 2. Do not remove barriers from work area until completed project is thoroughly cleaned as required by Chief, EMS and Infection Control Coordinator. 3. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 4. Vacuum work area with HEPA filtered vacuums. 5. Wet mop area with disinfectant.
CLASS IV 1. Include all items from Class I/II/III above 2. **Involve Infection Control in design/planning before construction begins.** 3. Seal holes, pipes, conduits, and punctures appropriately. 4. If exiting to a patient care area, 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. 5. Walk-off mats are recommended to minimize tracking of heavy dirt and dust from construction areas. Shoe covers may be considered in certain areas.	1. Include all items from Class I/II/III above

ICRA PROJECT CLASS:

☐ Y ☐ N | **RISK OF TB EXPOSURE** | **TYPE OF RISK:**

If yes, describe intervention:

Additional Requirements:

Patient Safety Coordinator/Date Infection Control Coordinator/Date

IH/Safety Date Project Engineer/Date

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PRE-CONSTRUCTION RISK ASSESSMENT (PCRA) AND INFECTION CONTROL RISK ASSESSMENT (ICRA) FORM

OBTAIN COPY FROM VA
GENERAL NOTES:
1. CONTRACTORS SHALL FOLLOW REQUIREMENTS OF THE PCRA AND ICRA FORMS ONCE THEY ARE FILLED OUT FOR SPECIFIC JOB AREAS AND WORK. THIS SHALL BE AT NO ADDITIONAL COST TO THE GOVERNMENT.
2. CONTRACTORS SHALL COORDINATE WITH THE MULTI-DISCIPLINARY COMMITEE AND INFECTION CONTROL PREVENTION STAFF TO DESIGN INFECTION CONTROL REQUIREMENTS.

ILSM EVALUATION

PROJECT:
LOCATION:
START DATE:

Evaluated Item	YES	NO	Joint Commission ILSM Administrative Actions	If answer is "Yes", see actions required to be taken	Training/Review Date
Will any exit be obstructed?	☐	☐	Ensuring unobstructed exits. When alternative exits have been designed, staff members in affected areas must receive additional training. Buildings or areas under construction must maintain escape routes for construction workers at all times, and the means of exiting construction areas are inspected daily.	Personnel in the building will receive training on alternate routes and exits Construction areas will have designated and marked exits to be clear at all times if necessary	Date: Date:
Will any entrance be obstructed to limit the access to emergency services?	☐	☐	Ensuring free and unobstructed access to emergency services and for fire, police, and other emergency forces.	The construction plans will be reviewed to ensure proper access and will be maintained	Date:
Will any fire detection or suppression system be impaired for > 8 hours in a 24 hour period?	☐	☐	Ensuring that the fire detection and suppression systems are in good working order. A temporary but equivalent system must be provided when any fire system is impaired. Temporary systems must be inspected and tested monthly.	Contractor will be briefed to schedule work to minimize time systems impaired and notify appropriate offices prior to system being impaired	Date:
Will construction be open to other areas without any smoke tight barriers?	☐	☐	Ensuring that temporary construction partitions are smoke tight and built of noncombustible of limited combustible materials that will not contribute to the development or spread of fire.	Contractor will be briefed at pre-construction conference of requirement	Date:
Will fire hazard be substantially higher?	☐	☐	Providing additional firefighting equipment and training staff in its use.	Contractor will be briefed at the pre-construction conference for the need to provide adequate firefighting equipment and training construction employees	Date:
Will smoking be permitted in construction areas?	☐	☐	Prohibiting smoking throughout the organization's buildings and in and near construction areas.	Refer to Fargo VA HCS Smoking Policy	Date:
Will storage, housekeeping and debris removal practices increase the fire load?	☐	☐	Developing and enforcing storage, housekeeping, and debris removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level.	Contractor will be briefed at preconstruction conference of requirement	Date:

July 2015
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INTERIM LIFE SAFETY MEASURES (ISLM) EVALUATION FORM

OBTAIN COPY FROM VA
GENERAL NOTE:
1. CONTRACTORS SHALL FOLLOW REQUIREMENTS OF THE ISLM FORM ONCE THEY ARE FILLED OUT FOR SPECIFIC JOB AREAS AND WORK. THIS SHALL BE AT NO ADDITIONAL COST TO THE GOVERNMENT.

Evaluated Item	YES	NO	Joint Commission ILSM Administrative Actions	If answer is "Yes", see actions required to be taken	Training/Review Date
Will the fire hazard increase to justify extra fire drills?	☐	☐	Conducting a minimum of two fire drills per shift per quarter.	Safety Department will evaluate effects of work on life safety and determine if there is a need to increase frequency of drills	Date:
Will hazardous conditions substantially increase in or around the buildings to require extra surveillance activities?	☐	☐	Increasing hazard surveillance of buildings, grounds, and equipment, with special attention to excavations, construction areas, construction storage, and field offices.	A Fire Watch will be implemented as needed	Date:
Will structural features of fire safety be impaired?	☐	☐	Training staff to compensate for impaired structural or compartmentalization features of fire safety.	Personnel in the building will receive training in response for life safety deficiencies if necessary	Date:
Will this project affect the life safety features of all areas?	☐	☐	Conducting organization wide safety education programs to promote awareness of LSC building deficiencies, construction hazards, and ILSMs.	Staff will be made aware of deficiencies, hazards, and interim measures during personal contact, training, and/or information channels. ILSM will be posted by project site.	Date:
Other Life Safety Code considerations?	☐	☐		If Ceiling Tiles are out for more than 4 hours a fire watch will be implemented.	Date:

ILSM Required: ☐ Yes ☐ No ILSM Issue Date: Evaluation determines no ILSM needed

X
Prepared by

X
Reviewed By

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COMMON ABBREVIATIONS

SYMBOLS USED AS ABBREVIATIONS:

& AND
L ANGLE
LL DOUBLE ANGLE
@ AT
¢ PENNEY
POUND OR NUMBER
Ø ROUND OR DIAMETER

ABBREVIATIONS:

A/E ARCHITECT/ENGINEER
AB ANCHOR BOLT/ROD
ABV ABOVE
AC ASPHALTIC CONCRETE/AIR CONDITIONER
ACC ACCESSIBLE
ACM ALUMINUM COMPOSITE MATERIAL
ACOUS ACOUSTICAL
ACT ACOUSTICAL CEILING TILE
ADA AMERICANS WITH DISABILITIES ACT
ADD ADDENDUM
ADH ADHESIVE
ADJ ADJUSTABLE, ADJACENT, ADJOINING
AFF ABOVE FINISH FLOOR
AFG ABOVE FINISH GRADE
AHJ AUTHORITY HAVING JURISDICTION
ALT ALTERNATE
ALUM ALUMINUM
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
APC ACOUSTICAL PANEL CEILING
APPROX APPROXIMATE
ARCH ARCHITECT (URAL)
ASI ARCHITECTURAL SUPPLEMENTAL INFORMATION

BD BOARD
BEV BEVELED
BFF BELOW FINISH FLOOR
BL BRICK LEDGE
BLDG BUILDING
BLKG BLOCK (ING)
BM BEAM
BOT BOTTOM
BO BOTTOM OF
BOC BOTTOM OF CONCRETE
BOF BOTTOM OF FOOTING
BRG BEARING
BRK BRICK
BSMT BASEMENT
BTWN BETWEEN
BUR BUILT-UP ROOFING
C CHANNEL/CELSIUS
CAB CABINET
CB CERAMIC BASE
CD CONSTRUCTION DOCUMENTS
CEM CEMENT
CF CUBIC FEET OR FOOT
CG CORNER GUARD
CIPC CAST-IN-PLACE CONCRETE
CJ CONTROL/CONSTRUCTION JOINT
CL CENTER LINE
CLG CEILING
CLKG CAULKING
CLR CLEAR, CLEARANCE
CMU CONCRETE MASONRY UNIT
CO CHANGE ORDER/CLEAN OUT
COL COLUMN
COMB COMBINATION
COMP COMPOSITE/COMPOSITION
CONC CONCRETE
CONN CONNECT (ION)
CONST CONSTRUCTION
CONT CONTINUOUS, CONTINUE
CONTR CONTRACT (OR)
COORD COORDINATE
CORR CORRUGATED/CORRIDOR
CPT CARPET
CPPT CARPET TILE
CSMT CASEMENT
CT CERAMIC TILE
CTB CARPET TILE BASE
CTR CENTER

D DEPTH
DBL DOUBLE
DEMO DEMOLITION, DEMOLISH
DEPT DEPARTMENT
DET DETAIL
DF DRINKING FOUNTAIN
DIA DIAMETER
DIAG DIAGONAL
DIM DIMENSION
DIV DIVIDE, DIVISION
DISP DISPENSER
DN DOWN
DR DOOR
DS DOWNSPOUT
DW DISHWASHER
DWG DRAWING (S)
DWR DRAWER
DWTR DUMBWAITER
(E) EXISTING
E EAST
EA EACH
EF EACH FACE
EJ EXPANSION JOINT
EL ELEVATION
ELEC ELECTRICAL
ELEV ELEVATOR
ENL ENLARGED
EMER EMERGENCY
ENGR ENGINEER
EOP EDGE OF PAVEMENT
EPDM ETHYLENE PROPYLENE DIENE MONOMER
EPS EXPANDED POLYSTYRENE BOARD
EPT EPOXY PAINT
EQ EQUAL
EQUIP EQUIPMENT
ES EACH SIDE
EST ESTIMATE
ETC ETCETERA
ETR EXISTING TO REMAIN
EW EACH WAY
EXIST EXISTING
EXC EXCAVATE/EXCAVATION
EXH EXHAUST
EXP EXPANSION/EXPOSED
EXT EXTERIOR
EWC ELECTRIC WATER COOLER

FA FIRE ALARM
FAB FABRICATE/FABRICATION
FD FLOOR DRAIN
FDC FIRE DEPARTMENT CONNECTION
FDTN FOUNDATION
FE FIRE EXTINGUISHER
FEC FIRE EXTINGUISHER CABINET
FF FINISHED FLOOR
FFE FINISH FLOOR ELEVATION
FIN FINISH (ED)
FLOUR FLUORESCENT
FLR FLOOR (ING)
FO FACE OF
FOC FACE OF CONCRETE
FOM FACE OF MASONRY
FOS FACE OF STUD
FOF FACE OF FINISH
FR FIRE RESISTANT/FRAME
FRP FIBERGLASS REINFORCED PANEL
FS FLOOR SINK
FT FOOT, FEET/FIRE TREATED
FTG FOOTING
FURRG FURRING
FUT FUTURE

GA GAGE, GAUGE
GB GRAB BAR
GC GENERAL CONTRACTOR
GALV GALVANIZED
GC GENERAL CONTRACTOR
GI GALVANIZED IRON
GL GLASS
GLU LAM GLUE LAMINATED (BEAM)
GWB GYPSUM WALL BOARD
GYP GYPSUM
HB HOSE BIB
HC HANDICAP / HOLLOW CORE
HD HEAVY DUTY
HDBD HARDBOARD
HDR HEADER
HDWD HARDWOOD
HDWR HARDWARE
HM HOLLOW METAL
HORIZ HORIZONTAL
HR HOUR
HT HEIGHT
HVAC HEATING, VENTILATION, AIR-CONDITIONING

IBC INTERNATIONAL BUILDING CODE
ICC INTERNATIONAL CODE COUNCIL
ID INSIDE DIAMETER/DIMENSION
IFC INTERNATIONAL FIRE CODE
IN INCH(ES)
INCL INCLUDE (D), INCLUDING
INFO INFORMATION
INSP INSPECTION
INSTR INSTRUCTION(S)
INSUL INSULATE (D), INSULATION
INT INTERIOR

JAN JANITOR
JST JOIST
JT JOINT

KCJ KEYED CONSTRUCTION JOINT
KO KNOCK OUT

L LENGTH / ANGLE
LAB LABORATORY
LAM LAMINATE (ED)
LAV LAVATORY
LB POUND
LF LINEAR FEET
LH LEFT HAND
LKR LOCKER
LOC LOCATION
LONG LONGITUDINAL
LT LIGHT
LVR LOUVER
LVT LUXURY VINYL TILE

MAS MASONRY
MATL MATERIAL
MAX MAXIMUM
MC MEDICINE CABINET
MECH MECHANICAL
MEMB MEMBRANE
MEZZ MEZZANINE
MFR MANUFACTURE (R)
MIN MINIMUM
MISC MISCELLANEOUS
MO MASONRY OPENING
MR MIRROR
MTL METAL
(N) NEW
N NORTH
NA NOT APPLICABLE
NIC NOT IN CONTRACT
NO NUMBER
NOM NOMINAL
NTS NOT TO SCALE

OC ON CENTER
OD OUTSIDE DIAMETER
OFCI OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI OWNER FURNISHED / OWNER INSTALLED
OH OVERHEAD
OPP OPPOSITE
OPG OPENING
ORIG ORIGINAL
ORD OVERFLOW ROOF DRAIN
OZ OUNCE

PAR PARALLEL
PCF POUNDS PER CUBIC FOOT
PED PEDESTAL
PERF PERFORATED
PERP PERPENDICULAR
PL PLATE
PLAM PLASTIC LAMINATE
PLYWD PLYWOOD
PNL PANEL
PR PAIR/PROPOSAL REQUEST
PRCST PRECAST CONCRETE
PREFAB PREFABRICATE
PSI POUNDS PER SQUARE INCH
PSF POUNDS PER SQUARE FOOT
PT PAINT / PRESSURE TREATED
PTD PAPER TOWEL DISPENSER
PTN PARTITION
PTR PAPER TOWEL RECEPTACLE
PVC POLYVINYL CHLORIDE

QT QUARRY TILE

R RADIUS/RISER
RB RUBBER BASE
RBR RUBBER
RCP REFLECTED CEILING PLAN
RD ROOF DRAIN
REBAR REINFORCING BAR
REC RECESSED
REF REFERENCE/REFRIGERATOR
REINF REINFORCE (D), (ING), (MENT)
REQ REQUIRE
REQD REQUIRED
RES RESILIENT FLOORING
RET RETURN
REV REVISION (S), REVISED
RFI REQUEST FOR INFORMATION
RFP REQUEST FOR PROPOSAL
RH RIGHT HAND
RL RIDGE LINE
RM ROOM
RO ROUGH OPENING
ROW RIGHT OF WAY
RVS REVERSE (SIDE)
RWL RAIN WATER LEADER
S SOUTH
SB SPLASH BLOCK
SC SOLID CORE
SCHED SCHEDULE
SCR SHOWER CURTAIN ROD
SCT SECTION
SD SOAP DISPENSER
SF SQUARE FOOT
SHT SHEET
SHTHG SHEATHING
SIM SIMILAR
SLDG SLIDING
SLNT SEALANT
SND SANITARY NAPKIN DISPENSER
SNX SANITARY NAPKIN DISPOSAL
SOG SLAB ON GRADE
SPEC SPECIFICATION (S)
SQ SQUARE
SSM SOLID SURFACE MATERIAL
SST STAINLESS STEEL
ST STREET
STC SOUND TRANSMISSION CLASS
STD STANDARD
STL STEEL
STOR STORAGE
STRUCT STRUCTURAL
SUSP SUSPENDED
SV SHEET VINYL
SW SHEARWALL
SYM SYMMETRICAL

T TREAD
T&B TOP AND BOTTOM
T&G TONGUE AND GROOVE
TB TOWEL BAR
TBD TO BE DETERMINED
TEMP TEMPORARY/TEMPERED
TER TERRAZZO
TFE TOP FOOTING ELEVATION
THD THREAD (ED) (S)
THK THICKNESS
THRU THROUGH
TKBD TACKBOARD
TL TILE
TO TOP OF
TOB TOP OF BEAM
TOC TOP OF CONCRETE/CURB
TOD TOP OF DECK
TOF TOP OF FOOTING (FOUNDATION)
TOM TOP OF MASONRY
TOP TOP OF PIER
TOJ TOP OF JOIST
TOS TOP OF SLAB/STEEL
TOW TOP OF WALL
TPD TOILET PAPER DISPENSER
TPO THERMOPLASTIC POLYOLEFIN
TPTN TOILET PARTITION
TRANS TRANSVERSE
TS TUBE STEEL
TYP TYPICAL
UG UNDERGROUND
UH UNIT HEATER
UNFIN UNFINISHED
UNO UNLESS NOTED OTHERWISE
UON UNLESS OTHERWISE NOTED
UTIL UTILITY

V SHEAR
VAR VARIES
VB VAPOR BARRIER
VCT VINYL COMPOSITION TILE
VERT VERTICAL
VEST VESTIBULE
VIF VERIFY IN FIELD
VIN VINYL BASE
VP VINYL PLANK
VR VAPOR RETARDER
VWC VINYL WALL COVERING

W WEST/WIDTH
W/ WITH
W/O WITHOUT
WA WEDGE ANCHOR
WB WOOD BASE
WC WATER CLOSET
WD WOOD/WOODWORK
WDW WINDOW
WF (W) WIDE FLANGE
WG WALL GUARD
WH WATER HEATER
WI WROUGHT IRON
WL WIND LOAD
WP WATERPROOF (ING)
WR WATER RESISTANT
WSCT WAINSCOT
WT WEIGHT/WINDOW TREATMENT
WWF WELDED WIRE FABRIC

CONTRACTOR NOTES

1. ALL EXISTING DUCTWORK, ELECTRICAL OR PIPING IS NOT NECESSARILY SHOWN ON THE DRAWINGS.
2. BEFORE CONTRACTOR(S) BID THE JOB, IT IS IMPERATIVE THEY VISIT THE JOBSITE AND FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK, ETC. IT WILL BE PART OF THE CONTRACTOR'S RESPONSIBILITY AND COST TO ENGINEER AND RELOCATE ANY EXISTING OBSTACLES WHICH WILL INTERFERE WITH THE CONTRACTOR'S ABILITY TO INSTALL ALL NEW OR RELOCATED WORK ON HIS CONTRACT.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD AND NOTIFY A/E FIRM AND PROJECT ENGINEER OF ALL DISCREPANCIES IF ANY, FOUND PRIOR TO PLACEMENT OF ANY COMPONENTS
4. THE CONTRACTOR WILL TAKE ALL NECESSARY PRECAUTIONS INCLUDING THE BUILDING AND MAINTENANCE OF DUST TIGHT PARTITIONS, DAILY VACUUMING, SWEEPING, AND PROVISION OF CLEAN FLOOR MATS AT THE PROJECT ENTRANCES, TO PREVENT THE INFILTRATION OF DIRT AND DUST FROM THE CONSTRUCTION AREAS INTO THE OWNER OCCUPIED AREAS.
5. PATCH ALL FINISHES WHERE DISTURBED BY THE WORK AND WHERE UNFINISHED SURFACES HAVE BEEN EXPOSED BY DEMOLITION. PATCHING MUST MATCH ADJACENT MATERIALS, COLORS, AND FINISHES. WALL SURFACES THAT ARE PATCHED SHALL HAVE THE FINISHES (PAINT, VINYL WALL COVERING, ETC.) REPLACED FROM CORNER TO CORNER AND FLOOR TO CEILING.
6. UNLESS OTHERWISE INDICATED FINISH ALL NEW FRAMES AND PARTITIONS TO MATCH SURROUNDING. NEW HOLLOW METAL DOORS SHALL BE PAINTED SAME COLOR AS FRAMES. EXISTING PARTITIONS RECEIVING NEW DOOR FRAMES THAT HAVE VINYL WALL COVERING (VWC) SHALL HAVE THE VWC COMPLETELY REMOVED AND REPLACED WITH NEW VWC OF MATCHING TEXTURE AND COLOR
7. PAINT ALL NEW AND EXISTING ELECTRICAL PANELS, ACCESS PANELS, ETC.,TO MATCH WALL FINISH UNLESS OTHERWISE NOTED.
8. CORRIDOR WALLS AND PLUMBING PARTITIONS SHALL BE CONSIDERED 1 HOUR FIRE RATED WALLS AND NEW OR EXISTING PENETRATIONS MUST BE SEALED ACCORDINGLY WITH APPROVED FIRESTOPPING MATERIAL THE SAME DAY THE PENETRATION IS MADE OR DISCOVERED. ALL FLOOR SLABS, VERTICAL SHAFTS AND STAIRWELLS SHALL BE CONSIDERED 2 HOUR RATED PARTITIONS AND BE SEALED ACCORDINGLY IN THE MANNER LISTED HEREIN. PENETRATIONS THROUGH THE EXTERIOR WALLS SHALL BE SEALED WATERTIGHT.
9. ALL NEW VERTICAL AND HORIZONTAL DUCTS, PIPES, CONDUITS, ETC.,IN FINISHED ROOMS OR AREAS THROUGHOUT BUILDING, NOT ENCASED IN MASONRY OR CONCRETE CONSTRUCTION, SHALL BE FURRED IN, THE FURRING FINISHED TO MATCH THE ROOM FINISH.
10. WHENEVER EXISTING EQUIPMENT, PIPING, DUCTS, ETC., ARE REQUIRED TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS, ETC., UNLESS NOTED OTHERWISE. AFTER REMOVAL, FLOORS, WALLS, AND CEILINGS SHALL BE FINISHED TO MATCH ADJOINING SURFACES.
11. UTILITY WORK THAT WILL REQUIRE A SHUTDOWN OF EXISTING SERVICE(S) WILL BE DONE AFTER NORMAL WORKING HOURS (NIGHTS, WEEKENDS, HOLIDAYS, ETC.) AT NO ADDITIONAL COST TO THE GOVERNMENT. WORK MUST BE SCHEDULED WITH THE V.A. PROJECT ENGINEER AND M&R FOREMAN.
12. WORK THAT MUST OCCUR IN OCCUPIED AREAS, SUCH AS PUBLIC CORRIDORS, OF THE MEDICAL CENTER OR DISRUPT A MEDICAL CENTER FUNCTION WILL BE DONE AT TIMES OTHER THAN NORMAL WORKING HOURS (NIGHTS, WEEKENDS, HOLIDAYS, ETC.) AT NO ADDITIONAL COST TO THE GOVERNMENT. WORK MUST BE SCHEDULED WITH THE V.A. PROJECT ENGINEER.
13. ALL ELECTRICAL CIRCUITRY TO BE CONCEALED UNLESS OTHERWISE SPECIFIED.
14. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS TO ELIMINATE CONFLICTS AND/OR INTERFERENCES. THE CONTRACTOR SHALL PROVIDE ALL OFFSETS, FITTINGS, TRANSITIONS, EXTENSIONS, ETC., REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.
15. DRAWINGS ARE DIAGRAMMATIC AND SHOW ONLY THE GENERAL ARRANGEMENT OF EACH SYSTEM. BECAUSE OF SMALL SCALE OF DRAWINGS IT IS NOT POSSIBLE TO SHOW OR INDICATE ALL BRANCHES, OFFSETS, FITTINGS, BOXES, AND ACCESSORIES WHICH MAY BE REQUIRED. CONTRACTOR MUST CAREFULLY INVESTIGATE STRUCTURAL AND FINISH CONDITIONS AFFECTING ALL WORK, FURNISHING SUCH FITTINGS, TRAPS, VALVES, BOXES, ACCESSORIES, ETC., AS MAY BE REQUIRED.
16. LOCATIONS OF NEW EQUIPMENT, PIPING, AND ASSOCIATED ITEMS SHOWN ON THE DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND ELEVATION FOR ALL WORK, INCLUDING CONNECTIONS TO EXISTING WORK. ALL OFFSETS, FITTINGS, TRANSITIONS, EXTENSIONS, ETC., REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM SHALL BE PROVIDED AT NO ADDITIONAL COST.
17. ALL EXISTING DUCTWORK, ELECTRICAL OR MECHANICAL PIPING, CABLE TRAYS, ETC., IS NOT NECESSARILY SHOWN ON THE DRAWINGS. BEFORE CONTRACTOR PLACES A BID IT IS IMPERATIVE THEY VISIT THE JOBSITE AND FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. IT WILL BE PART OF THE CONTRACTOR'S RESPONSIBILITY AND THE CONTRACTOR WILL BEAR THE COST TO ENGINEER AND RELOCATE ANY EXISTING OBSTACLES WHICH WILL INTERFERE WITH THE CONTRACTOR'S ABILITY TO INSTALL ALL NEW OR RELOCATED WORK IN THIS PROJECT.
18. CONTRACTOR SHALL NOT INSTALL CONDUIT, PIPING, LIGHTING, OR OTHER OBSTRUCTIONS UNDER OR ADJACENT TO HVAC EQUIPMENT THAT WILL ELIMINATE OR OBSTRUCT ACCESS TO COILS, MOTORS, VALVES, SWITCHES, PANELS, ETC.
19. BEFORE THE CONTRACTOR BEGINS WORK HE SHALL RECORD ANY EXISTING SYSTEM INFORMATION SUCH AS TEMPERATURE, FLOW RATE, PRESSURE, CURRENT, VOLATAGE, OR ANY OTHER INFORMATION NECESSARY FOR HIM TO RETURN THE AFFECTED SYSTEM TO ORIGINAL OPERATING CONDITION. UNLESS NOTED OTHERWISE IT IS ASSUMED THAT ALL SYSTEMS (HVAC, ELECTRICAL, PLUMBING, ETC.) ARE WORKING PROPERLY IN EVERY MANNER AT THE BEGINNING OF THE PROJECT. THE CONTRACTOR'S RECORDED MEASUREMENTS MUST BE SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW AND ACCEPTANCE BEFORE ANY DEMOLITION OR OTHER RELATED WORK CAN PROCEED.
20. FOR DOORS BEING REPLACED: IF THE EXISTING DOOR HAS SIGNAGE APPLIED TO IT, THIS SIGNAGE SHOULD BE CAREFULLY REMOVED AND REAPPLIED TO THE NEW DOOR. IF THE SIGNAGE IS DAMAGED DURING REMOVAL OR CANNOT OTHERWISE BE REAPPLIED IT SHOULD BE REPLACED WITH NEW SIGNAGE OF IDENTICAL TYPE.
21. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING ACCESS DOORS TO CONSTRUCTION AREAS, EXISTING MECHANICAL AND ELECTRICAL AREAS, ASSIGNED STORAGE AREAS, EQUIPMENT ACCESS AREAS, ETC. DOORS MUST BE RESTORED TO THE CONDITION ENCOUNTERED AT BEGINNING OF PROJECT. THIS INCLUDES DOOR REPLACEMENT, HARDWARE REPLACEMENT, HARDWARE REPAIR, DOOR REPAIR, ETC.
22. IT IS IMPORTANT THAT ALL REPLACEMENT DOORS HAVE A GAP OF LESS THAN 3/4" BETWEEN THE BOTTOM OF THE DOOR AND THE FLOOR AT ALL POINTS. CONTRACTOR MUST COORDINATE INSTALLED DOOR FRAME HEIGHT OR MAKE OTHER NECESSARY MODIFICATIONS TO MEET THIS REQUIREMENT AND KEEP FIRE RATING OF DOOR AND FRAME. BOTTOM SWEEPS ARE NOT ACCEPTABLE UNLESS SPECIFICALLY STATED ON DRAWING.
23. IF THERE IS ANY WORK TO BE DONE ON EXISTING ROOFS, SUCH AS ROOF PENETRATIONS OR STANDS, OR ANYTHING THAT DAMAGES THE INTEGRITY OF THE ROOF, THIS WORK MUST BE DONE BY A CONTRACTOR LICENSED BY THE ROOFING MEMBRANE MANUFACTURER. HE MUST BE APPROVED BY THE MEMBRANE MANUFACTURER SO AS TO NOT VOID OR INTERRUPT EXISTING SINGLE PLY MEMBRANE ROOF WARRANTIES.
24. EXISTING CIRCUITRY (CONDUIT, BOXES, WIRE, ETC.) MAY BE REUSED AT THE CONTRACTOR'S OPTION AS LONG AS IT MEETS THE SAME SPECIFICATIONS REQUIRED FOR NEW CIRCUITRY. ALL WORK, NEW AND EXISTING, SHALL COMPLY WITH THE LATEST NEC CODE AND WARRANTED AS NEW.

PROJECT GENERAL NOTES

1. CONTRACTOR IS NOT AUTHORIZED TO SCALE CONSTRUCTION DOCUMENTS. ARCHITECT IS TO BE NOTIFIED IN THE EVENT A DISCREPANCY IS FOUND IN EITHER SPECIFICATIONS OR CONTRACT DOCUMENTS AT THE EARLIEST PRACTICAL OPPORTUNITY.
2. GENERAL CONTRACTOR SHALL OBSERVE ALL REGULATIONS IMPOSED BY GOVERNING BODIES.
3. CONSTRUCTION SHALL PROCEED IN AN ORDERLY AND CONTINUOUS FASHION IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODES AND ALL OTHER APPLICABLE CODES.
4. THE CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITY, INCLUDING STORAGE OF MATERIAL AND EQUIPMENT, WITHIN THE CONSTRUCTION LIMITS. AT ALL TIMES BEING RESPONSIBLE FOR AND ABIDING BY RULES AND REGULATIONS OF THE OWNER.
5. GENERAL CONTRACTOR TO BE RESPONSIBLE FOR REPAIRING ANY AND ALL SURFACES DAMAGED BY HIMSELF OR SUBCONTRACTORS UNDER HIS CONTROL. REPAIRS ARE TO MATCH EXISTING MATERIALS AND MUST BE ACCEPTABLE TO OWNER.
6. ADEQUATELY PATCH/REPAIR TO MATCH ADJACENT CONSTRUCTION, ALL BUILDING STRUCTURES, COMPONENTS, AND UTILITIES WHICH ARE DISTURBED AND REQUIRE REPAIR AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT.
7. ALL FLOOR TRANSITIONS BETWEEN DIFFERENT MATERIALS SHALL BE SMOOTH AND FLUSH (MAXIMUM SLOPE = 1/8" PER FOOT).
8. GENERAL CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS FROM JOBSITE. ALL CONSTRUCTION DEBRIS SHALL B

CODE INFORMATION

PROJECT INFORMATION:

1. CONSTRUCTION PURPOSE: RENOVATION

2. REASON FOR SUBMITTAL: NEW CONSTRUCTION

3. I CERTIFY THAT TO THE BEST OF OUR KNOWLEDGE THE SUBMITTED PLANS FOR THE ABOVE-REFERENCED PROJECT COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:
   2015 INTERNATIONAL BUILDING CODE (IBC)
   2015 INTERNATIONAL MECHANICAL CODE (IMC)
   2015 INTERNATIONAL PLUMBING CODE (IPC)
   2015 INTERNATIONAL FIRE CODE (IFC)
   2014 NATIONAL ELECTRICAL CODE (NFPA-70)
   2018 LIFE SAFETY CODE (NFPA-101)
   2015 ARCHITECTURAL BARRIERS ACT (ABA)

4. LOCATION OF ANY ANTICIPATED FUTURE ADDITIONS: UNKNOWN

5. OWNER:
   DEPARTMENT OF VETERAN'S AFFAIRS
   FARGO VA HEALTHCARE SYSTEM
   2101 NORTH ELM
   FARGO, ND 58102

6. DATE DEVELOPED: SEE DATE ON TITLE BLOCK

7. DESIGN TEAM:

   ARCHITECT:
   STONE GROUP ARCHITECTS
   600 EAST 7TH STREET
   SIOUX FALLS, SD 57103 605-271-1144
   CONTACT: TODD STONE
   TODD.STONE@STONEGROUPARCHITECTS.COM

   IMAGE GROUP ARCHITECTURE & INTERIORS
   403 CENTER AVENUE, SUITE 300
   MOORHEAD, MN 56560 218-233-2063
   CONTACT: RICHARD MOORHEAD
   RMOORHEAD@IMAGEGROUPARCHITECTURE.COM

   DESIGN CONSULTANTS:

   ELECTRICAL ENGINEERING
   MBN ENGINEERING
   503 7TH STREET NORTH, SUITE 200
   FARGO, ND 58102 701-478-6336
   CONTACT: CURT HASSEBROCK
   CURT.HASSEBROCK@MBNENGR.COM

   MECHANICAL ENGINEERING
   OBERMILLER/NELSON ENGINEERING
   2201 12TH STREET NORTH, SUITE E
   FARGO, ND 58102 701-280-0500
   CONTACT: JOEL PECK
   JOEL.PECK@OBERNEL.COM

8. ARCHITECTS SEAL: SEE STAMP AT BOTTOM

9. FIRE SERVICE: CITY OF FARGO FIRE DEPT.

10. INSPECTION: VISN 15 SAFETY OFFICER

11. OCCUPANCY GROUP TYPE:
    BASEMENT PHARMACY: BUSINESS (NFPA)
    1ST LEVEL PHARMACY: HEALTHCARE (NFPA)

12. CONSTRUCTION TYPE: 1 (332) PER NFPA

13. STRUCTURAL CODE REQUIREMENTS

    A. ALLOWABLE FLOOR AREA:
       TOTAL ALLOWABLE FLOOR AREA: UNCHANGED

    B. ALLOWABLE HEIGHT CALCULATIONS
       NO HEIGHT MODIFICATIONS REQUIRED

    C. FIRE-RESISTANCE RATING FOR BUILDING ELEMENTS: TYPE 1 (332)

       1. BEARING WALLS:
          A. EXTERIOR: 3HR
          B. INTERIOR: 3HR
       2. NONBEARING WALLS:
          A. EXTERIOR: 0HR, 1HR, SEE NFPA 5000 TABLE 7.3.2.1
          B. INTERIOR: 0HR
       3. FLOOR CONSTRUCTION: 2HR
          (INCLUDES SUPPORTING BEAMS & JOISTS)
       4. ROOF CONSTRUCTION: 1.5HR
          (INCLUDES SUPPORTING BEAMS & JOISTS)
       5. SHAFT ENCLOSURES: 1HR, 2 HR, SEE NFPA 101 8.6, 18.3.1

    MISCELLANEOUS REQUIREMENTS:

       1. NFPA 101 18.3.2.1:
          1 HR OCCUPANCY SEPARATION REQUIRED AT STORAGE ROOMS OVER 100 SF
          (NEW HEALTH CARE OCCUPANCY)

    14. ACTIVE FIRE SAFETY SYSTEMS

       * NOTE:
         ALL AREAS OF THIS PROJECT WILL BE FULLY SPRINKLERED.

       SPRINKLER SYSTEM SHALL COMPLY WITH NFPA
       13 IN ALL AREAS

       (a) SMOKE DETECTORS THROUGHOUT
       (b) GENERATOR POWERED EMERGENCY LIGHTING
       (c) GENERATOR POWERED EXIT LIGHTING
       (d) PORTABLE EXTINGUISHERS
       (e) AUTOMATIC AIR-HANDLING SHUT-DOWN
       (f) FIRE ALARM SYSTEM

    15. WATER SUPPLY: CITY OF FARGO, ND

    16. SEWAGE TREATMENT: CITY OF FARGO, ND

    17. HANDICAP PROVISIONS:
        ACCESSIBLE ROUTE, TOILETS, LAVATORIES, SIGNAGE AND PARKING

    18. BUSINESS OCCUPANCY (NFPA 101: CH 39)

       39.2.5.2
         DEAD END CORRIDORS SHALL NOT EXCEED 50 FT.

       39.2.5.3.1
         COMMON PATH OF TRAVEL SHALL NOT EXCEED 100 FT.

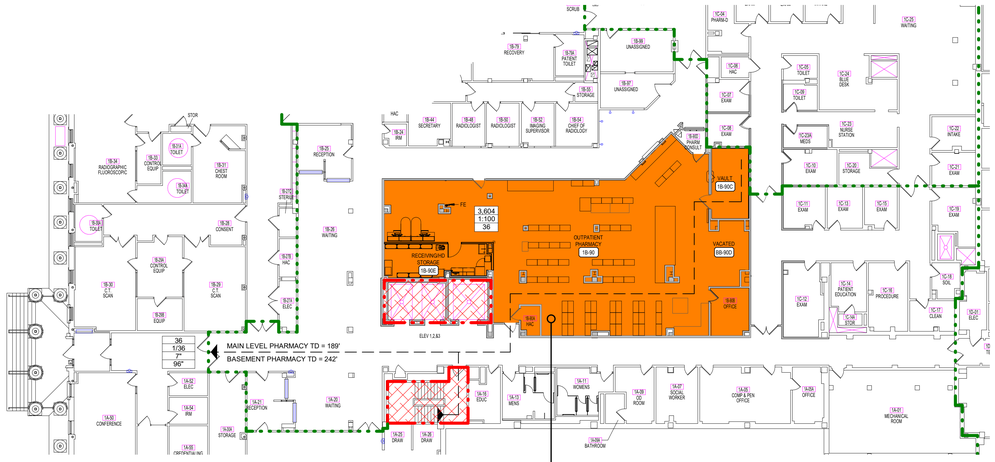
       39.2.6.3
         TRAVEL DISTANCE SHALL NOT EXCEED 300 FT.
         IN BUSINESS OCCUPANCIES PROTECTED THROUGHOUT BY
         AN APPROVED, SUPERVISED AUTOMATIC SPRINKLER SYSTEM...

    19. HEALTHCARE OCCUPANCY (NFPA 101: CH 19)

       19.2.5.2
         EXISTING DEAD END CORRIDORS NOT EXCEEDING 30 FT.
         SHALL BE PERMITTED.

       19.2.6.2.1
         THE TRAVEL DISTANCE BETWEEN ANY POINT IN A ROOM AND
         AN EXIT SHALL NOT EXCEED 150 FT.

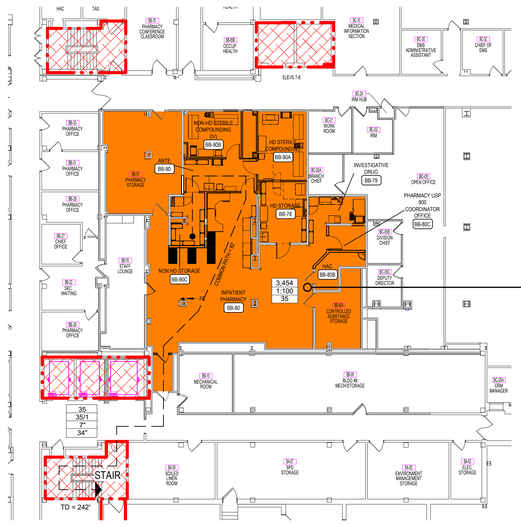
       19. 2.6.2.2
         THE MAXIMUM TRAVEL DISTANCE SPECIFIED IN 19.2.6.2.1 SHALL
         BE PERMITTED TO BE INCREASED BY 50 FT. IN BUILDINGS
         PROTECTED THROUGHOUT BY AN APPROVED, SUPERVISED
         AUTOMATIC SPRINKLER SYSTEM...



NORTH

B3 **1ST LEVEL LIFE SAFETY PLAN**
1/16" = 1'-0"
EXISTING HEALTHCARE OCCUPANCY

PHARMACY = 3,604 SF
OCC. TYPE: HEALTHCARE
TYPE II (222) CONSTRUCTION
TOTAL OCCUPANTS: 36
FULLY SPRINKLERED



PHARMACY = 3,454 SF
OCC. TYPE: BUSINESS
TYPE II (222) CONSTRUCTION
TOTAL OCCUPANTS: 35
FULLY SPRINKLERED

NO SMOKE COMPARTMENTS IN BASEMENT DUE TO BUSINESS OCCUPANCY

NORTH

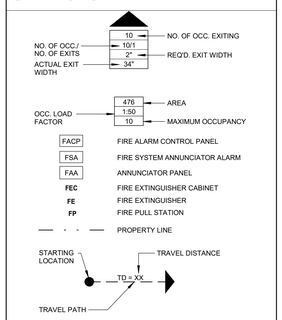
E3 **BASEMENT LIFE SAFETY PLAN**
1/16" = 1'-0"
EXISTING BUSINESS OCCUPANCY

BUILDING & LIFE SAFETY REQUIREMENTS

LEGEND

NEW PARTITION KEY	WALL RATING	DESCRIPTION	NFPA 101-2015	OPENINGS RATING	OPENINGS RFRNC.	DAMPERS TYPE	DAMPERS RFRNC.
	2 HR	**BUILDING SEPARATION:** FIRE BARRIER (FIRE WALL IN IBC)	NFPA 221 8.2.1.3	90 MIN	8.3.4.2 TBL	FIRE 90 MIN	NFPA 90 8.3.5.7 9.2.1
	2 HR	**OCCUPANCY/AREA SEPARATION** FIRE BARRIER	NFPA 6.1.14.4.1 18.1.3.5.1 19.1.3.5.1	90 MIN	8.3.4.2 TBL	FIRE 90 MIN	NFPA 90 8.3.5.7 9.2.1
	2 HR	**HORIZONTAL EXIT (& REFUGE AREA)** FIRE BARRIER	NFPA 7.2.A.3.1 (1) NFPA 18.1.3.8/ 19.1.3.8 18.2.2.5/19.2.25 7.1.3.2.1	90 MIN	NFPA 7.2.1.4.1 7.2.4.3.7 8.3.4 18.2.2.5,3,4,5,6,7 19.2.2.5,3,4	FIRE 90 MIN	NFPA 8.3.5.7 9.2.1 7.2.4.3.5
	2 HR / 1 HR	**VERT. OPG. (EXIT ENCLSR/SHAFT)** FIRE BARRIER (2 HR = 4 OR MORE STORIES) (1 HR = LESS THAN 4 STORIES)	NFPA 19.3.1.1 NFPA 8.6.2 8.6.5	90 MIN / 60 MIN	8.3.4.2 TBL 18.4.4.7.2.2 7.1.3.2.9(9)	NOT ALLOWED UNLESS SERVING STAIR ONLY	N/A
	2 HR / 1 HR	**EXIT PASSAGEWAY (HORIZ.)** FIRE BARRIER	NFPA 7.2.6 19.2.2.7 18.2.2.7	90 MIN / 60 MIN	NFPA 8.3.4.2 TBL	NOT ALLOWED	N/A
	1 HR	**VERT. OPG. (SHAFT)** FIRE BARRIER	NFPA 19.3.1.1 19.2.2.7 8.6.2 8.6.5(3) & 2	60 MIN [D]	NFPA 8.3.4.2 TBL	N/A	8.6.4.5
	1 HR	**HAZ./INCIDENTAL USE** FIRE BARRIER 8.7	NFPA 18.3.2.1.2 NFPA 8.4.1.1 19.3.2.1	45 MIN	NFPA 8.3.4.2 TBL 19.3.2.1.3,5	FIRE 90 MIN	N/A
	NR-RESIST SMK	**HAZ./INCIDENTAL USE** SMOKE PARTITIONS (SPRINKLERED)	NFPA 8.4.2(3) 18.3.2.1.3 19.3.2.1.2	NR SELF OR AUTO CLOSING	8.3.4.2 8.4.3 19.3.2.1.4,3,5	VARIES	8.4.4.1 8.4.6.2
	1 HR / 1/2 HR	**SUBDIVIDING SPACES** SMOKE BARRIER (0-2 OCCUPANCY)	NFPA 8.5.2 18.3.7.3 19.3.7.3	20 MIN / EXIST. SOL. CORE WD.	NFPA 8.3.4.2 TBL 8.5.4 18.3.7.8	SMOKE 90 MIN	8.5.5.2 18.3.7.3(2) 19.3.7.3(2)
	NR	**SUITE SEPARATION** SMOKE PARTITION	NFPA 8.4.2 18.2.5.7.1.4 19.2.5.7.1.1	NR SELF OR AUTO CLOSING	8.4.3	VARIES	8.4.4.1 8.4.6.2
	NR-RESIST SMK	**EXIT ACCESS CORRIDORS (I-2)** SMOKE PARTITIONS (SPRINKLERED)	NFPA 8.4.2 18.3.6.2 19.3.6.2	NR	8.4.3 18.3.6.4.1 19.3.6.4.1	VARIES	8.4.4.1 8.4.6.2 18.3.6.4.1
	NR	**EXIT ACCESS CORRIDORS (B & AHC)** NON-RATED PARTITIONS	21.3.6 39.3.6 8.3	NR	N/A	NONE	N/A

SYMBOLS



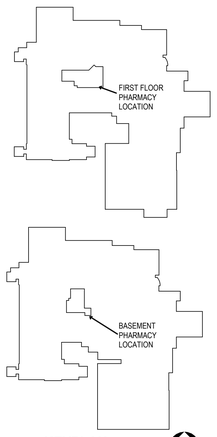
NOTES

[A] DAMPERS ARE NOT REQUIRED IN DUCT PENETRATIONS OF SMOKE BARRIERS WHERE HVAC SYSTEMS ARE FULLY DUCTED (18.3.7.3x2)

[B] AIR TRANSFER OPENINGS IN SMOKE PARTITIONS SHALL HAVE DAMPERS (NFPA 8.2.4.4.3) (IBC 710.7)

[C] SMOKE DAMPERS ARE NOT REQUIRED WHERE OPENINGS IN DUCT ARE LIMITED TO A SINGLE SMOKE COMPARTMENT & DUCTS ARE MADE OF STEEL (IBC 716.5.5)

[D] TRANSFER GRILLES REGARDLESS OF WHETHER THEY ARE PROTECTED ARE NOT ALLOWED IN THESE DOORS OR WALLS (NFPA 18.3.6.4)



KEYPLAN
NTS
NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

9/23/2019 10:29:59 AM

VA FORM 08-6231

CONSULTANTS:

CONTRACTOR:
MDM CONSTRUCTION
MDM Construction
2215 Sheyenne St.
Fargo, ND 58078
Phone: 701-356-3956

ELECTRICAL:
MBN
MBN Engineering
503 7th Street North, Suite 200
Fargo, ND 58102
Phone: 701-478-6336

MECHANICAL:
ONE
Obermiller Nelson Engineering
2201 12th Street North, Suite E
Fargo, ND 58102
Phone: 701-280-0500

Seal
PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

ARCHITECT OF RECORD:
Stone Group Architects
600 East 7th Street
Sioux Falls, SD 57103
Phone: 605-271-1144

STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
LIFE SAFETY PLANS

Elec File Name:
GI-101.dwg

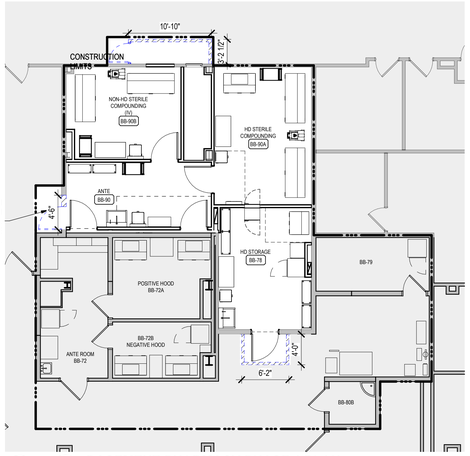
Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date **09/23/2019** | Checked **Checker** | Drawn **Author**

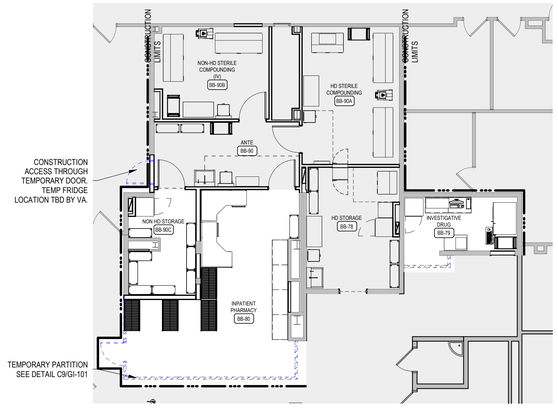
Project Number **VA #437-18-101**
Building Number **9 & 46**
Drawing Number **GI-101**
Drawing # 3 of 31

Veterans Health Administration
Department of Veterans Affairs



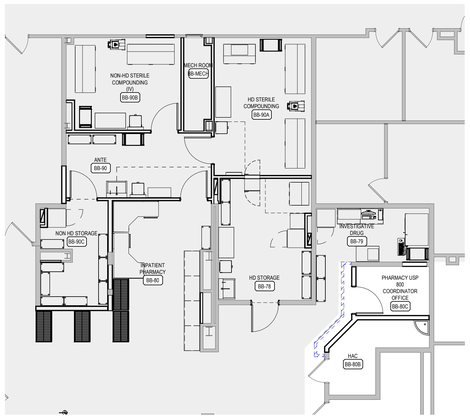
NORTH

B1 BASEMENT PHARMACY PHASE 1 PLAN
1/8" = 1'-0"



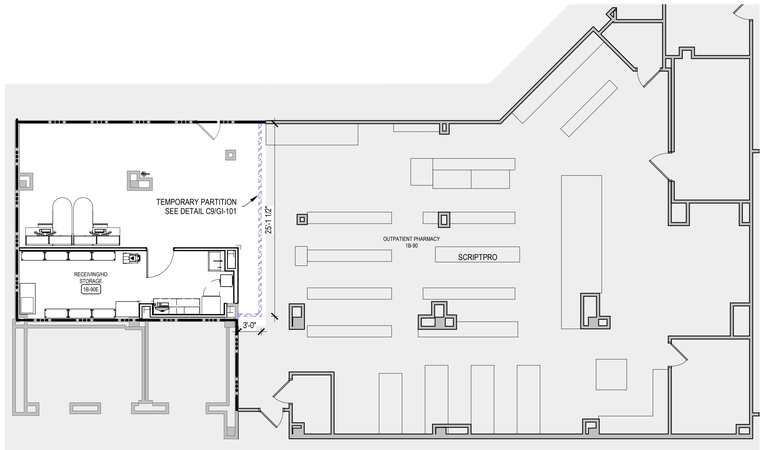
NORTH

D1 BASEMENT PHARMACY PHASE 2 PLAN
1/8" = 1'-0"



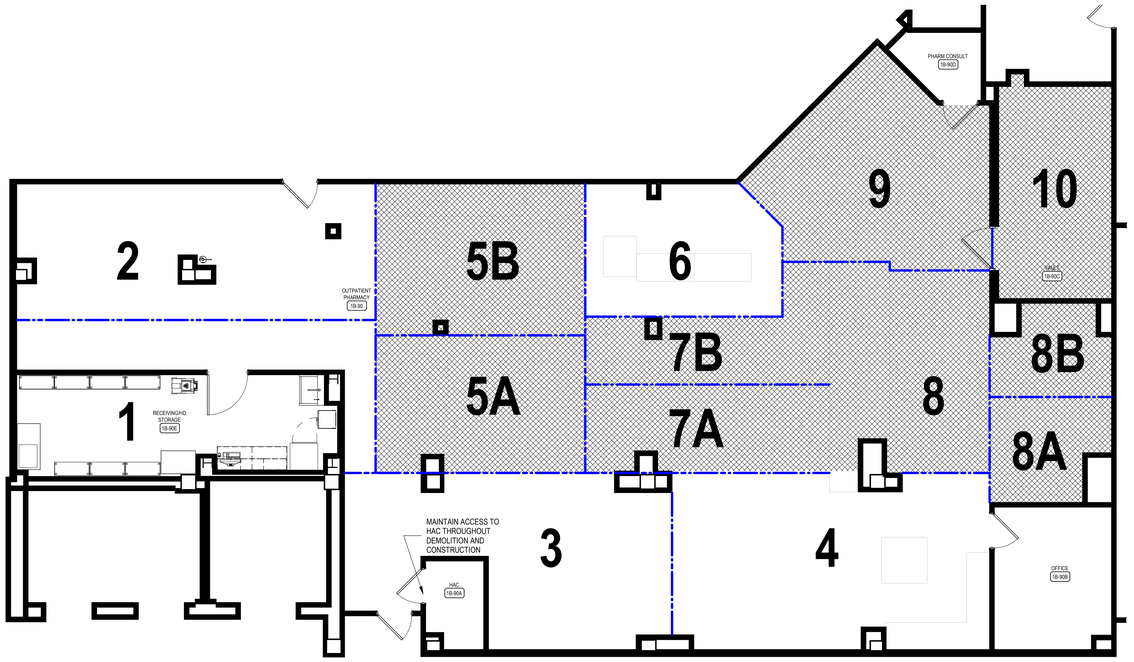
NORTH

F1 BASEMENT PHARMACY PHASE 3 PLAN
1/8" = 1'-0"



NORTH

C4 1ST LEVEL PHASE 1 CONSTRUCTION
1/8" = 1'-0"



NORTH

F4 1ST LEVEL FLOORING PHASES
3/16" = 1'-0"

PHASING GENERAL NOTES

A. PROVIDE TEMPORARY CONSTRUCTION PARTITION BARRIERS FOR INFECTION CONTROL.

B. CONTRACTOR TO COORDINATE WITH OWNER FOR STAGING AREA ON SITE AND MOBILIZATION ACCESS POINTS FOR EACH PHASE.

C. COORDINATE THE TRANSITIONS BETWEEN PHASES WITH THE OWNER TO ALLOW FOR ADEQUATE TIME TO RELOCATE EXISTING EQUIPMENT / FURNITURE.

D. COORDINATE WITH OWNER WHEN A SHUT DOWN OF ANY SYSTEMS WILL OCCUR TO MINIMIZE DISRUPTION OF EXISTING SERVICES.

E. OWNER COORDINATED RISK ASSESSMENT TO OCCUR PRIOR TO CONSTRUCTION COMMENCEMENT AND DURING PHASING TRANSITIONS.

F. WORK FOR EACH PHASE SHALL BE COMPLETED IN NUMERICAL ORDER UNLESS OTHERWISE AGREED TO BY THE VA.

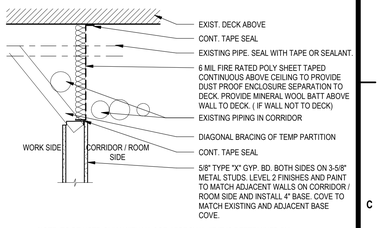
G. EXISTING WALLS WILL SERVE AS CONSTRUCTION BARRIERS IN BASEMENT PHASING.

PHASING PLAN LEGEND

TEMPORARY CONSTRCUTION PARTITION AND DOORS

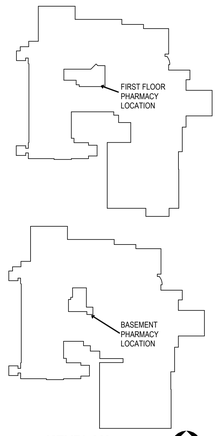
AREA NOT UNDER CONSTRUCTION

AREA NOT UNDER CONSTRUCTION



NOTE: TO BE USED ONLY WITH VA COR APPROVAL (IF IT IS DETERMINED BY VA COR WALL OR PART OF WALL CANNOT BE INSTALLED TO DECK ABOVE.)

C9 TEMPORARY PARTITION EXPOSED NON RATED
1" = 1'-0"



KEYPLAN
NTS

NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

9/23/2019 10:30:12 AM

VA FORM 08-6231

CONSULTANTS:

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Seal
PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

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STONE GROUP ARCHITECTS

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Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
PHASING PLAN

Elec File Name:
GI-102.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date **09/23/2019** | Checked **TRS** | Drawn **DAN**

Project Number **VA #437-18-101**
Building Number **9 & 46**
Drawing Number **GI-102**
Drawing # 4 of 31

Veterans Health Administration
Department of Veterans Affairs

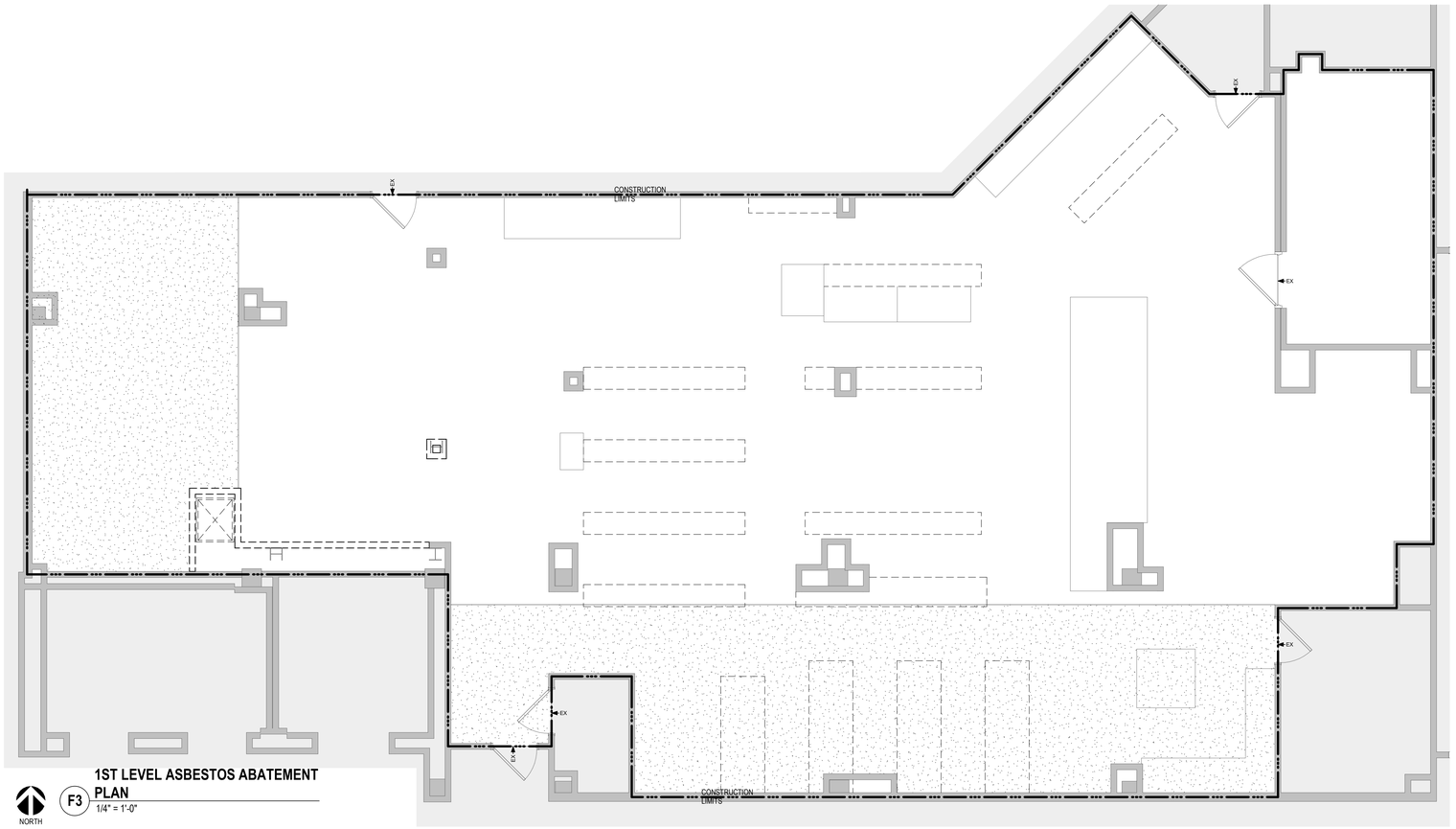
GENERAL ABATEMENT NOTES

A. PROVIDE BARRIERS BETWEEN RENOVATION AREAS AND OCCUPIED AREAS AS REQUIRED.

B. REMOVE ALL MOVEABLE OBJECTS WITHIN SCHEDULED ABATERMENT AREAS PRIOR TO COMMENCEMENT OF ADATEMENT ACTIVITIES.

C. WORK TO BE CONDUCTED IN A MANNER TO ALLOW ACCESS TO HAC 1B-90A DURIG REGULAR BUSINESS HOURS.

D. PRIOR TO CONDUCTING ABATEMENT ACTIVITIES, MECHANICAL CONTRACTOR WILL REMOVE DIFFUSERS AND CAP SUPPLY AND RETURN DUCTS. ABATEMENT CONTRACTOR TO SEAL ANY SEAMS IN HVAC SYSTEM COMPONENTS THAT PASS THROUGH THE REGULATED AREA.



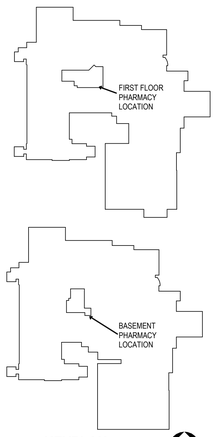
NORTH

1ST LEVEL ASBESTOS ABATEMENT PLAN
F3
1/4" = 1'-0"

SYMBOLS - ASBESTOS ABATEMENT

MASTIC TO BE REMOVED

AREA NOT IN CONTRACT



KEYPLAN
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NORTH

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9/23/2019 10:30:13 AM

VA FORM 08-6231

CONSULTANTS:

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218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
ASBESTOS ABATEMENT PLAN

Elec File Name:
HA-101.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date **09/23/2019** | Checked **Checker** | Drawn **Author**

Project Number **VA #437-18-101**
Building Number **9 & 46**
Drawing Number **HA-101**
Drawing # 5 of 31

Veterans Health Administration
Department of Veterans Affairs

DEMOLITION PLAN LEGEND

- EXISTING ITEMS TO REMAIN
- DEMOLITION ITEMS
- CONSTRUCTION LIMITS
- DEMO ACT CEILING
- EX — EXISTING FLOORING TRANSITION

GENERAL NOTES - DEMOLITION

A. REFER TO MECHANICAL DRAWINGS FOR RELATED DEMOLITION OF MECHANICAL CONSTRUCTION.

B. REFER TO ELECTRICAL DRAWINGS FOR RELATED DEMOLITION OF ELECTRICAL CONSTRUCTION.

C. PATCH TO MATCH SPRAY-ON FIREPROOFING DAMAGED OR REMOVED FROM STRUCTURAL MEMBERS DURING DEMOLITION.

D. PATCH ABANDONED OPENINGS AND PENETRATIONS RELATED TO MECHANICAL AND ELECTRICAL DEMOLITION.

E. PROTECT SURROUNDING ROOMS NOT UNDER CONSTRUCTION FROM DUST AND DEBRIS. THESE ROOMS ARE NOT TO BE USED BY ANY CONTRACTOR FOR ANY PURPOSE.

F. FURNISHINGS OR EQUIPMENT IN AREA OF WORK ARE TO BE REMOVED AND TURNED OVER TO OWNER, UNLESS NOTED OTHERWISE. DISPOSE OF ALL ITEMS NOT WANTED BY OWNER.

G. MAINTAIN ACCESS TO ALL EXITS DURING CONSTRUCTION.

H. WORK TIME RESTRICTIONS:

1. WORK WILL BE SHUT DOWN AS REQUIRED FOR STAFF/PATIENT NEEDS OR NOISE ISSUES.
2. CORRIDORS AND CORRIDOR ACCESS TO ROOMS MUST BE MAINTAINED AT ALL TIMES (EXCEPT POSSIBLY OUTSIDE BUSINESS HOURS WHEN WORK COULD BE COORDINATED AND COMPLETED).
3. WORK MUST BE COORDINATED WITH THE IMMEDIATE REINSTALLATION OF FINISHES SO CORRIDORS DO NOT REMAIN IN AN UNFINISHED STATE.
4. REINSTALL CEILING TILE AT END OF EACH SHIFT WHERE CEILING WORK OCCURS OUTSIDE OF 1-HOUR CONSTRUCTION BARRIERS.

I. MAINTAIN NEGATIVE AIR PRESSURE IN AREAS OF WORK.

J. EXISITNG CONDITIONS ARE BASED ON INFORMATION OBTAINED FROM EXISITNG DRAWINGS AND FIELD SURVEY, AND SHALL NOT BE CONSTRUED "AS BUILT". CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ONSET OF CONSTRUCTION.

K. COORDINATE DEMOLITION WORK WITH PHASING PLANS AND OWNER FOR SCHEDULE OF OCCUPANCY.

L. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL EXISTING EQUIPMENT AND FURNITURE ITEMS THAT ARE TO BE SALVAGED OR REINSTALLED PRIOR TO THE COMMENCEMENT OF DEMOLITION.

M. ALL SURFACES AFFECTED BY DEMOLITION TO BE CLEANED AND PREPARED FOR APPLICATION OF NEW FINISHES OR PATCHED TO MATCH EXISITNG.

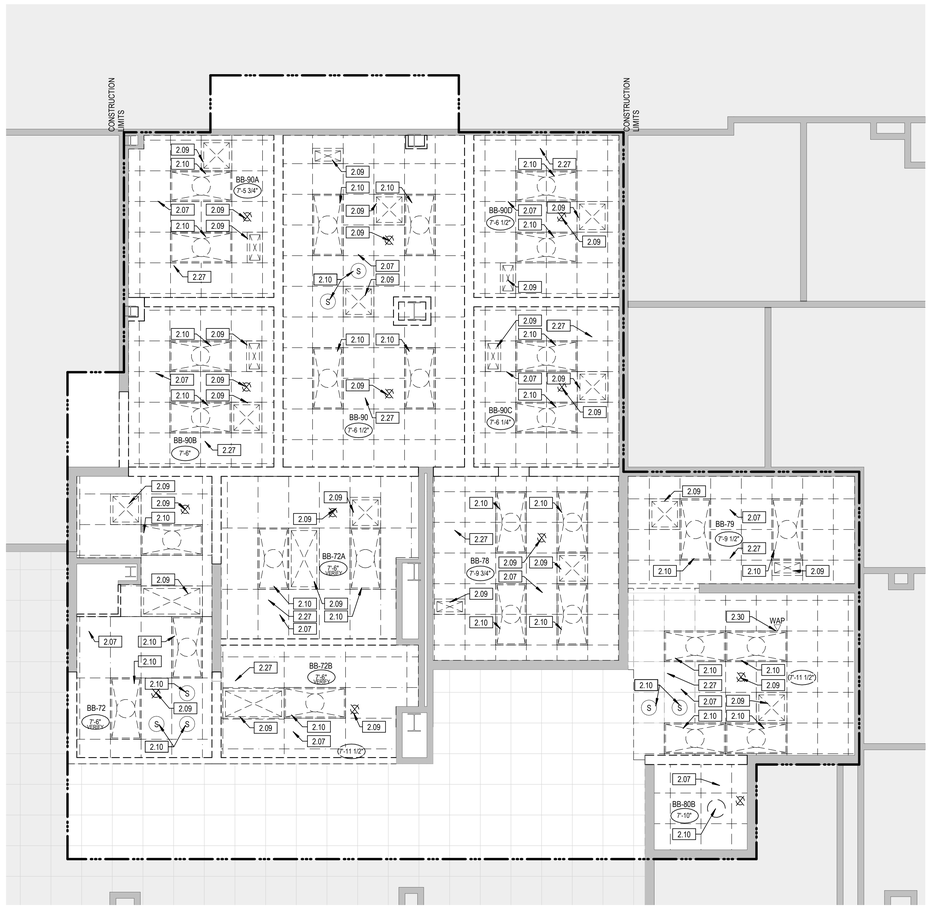
N. REMOVE ALL FLOORING FINISHES AND BASE. PREPARE SLAB AND EXISTING WALLS TO REMAIN TO RECIEVE NEW FINISHES.

O. CONTRACTOR BUILDING ACCESS DURING EACH PHASE IS TO BE COORINDATED WITH FARGO VA COR.

ROOM FINISH DEMOLITION SCHEDULE - BASEMENT

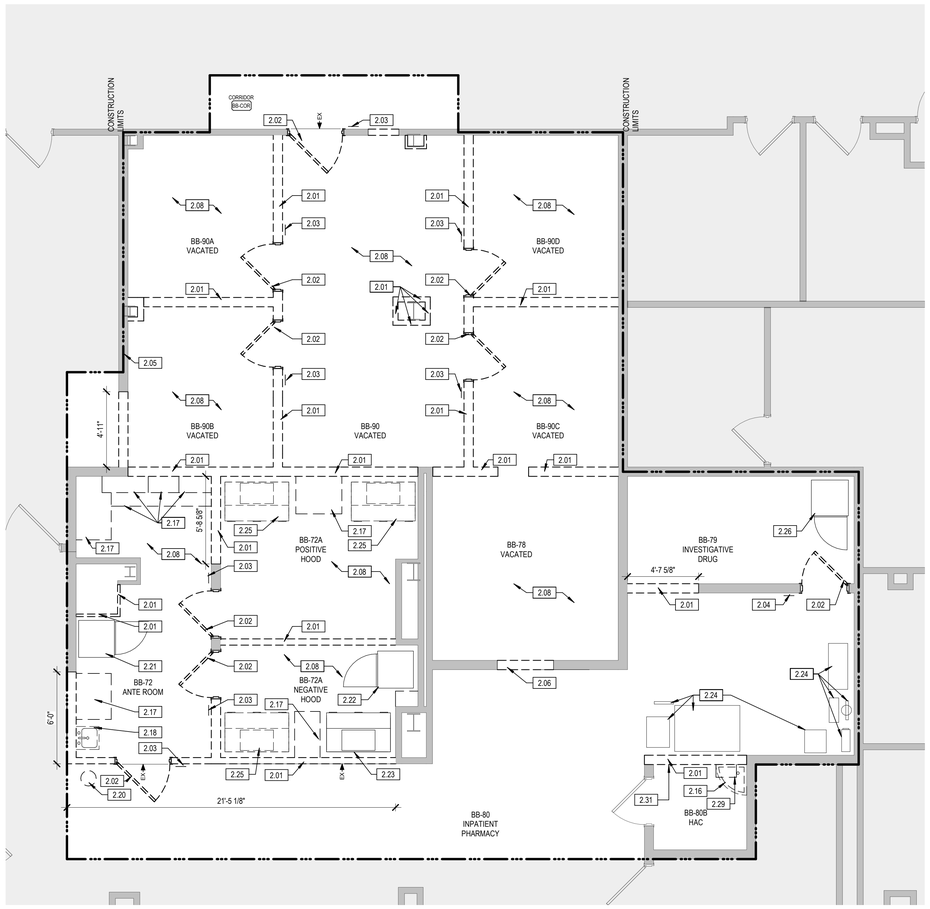
ROOM NUMBER	ROOM NAME	FLOOR	ACTION CODE	BASE	ACTION CODE	WALL	ACTION CODE	CEILING	ACTION CODE
BB-72	ANTE ROOM	SV	2	SV	2	GWB	1	ACT	2
BB-72A	POSITIVE HOOD	SV	2	SV	2	GWB	1	ACT	2
BB-72B	NEGATIVE HOOD	SV	2	SV	2	GWB	1	ACT	2
BB-75	PHARMACY STORAGE	VCT	1	VB	1	GWB	1	ACT	1
BB-79	INVESTIGATIVE DRUG	VCT	1	VB	1	GWB	1	ACT	1
BB-80	INPATIENT PHARMACY	VCT	1	VB	1	GWB	1	ACT	1
BB-80B	HAC	PT	1	PT	1	GWB/CT	1	ACT	2
BB-90	VACATED	CPT	2	VIN	2	GWB	1	ACT	2
BB-90A	VACATED	CPT	2	VIN	2	GWB	1	ACT	2
BB-90B	VACATED	CPT	2	VIN	2	GWB	1	ACT	2
BB-90C	VACATED	CPT	2	VIN	2	GWB	1	ACT	2
BB-90D	VACATED	CPT	2	VIN	2	GWB	1	ACT	2
BB-COR	CORRIDOR	VCT	1	VIN	1	VWC	1	ACT	1

ACTION CODE:
1. EXISTING FINISH REMAINS - PATCH TO MATCH WHERE DAMAGED BY DEMOLITION OR AS REQUIRED TO RECEIVE NEW FINISH (SEE ROOM FINISH SCHEDULE).
2. REMOVE EXISTING FINISH.



NORTH

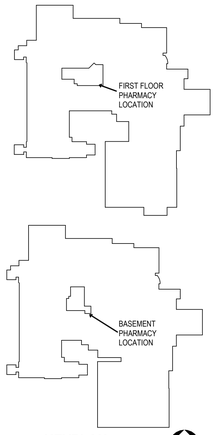
F1 BASEMENT PHARMACY DEMOLITION RCP
1/4" = 1'-0"



NORTH

F5 BASEMENT DEMOLITION FLOOR PLAN
1/4" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
2.01	REMOVE EXISTING WALL IN ITS ENTIRETY.
2.02	REMOVE EXISTING DOOR AND FRAME.
2.03	REMOVE SIGN; TURN OVER TO OWNER OR DISPOSE OF IF REQUESTED.
2.04	REMOVE SIGN; REVISE TEXT AND SALVAGE FOR REINSTALLATION. SEE SHEET AE-103.
2.05	REMOVE WALL TO ACCOMODATE CONSTRUCTION ACCESS.
2.06	REMOVE WALL TO ACCOMODATE DOOR INSTALLATION.
2.07	REMOVE ACT SYSTEM IN ITS ENTIRETY.
2.08	REMOVE FLOORING AND BASE IN ITS ENTIRETY.
2.09	REMOVE MECH. ELEMENT. COORDINATE W/ MECH.
2.10	REMOVE ELEC. ELEMENT. COORDINATE W/ ELEC.
2.16	REMOVE EXISTING SINK. COORDINATE W/ MECH.
2.17	REMOVE EXISTING SHELVING/MILLWORK IN ITS ENTIRETY.
2.18	REMOVE PLMB. ELEMENT. COORDINATE W/ MECH.
2.20	REMOVE EYEWASH. COORDINATE W/ MECH.
2.21	RELOCATE FRIDGE TO BB-90C. TEMP LOCATION DURING PHASE 2 TBD BY VA.
2.22	RELOCATE FRIDGE TO BB-78 TO COMPLETE PHASE 1.
2.23	RELOCATE CACI TO BB-90 TO COMPLETE PHASE 1.
2.24	RELOCATE FAST PAK/SARGENT EQUIP. TO BB-79 TO COMPLETE PHASE 2. COORDINATE TEMPORARY LOCATION FOR PHASE 2 CONSTRUCTION W/ VA.
2.25	REMOVE EQUIPMENT.
2.26	COORDINATE TEMPORARY LOCATION FOR PHASE 2 CONSTRUCTION W/ VA. REINSTALL FRIDGE IN BB-79 TO COMPLETE PHASE 2.
2.27	SEE ELECTRICAL FOR ADDITIONAL DEMOLITION COMPONENTS INCLUDING FIRE ALARM, SPEAKERS, I.T., ETC.
2.29	REMOVE ECOLAB DISPENSING SYSTEM. RETAIN FOR REINSTALLATION OVER NEW MOP SINK.
2.30	REMOVE WAP. COORDINATE W/ ELEC.
2.31	REMOVE ALL RELOCATE ALL EXISTING WALL HUNG ELECTRICAL EQUIPMENT. COORDINATE W/ ELEC.



KEYPLAN
NTS

NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

9/23/2019 10:29:21 AM

VA FORM 08-6231

CONSULTANTS:

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Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
BASEMENT DEMOLITION PLANS

Elec File Name:
AD-101.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

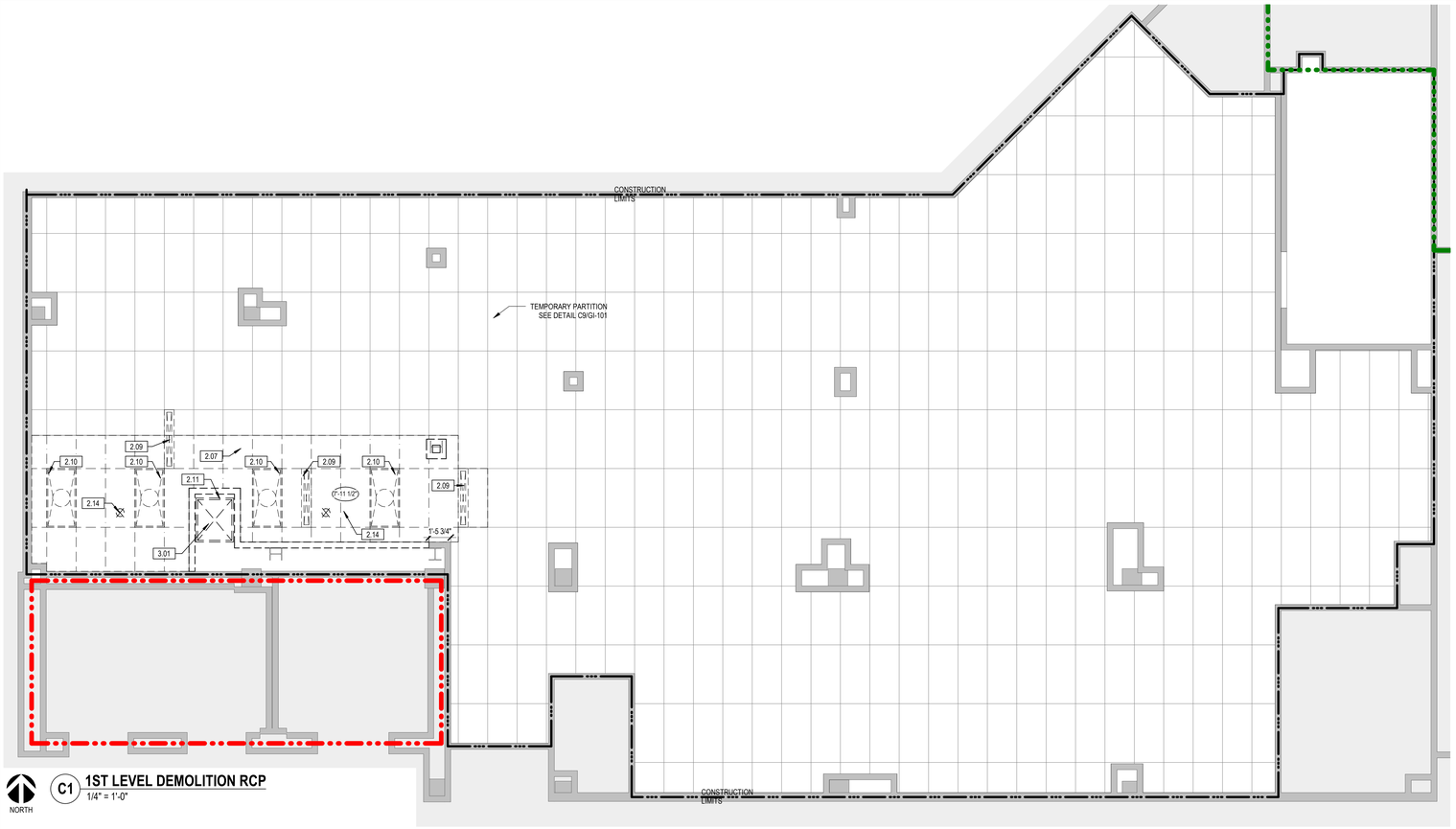
Location
FARGO, NORTH DAKOTA

Date: 09/23/2019
Checked: TRS
Drawn: DAN

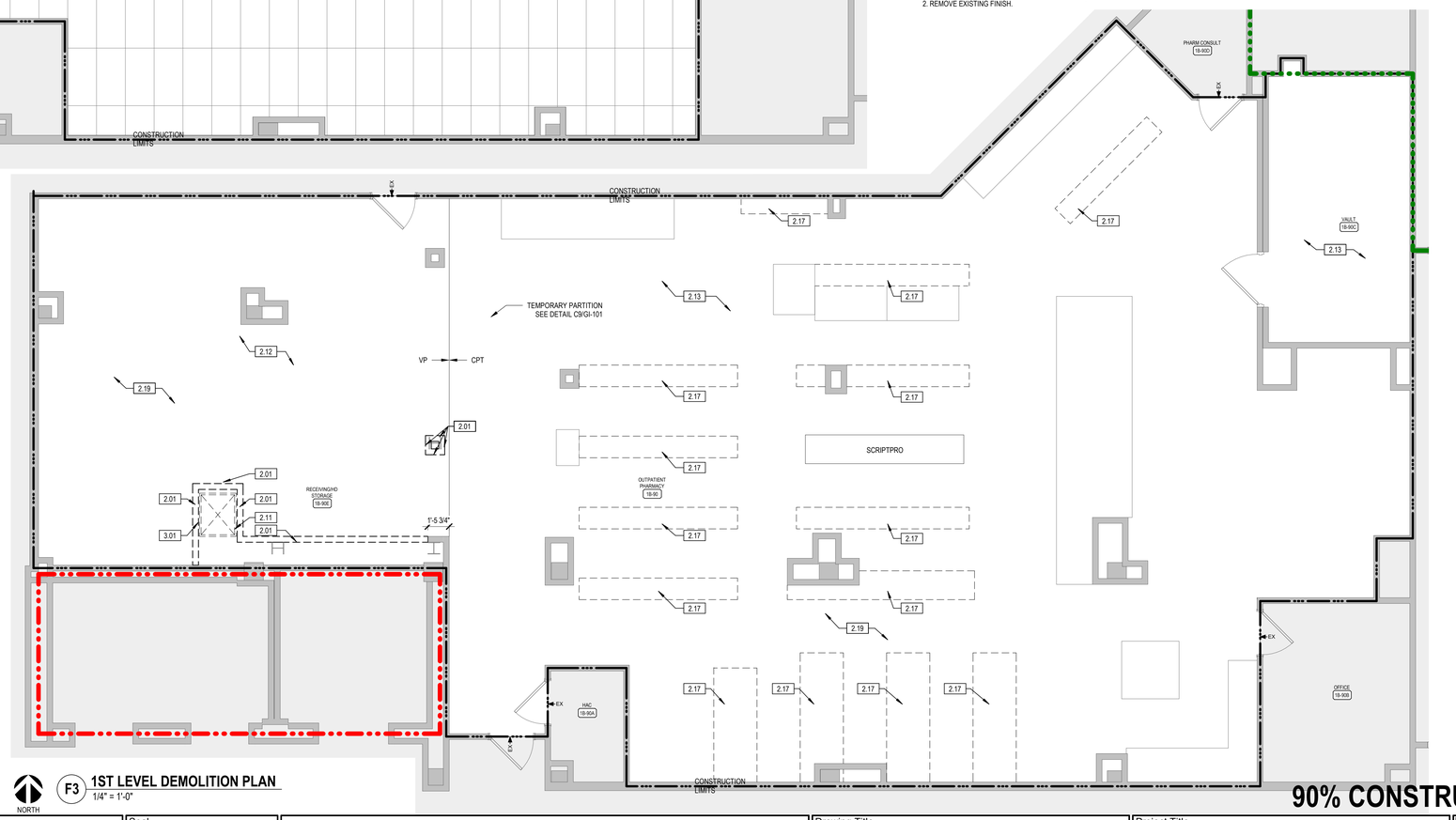
Project Number: VA #437-18-101
Building Number: 9 & 46
Drawing Number: **AD-101**
Drawing # 6 of 31

Veterans Health Administration

Department of Veterans Affairs



C1 **1ST LEVEL DEMOLITION RCP**
1/4" = 1'-0"



F3 **1ST LEVEL DEMOLITION PLAN**
1/4" = 1'-0"

GENERAL NOTES - DEMOLITION

A. REFER TO MECHANICAL DRAWINGS FOR RELATED DEMOLITION OF MECHANICAL CONSTRUCTION.

B. REFER TO ELECTRICAL DRAWINGS FOR RELATED DEMOLITION OF ELECTRICAL CONSTRUCTION.

C. PATCH TO MATCH SPRAY-ON FIREPROOFING DAMAGED OR REMOVED FROM STRUCTURAL MEMBERS DURING DEMOLITION.

D. PATCH ABANDONED OPENINGS AND PENETRATIONS RELATED TO MECHANICAL AND ELECTRICAL DEMOLITION.

E. PROTECT SURROUNDING ROOMS NOT UNDER CONSTRUCTION FROM DUST AND DEBRIS. THESE ROOMS ARE NOT TO BE USED BY ANY CONTRACTOR FOR ANY PURPOSE.

F. FURNISHINGS OR EQUIPMENT IN AREA OF WORK ARE TO BE REMOVED AND TURNED OVER TO OWNER, UNLESS NOTED OTHERWISE. DISPOSE OF ALL ITEMS NOT WANTED BY OWNER.

G. MAINTAIN ACCESS TO ALL EXITS DURING CONSTRUCTION.

H. WORK TIME RESTRICTIONS:

1. WORK WILL BE SHUT DOWN AS REQUIRED FOR STAFF/PATIENT NEEDS OR NOISE ISSUES.
2. CORRIDORS AND CORRIDOR ACCESS TO ROOMS MUST BE MAINTAINED AT ALL TIMES (EXCEPT POSSIBLY OUTSIDE BUSINESS HOURS WHEN WORK COULD BE COORDINATED AND COMPLETED).
3. WORK MUST BE COORDINATED WITH THE IMMEDIATE REINSTALLATION OF FINISHES SO CORRIDORS DO NOT REMAIN IN AN UNFINISHED STATE.
4. REINSTALL CEILING TILE AT END OF EACH SHIFT WHERE CEILING WORK OCCURS OUTSIDE OF 1-HOUR CONSTRUCTION BARRIERS.

I. MAINTAIN NEGATIVE AIR PRESSURE IN AREAS OF WORK.

J. EXISITNG CONDITIONS ARE BASED ON INFORMATION OBTAINED FROM EXISITNG DRAWINGS AND FIELD SURVEY, AND SHALL NOT BE CONSTRUED "AS BUILT". CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ONSET OF CONSTRUCTION.

K. COORDINATE DEMOLITION WORK WITH PHASING PLANS AND OWNER FOR SCHEDULE OF OCCUPANCY.

L. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL EXISTING EQUIPMENT AND FURNITURE ITEMS THAT ARE TO BE SALVAGED OR REINSTALLED PRIOR TO THE COMMENCEMENT OF DEMOLITION.

M. ALL SURFACES AFFECTED BY DEMOLITION TO BE CLEANED AND PREPARED FOR APPLICATION OF NEW FINISHES OR PATCHED TO MATCH EXISITNG.

N. REMOVE ALL FLOORING FINISHES AND BASE. PREPARE SLAB AND EXISTING WALLS TO REMAIN TO RECIEVE NEW FINISHES.

O. CONTRACTOR BUILDING ACCESS DURING EACH PHASE IS TO BE COORINDATED WITH FARGO VA COR.

ROOM FINISH DEMOLITION SCHEDULE - FIRST FLOOR

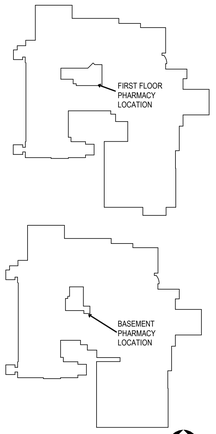
ROOM NUMBER	ROOM NAME	FLOOR DEMO	ACTION CODE	BASE DEMO	ACTION CODE	WALL DEMO	ACTION CODE	CEILING DEMO	ACTION CODE	REMARKS
1B-90	OUTPATIENT PHARMACY	VP/CPT	2	VIN	2	GWB	1	ACT	1,2	ASBESTOS ABATEMENT REQUIRED IN VP AREA.
1B-90C	VAULT	VCT	2	VIN	2	GWB	1	ACT	1	

ACTION CODE:
1. EXISTING FINISH REMAINS - PATCH TO MATCH WHERE DAMAGED BY DEMOLITION OR AS REQUIRED TO RECEIVE NEW FINISH (SEE ROOM FINISH SCHEDULE).
2. REMOVE EXISTING FINISH.

KEYNOTE LEGEND	
Key Value	Keynote Text
2.01	REMOVE EXISTING WALL IN ITS ENTIRETY.
2.07	REMOVE ACT SYSTEM IN ITS ENTIRETY.
2.09	REMOVE MECH. ELEMENT. COORDINATE W/ MECH.
2.10	REMOVE ELEC. ELEMENT. COORDINATE W/ ELEC.
2.11	REMOVE DUMBWAITER.
2.12	REMOVE VINYL PLANK AND VINYL BASE. ABATE ASBESTOS.
2.13	REMOVE EXISTING CARPET AND VINYL BASE.
2.14	REMOVE EXISTING SPRINKLER. COORDINATE W/ MECH.
2.17	REMOVE EXISTING SHELVING/MILLWORK IN ITS ENTIRETY.
2.19	POSSIBLE ASBESTOS ABATEMENT. SEE HA-101.
3.01	INFILL DUMBWAITER IN FIRST FLOOR AND FLOOR ABOVE. SEE C7/AE-501.

DEMOLITION PLAN LEGEND

- EXISTING ITEMS TO REMAIN
- DEMOLITION ITEMS
- CONSTRUCTION LIMITS
- DEMO ACT CEILING
- EXISTING FLOORING TRANSITION



KEYPLAN
NTS
NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

9/23/2019 10:29:23 AM

VA FORM 08-6231

CONSULTANTS:

CONTRACTOR:
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STONE GROUP ARCHITECTS

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IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
FIRST FLOOR DEMOLITION PLANS

Elec File Name:
AD-102.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date **09/23/2019** | Checked **TRS** | Drawn **DAN**

Project Number **VA #437-18-101**
Building Number **9 & 46**
Drawing Number **AD-102**
Drawing # 7 of 31

Veterans Health Administration
Department of Veterans Affairs

REFLECTED CEILING LEGEND

PATTERN	DESCRIPTION
	HATCH INDICATES 2' X 4' SUSPENDED GRID AND ACOUSTICAL CEILING TILE
	HATCH INDICATES 2' X 2' SUSPENDED GRID AND ACOUSTICAL CEILING TILE
	HATCH INDICATES GYPSUM BOARD WITH SMOOTH FINISH AND PAINT

GENERAL NOTES - REMODEL

A. REFER TO MECHANICAL DRAWINGS FOR RELATED MECHANICAL CONSTRUCTION.

B. REFER TO ELECTRICAL DRAWINGS FOR RELATED OF ELECTRICAL CONSTRUCTION.

C. PATCH TO MATCH SPRAY-ON FIREPROOFING DAMAGED OR REMOVED FROM STRUCTURAL MEMBERS DURING REMODELING.

D. PATCH EXISTING FINISHES DAMAGED DURING MECHANICAL AND ELECTRICAL REMODELING.

E. PROTECT SURROUNDING ROOMS NOT UNDER CONSTRUCTION FROM DUST AND DEBRIS. THESE ROOMS ARE NOT TO BE USED BY ANY CONTRACTOR FOR ANY PURPOSE.

F. FURNISHINGS OR EQUIPMENT IN AREA OF WORK ARE TO BE REMOVED AND TURNED OVER TO OWNER, UNLESS NOTED OTHERWISE. DISPOSE OF ALL ITEMS NOT WANTED BY OWNER.

G. MAINTAIN ACCESS TO ALL EXITS DURING CONSTRUCTION.

H. WORK TIME RESTRICTIONS:

1. WORK WILL BE SHUT DOWN AS REQUIRED FOR STAFF/PATIENT NEEDS OR NOISE ISSUES.
2. CORRIDORS TO REMAIN OPEN AT ALL TIMES, SHOULD BE SCHEDULED AFTER BUSINESS HOURS/ON WEEKENDS AND SHOULD BE SUBDIVIDED TO MAINTAIN CIRCULATION.
3. CORRIDOR ACCESS TO ROOMS MUST BE MAINTAINED AT ALL TIMES (EXCEPT POSSIBLY OUTSIDE BUSINESS HOURS WHEN WORK COULD BE COORDINATED AND COMPLETED).
4. WORK MUST BE COORDINATED WITH THE IMMEDIATE REINSTALLATION OF FINISHES SO CORRIDORS DO NOT REMAIN IN AN UNFINISHED STATE.
5. REINSTALL CEILING TILE AT END OF EACH SHIFT WHERE CEILING WORK OCCURS OUTSIDE OF 1-HOUR CONSTRUCTION BARRIERS.

I. MAINTAIN NEGATIVE AIR PRESSURE IN AREAS OF WORK.

J. ANY DISCREPANCIES FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS AND THE OWNER BEFORE PROCEEDING WITH ALL THE WORK.

K. ALL ITEMS INSTALLED IN CEILINGS ARE TO BE CENTERED AND /OR SYMMETRICAL ON THE CENTERLINE OF ROOMS AND CENTERED IN TILES.

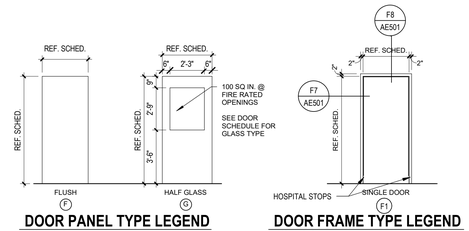
L. INSTALL ALL WALL MOUNTED EXIT SIGNS AND OTHER FIXTURES CENTERED ABOVE OPENINGS WHERE POSSIBLE.

M. REFLECTED CEILING PLANS SHOW LOCATIONS OF ITEMS THAT ARE ARCHITECTURALLY SIGNIFICANT ONLY. MECHANICAL AND ELECTRICAL ITEMS INDICATED ARE FOR REFERENCE ONLY. REFER TO MECHANICAL AND ELECTRICAL DOCUMENTS.

N. SUSPENDED CEILING TO BE CENTERED WITH THE BALANCE GRID DESIGN WITH EDGE UNITS NO LESS THAN 50% OF THE TILE SIZE.

O. ALL BULKHEAD HORIZONTAL AND VERTICAL FACES TO BE PAINTED PT-2, UNLESS NOTED OTHERWISE.

P. ADDITIONAL EQUIPMENT INFORMATION ON FFE PLANS.

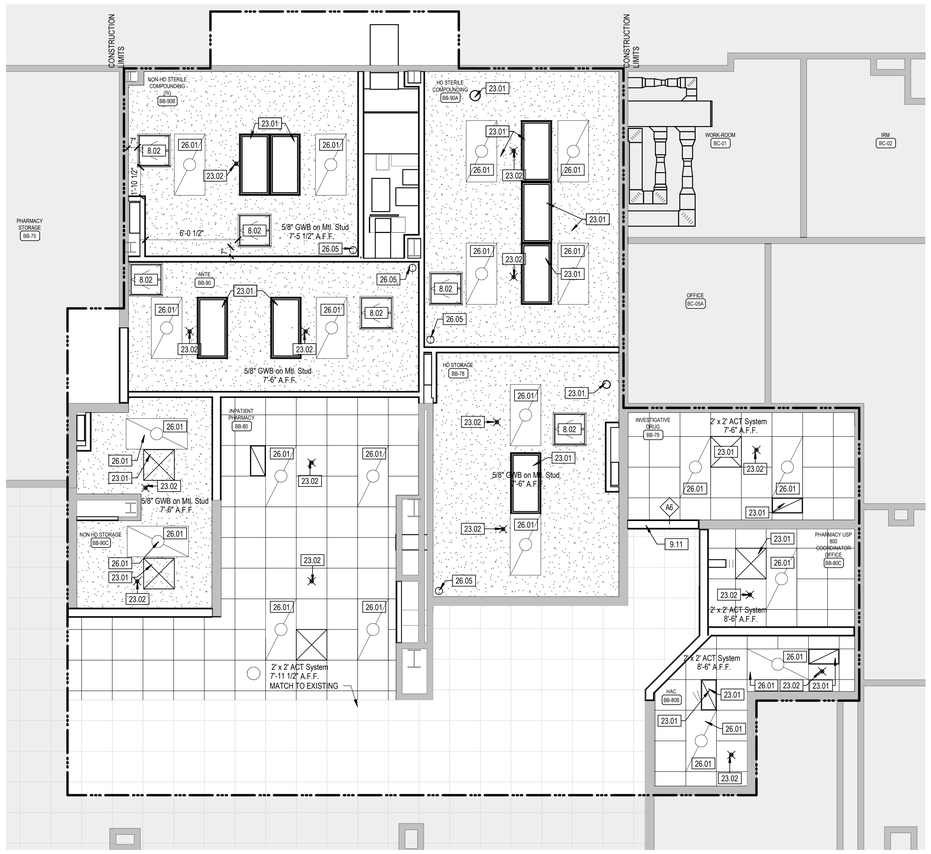


DOOR PANEL TYPE LEGEND 1/4" = 1'-0"

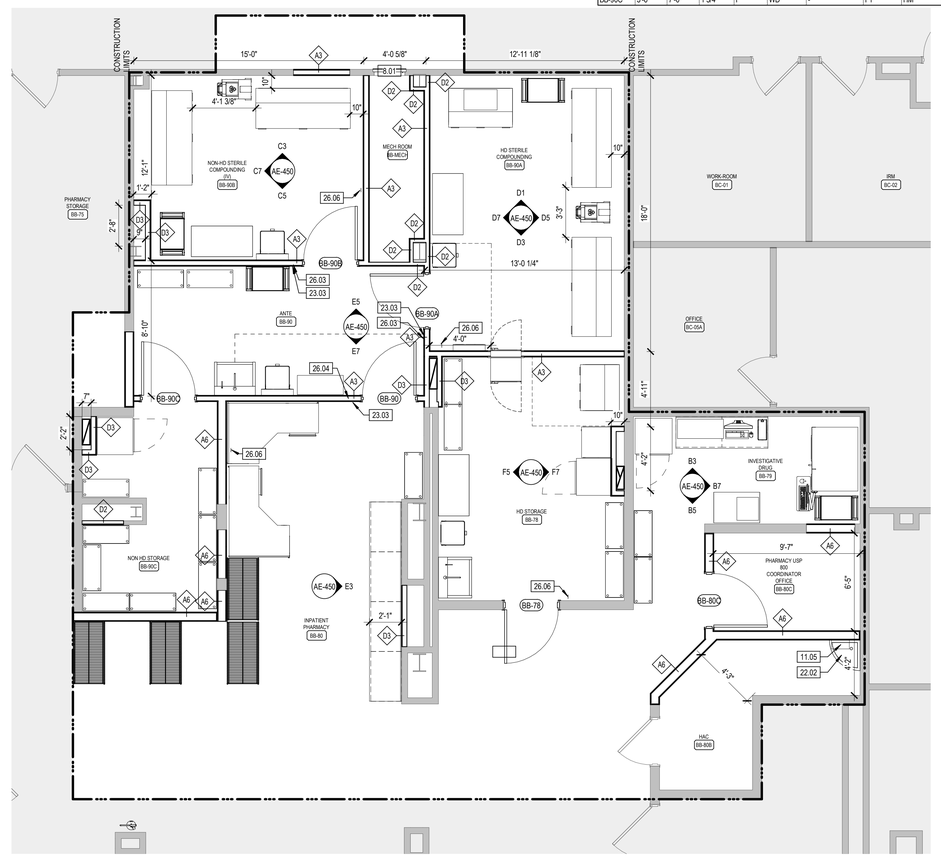
DOOR FRAME TYPE LEGEND 1/4" = 1'-0"

DOOR SCHEDULE

	DOOR						FRAME			
DOOR #	WIDTH	HEIGHT	THICK	TYPE	MATERIAL	GLAZING	TYPE	MATERIAL	RATING	HDWR
1B-90E	3'-6"	7'-0"	1 3/4"	G	WD	1/4" TEMPERED	F1	HM	-	3
BB-78	3'-6"	7'-0"	1 3/4"	G	WD	1/4" TEMPERED	F1	HM	-	3
BB-80C	3'-6"	7'-0"	1 3/4"	F	WD	-	F1	HM	-	2
BB-90	3'-6"	7'-0"	1 3/4"	G	WD	1/4" TEMPERED	F1	HM	-	2
BB-90A	3'-6"	7'-0"	1 3/4"	G	WD	1/4" TEMPERED	F1	HM	-	1
BB-90B	3'-6"	7'-0"	1 3/4"	G	WD	1/4" TEMPERED	F1	HM	-	1
BB-90C	3'-6"	7'-0"	1 3/4"	F	WD	-	F1	HM	-	2

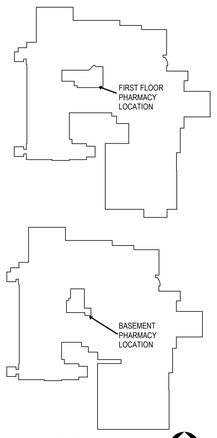


NORTH **F1 BASEMENT PHARMACY RCP** 1/4" = 1'-0"



NORTH **F5 BASEMENT PHARMACY FLOOR PLAN** 1/4" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
8.01	24" X 36" ACCESS PANEL. INSTALLED 2' AFF.
8.02	24" X 24" AIR TIGHT ACCESS PANEL.
9.11	BULKHEAD TO 2" BELOW LOWEST ADJACENT CEILING.
11.05	REINSTALL ECOLAB DISPENSING SYSTEM.
22.02	MOP SINK.
23.01	MECHANICAL EQUIPMENT. SEE MECH.
23.02	SPRINKLER. COORDINATE W/ FIRE PROTEECTION.
23.03	DIGITAL PRESSURE DISPLAYS ABOVE DESK. COORDINATE W/ MECH.
26.01	LIGHT FIXTURE. SEE ELEC.
26.03	TAP PLATES. COORDINATE W/ ELEC.
26.04	WIRELESS PANIC BUTTON. COORDINATE PLACEMENT W/ VA SECURITY.
26.05	CAMERA. COORDINATE W/ ELEC.
26.06	INTERCOM. COORDINATE W/ ELEC.



KEYPLAN NTS NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

9/23/2019 10:29:33 AM

VA FORM 08-6231

CONSULTANTS:

CONTRACTOR: MDM Construction — 2215 Sheyenne St. Fargo, ND 58078 Phone: 701-356-3956

ELECTRICAL: MBN Engineering — 503 7th Street North, Suite 200 Fargo, ND 58102 Phone: 701-478-6336

MECHANICAL: Obermiller Nelson Engineering — 2201 12th Street North, Suite E Fargo, ND 58102 Phone: 701-280-0500

Seal: PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

ARCHITECT OF RECORD: Stone Group Architects, 600 East 7th Street, Sioux Falls, SD 57103, Phone: 605-271-1144

Image Group Architecture & Interiors, 403 Center Avenue, Suite 300, Moorhead, MN 56560, 218-233-2062

Drawing Title: **BASEMENT PLANS & DOOR SCHEDULE**

Elec File Name: AE-101.dwg

Project Title: **RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO**

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: TRS | Drawn: DAN

Project Number: VA #437-18-101

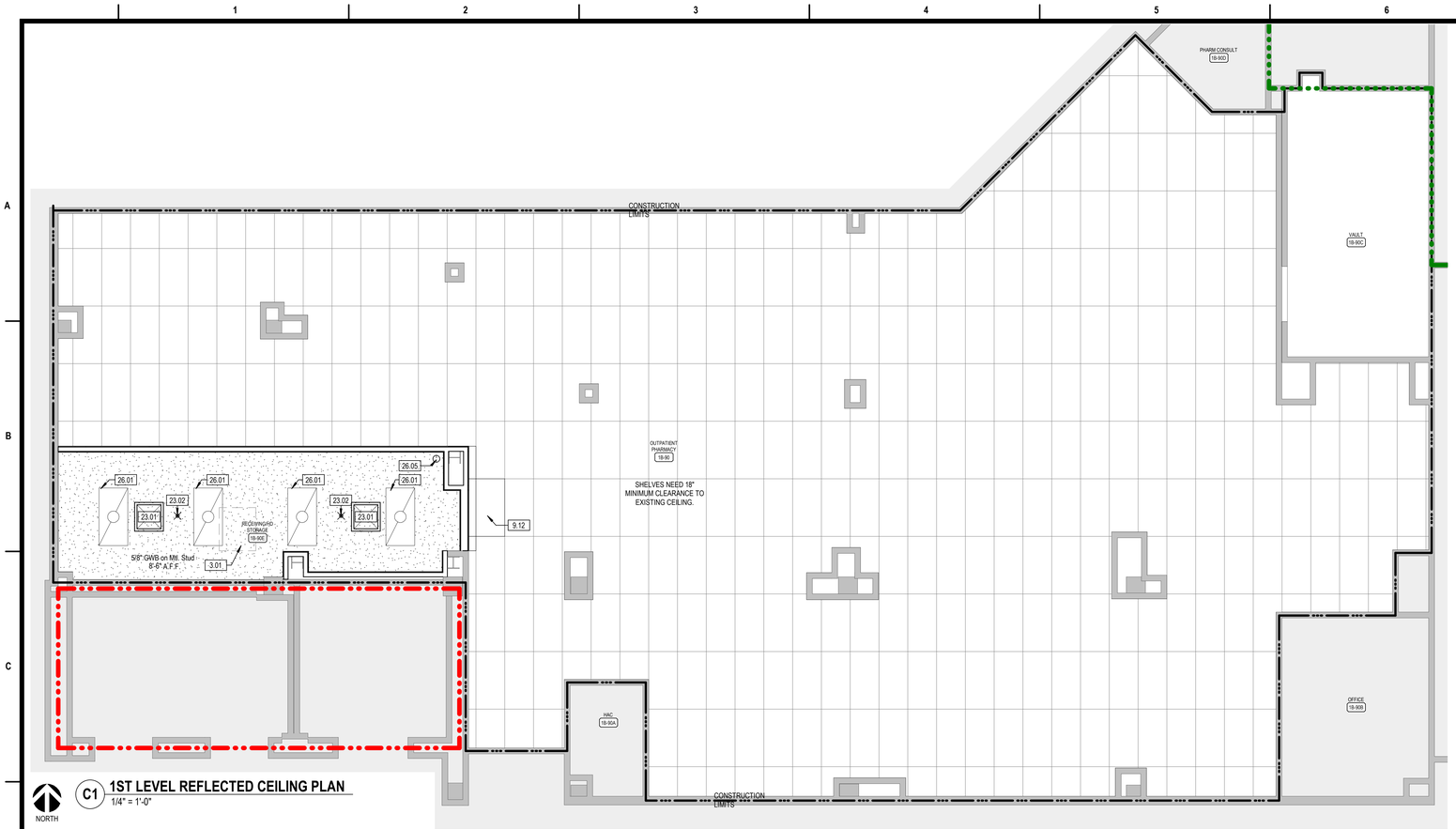
Building Number: 9 & 46

Drawing Number: **AE-101**

Drawing # 8 of 31

Veterans Health Administration

Department of Veterans Affairs



NORTH

C1 1ST LEVEL REFLECTED CEILING PLAN
1/4" = 1'-0"

REFLECTED CEILING LEGEND

PATTERN	DESCRIPTION
	HATCH INDICATES 2' X 4' SUSPENDED GRID AND ACOUSTICAL CEILING TILE
	HATCH INDICATES 2' X 2' SUSPENDED GRID AND ACOUSTICAL CEILING TILE
	HATCH INDICATES GYPSUM BOARD WITH SMOOTH FINISH AND PAINT

GENERAL NOTES - REMODEL

A. REFER TO MECHANICAL DRAWINGS FOR RELATED MECHANICAL CONSTRUCTION.

B. REFER TO ELECTRICAL DRAWINGS FOR RELATED OF ELECTRICAL CONSTRUCTION.

C. PATCH TO MATCH SPRAY-ON FIREPROOFING DAMAGED OR REMOVED FROM STRUCTURAL MEMBERS DURING REMODELING.

D. PATCH EXISTING FINISHES DAMAGED DURING MECHANICAL AND ELECTRICAL REMODELING.

E. PROTECT SURROUNDING ROOMS NOT UNDER CONSTRUCTION FROM DUST AND DEBRIS. THESE ROOMS ARE NOT TO BE USED BY ANY CONTRACTOR FOR ANY PURPOSE.

F. FURNISHINGS OR EQUIPMENT IN AREA OF WORK ARE TO BE REMOVED AND TURNED OVER TO OWNER, UNLESS NOTED OTHERWISE. DISPOSE OF ALL ITEMS NOT WANTED BY OWNER.

G. MAINTAIN ACCESS TO ALL EXITS DURING CONSTRUCTION.

H. WORK TIME RESTRICTIONS:

1. WORK WILL BE SHUT DOWN AS REQUIRED FOR STAFF/PATIENT NEEDS OR NOISE ISSUES.
2. CORRIDORS TO REMAIN OPEN AT ALL TIMES, SHOULD BE SCHEDULED AFTER BUSINESS HOURS/ON WEEKENDS AND SHOULD BE SUBDIVIDED TO MAINTAIN CIRCULATION.
3. CORRIDOR ACCESS TO ROOMS MUST BE MAINTAINED AT ALL TIMES (EXCEPT POSSIBLY OUTSIDE BUSINESS HOURS WHEN WORK COULD BE COORDINATED AND COMPLETED).
4. WORK MUST BE COORDINATED WITH THE IMMEDIATE REINSTALLATION OF FINISHES SO CORRIDORS DO NOT REMAIN IN AN UNFINISHED STATE.
5. REINSTALL CEILING TILE AT END OF EACH SHIFT WHERE CEILING WORK OCCURS OUTSIDE OF 1-HOUR CONSTRUCTION BARRIERS.

I. MAINTAIN NEGATIVE AIR PRESSURE IN AREAS OF WORK.

J. ANY DISCREPANCIES FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS AND THE OWNER BEFORE PROCEEDING WITH ALL THE WORK.

K. ALL ITEMS INSTALLED IN CEILINGS ARE TO BE CENTERED AND /OR SYMMETRICAL ON THE CENTERLINE OF ROOMS AND CENTERED IN TILES.

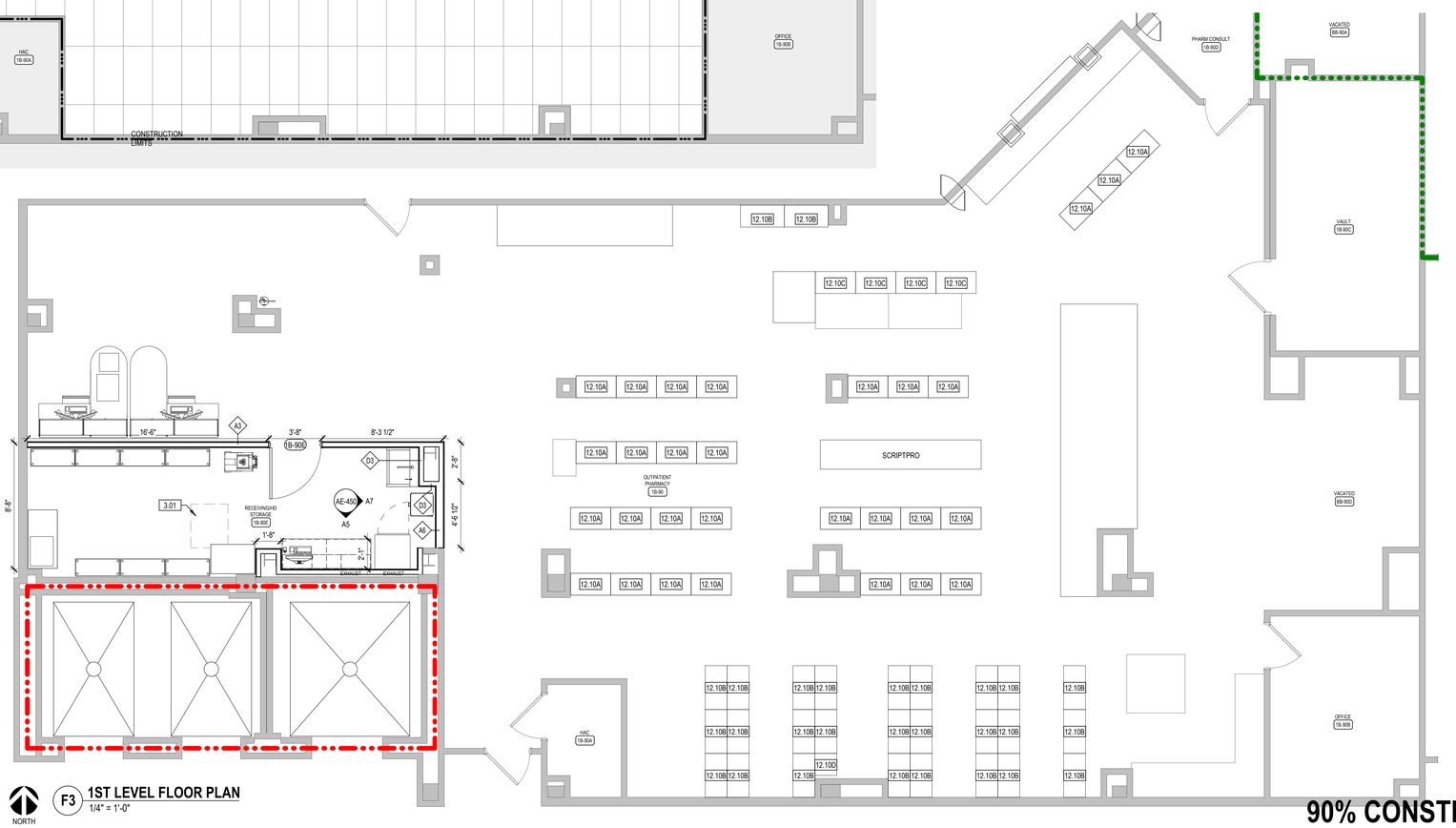
L. INSTALL ALL WALL MOUNTED EXIT SIGNS AND OTHER FIXTURES CENTERED ABOVE OPENINGS WHERE POSSIBLE.

M. REFLECTED CEILING PLANS SHOW LOCATIONS OF ITEMS THAT ARE ARCHITECTURALLY SIGNIFICANT ONLY. MECHANICAL AND ELECTRICAL ITEMS INDICATED ARE FOR REFERENCE ONLY. REFER TO MECHANICAL AND ELECTRICAL DOCUMENTS.

N. SUSPENDED CEILING TO BE CENTERED WITH THE BALANCE GRID DESIGN WITH EDGE UNITS NO LESS THAN 50% OF THE TILE SIZE.

O. ALL BULKHEAD HORIZONTAL AND VERTICAL FACES TO BE PAINTED PT-2, UNLESS NOTED OTHERWISE.

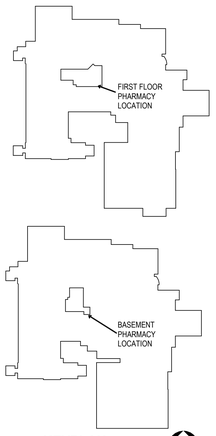
P. ADDITIONAL EQUIPMENT INFORMATION ON FFE PLANS.



NORTH

F3 1ST LEVEL FLOOR PLAN
1/4" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
3.01	INFILL DUMBWAITER IN FIRST FLOOR AND FLOOR ABOVE. SEE C7/AE-501.
9.12	PROVIDE REPLACEMENT ACT NECESSARY TO ACCOMODATE NEW CONSTRUCTION.
12.10A	PLAM SHELVING. DUAL SIDED. 33" X 18" X 72". C/C.
12.10B	PLAM SHELVING. SINGLE SIDED. 36" X 18" X 72". C/C.
12.10C	PLAM SHELVING. SINGLE SIDED. 33" X 18" X 72". C/C.
12.10D	PLAM SHELVING. SINGLE SIDED. 18" X 18"X 72". C/C.
23.01	MECHANICAL EQUIPMENT. SEE MECH.
23.02	SPRINKLER. COORDINATE W/ FIRE PROTEECTION.
26.01	LIGHT FIXTURE. SEE ELEC.
26.05	CAMERA. COORDINATE W/ ELEC.



KEYPLAN
NTS

NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

9/23/2019 10:29:34 AM

VA FORM 08-6231

CONSULTANTS:

CONTRACTOR:
MDM Construction
2215 Sheyenne St.
Fargo, ND 58078
Phone: 701-356-3956

ELECTRICAL:
MBN Engineering
503 7th Street North, Suite 200
Fargo, ND 58102
Phone: 701-478-6336

MECHANICAL:
Obermiller Nelson Engineering
2201 12th Street North, Suite E
Fargo, ND 58102
Phone: 701-280-0500

Seal
PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

ARCHITECT OF RECORD:
Stone Group Architects
600 East 7th Street
Sioux Falls, SD 57103
Phone: 605-271-1144

STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
FIRST FLOOR PLANS

Elec File Name:
AE-102.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date 09/23/2019 | Checked TRS | Drawn DAN

Project Number VA #437-18-101

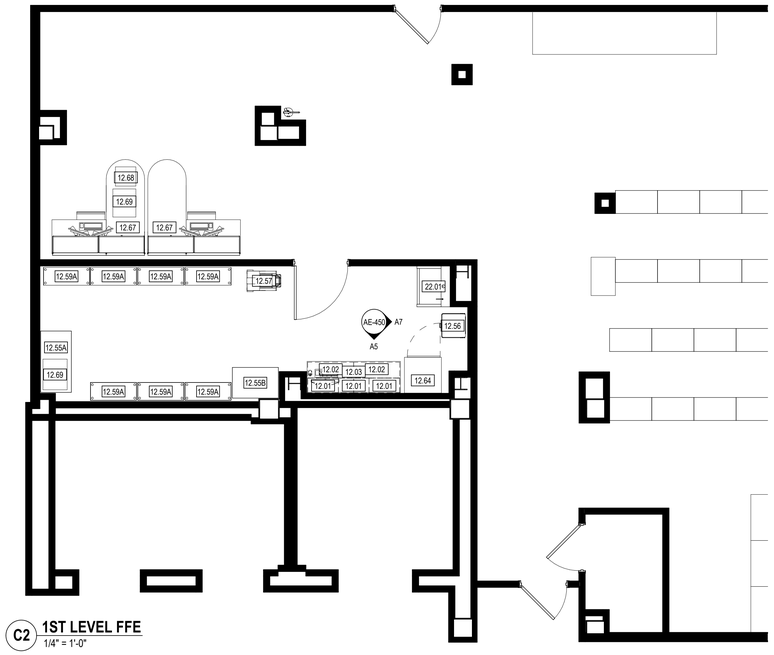
Building Number 9 & 46

Drawing Number AE-102

Drawing # 9 of 31

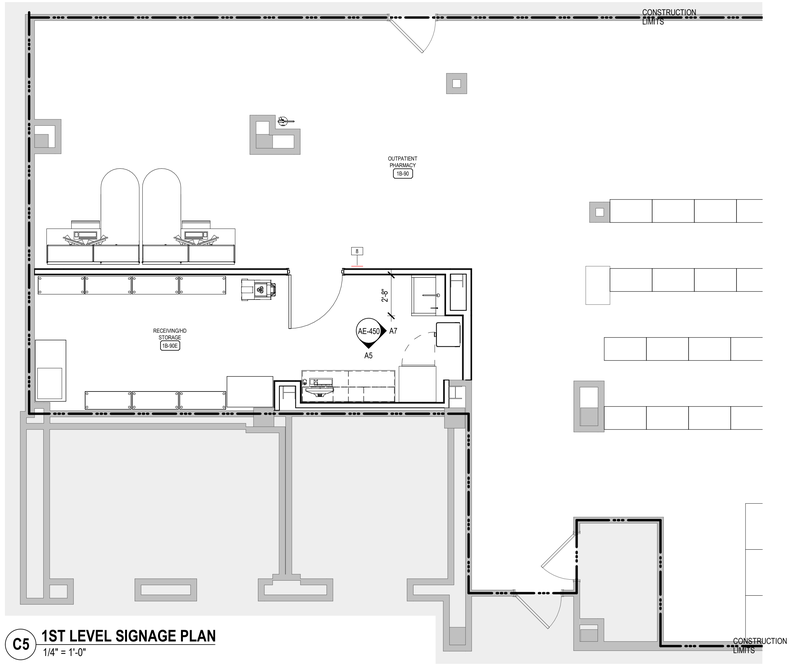
Veterans Health Administration

Department of Veterans Affairs



C2 1ST LEVEL FFE
1/4" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
10.01	PASS THROUGH CHAMBER. C/C.
11.01	LAFW NU-340-630. V/C.
11.02	CACI. RELOCATE FROM BB-72A.
11.03	BSC NU 543-600. V/C.
11.04	CVE NU 813-300. V/C.
12.01	STAINLESS STEEL WALL CABINET. C/C.
12.02	STAINLESS STEEL BASE CABINET. C/C.
12.03	STAINLESS STEEL COUNTERTOP. C/C.
12.51	PPE ORGANIZER. V/C.
12.53	WORKSTATION. V/C.
12.54	STAINLESS STEEL CART. V/C.
12.55A	STANILESS STEEL WORK TABLE. 4'X2'. V/C.
12.55B	STANILESS STEEL WORK TABLE. 3'X2'. V/C.
12.56	STEP-ON TRASH CAN. V/C.
12.57	SHARPS TROLLEY. V/V.
12.58	FREE STAINDING STAINLESS STEEL BENCH. V/C.
12.59A	STAINLESS STEEL SHELVING. 36" X 14" X 72". V/V.
12.59B	STAINLESS STEEL SHELVING. 48" X 24" X 72". V/V.
12.60	FASTPAK & ASSOC. EQUIP. RELOCATE FROM BB-80. V/C.
12.61	SARGENT PACKAGING MACHINE. RELOATE FROM BB-80. V/C.
12.62	FREEZER. RELOCATE FROM .
12.63	REFRIGERATOR. RELOCATE FROM BB-72A.
12.64	REFRIGERATOR. RELOCATE FROM .
12.65	REFRIGERATOR. RELOCATE FROM BB-72.
12.66	REFRIGERATOR. RELOCATE FROM BB-80.
12.67	72" X 72" WORKSTATION. V/V.
12.68	PRINTER. V/V.
12.69	SCRIPT PRO INVENTORY MANAGEMENT SYSTEM. V/V.
22.01	SINK W/ INTEGRAL EYEWASH.
22.02	MOP SINK.



C5 1ST LEVEL SIGNAGE PLAN
1/4" = 1'-0"

INTERIOR SIGN MESSAGE SCHEDULE				
SIGN	SIGN TYPE	COPY LINE	MESSAGE	MOUNT/NOTES
1	A1	1 2 3 4 5 6	Hazardous Drug Storage BB-78	D/1
2	A1 INSTALL NOTE	1 2 3 4 5 6	INVESTIGATIVE DRUG BB-79	D/1 - EXISTING; REVISE TEXT FOR COPY LINES 3 & 4 AS SHOWN AND REINSTALL IN NEW LOCATION.
3		1 2 3 4 5 6	PHARMACY USP 800 COORDINATOR OFFICE BB-80C	D/1
4	A1	1 2 3 4 5 6	Sterile Compounding BB-90	D/1
5	A1	1 2 3 4 5 6	Hazardous Drug Sterile Compounding BB-90A	D/1
6	A1	1 2 3 4 5 6	Non-Hazardous Drug Sterile Compounding BB-90B	D/1
7	A1	1 2 3 4 5 6	Non-Hazardous Drug Storage BB-90C	D/1
8	A1	1 2 3 4 5 6	Receiving/ Hazardous Drug Storage 1B-90E	D/1

SIGN SIZE:
9"Hx9"W

PART A:
TOP ACCENT TRIM
9"W

PART B:
WINDOW INSERT
CARRIER w/LENS &
PAPER INSERT
2"Hx9"W

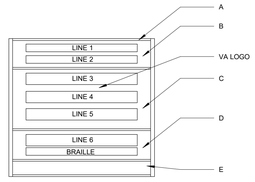
PART C:
WINDOW INSERT
CARRIER w/LENS &
PAPER INSERT
2"Hx9"W

PART D:
INTEGRAL ADA INSERT
w/TACTILE COPY AND
BRAILLE
2"Hx9"W

PART E:
ALUMINUM INSERT
w/PAINTED TOP/BOTTOM
STRIPE
1"Hx9"W

PART F: (QUANTITY 2)
SQUARE CORNER TAMPER
RESISTANT END CAP
9"+H

SIGN TYPE A1

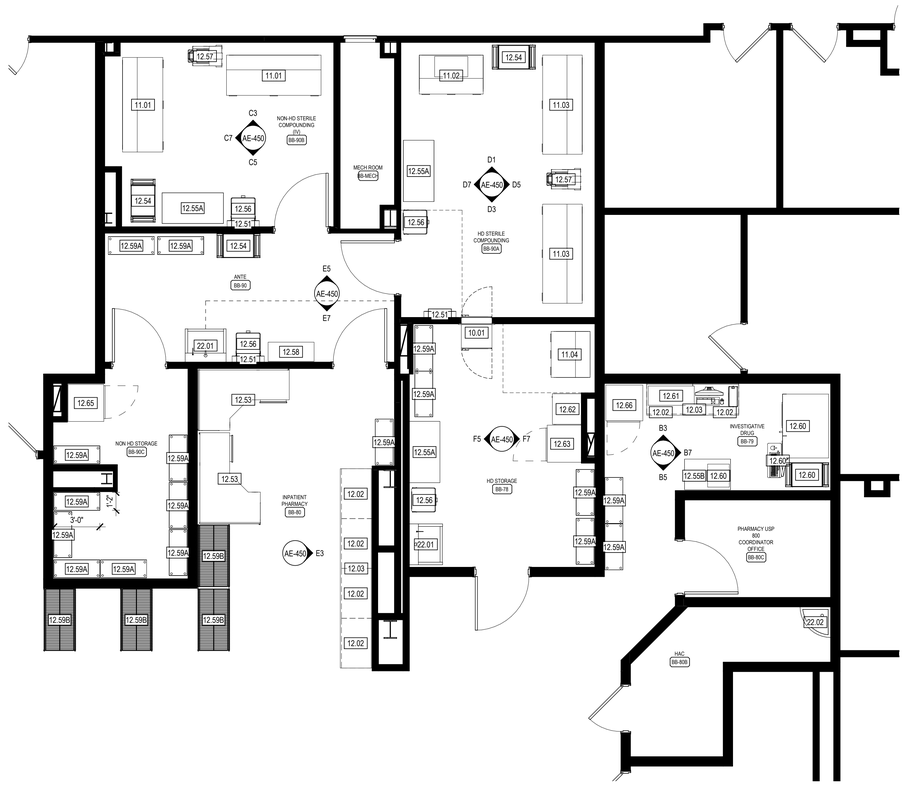


SIGNAGE NOTES

A. SEE SPECIFICATIONS FOR SIGNAGE DESCRIPTIONS, TYPES AND MESSAGE SCHEDULE.

SIGNAGE SYMBOLS

SIGN LOCATION
SIGN SCHEDULE REFERENCE NO.


12.57
11.01
11.01
C3
C7
AE-450
C5
NON-HD STERILE COMPOUNDING (IV)
BB-90B
MECH ROOM
BB-MECH
11.02
12.54
11.03
D1
D7
AE-450
D5
D3
12.57
12.54
12.55A
12.56
12.51
12.56
HD STERILE COMPOUNDING
BB-90A
11.03
12.59A
12.59A
12.54
E5
ANTE
BB-90
AE-450
E7
12.51
10.01
11.04
22.01
12.56
12.51
12.58
12.59A
12.65
12.53
12.62
12.66
12.61
12.02
12.03
12.02
B3
12.59A
NON-HD STORAGE
BB-90C
12.59A
12.55A
F5
AE-450
F7
12.63
AE-450
B7
B5
12.55B
12.60
INVESTIGATIVE DRUG
BB-79
12.60
12.60
12.53
12.59A
12.59A
12.59A
12.59A

GENERAL NOTES

A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.

B. REFER TO KEYNOTES FOR INFORMATIONN REGARDING ACQUISITION AND INSTALLATION.

C. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.

D. CONTRACTOR & SUBCONTRACTORS TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.

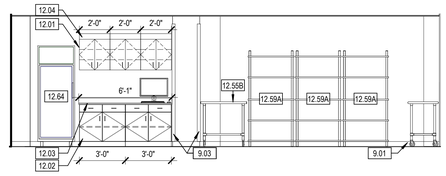
E. ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.

F. DETAILS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.

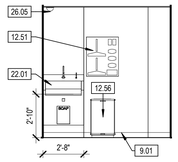
G. PROVIDE METAL BACKING FOR ALL ITEMS ATTACHED TO BUILDING WALLS.

H. PROVIDE ADA COMPLIANT SIGNAGE FOR ALL REQUIRED AREAS, ROOMS, & ACCESSIBLE PATHS.

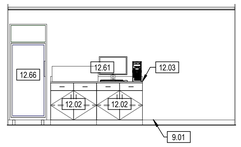
I. HEIGHT OF OPERATIONAL OR DISPENSING PORTION OF ACCESSORIES & FIXTURES NOT TO EXCEED 48" A.F.F.



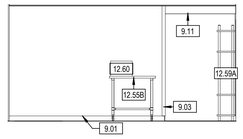
A5 RECEIVING SOUTH
1/4" = 1'-0"



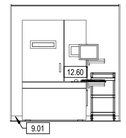
A7 RECEIVING EAST
1/4" = 1'-0"



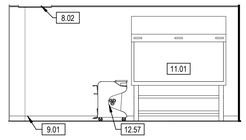
B3 INVESTIGATIVE DRUG NORTH
1/4" = 1'-0"



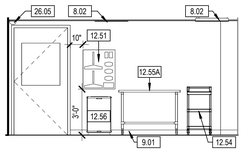
B5 INVESTIGATIVE DRUG SOUTH
1/4" = 1'-0"



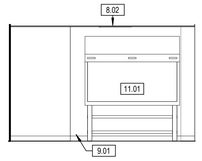
B7 INVESTIGATIVE DRUG EAST
1/4" = 1'-0"



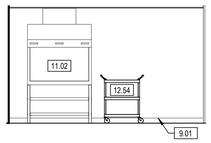
C3 NON-HD COMP. NORTH
1/4" = 1'-0"



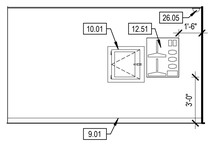
C5 NON-HD COMP. SOUTH
1/4" = 1'-0"



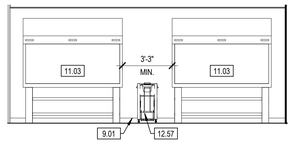
C7 NON-HD COMP. WEST
1/4" = 1'-0"



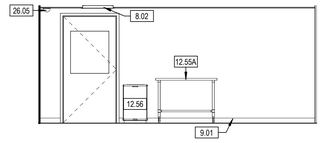
D1 HD COMP. NORTH
1/4" = 1'-0"



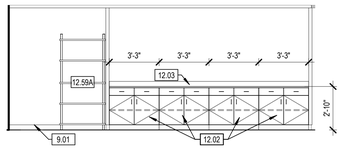
D3 HD COMP. SOUTH
1/4" = 1'-0"



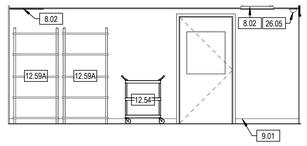
D5 HD COMP. EAST
1/4" = 1'-0"



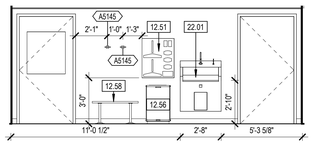
D7 HD COMP. WEST
1/4" = 1'-0"



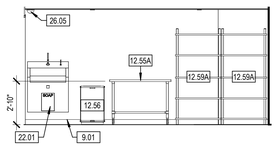
E3 INPATIENT PHARMACY EAST
1/4" = 1'-0"



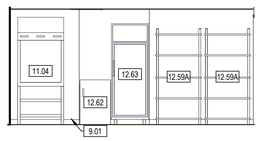
E5 ANTE ROOM NORTH
1/4" = 1'-0"



E7 ANTE ROOM SOUTH
1/4" = 1'-0"

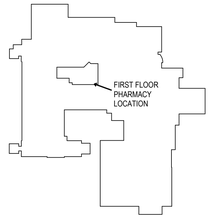


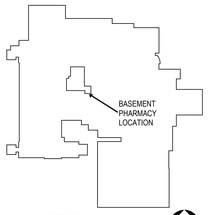
F5 HD STORAGE WEST
1/4" = 1'-0"



F7 HD STORAGE EAST
1/4" = 1'-0"

KEYNOTE LEGEND	
Key Value	Keynote Text
8.02	24" X 24" AIR TIGHT ACCESS PANEL.
9.01	WALL BASE. SEE INTERIOR FINISH SCHEDULE.
9.03	CORNER GUARD. SEE INTERIOR FINISH SCHEDULE.
9.11	BULKHEAD TO 2" BELOW LOWEST ADJACENT CEILING.
10.01	PASS THROUGH CHAMBER. C/C.
11.01	LAFW NU-340-630. V/C.
11.02	CACI. RELOCATE FROM BB-72A.
11.03	BSC NU 543-600. V/C.
11.04	CVE NU 813-300. V/C.
12.01	STAINLESS STEEL WALL CABINET. C/C.
12.02	STAINLESS STEEL BASE CABINET. C/C.
12.03	STAINLESS STEEL COUNTERTOP. C/C.
12.04	SLOPED TOP ON CABINETS.
12.51	PPE ORGANIZER. V/C.
12.54	STAINLESS STEEL CART. V/C.
12.55A	STANILESS STEEL WORK TABLE. 4'X2'. V/C.
12.55B	STANILESS STEEL WORK TABLE. 3'X2'. V/C.
12.56	STEP-ON TRASH CAN. V/C.
12.57	SHARPS TROLLEY. V/V.
12.58	FREE STAINDING STAINLESS STEEL BENCH. V/C.
12.59A	STAINLESS STEEL SHELVING. 36" X 14" X 72". V/V.
12.60	FASTPAK & ASSOC. EQUIP. RELOCATE FROM BB-80. V/C.
12.61	SARGENT PACKAGING MACHINE. RELOATE FROM BB-80. V/C.
12.62	FREEZER. RELOCATE FROM _.
12.63	REFRIGERATOR. RELOCATE FROM BB-72A.
12.64	REFRIGERATOR. RELOCATE FROM _.
12.66	REFRIGERATOR. RELOCATE FROM BB-80.
22.01	SINK W/ INTEGRAL EYEWASH.
26.05	CAMERA. COORDINATE W/ ELEC.





KEYPLAN
NTS

NORTH

90% CONSTRUCTION DOCUMENTS

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9/23/2019 10:29:46 AM

VA FORM 08-6231

CONSULTANTS:

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ARCHITECT TEAM:

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Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
INTERIOR ELEVATIONS

Elec File Name:
AE-450.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date **09/23/2019** | Checked **TRS** | Drawn **DAN**

Project Number **VA #437-18-101**

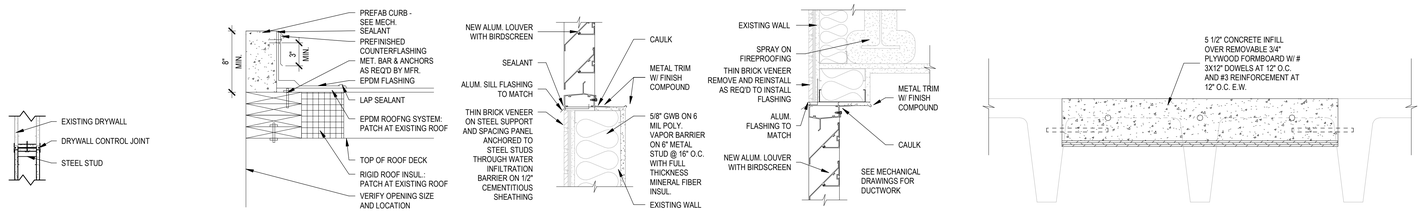
Building Number **9 & 46**

Drawing Number **AE-450**

Drawing # 11 of 31

Veterans Health Administration

Department of Veterans Affairs



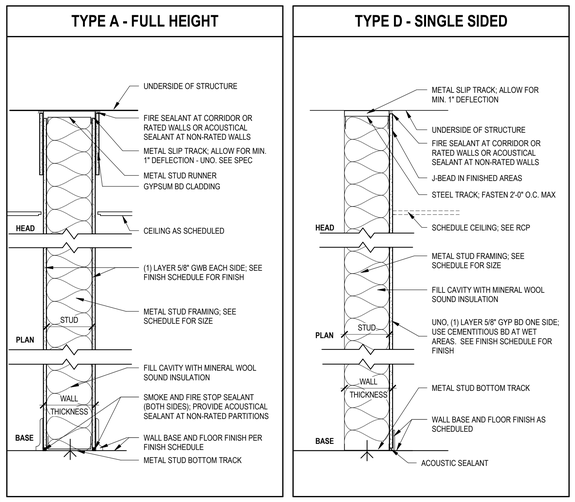
C3 **DRYWALL CONTROL JOINT**
1" = 1'-0"

C4 **PREFAB MECH CURB**
1 1/2" = 1'-0"

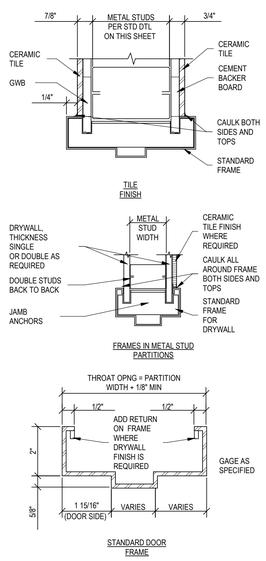
C5 **LOUVER SILL/THIN BRICK**
1 1/2" = 1'-0"

C6 **LOUVER HEAD/THIN BRICK**
1 1/2" = 1'-0"

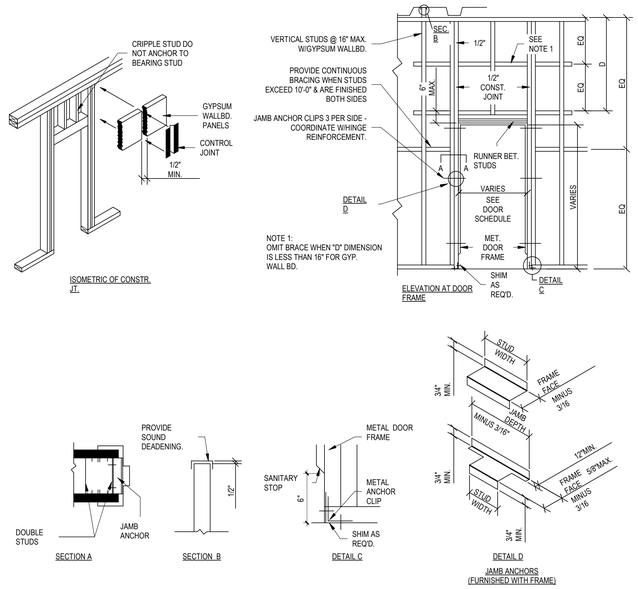
C7 **DUMBWAITER INFILL DET.**
1 1/2" = 1'-0"



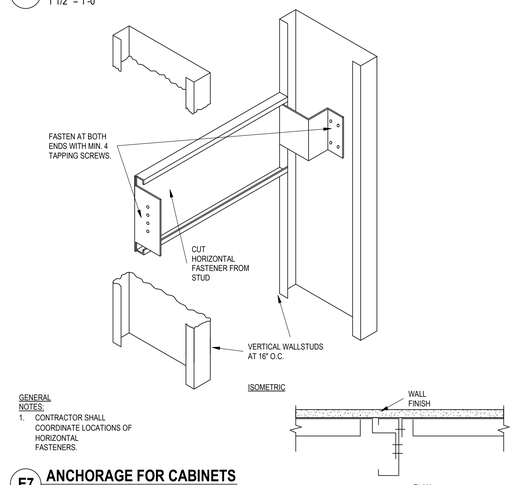
F1 **WALL TYPES**
1" = 1'-0"



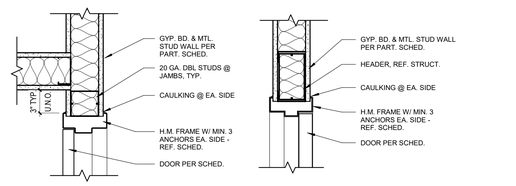
F3 **INTERIOR DOOR FRAMES**
1/2" = 1'-0"



F4 **PARTITIONS FRAMING FOR DOORS**
1/2" = 1'-0"

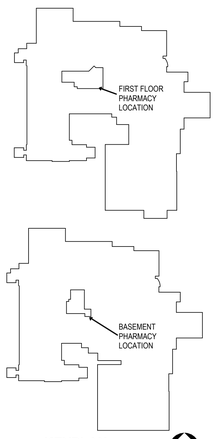


E7 **ANCHORAGE FOR CABINETS**
1/2" = 1'-0"



F7 **HM DOOR JAMB**
1 1/2" = 1'-0"

F8 **HM DOOR HEAD**
1 1/2" = 1'-0"



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STONE GROUP ARCHITECTS

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Moorhead, MN 56560
218-233-2062
IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
DETAILS & PARTITION TYPES

Elec File Name:
AE-501.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date **09/23/2019** | Checked **TRS** | Drawn **DAN**

Project Number **VA #437-18-101**
Building Number **9 & 46**
Drawing Number **AE-501**
Drawing # 12 of 31

Veterans Health Administration
Department of Veterans Affairs

GENERAL NOTES - FINISHES

A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.

B. FINISH SCHEDULES DENOTE FINISHES THROUGHOUT THE PROJECT. FOR LOCATIONS REFER TO THE FINISH FLOOR PLAN, ROOM FINISH SCHEDULES, REFLECTED CEILING PLANS, AND INTERIOR ELEVATIONS.

C. SOME SPECIFIED PRODUCTS AND FINISHES MAY HAVE SUBSTANTIAL LEAD TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING ORDERS IN A MANNER TO ENSURE THEIR TIMELY ARRIVAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXPENSES, INCLUDING DESIGN FEES, RELATED TO ANY RESELECTIONS REQUIRED DUE TO FAILURE TO ORDER PRODUCTS IN A TIMELY MANNER.

D. ALL FINISH WORK SHALL BE PERFORMED IN COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS. SHOP DRAWINGS, SAMPLES AND PRODUCT DATA SHALL BE SUBMITTED TO THE ARCHITECT FOR THEIR REVIEW PRIOR TO BEGINNING WORK.

E. WOOD DOORS TO BE FILLED, STAINED, SEALED AND SHOP FINISHED TO MATCH ARCHITECTS SAMPLE. WORK SHOULD BE PREFORMED IN A DUST FREE ENVIRONMENT.

F. EXTEND ALL FLOORING UNDER FURNITURE, DESKS, COUNTERS ADN ETC. (UON)

G. PROVIDE TRANSITION STRIPS AT ALL LOCATIONS THAT HAVE A CHANGE IN FLOORING MATERIALS. REFER TO TYPICAL TRANSITION STRIP DETAILS. ALL TRANSITIONS TO BE CENTERED UNDER DOORS IN A CLOSED POSITION. (UON). CONTRACTOR IS RESPONSIBLE FOR VERIFYING APPROPRIATE SIZES OF TRANSITION STRIPS BASED ON MATERIAL TYPES.

H. ALL VINYL TRANSITION STRIP COLORS TO MATCH ADJACENT FLOORING. SUBMIT SAMPLE FOR APPROVAL.

I. VERIFY GROUT AND MORTAR THICKNESS PER MANUFACTURER'S RECOMMENDATIONS.

J. CORNER GUARDS TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.

K. IF EXISTING CORNER GUARDS ARE DAMAGED DURING CONSTRUCTION, REPLACE WITH NEW CORNER GUARDS.

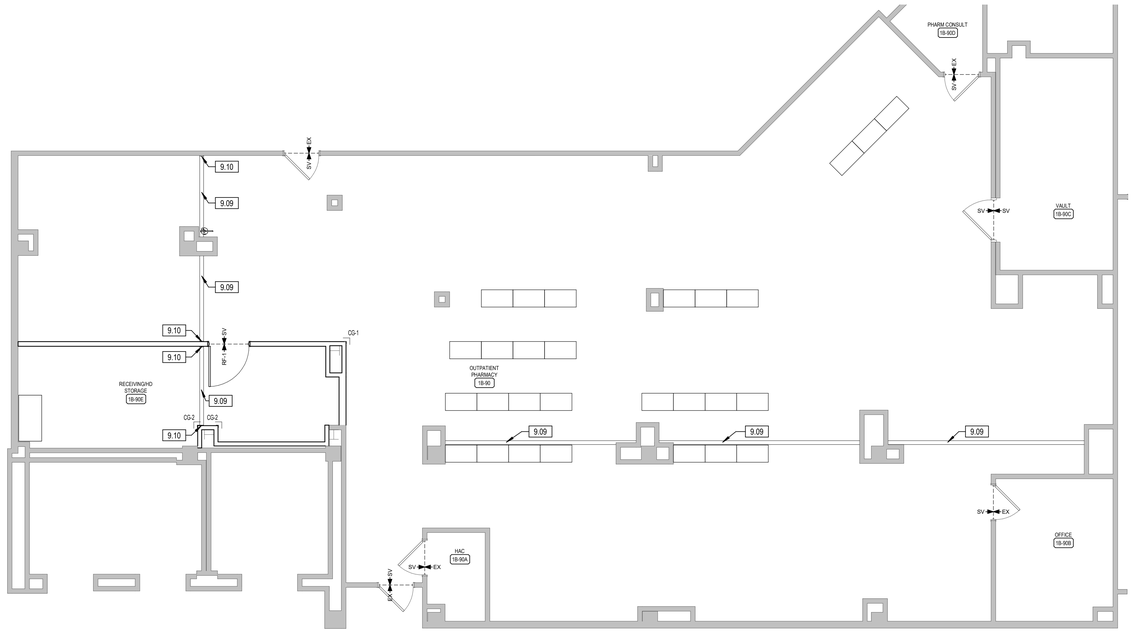
L. VERIFY ALL CORNER GUARD HEIGHTS. INSTALL CORNER GUARDS AT ALL EXPOSED OUTSIDE CORNERS OF GYPSUM BOARD WALLS. (UON)

ROOM FINISH SCHEDULE

NO	ROOM NAME	FLOOR	BASE	WALLS	CEILING	NOTES
1B-90	OUTPATIENT PHARMACY	SV	VB-1	EXISTING/P-3	EXISTING ACT	1.
1B-90C	VAULT	SV	VB-1	EXISTING PAINT	EXISTING ACT	
1B-90E	RECEIVING/HD STORAGE	RF-1	RF-1	SC-1	GWB/SC-2	2
BB-75	PHARMACY STORAGE	EXISTING VCT	EXISTING/VB-2	EXISTING/P-3	EXISTING ACT	1
BB-78	HD STORAGE	RF-1	RF-1, RF-2	SC-1	GWB/SC-2	2
BB-79	INVESTIGATIVE DRUG	EXISTING/VCT	EXISTING/VB-2	EXISTING/P-3	ACT-A	1; PATCH VCT AT NEW OPENING
BB-80	INPATIENT PHARMACY	EXISTING/VCT	EXISTING/VB-2	EXISTING/P-3	EXISTING ACT	1; PATCH VCT AT AREA BEFORE ANTE
BB-80B	HAC	EXISTING/PT	EXISTING/CT	EXISTING/CT, SC-1	ACT-B	1; SC-1 ALL WALLS ABOVE CT; MATCH HEIGHT OF EXISTING CT
BB-80C	PHARMACY USP 800 COORDINATOR OFFICE	EXISTING VCT	VB-1	P-1	ACT-A	
BB-90	ANTE	RF-1, RF-2	RF-1, RF-2	SC-1	GWB/SC-2	2
BB-90A	HD STERILE COMPOUNDING	RF-1, RF-2	RF-1, RF-2	SC-1	GWB/SC-2	2
BB-90B	NON-HD STERILE COMPOUNDING (IV)	RF-1	RF-1	SC-1	GWB/SC-2	2
BB-90C	NON HD STORAGE	RF-1	RF-1	SC-1	GWB/SC-2	2
BB-COR	CORRIDOR	EXISTING VCT	EXISTING/VB-2	EXISTING/VWV	EXISTING ACT	1

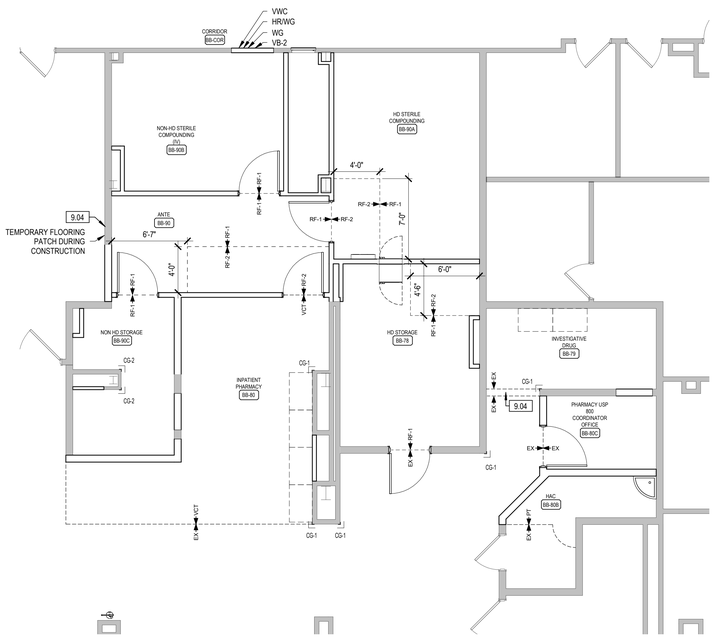
NOTES:
1. WHERE EXISTING FINISH REMAINS, PATCH TO MATCH WHERE REQUIRED DUE TO DEMOLITION OR NEW CONSTRUCTION, NATURAL BREAK (CORNER)
2. INTEGRAL COVE BASE.

KEYNOTE LEGEND	
Key Value	Keynote Text
9.04	VCT AT NEW DOOR/OPENING TO BE PATCHED W/ CURRENT VA STANDARD; EXISTING NO LONGER AVAILABLE.
9.05	TRANSITION STRIP.
9.06	EXISTING FLOORING.
9.07	FLOORING. SEE FINISH SCHEDULE.
9.08	WELDED SEAM.
9.09	PROVIDE NEW FLOOR EXPANSION JOINT COVER.
9.10	PROVIDE NEW WALL EXPANSION JOINT COVER.



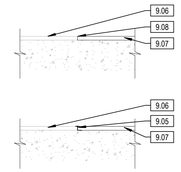
NORTH

F4 1ST LEVEL FINISH PLAN
3/16" = 1'-0"

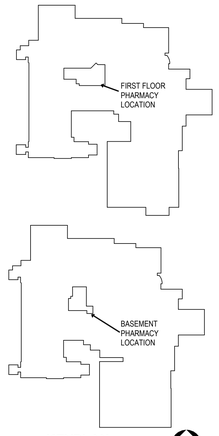


NORTH

F6 BASEMENT FINISH PLAN
3/16" = 1'-0"



C9 FLOOR TRANSITIONS
1 1/2" = 1'-0"



KEYPLAN
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218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
INTERIOR FINISHES

Elec File Name:
AF-101.dwg

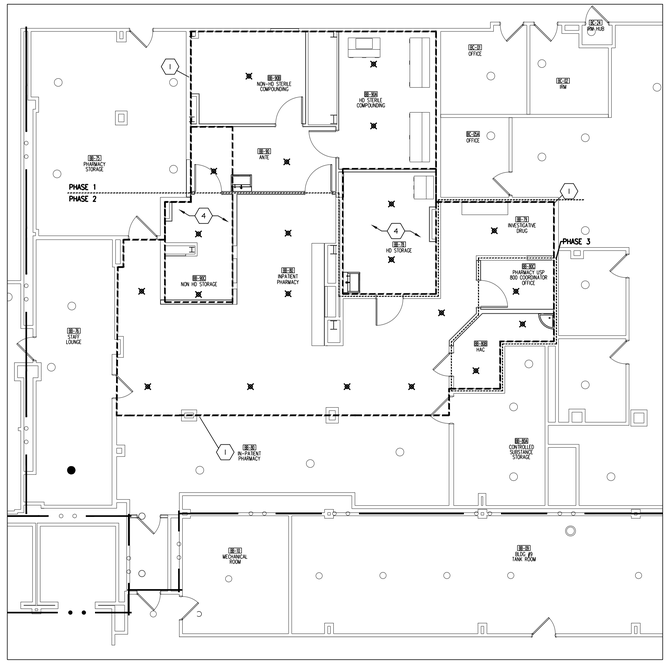
Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

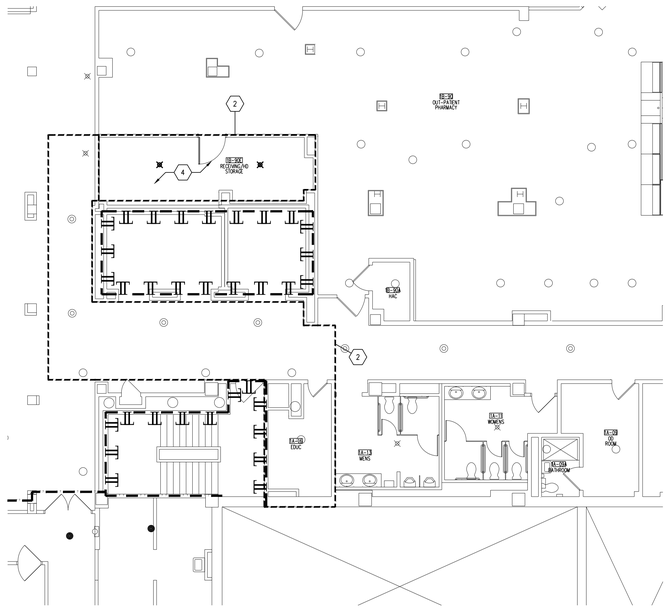
Date: **09/23/2019**
Checked: **TRS**
Drawn: **DAN**

Project Number: **VA #437-18-101**
Building Number: **9 & 46**
Drawing Number: **AF-101**
Drawing # 13 of 31

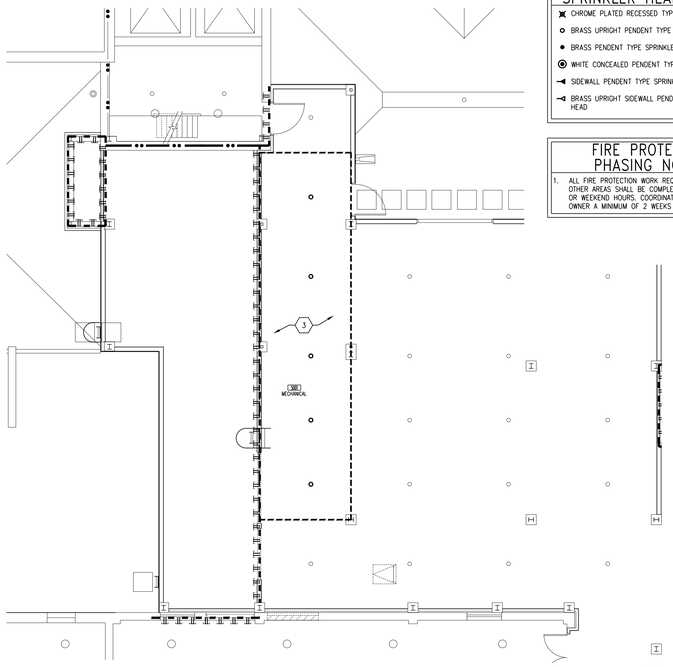
Veterans Health Administration
Department of Veterans Affairs



6 FA-101 BASEMENT FLOOR PLAN - FIRE PROTECTION
1/8"=1'-0"



4 FA-101 FIRST FLOOR PLAN - FIRE PROTECTION
1/8"=1'-0"



2 FA-101 PENTHOUSE FLOOR PLAN - FIRE PROTECTION
1/8"=1'-0"

SPRINKLER HEAD LEGEND

- CHROME PLATED RECESSED TYPE SPRINKLER HEAD
- BRASS UPRIGHT PENDENT TYPE SPRINKLER HEAD
- BRASS PENDENT TYPE SPRINKLER HEAD
- WHITE CONCEALED PENDENT TYPE SPRINKLER HEAD
- SIDEWALL PENDENT TYPE SPRINKLER HEAD
- BRASS UPRIGHT SIDEWALL PENDENT TYPE SPRINKLER HEAD

FIRE PROTECTION PHASING NOTES:

1. ALL FIRE PROTECTION WORK REQUIRED AFFECTING OTHER AREAS SHALL BE COMPLETED DURING OVERTIME OR WEEKEND HOURS. COORDINATE THIS WORK WITH OWNER A MINIMUM OF 2 WEEKS IN ADVANCE.

FIRE PROTECTION DEMOLITION NOTES:

A. DEMOLITION DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS. PROVIDE ADDITIONAL DEMOLITION AS REQUIRED BASED ON FIELD CONDITIONS.

B. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE DEMOLITION OF EXISTING FIRE PROTECTION PIPING, SPRINKLER HEADS, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

C. THIS CONTRACTOR SHALL OPEN ALL WALLS AND/OR CEILINGS FOR DEMOLITION OF EXISTING FIRE PROTECTION PIPING, SPRINKLER HEADS, EQUIPMENT, ETC. AS REQUIRED.

D. THIS CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL HOLES/WALLS AND OR CEILINGS FROM DEMOLISHED FIRE PROTECTION PIPING, SPRINKLER HEADS, EQUIPMENT, ETC. IN FLOORS, WALLS, AND CEILINGS TO MATCH EXISTING.

1 DISCONNECT AND REMOVE EXISTING SPRINKLER HEAD AND ALL ASSOCIATED PIPING, HANGERS, ETC. EXISTING MAINS AND BRANCH LINES SHALL BE REMOVED AND REPLACED FOR REMODELING WORK IN THIS AREA.

2 DISCONNECT AND REMOVE EXISTING SPRINKLER HEAD AND ALL ASSOCIATED PIPING, HANGERS, ETC. EXISTING MAINS AND BRANCH LINES SHALL BE RELOCATED AS REQUIRED FOR REMODELING WORK IN THIS AREA.

FIRE PROTECTION NOTES:

A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.

B. COORDINATE ALL FIRE PROTECTION INSTALLATION WITH GENERAL, PLUMBING, VENTILATION, AND ELECTRICAL CONTRACTORS. INSTALL ALL FIRE PROTECTION PIPING AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP FIRE PROTECTION PIPING TIGHT TO THE STRUCTURE OR DUCTWORK ABOVE. OFFSET FIRE PROTECTION PIPING TO AVOID BEAMS AND INSTALLATION BY ALL TRADES.

C. ALL FIRE PROTECTION WORK SHALL ADHERE TO CURRENT NFPA 13 STANDARDS.

D. ENTIRE REMODELED AREA SHALL BE SPRINKLED. VERIFY WHERE MULTIPLE FLOORS EXIST.

E. FIRE PROTECTION PIPING AND SPRINKLER HEADS ARE SHOWN FOR REFERENCE ONLY.

F. SPRINKLER HEADS IN LAY-IN-TILE CEILINGS SHALL BE LOCATED IN THE CENTER OF TILE.

G. REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW FIRE PROTECTION PIPING, SPRINKLER HEADS, EQUIPMENT, ETC.

H. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW FIRE PROTECTION PIPING, SPRINKLER HEADS, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

I. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW FIRE PROTECTION PIPING, SPRINKLER HEADS, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.

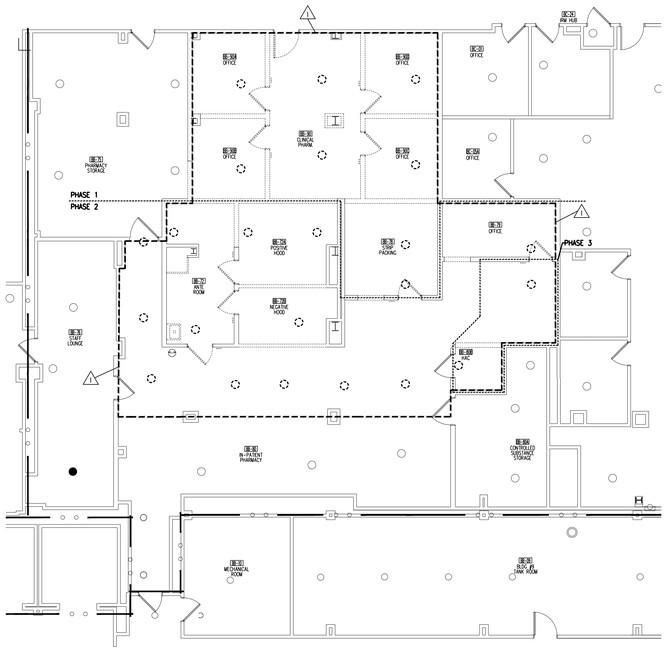
J. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.

1 PROVIDE NEW SPRINKLER HEADS IN BASEMENT FLOOR NORTHWEST SPRINKLER ZONE. REMOVE AND REPLACE EXISTING MAIN AND BRANCH LINES SERVING THE AREA. ALL AREAS SHALL BE LIGHT HAZARD UNLESS OTHERWISE NOTED.

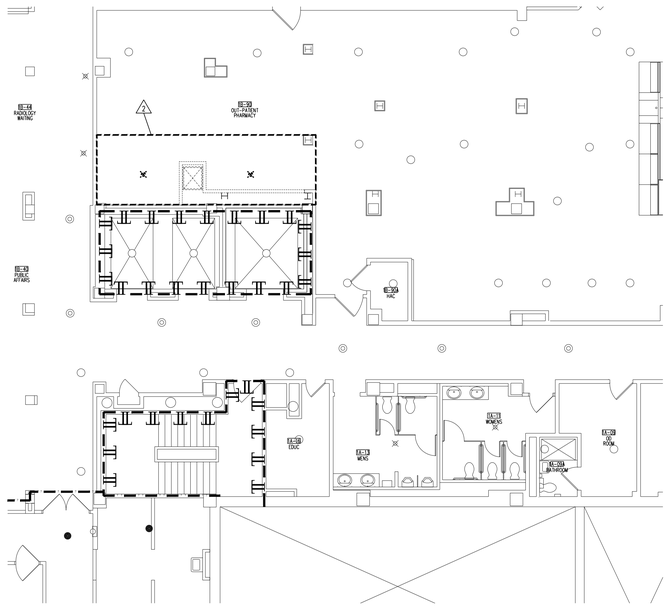
2 PROVIDE NEW SPRINKLER HEADS IN FIRST FLOOR NORTH SPRINKLER ZONE. REMOVE AND REPLACE EXISTING MAIN AND BRANCH LINES SERVING THE AREA. ALL AREAS SHALL BE LIGHT HAZARD UNLESS OTHERWISE NOTED.

3 PROVIDE NEW SPRINKLER HEADS IN FOURTH FLOOR EYE SPRINKLER ZONE. REMOVE AND REPLACE EXISTING MAIN AND BRANCH LINES SERVING THE AREA. ENTIRE AREA SHALL BE ORDINARY HAZARD GROUP 1 UNLESS OTHERWISE NOTED.

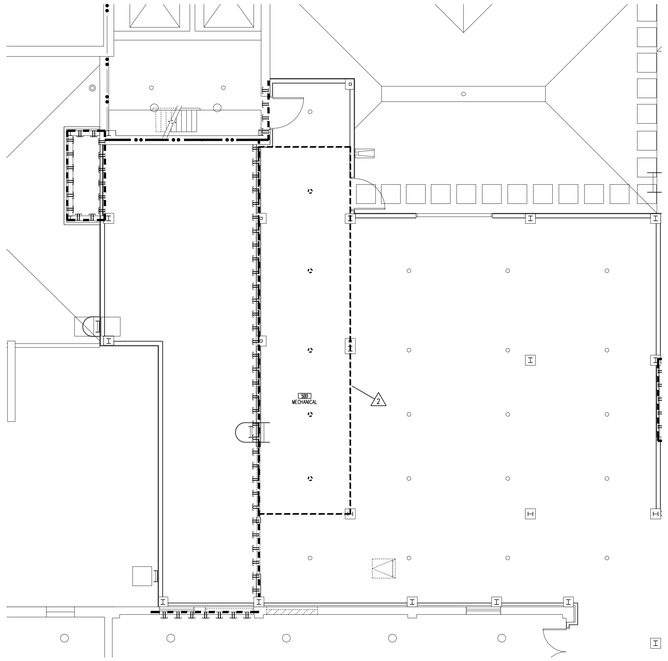
4 THIS AREA SHALL BE ORDINARY HAZARD GROUP 2.



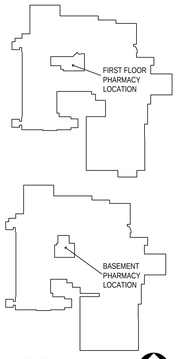
5 FA-101 BASEMENT FLOOR PLAN - FIRE PROTECTION DEMOLITION
1/8"=1'-0"



3 FA-101 FIRST FLOOR PLAN - FIRE PROTECTION DEMOLITION
1/8"=1'-0"



1 FA-101 PENTHOUSE FLOOR PLAN - FIRE PROTECTION DEMOLITION
1/8"=1'-0"



KEYPLAN
NTS

NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

CONSULTANTS:

CONTRACTOR:
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2215 Sheyenne St.
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STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: FIRE PROTECTION DEMOLITION AND NEW PLANS

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Project Number: VA #437-18-101

Building Number: 9 & 46

Elec File Name: 2019250_FP1.dwg

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Drawing Number: FA-101

Drawing # 14 of 31

Veterans Health Administration

Department of Veterans Affairs

VA FORM 08-6231

PLUMBING DEMOLITION NOTES:

A. DEMOLITION DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS. PROVIDE ADDITIONAL DEMOLITION AS REQUIRED BASED ON FIELD CONDITIONS.

B. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE DEMOLITION OF EXISTING PLUMBING PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

C. THIS CONTRACTOR SHALL OPEN ALL WALLS AND/OR CEILINGS FOR DEMOLITION OF EXISTING PLUMBING PIPING, EQUIPMENT, ETC. AS REQUIRED.

D. THIS CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL HOLES/WALLS AND OR CEILINGS FROM DEMOLISHED PLUMBING PIPING, EQUIPMENT, ETC. IN FLOORS, WALLS, AND CEILINGS TO MATCH EXISTING.

1. DISCONNECT AND REMOVE EXISTING UNDERGROUND SANITARY WASTE PIPING AND ALL ASSOCIATED FITTINGS. CAP EXISTING PIPING AT MAIN AS REQUIRED. PREPARE EXISTING PIPING FOR NEW CONNECTION AS REQUIRED. SAWCUT AND PATCH FLOOR TO MATCH EXISTING AS REQUIRED.

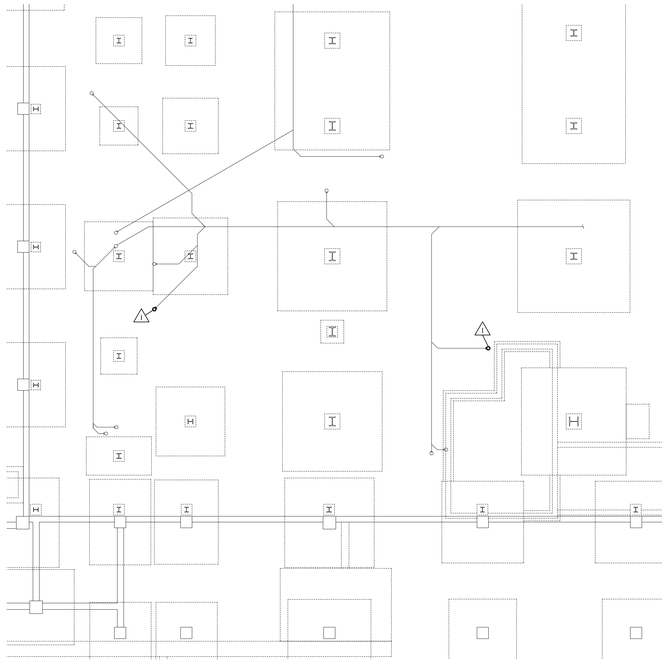
2. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE AND ALL ASSOCIATED CARRIERS, PIPING, VALVES, FITTINGS AND HANGERS. CAP EXISTING PIPING AT MAIN AS REQUIRED. PREPARE EXISTING PIPING FOR NEW CONNECTION AS REQUIRED. PATCH WALL AND FLOOR TO MATCH EXISTING AS REQUIRED.

3. DISCONNECT AND REMOVE EXISTING SANITARY WASTE AND VENT PIPING AND ALL ASSOCIATED FITTINGS AND HANGERS. CAP EXISTING PIPING AT MAIN AS REQUIRED. PREPARE EXISTING PIPING FOR NEW CONNECTION AS REQUIRED.

4. DISCONNECT AND REMOVE EXISTING DOMESTIC WATER PIPING AND ALL ASSOCIATED VALVES, FITTINGS AND HANGERS. CAP EXISTING PIPING AT MAIN AS REQUIRED. PREPARE EXISTING PIPING FOR NEW CONNECTION AS REQUIRED.

PLUMBING PHASING NOTES:

1. ALL PLUMBING WORK REQUIRED AFFECTING OTHER AREAS SHALL BE COMPLETED DURING OVERTIME OR WEEKEND HOURS. COORDINATE THIS WORK WITH OWNER A MINIMUM OF 2 WEEKS IN ADVANCE.



2 PD-101 FOUNDATION FLOOR PLAN - PLUMBING DEMOLITION
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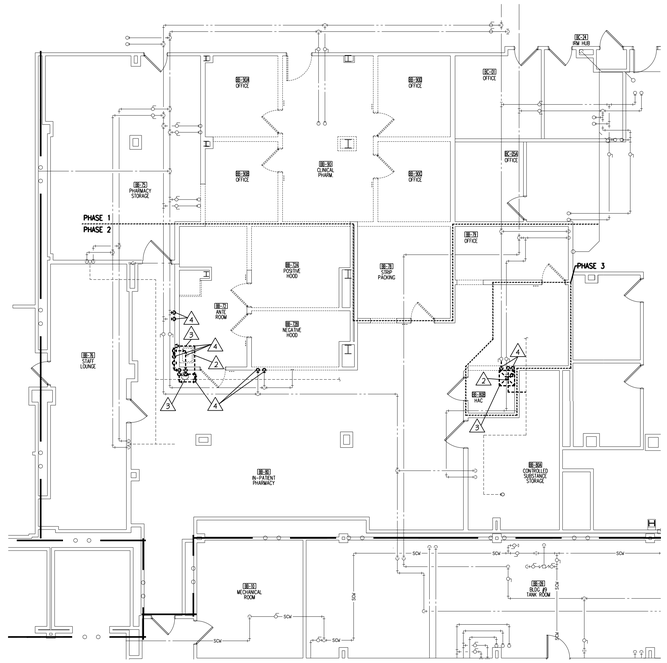
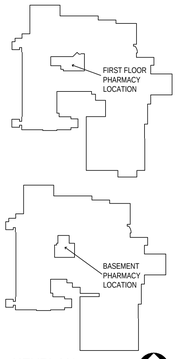


1 PD-101 BASEMENT FLOOR PLAN - PLUMBING DEMOLITION
1/8"=1'-0"



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STONE GROUP ARCHITECTS

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218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
FOUNDATION AND BASEMENT PLUMBING DEMOLITION PLAN

Elec File Name:
2019250_P1.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date 09/23/2019 | Checked JCP | Drawn SGA

Project Number
VA #437-18-101

Building Number
9 & 46

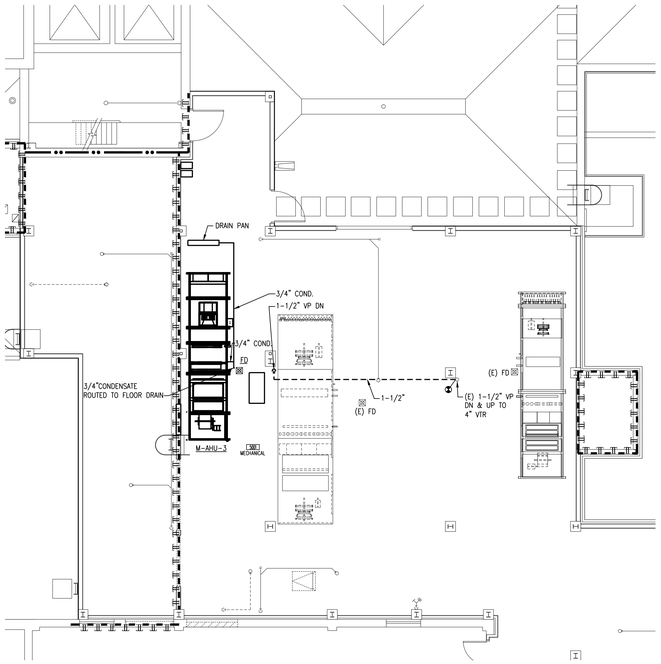
Drawing Number
PD-101

Drawing # 15 of 31

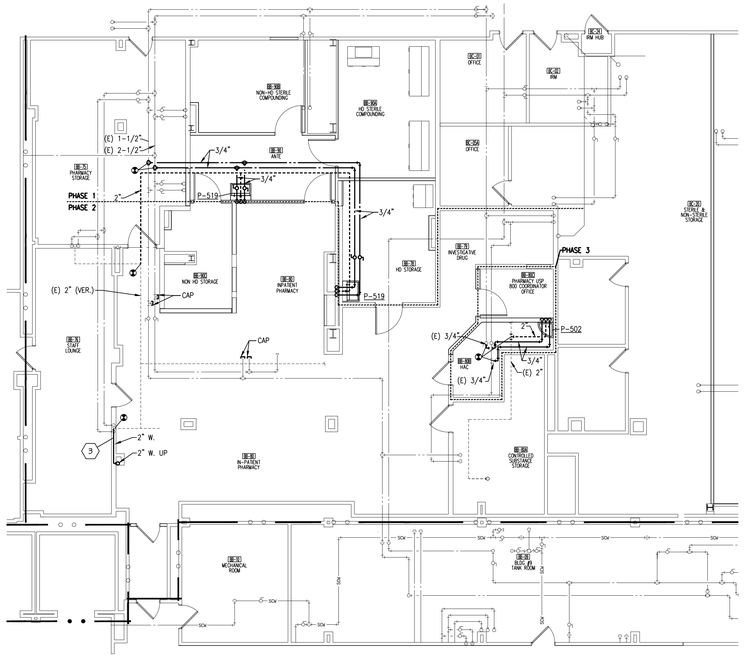
Veterans Health Administration

Department of Veterans Affairs

VA FORM 08-6231



5 PENTHOUSE FLOOR PLAN - PLUMBING
PE-101 1/8"=1'-0"



2 BASEMENT FLOOR PLAN - PLUMBING
PE-101 1/8"=1'-0"

PLUMBING FIXTURE ROUGH-IN CONNECTION SCHEDULE

FIXTURE	WASTE	VENT	CW	HW
CLEAN OUT	4"	-	-	-
FLOOR DRAIN	2"	2"	-	-
SINK	2"	2"	3/4"	3/4"
EMERG. EYE WASH	2"	2"	1/2"	1/2"
MOP BASIN	3"	2"	3/4"	3/4"

NOTES:
1. SIZES SHALL BE AS SCHEDULED UNLESS OTHERWISE NOTED ON DRAWINGS.

PLUMBING NOTES:

A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.

B. COORDINATE ALL PLUMBING INSTALLATION WITH GENERAL, FIRE PROTECTION, VENTILATION, AND ELECTRICAL CONTRACTORS. INSTALL ALL PLUMBING PIPING AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP PLUMBING PIPING TIGHT TO THE STRUCTURE OR DUCTWORK ABOVE. OFFSET PLUMBING PIPING TO AVOID BEAMS AND INSTALLATION BY ALL TRADES.

C. REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW PLUMBING PIPING, EQUIPMENT, ETC.

D. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW PLUMBING PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

E. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW PLUMBING PIPING, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.

F. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.

G. ALL SHUT-OFF VALVES, ETC... SHALL BE INSTALLED IN ACCESSIBLE CEILINGS.

H. REFER TO SPECIFICATIONS FOR CEILING / WALL PENETRATIONS.

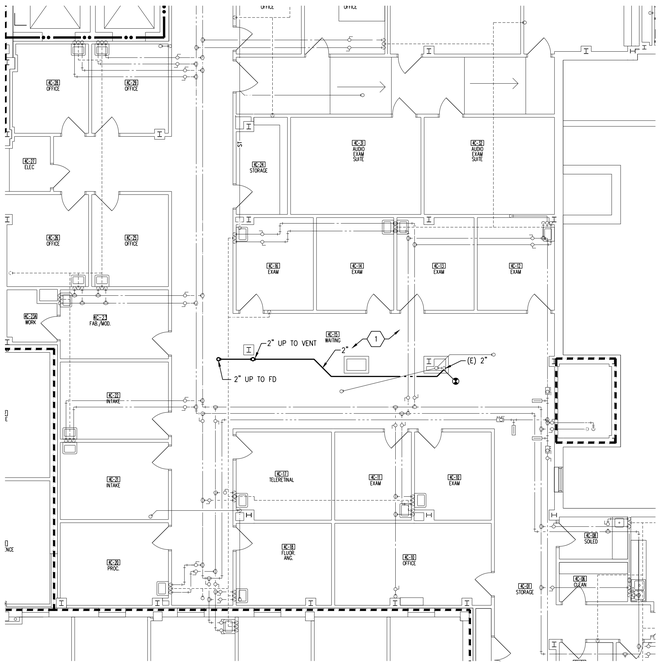
1. M.C. TO REMOVE AND REPLACE CEILING TILES AS REQUIRED TO INSTALL NEW PIPING. COORDINATE WORK IN ADVANCE WITH OWNER AND PERFORM WORK DURING EVENING AND WEEKEND HOURS TO COORDINATE WITH STAFF IN THIS AREA.

2. M.C. TO CUT AND PATCH FLOOR TO MATCH EXISTING AS REQUIRED TO INSTALL NEW FOUNDATION WASTE PIPING. COORDINATE WITH G.C. FOR FLOOR FINISHES. SEE SPECIFICATIONS FOR DUST CONTROL, ODOR AND NOISE WHILE FLOOR CUTTING.

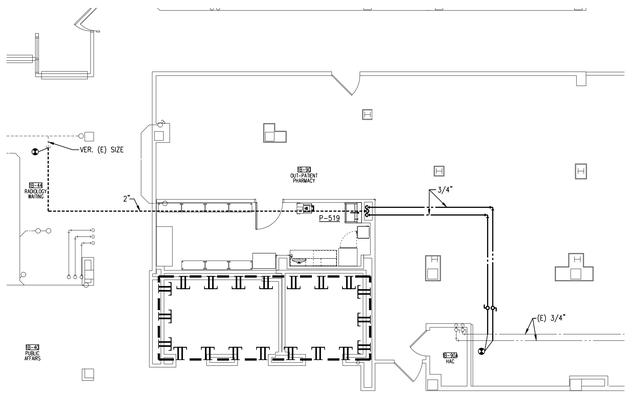
3. M.C. TO ROUTE 2" WASTE PIPING HORIZONTALLY IN WALL AND CONNECT TO EXISTING WASTE PIPING IN WALL. PATCH WALL IN ROOM BB-76 AS REQUIRED TO MATCH EXISTING.

PLUMBING PHASING NOTES:

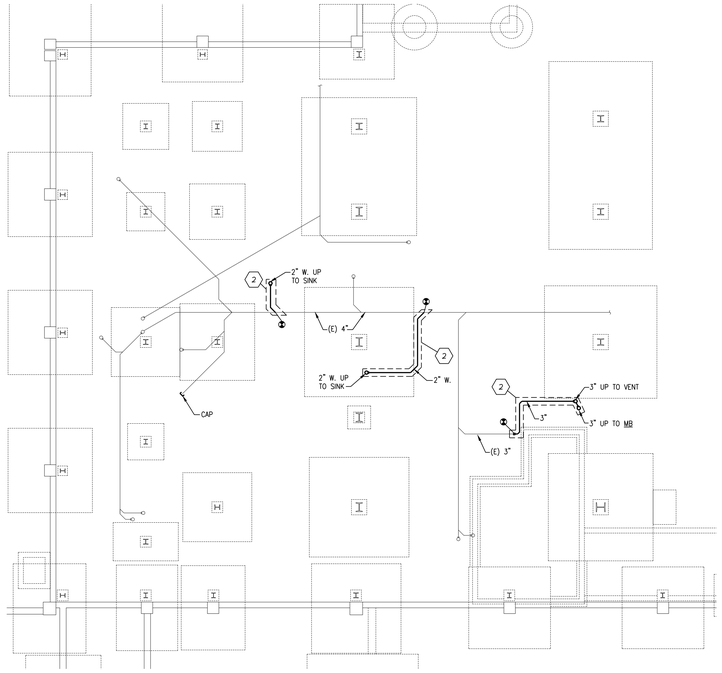
1. ALL PLUMBING WORK REQUIRED AFFECTING OTHER AREAS SHALL BE COMPLETED DURING OVERTIME OR WEEKEND HOURS. COORDINATE THIS WORK WITH OWNER A MINIMUM OF 2 WEEKS IN ADVANCE.



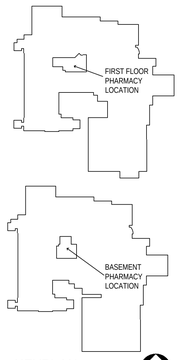
4 FOURTH FLOOR PLAN - PLUMBING
PE-101 1/8"=1'-0"



3 FIRST FLOOR PLAN - PLUMBING
PE-101 1/8"=1'-0"



1 FOUNDATION FLOOR PLAN - PLUMBING
PE-101 1/8"=1'-0"



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NORTH

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CONSULTANTS:

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Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: FDN, BASEMENT, FIRST FLR, FOURTH FLR, AND PENTHOUSE PLUMBING PLANS

Elec File Name: 2019250_P2.dwg

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Project Number: VA #437-18-101

Building Number: 9 & 46

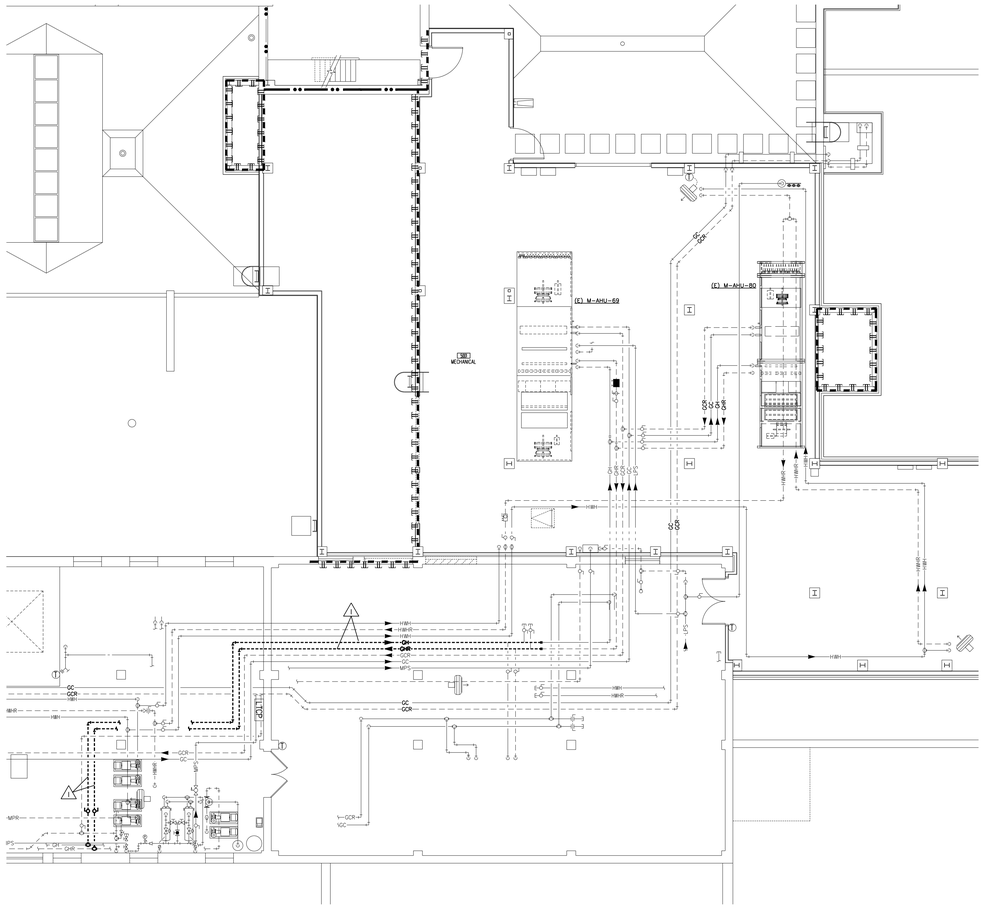
Drawing Number: PE-101

Drawing # 16 of 31

Veterans Health Administration

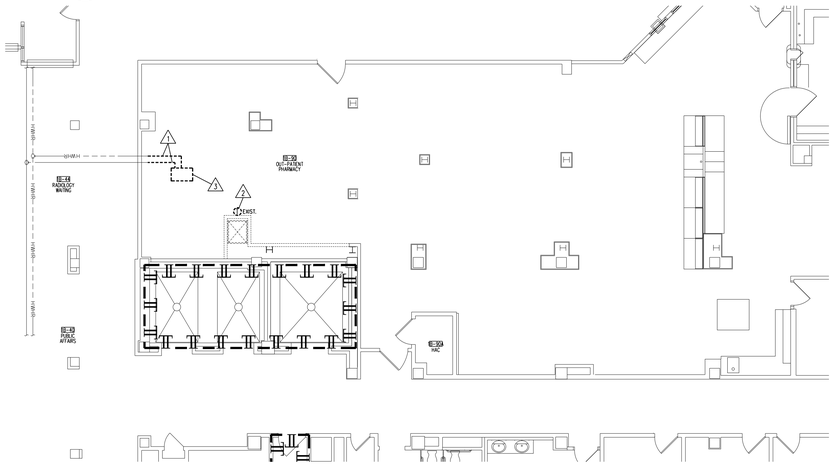
Department of Veterans Affairs

VA FORM 08-6231



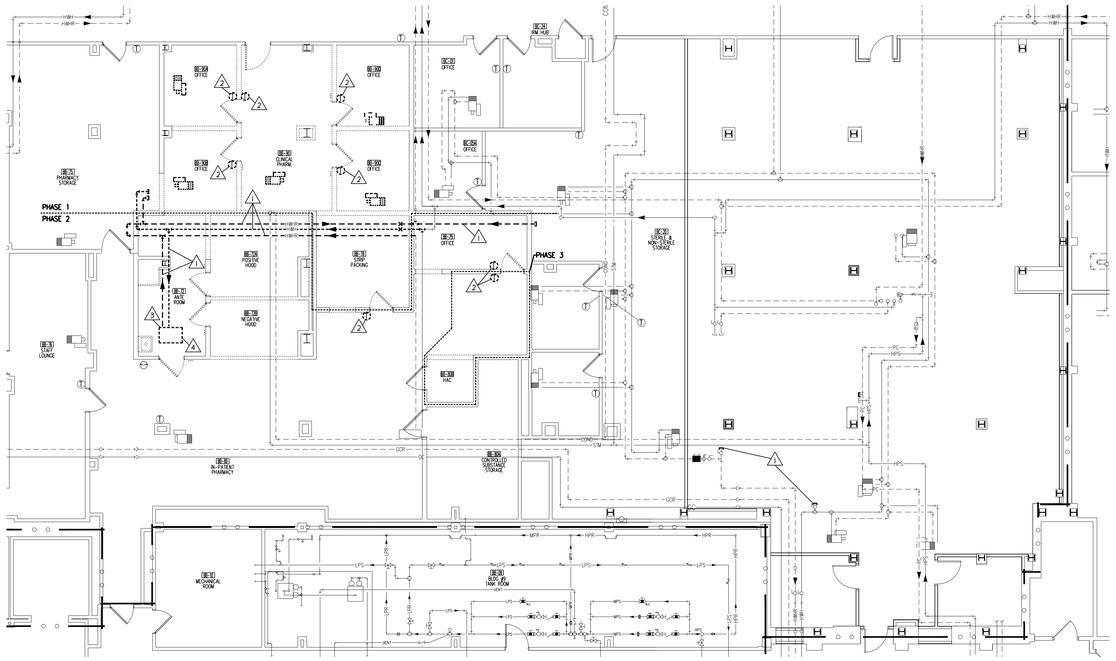
3 MD-101 PENTHOUSE FLOOR PLAN - HVAC PIPING DEMOLITION

1/8"=1'-0"



2 MD-101 FIRST FLOOR PLAN - HVAC PIPING DEMOLITION

1/8"=1'-0"



1 MD-101 BASEMENT FLOOR PLAN - HVAC PIPING DEMOLITION

1/8"=1'-0"

HVAC PIPING DEMOLITION NOTES:

A. DEMOLITION DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS. PROVIDE ADDITIONAL DEMOLITION AS REQUIRED BASED ON FIELD CONDITIONS.

B. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE DEMOLITION OF EXISTING HVAC PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

C. THIS CONTRACTOR SHALL OPEN ALL WALLS AND/OR CEILINGS FOR DEMOLITION OF EXISTING HVAC PIPING, EQUIPMENT, ETC. AS REQUIRED.

D. THIS CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL HOLES/WALLS AND OR CEILINGS FROM DEMOLISHED HVAC PIPING, EQUIPMENT, ETC. IN FLOORS, WALLS, AND CEILINGS TO MATCH EXISTING.

1. DISCONNECT AND REMOVE EXISTING HEATING WATER PIPING AND ALL ASSOCIATED VALVES, FITTINGS AND HANGERS. CAP EXISTING PIPING AT MAIN AS REQUIRED. PREPARE EXISTING PIPING FOR NEW CONNECTION AS REQUIRED.

2. DISCONNECT AND REMOVE EXISTING THERMOSTAT AND ALL ASSOCIATED CONTROL WIRING. PATCH WALL TO MATCH EXISTING AS REQUIRED.

3. DISCONNECT AND REMOVE EXISTING HEATING WATER PIPING FROM EXISTING TERMINAL COIL AND ALL ASSOCIATED VALVES, FITTINGS AND HANGERS. CAP EXISTING PIPING AT MAIN AS REQUIRED. PREPARE EXISTING PIPING FOR NEW CONNECTION AS REQUIRED.

4. M.C. TO PROVIDE TEMPORARY HEATING LINES TO THE TERMINAL HEATING COIL THAT SERVES THE EXISTING PHARMACY CLEANROOMS TO ALLOW FOR DEMOLITION OF THE EXISTING MAINS UNDER PHASE 1. ROUTE TEMPORARY HEATING LINES OUTSIDE OF PHASE 1 AREA. DISCONNECT AND REMOVE TEMPORARY HEATING LINES DURING PHASE 2.

HVAC PIPING PHASING NOTES:

1. ALL HEATING WORK REQUIRED IN THE REMODEL AREA THAT AFFECTS AREAS STILL IN OPERATION MUST BE PERFORMED IN THE COOLING SEASON.
2. ALL HEATING WORK REQUIRED AFFECTING OTHER AREAS SHALL BE COMPLETED DURING OVERTIME OR WEEKEND HOURS. COORDINATE THIS WORK WITH OWNER A MINIMUM OF 2 WEEKS IN ADVANCE.

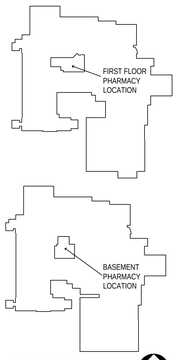


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IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: BASEMENT, FIRST FLR AND PENTHOUSE HVAC PIPING DEMOLITION PLANS

Elec File Name: 2019250_H1.dwg

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Project Number: VA #437-18-101

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Drawing # 17 of 31

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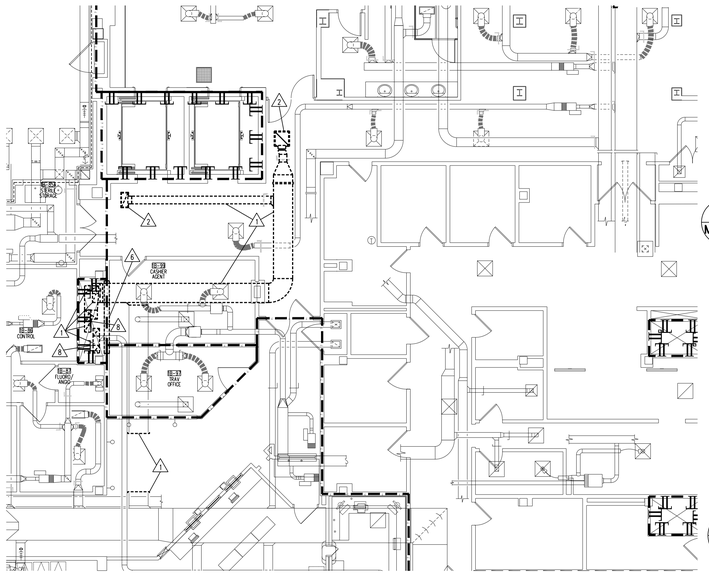
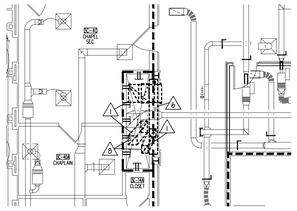
VA FORM 08-6231



8 MD-102 FIRST FLOOR PLAN - VENTILATION DEMOLITION
1/8"=1'-0"



6 MD-102 THIRD FLOOR PLAN - VENTILATION DEMOLITION
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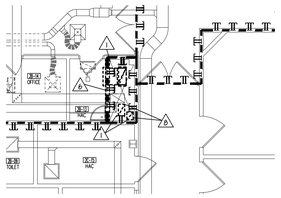

5 MD-102 SECOND FLOOR PLAN - VENTILATION DEMOLITION
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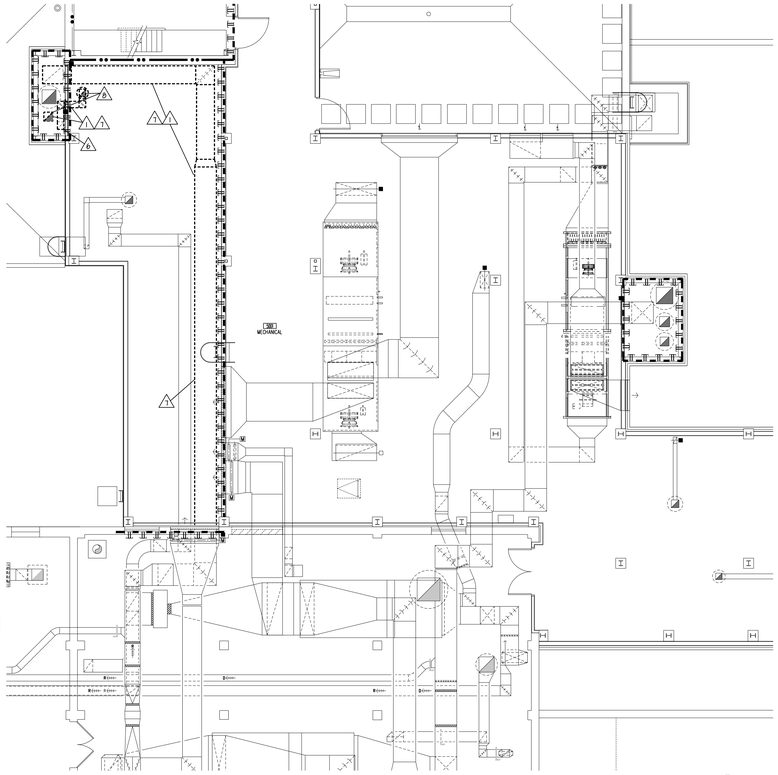


3 MD-102 PENTHOUSE FLOOR PLAN - VENTILATION DEMOLITION
1/8"=1'-0"

VENTILATION DEMOLITION NOTES:

A. DEMOLITION DRAWINGS ARE DIAGRAMMATIC ONLY AND ARE BASED ON FIELD OBSERVATION AND EXISTING RECORD DRAWINGS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS. PROVIDE ADDITIONAL DEMOLITION AS REQUIRED BASED ON FIELD CONDITIONS.

B. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE DEMOLITION OF EXISTING VENTILATION DUCTWORK, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

C. THIS CONTRACTOR SHALL OPEN ALL WALLS AND/OR CEILINGS FOR DEMOLITION OF EXISTING VENTILATION DUCTWORK, EQUIPMENT, ETC. AS REQUIRED.

D. THIS CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL HOLES/WALLS AND OR CEILINGS FROM DEMOLISHED VENTILATION DUCTWORK, EQUIPMENT, ETC. IN FLOORS, WALLS, AND CEILINGS TO MATCH EXISTING.

1. DISCONNECT AND REMOVE EXISTING DUCTWORK AND ALL ASSOCIATED DAMPERS AND HANGERS. CAP EXISTING DUCTWORK AT MAIN AS REQUIRED. PREPARE EXISTING DUCTWORK FOR NEW CONNECTION AS REQUIRED.

2. DISCONNECT AND REMOVE EXISTING DIFFUSER, REGISTER OR GRILLE AND ALL ASSOCIATED DUCTWORK, DAMPERS AND HANGERS. PATCH WALL AND/OR CEILING TO MATCH EXISTING AS REQUIRED.

3. DISCONNECT AND REMOVE EXISTING ROOF HOOD AND ALL ASSOCIATED DUCTWORK, CURB AND DAMPERS. CAP EXISTING DUCTWORK AT MAIN AS REQUIRED. PREPARE EXISTING DUCTWORK FOR NEW CONNECTION AS REQUIRED. PATCH ROOF WEATHER TIGHT TO MATCH EXISTING AS REQUIRED.

4. DISCONNECT AND REMOVE EXISTING VAV BOX AND ALL ASSOCIATED DUCTWORK, DAMPERS, HANGERS, AND CONTROLS. CAP EXISTING DUCTWORK AT MAIN AS REQUIRED. PREPARE EXISTING DUCTWORK FOR NEW CONNECTION AS REQUIRED.

5. DISCONNECT AND REMOVE EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK, CURB, DAMPERS AND CONTROLS. PATCH ROOF AND/OR WALL WEATHER TIGHT TO MATCH EXISTING AS REQUIRED.

6. M.C. TO CUT AND PATCH EXISTING CHASE WALL AS REQUIRED TO DEMO AND INSTALL NEW DUCTWORK. COORDINATE WORK IN ADVANCE WITH OWNER AND PERFORM WORK DURING EVENING AND WEEKEND HOURS TO COORDINATE WITH STAFF IN THIS AREA. PATCH CHASE TO MATCH EXISTING AND MAINTAIN THE 2-HOUR FIRE RATED ASSEMBLY. COORDINATE WITH G.C. FOR WALL PATCHING AND FINISH.

7. MC TO REMOVE AND REPLACE CEILING TILES AS REQUIRED TO REMOVE EXISTING DUCT WORK. COORDINATE WORK IN ADVANCE WITH OWNER AND PERFORM WORK DURING EVENING WEEKEND HOURS TO COORDINATE WITH STAFF IN THIS AREA.

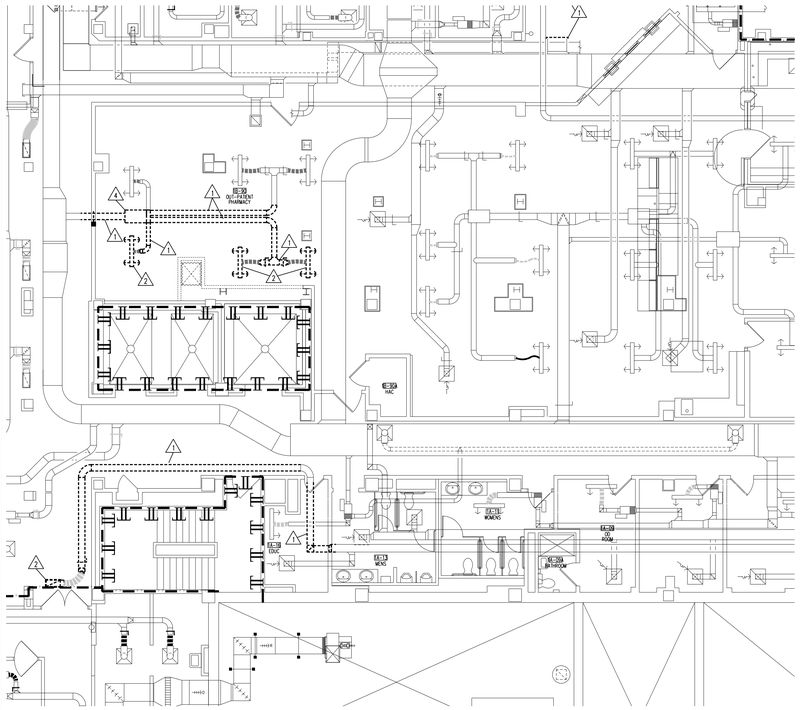
8. EXISTING PHARMACY HOOD EXHAUST DUCT WORK SHALL BE LEFT IN PLACE DURING PHASE 1 AND DEMOLISHED DURING PHASE 2. SEE THE NEW VENTILATION PLAN FOR COORDINATION OF THE EXISTING PHARMACY HOOD EXHAUST AND THE NEW DUCTS TO BE INSTALLED IN THE CHASE.

9. EXISTING PHARMACY HOOD EXHAUST FAN SHALL BE LEFT IN PLACE DURING PHASE 1 AND DEMOLISHED DURING PHASE 2.

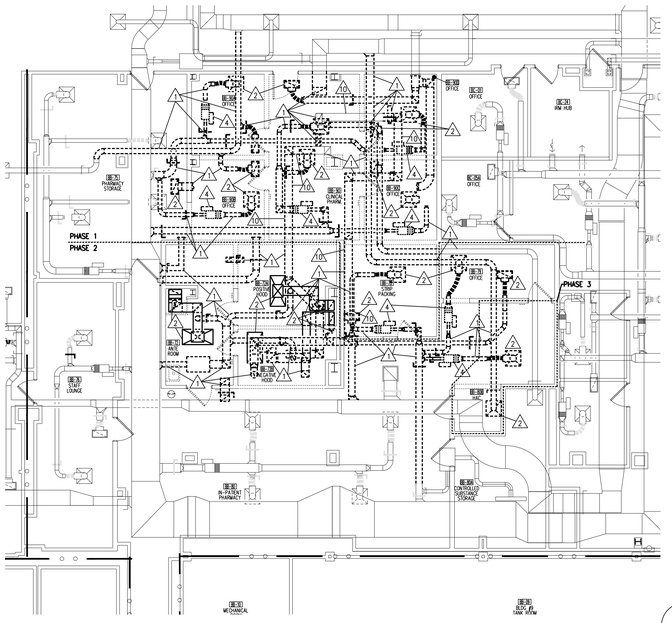
10. SEE NEW DRAWINGS FOR INSTALLATION OF NEW TEMPORARY PHARMACY HOOD EXHAUST DUCTS. TEMPORARY DUCTS SHALL BE INSTALLED PRIOR TO DEMOLITION OF THE EXISTING PHARMACY HOOD EXHAUST DUCTS TO MINIMIZE SHUTDOWN TIME.

VENTILATION PHASING NOTES:

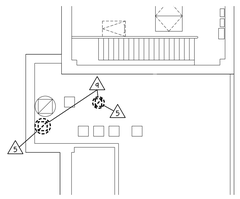
1. ALL VENTILATION WORK REQUIRED AFFECTING OTHER AREAS SHALL BE COMPLETED DURING OVERTIME OR WEEKEND HOURS. COORDINATE THIS WORK WITH OWNER A MINIMUM OF 2 WEEKS IN ADVANCE.



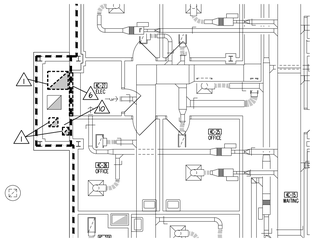
7 MD-102 FIRST FLOOR PLAN - VENTILATION DEMOLITION
1/8"=1'-0"



4 MD-102 BASEMENT FLOOR PLAN - VENTILATION DEMOLITION
1/8"=1'-0"



2 MD-102 ROOF PLAN - MECHANICAL DEMOLITION
1/8"=1'-0"



1 MD-102 FOURTH FLOOR PLAN - VENTILATION DEMOLITION
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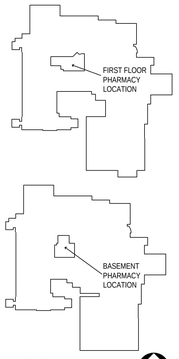

KEYPLAN
NTS

NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

CONSULTANTS:

CONTRACTOR:
MDM Construction
2215 Sheyenne St.
Fargo, ND 58078
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Seal

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STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
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Moorhead, MN 56560
218-233-2062

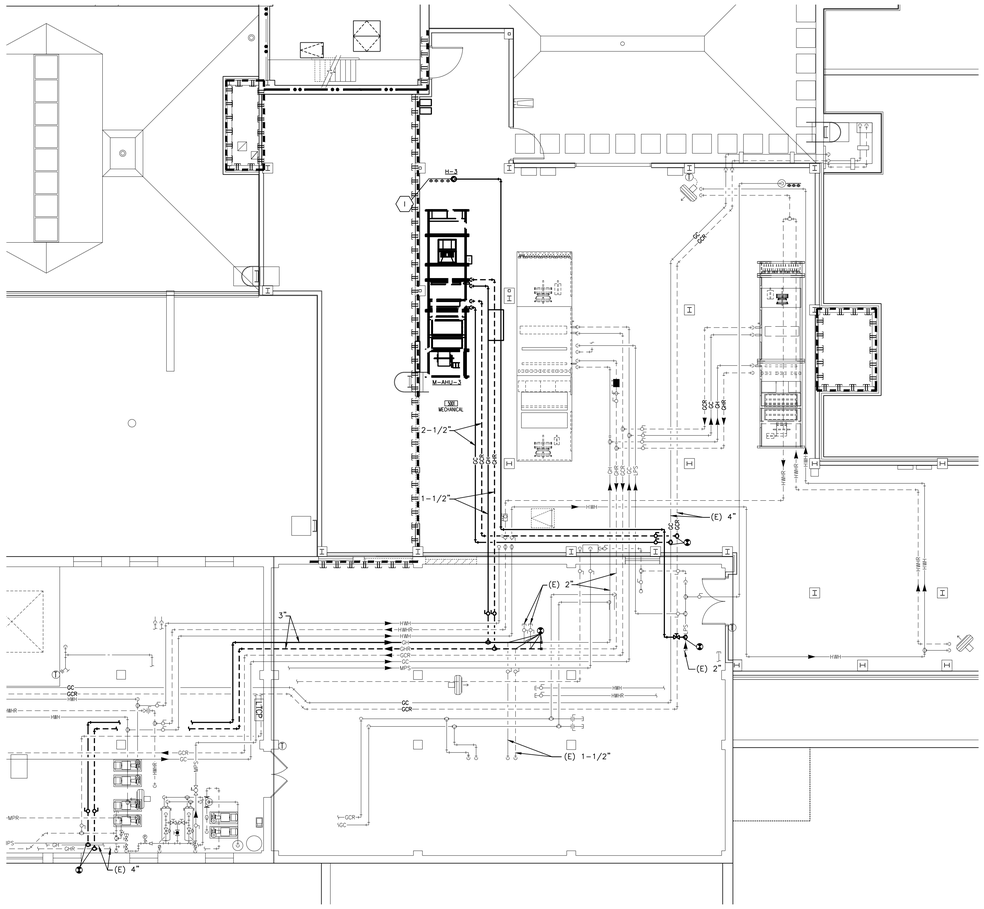
IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: VENTILATION DEMOLITION PLANS	Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO		Project Number: VA #437-18-101
			Building Number: 9 & 46
Elec File Name: 2019250_H3.dwg	Location: FARGO, NORTH DAKOTA		Drawing Number: MD-102
	Date: 09/23/2019	Checked: JCP / Drawn: SGA	Drawing # 18 of 31

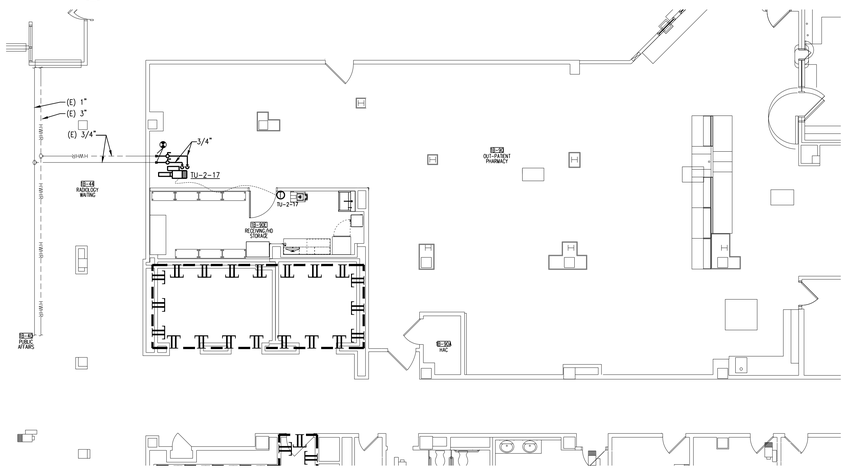
Veterans Health Administration

Department of Veterans Affairs

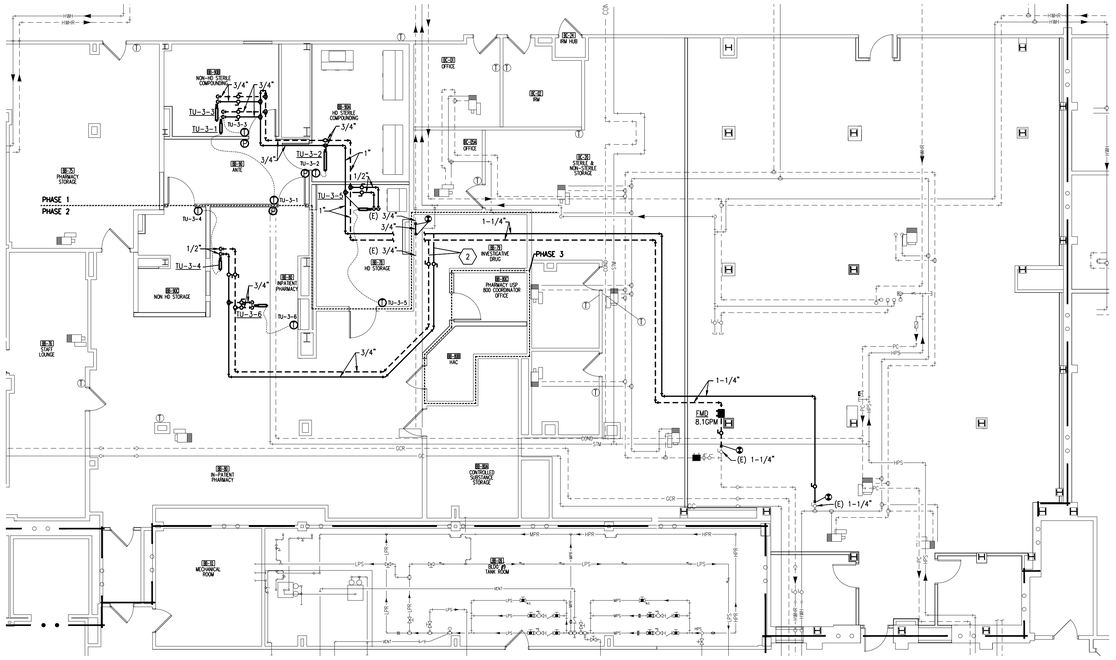
VA FORM 08-6231



3 ME-101 PENTHOUSE FLOOR PLAN - HVAC PIPING
1/8"=1'-0"



2 ME-101 FIRST FLOOR PLAN - HVAC PIPING
1/8"=1'-0"



1 ME-101 BASEMENT FLOOR PLAN - HVAC PIPING
1/8"=1'-0"

HVAC PIPING NOTES:

A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.

B. COORDINATE ALL HVAC PIPING INSTALLATION WITH GENERAL, PLUMBING, FIRE PROTECTION, VENTILATION, AND ELECTRICAL CONTRACTORS. INSTALL ALL HVAC PIPING AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP HVAC PIPING TIGHT TO THE STRUCTURE OR DUCTWORK ABOVE. OFFSET HVAC PIPING TO AVOID BEAMS AND INSTALLATION BY ALL TRADES.

C. REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW HVAC PIPING, EQUIPMENT, ETC.

D. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW HVAC PIPING, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

E. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS TO INSTALL NEW HVAC PIPING, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.

F. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.

G. ALL SHUT-OFF VALVES, CONTROL VALVES, STRAINERS, ETC., SHALL BE INSTALLED IN ACCESSIBLE CEILINGS. VALVES SHALL BE LOCATED NOT MORE THAN 2 FEET ABOVE ACOUSTICAL CEILINGS.

H. SHUT-OFF VALVES FOR ALL TERMINAL DEVICES SHALL BE AS ACCESSIBLE AS POSSIBLE TO THE CONTROLLED DEVICE.

I. PROVIDE 1/2" DRAIN VALVE AT ALL LOW POINTS OF EACH SYSTEM TO ENABLE COMPLETE DRAINAGE. PROVIDE 1/2" VENT VALVES AT ALL HIGH POINTS OF EACH SYSTEM TO ENABLE COMPLETE VENTING.

J. REFER TO SPECIFICATIONS FOR CEILING / WALL PENETRATIONS.

K. REFER TO DETAILS FOR REQUIRED VALVES AND TERMINAL DEVICES.

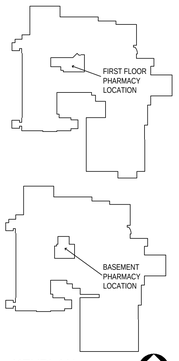
1. ROUTE 1" COND. FROM HUMIDIFIER TO NEW FLOOR DRAIN.

2. M.C. TO PROVIDE VALVES AND CAP PIPING AFTER THE VALVES DURING PHASE 1. REMOVE THE CAPS AND ROUTE THE REMAINING PIPING IN PHASE 2.

HVAC PIPING PHASING NOTES:

1. ALL HEATING WORK REQUIRED IN THE REMODEL AREA THAT AFFECTS AREAS STILL IN OPERATION MUST BE PERFORMED IN THE COOLING SEASON.

2. ALL HEATING WORK REQUIRED AFFECTING OTHER AREAS SHALL BE COMPLETED DURING OVERTIME OR WEEKEND HOURS. COORDINATE THIS WORK WITH OWNER A MINIMUM OF 2 WEEKS IN ADVANCE.



KEYPLAN
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Issue	Date:	Description

CONSULTANTS:

CONTRACTOR:
MDM CONSTRUCTION
MDM Construction
2215 Sheyenne St.
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MBN Engineering
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Phone: 701-478-6336

MECHANICAL:
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Fargo, ND 58102
Phone: 701-280-0500

Seal
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STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062
IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
BASEMENT, FIRST FLOOR, AND PENTHOUSE HVAC PIPING PLANS

Elec File Name:
2019250_H2.dwg

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date 09/23/2019 | Checked JCP | Drawn SGA

Project Number
VA #437-18-101

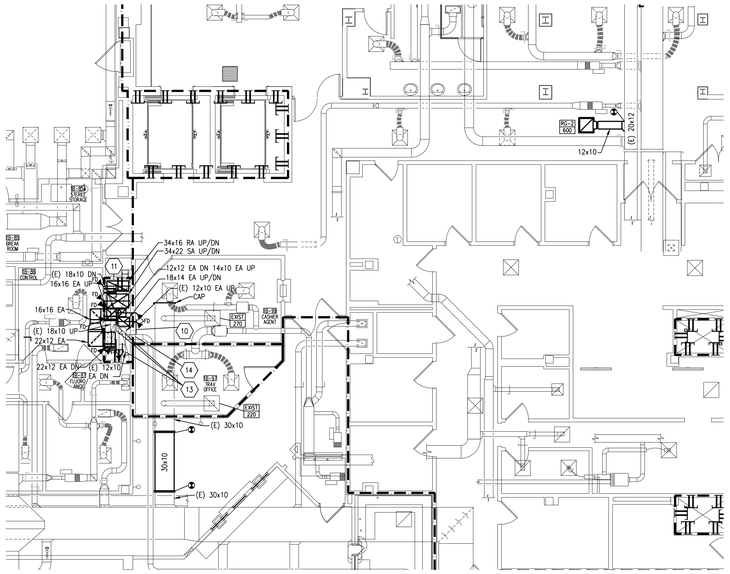
Building Number
9 & 46

Drawing Number
ME-101

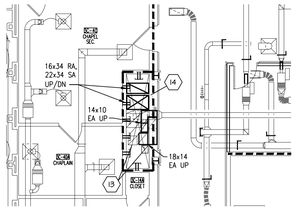
Drawing # 19 of 31

Veterans Health Administration
Department of Veterans Affairs

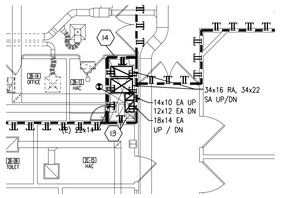
VA FORM 08-6231



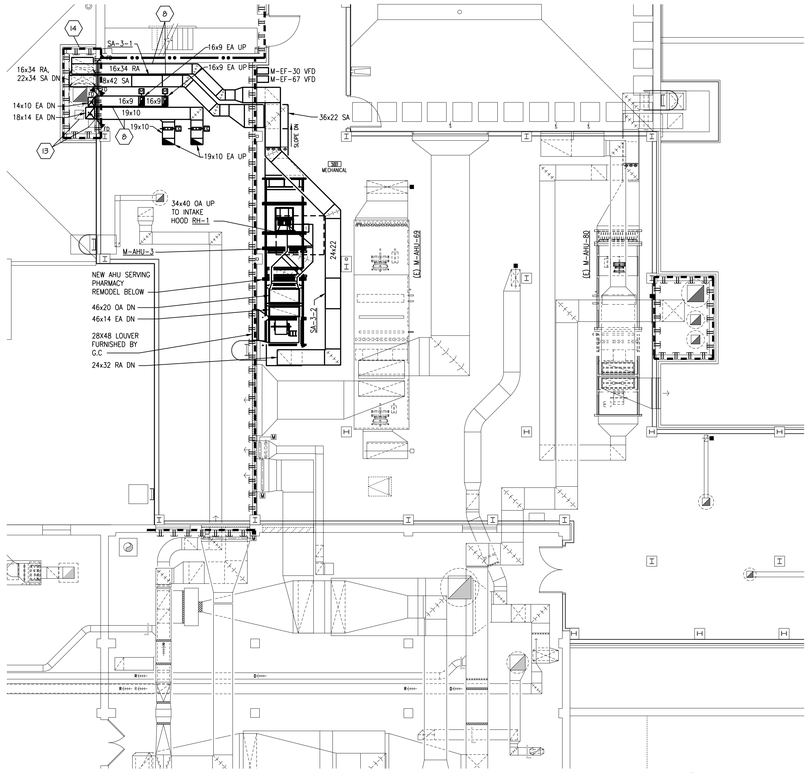
8 ME-102 FIRST FLOOR PLAN - VENTILATION 1/8"=1'-0"



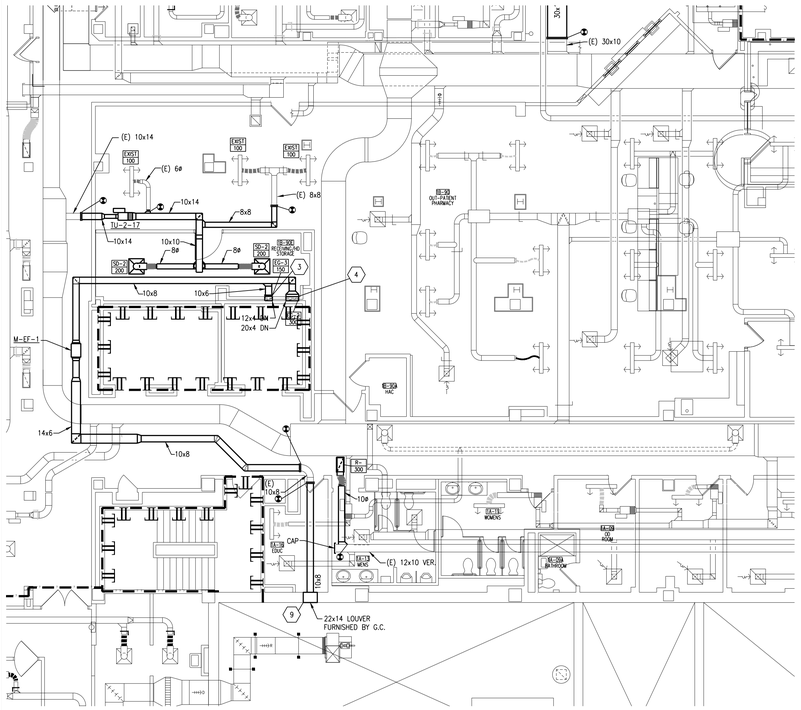
6 ME-102 THIRD FLOOR PLAN - VENTILATION 1/8"=1'-0"



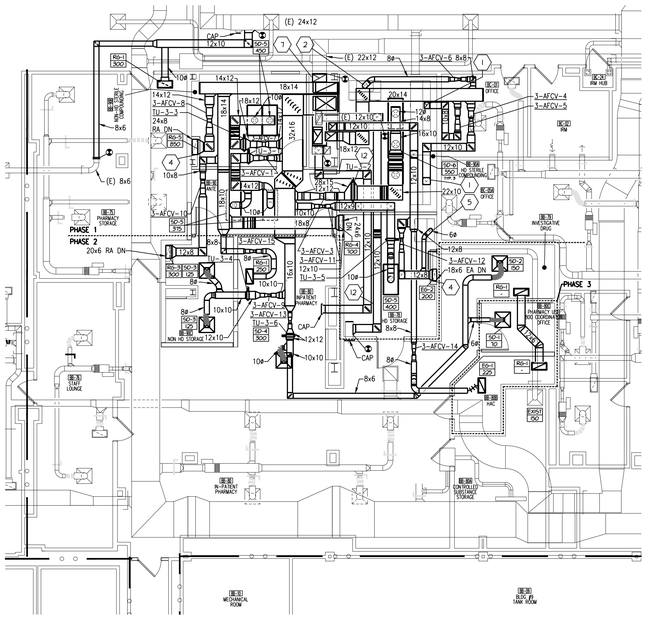
5 ME-102 SECOND FLOOR PLAN - VENTILATION 1/8"=1'-0"



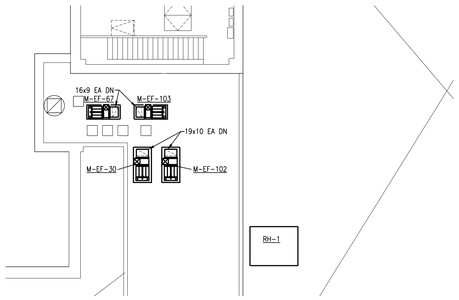
3 ME-102 PENTHOUSE FLOOR PLAN - VENTILATION 1/8"=1'-0"



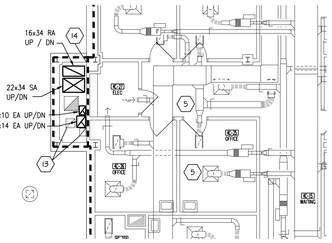
7 ME-102 FIRST FLOOR PLAN - VENTILATION 1/8"=1'-0"



4 ME-102 BASEMENT FLOOR PLAN - VENTILATION 1/8"=1'-0"



2 ME-102 ROOF PLAN - MECHANICAL 1/8"=1'-0"



1 ME-102 FOURTH FLOOR PLAN - VENTILATION 1/8"=1'-0"

VENTILATION NOTES:

A. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK AND NOTIFY THE ARCHITECT/ ENGINEER OF ANY DISCREPANCIES BETWEEN THE "AS-BUILT" CONDITIONS AND THESE DRAWINGS.

B. COORDINATE ALL DUCTWORK INSTALLATION WITH GENERAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL CONTRACTORS. INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE. PROVIDE ALL NECESSARY OFFSETS (DROPS AND RISES) TO KEEP DUCTWORK TIGHT TO THE STRUCTURE ABOVE AND INSTALLATION BY ALL TRADES. OFFSET DUCTWORK TO AVOID BEAMS.

C. REFER TO AND COORDINATE WITH THE ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS, SOFFIT AREAS, AND ELEVATIONS FOR INSTALLATION OF NEW VENTILATION DUCTWORK, EQUIPMENT, ETC.

D. THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND RE-INSTALLING OF EXISTING CEILING TILE NOT REMOVED BY THE GENERAL CONTRACTOR FOR THE INSTALLATION OF NEW VENTILATION DUCTWORK, EQUIPMENT, ETC. VERIFY WITH ARCHITECTURAL PLANS FOR CEILING WORK BY THE GENERAL CONTRACTOR. ANY CEILING TILE OR GRID DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW BY THIS CONTRACTOR.

E. THIS CONTRACTOR SHALL OPEN ALL EXISTING WALLS AND/OR CEILINGS FOR INSTALLATION OF NEW VENTILATION DUCTWORK, EQUIPMENT, ETC. AS REQUIRED. PATCH WALLS AND/OR CEILINGS TO MATCH EXISTING.

F. MAINTAIN 3'-0" CLEAR SPACE IN FRONT OF ALL ELECTRICAL, CONTROL, AND ACCESS PANELS FOR ACCESSIBILITY.

G. ALL DAMPERS, ETC. SHALL BE INSTALLED IN ACCESSIBLE CEILINGS.

H. ALL OPEN ENDS OF DUCTS SHALL BE CAPPED AT THE END OF CONSTRUCTION EACH DAY.

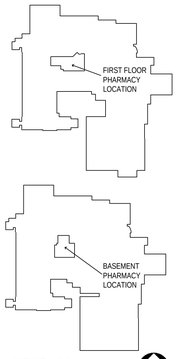
I. ALL TERMINAL UNITS, TERMINAL COILS, ETC. SHALL BE LOCATED AS ACCESSIBLE AS POSSIBLE TO THE CONTROLLED DEVICE.

J. REFER TO SPECIFICATION FOR CEILING / WALL PENETRATIONS.

1. 10x8 EXHAUST AIR DOWN TO HOOD CANOPY.
2. 8ø EXHAUST AIR DOWN TO HOOD.
3. BOTTOM OF EXHAUST GRILLE TO BE 6" ABOVE COUNTER.
4. BOTTOM OF EXHAUST GRILLE TO BE 12" AFF.
5. 6ø EXHAUST AIR DOWN TO HOOD (245 CFM)
6. M.C. TO REMOVE AND REPLACE CEILING TILES AND GRID AS REQUIRED TO INSTALL NEW DUCTWORK. COORDINATE WORK IN ADVANCE WITH OWNER AND PERFORM WORK DURING EVENING AND WEEKEND HOURS TO COORDINATE WITH STAFF IN THIS AREA.
7. 34x16 RA, 34x22 SA, 18x14 EA 12x12 EA 22x12 EA (E) 18x10 EA (E) 12x10 EA UP THROUGH CHASE
8. M.C. TO REMOVE AND REPLACE CEILING TILES AS REQUIRED TO INSTALL NEW DUCT WORK. COORDINATE WORK IN ADVANCE WITH OWNER AND PERFORM WORK DURING EVENING AND WEEKEND HOURS TO COORDINATE WITH STAFF IN THIS AREA.
9. M.C. TO COORDINATE DUCT INSTALLATION WITH EXTERIOR WALL BEAM. COORDINATE WITH G.C. AND PROVIDE A SOFFIT AS REQUIRED FOR CONNECTION TO LOUVER. COORDINATE WITH G.C. FOR ADDED LINTEL ABOVE LOUVER.
10. 2' W x 3' H - 1.5 HOUR RATED ACCESS DOOR INSTALLED AT THE FLOOR LINE OF THE CHASE. ACCESS DOOR SHALL BE PROVIDED AND INSTALLED BY THE G.C.. COORDINATE THE ACCESS DOOR AND ASSOCIATED WORK WITH THE G.C..
11. FIRE DAMPER TO BE INSTALLED AT THE FLOOR LEVEL OF 1ST FLOOR FOR BOTH EXISTING AND NEW DUCT PENETRATIONS.
12. EXHAUST DUCT TO BE INSTALLED AND USED AS A TEMPORARY FOR THE EXISTING PHARMACY HOOD AND IS TO BE ONLY IN USE DURING PHASE 1. DURING PHASE 2 CAP DUCT AS INDICATED ON THE DRAWING. INSTALL THIS DUCT PRIOR TO DEMOLITION OF THE EXISTING DUCT TO MINIMIZE SHUTDOWN TIME OF THE EXISTING PHARMACY SPACE.
13. EXISTING PHARMACY HOOD EXHAUST DUCT IS SHOWN FOR COORDINATION FOR THE INSTALLATION OF THE NEW DUCTS THAT ARE ROUTED IN THE CHASE. THE NEW DUCTS WILL BE INSTALLED PRIOR TO THE EXISTING PHARMACY HOOD EXHAUST DUCTS BEING DEMOLISHED. NEW DUCTS TO BE INSTALLED DURING PHASE 1 AND EXISTING PHARMACY HOOD EXHAUST DUCTS TO BE DEMOLISHED DURING PHASE 2.
14. M.C. TO CUT AND PATCH EXISTING CHASE WALL AS REQUIRED TO DEMO AND INSTALL NEW DUCTWORK. COORDINATE WORK IN ADVANCE WITH OWNER AND PERFORM WORK DURING EVENING AND WEEKEND HOURS TO COORDINATE WITH STAFF IN THIS AREA. PATCH CHASE TO MATCH EXISTING AND MAINTAIN THE 2-HOUR FIRE RATED ASSEMBLY. COORDINATE WITH G.C. FOR WALL PATCHING AND FINISH.

VENTILATION PHASING NOTES:

1. REFER TO PHASING LINE IN BASEMENT VENTILATION DRAWINGS FOR DEMARCATION BETWEEN PHASE 1 AND PHASE 2. PROVIDE VOLUME DAMPERS AND CAPPED DUCTS AT THE LINE OF DEMARCATION AS REQUIRED FOR PHASE 2 TIE-INS.
2. ALL VENTILATION WORK REQUIRED AFFECTING OTHER AREAS SHALL BE COMPLETED DURING OVERTIME OR WEEKEND HOURS. COORDINATE THIS WORK WITH OWNER A MINIMUM OF 2 WEEKS IN ADVANCE.



KEYPLAN
NTS
NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

CONSULTANTS:

CONTRACTOR:
MDM Construction
2215 Sheyenne St.
Fargo, ND 58078
Phone: 701-356-3956

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Seal
PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

ARCHITECT OF RECORD:
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STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: VENTILATION PLANS

Elec File Name: 2019250_H4.dwg

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Project Number: VA #437-18-101

Building Number: 9 & 46

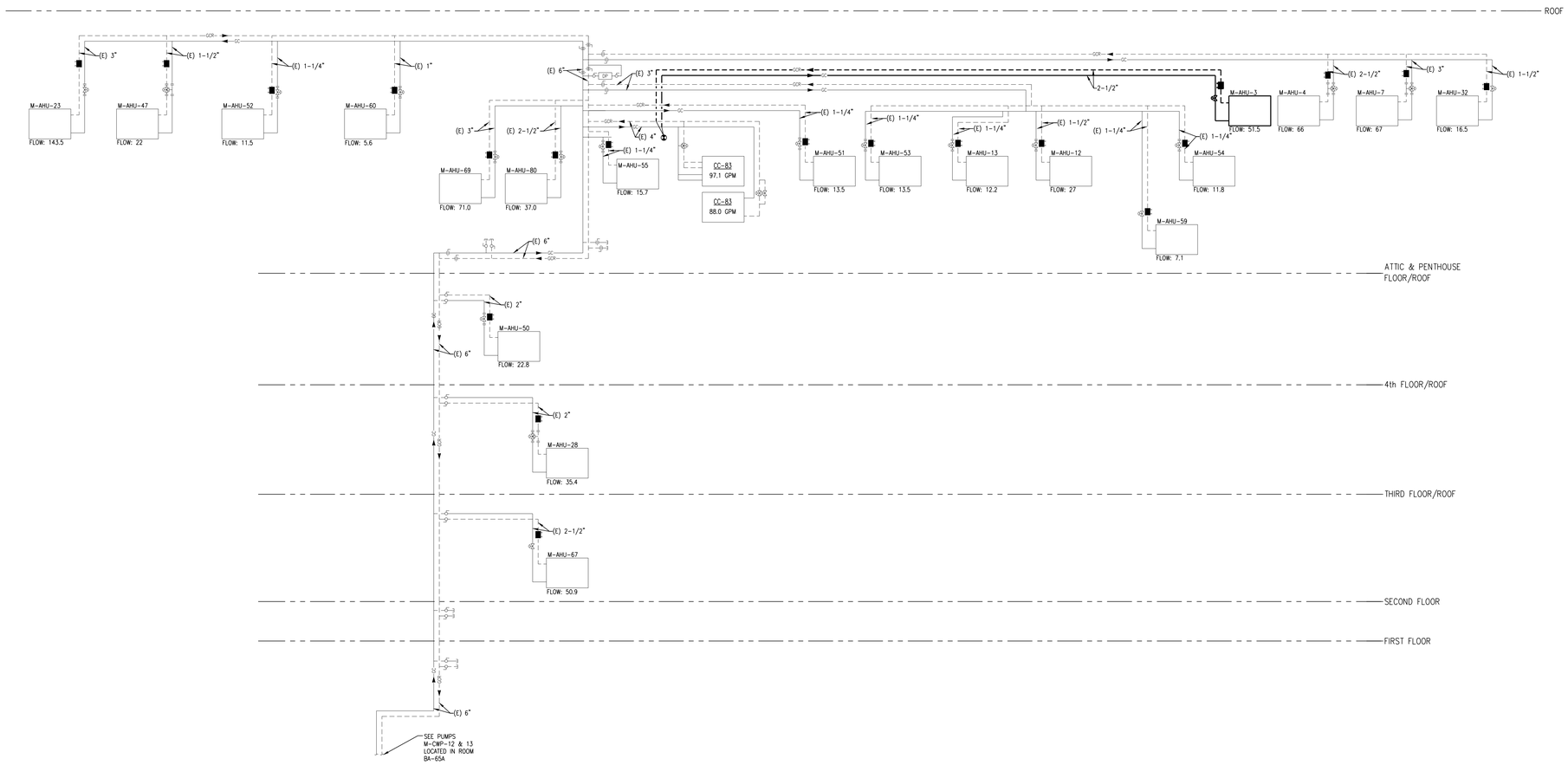
Drawing Number: ME-102

Drawing # 20 of 31

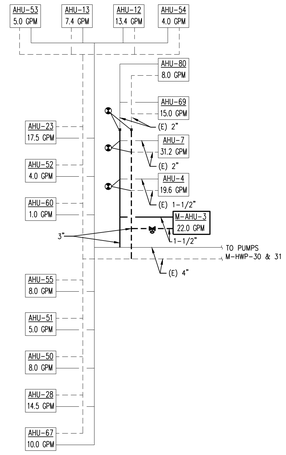
Veterans Health Administration

Department of Veterans Affairs

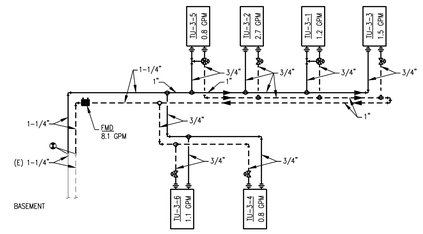
VA FORM 08-6231



3 ME-103 CHILLED WATER SCHEMATIC
1/8"=1'-0"



2 ME-103 HEATING WATER SCHEMATIC
1/8"=1'-0"



1 ME-103 HEATING COIL SCHEMATIC
1/8"=1'-0"

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

CONSULTANTS:

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MDM Construction
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IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: MECHANICAL SCHEMATICS

Elec File Name: 2019250_H5.dwg

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Project Number: VA #437-18-101

Building Number: 9 & 46

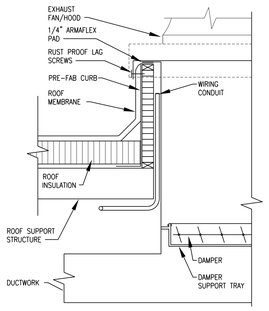
Drawing Number: ME-103

Drawing # 21 of 31

Veterans Health Administration

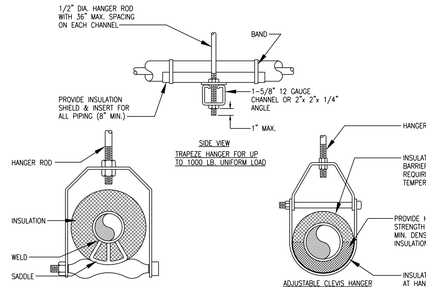
Department of Veterans Affairs

VA FORM 08-6231



20 ME-104 ROOF CURB PENETRATION DETAIL

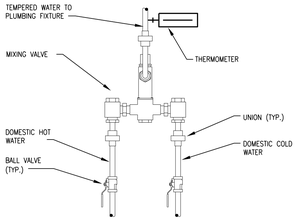
SCALE: NTS



MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET																		
NOM. SIZE	THRU 3/4"	1	1¼	1½	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
PIPE	7 FT	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	30	32
TUBING	5 FT	6	7	8	8	9	10	12	13	14	16	–	–	–	–	–	–	–
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																		

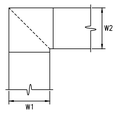
18 ME-104 TYPICAL PIPE HANGERS

SCALE: NTS



15 ME-104 PLUMBING MIXING VALVE DETAIL

SCALE: NTS

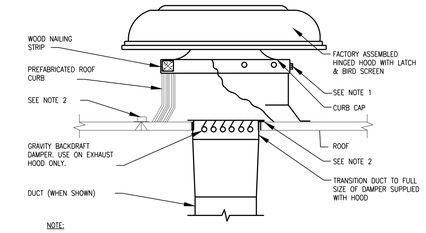


NOTES:

1. ALL VANED ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2 VANE SHALL BE SINGLE VANE TYPE REGARDLESS OF W1 OR W2 DIMENSION.
3. ALL SINGLE VANES SHALL HAVE A 2 INCH RADIUS, 1-1/2 INCH MAXIMUM SPACE BETWEEN VANES AND A 3/4 INCH TRAILING EDGE.
4. WHEN W1 EQUALS W2 AND W1 IS GREATER THAN 20 INCHES VANES SHALL BE DOUBLE VANE TYPE.
5. VANES NOT ALLOWED IN RETURN OR EXHAUST DUCTS

10 ME-104 SQUARE VANED ELBOW

SCALE: NTS

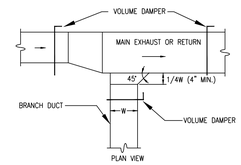


NOTE:

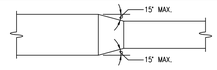
1. SECURE HOOD TO WOOD NAILING STRIP WITH 3/8" CADMIUM PLATED LAG BOLTS NOT OVER 12" ON CENTER.
2. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF WITH EXPANSION BOLTS (CONCRETE ROOF) OR RUST RESISTANT BOLTS (METAL DECK & BAR JOIST ROOF).
3. SIZE OF DUCT THROUGH ROOF SHALL NOT BE LARGER THAN CURB SUPPLIED WITH HOOD.

5 ME-104 LOW-SIHOUETTE EXHAUST OR INTAKE HOOD

SCALE: NTS



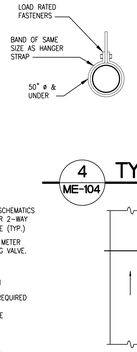
EXHAUST AND/OR RETURN BRANCH DUCT



PLAN OR SIDE VIEW

9 ME-104 DUCT TRANSITION

SCALE: NTS

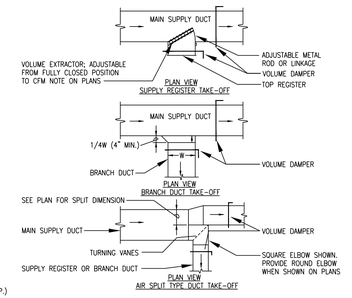


HANGER STRAPS OR RODS			
MAX. DUCT ø IN.	QUANTITY/SIZE IN.	MAX. LOAD LBS.	MAX. SPACING IN.
26	ONE 1 x 22 GA STRAP	260	144
36	ONE 1 x 18 GA STRAP	420	144
50	ONE 1 x 16 GA STRAP	700	144

NOTE:
TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

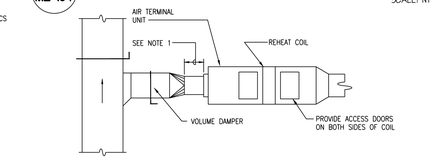
4 ME-104 TYP. ROUND DUCT HANGER DETAIL

SCALE: NTS



14 ME-104 SUPPLY DUCT TAKE-OFFS

SCALE: NTS

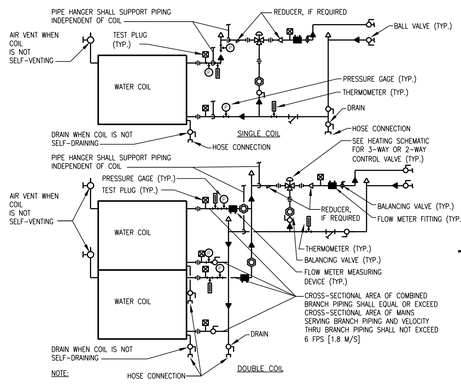


NOTES:

1. STRAIGHT DUCT CONNECTION OF THREE DUCT DIAMETERS MINIMUM LENGTH SHALL BE PROVIDED FOR AIR TERMINAL UNIT INLET DUCT CONNECTION.

3 ME-104 DUCT CONNECTION FOR AIR TERMINAL UNITS

SCALE: NTS

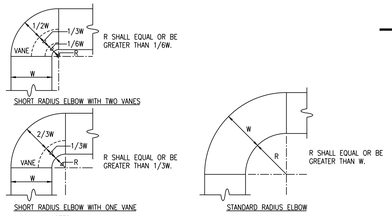


NOTE:

1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST 2 HANGERS FOR EACH PIPE SHALL BE SPRING & NEOPRENE TYPE. TYPE "H" FOR 4" ø PIPE & SMALLER. TYPE "H-P" FOR 5" [125mm]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, VALVES, OR EQUIPMENT.
3. A STRAIGHT-THRU MODULATING CONTROL VALVE IS SHOWN BY SOLID PIPING. WHEN CONTROL DIAGRAMS INDICATE A THREE-WAY MODULATING CONTROL VALVE IS REQUIRED, PROVIDE DASHED PIPING ALSO.

17 ME-104 TYPICAL PIPING CONNECTIONS TO WATER COILS DETAIL

SCALE: NTS

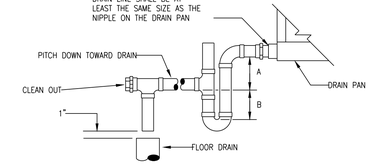


NOTES:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS SHOWN ON PLANS MAY BE MADE SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

12 ME-104 RADIUS ELBOWS

SCALE: NTS

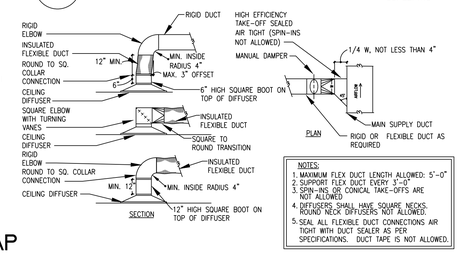


UNIT TYPE	A	B
DRAW THRU	2" PLUS X	X
BLOW THRU	1" MIN.	2X

WHERE X = STATIC PRESSURE IN PAN

7 ME-104 AIR HANDLING UNIT DRAIN TRAP

SCALE: NTS

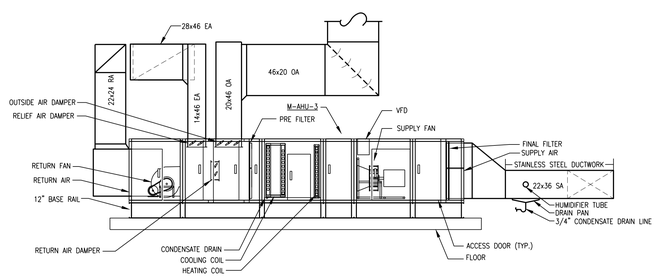


NOTES:

1. MAXIMUM FLEX DUCT LENGTH ALLOWED: 5'-0"
2. SUPPORT FLEX DUCT EVERY 3'-0"
3. SPIN-INS OR CONICAL TAKE-OFFS ARE NOT ALLOWED.
4. DIFFUSERS SHALL HAVE SQUARE NECKS. ROUND NECK DIFFUSERS NOT ALLOWED.
5. SEAL ALL FLEXIBLE DUCT CONNECTIONS AIR TIGHT WITH DUCT SEALER AS PER SPECIFICATIONS. DUCT TAPE IS NOT ALLOWED.

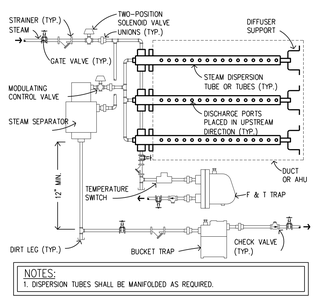
2 ME-104 SUPPLY DUCT TO DIFFUSER DETAIL

SCALE: NTS



19 ME-104 AIR HANDLING UNIT SECTION

1/4"=1'-0"

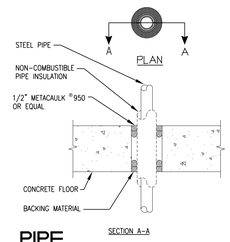


NOTES:

1. DISPERSION TUBES SHALL BE MANIFOLDED AS REQUIRED.

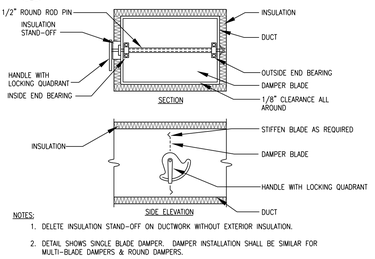
16 ME-104 STEAM HUMIDIFIER (HORI. TYPE) DETAIL MULTIPLE DISPERSION

SCALE: NTS



11 ME-104 PIPE PENETRATION DETAIL

SCALE: NTS

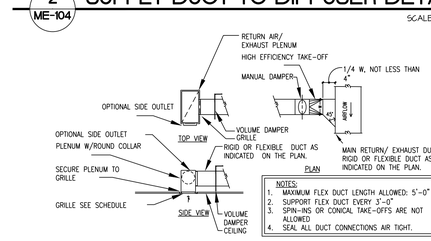


NOTES:

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

6 ME-104 VOLUME DAMPER DETAIL

SCALE: NTS



NOTES:

1. MAXIMUM FLEX DUCT LENGTH ALLOWED: 5'-0"
2. SUPPORT FLEX DUCT EVERY 3'-0"
3. SPIN-INS OR CONICAL TAKE-OFFS ARE NOT ALLOWED
4. SEAL ALL DUCT CONNECTIONS AIR TIGHT.

1 ME-104 RETURN/EXHAUST DUCT TO GRILLE DETAIL

SCALE: NTS

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

CONSULTANTS:

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2215 Sheyenne St.
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MECHANICAL: ONE
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218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: MECHANICAL SECTIONS AND DETAILS

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Project Number: VA #437-18-101

Building Number: 9 & 46

Elec File Name: 2019250_H6.dwg

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Drawing Number: ME-104

Drawing # 22 of 31

Veterans Health Administration

Department of Veterans Affairs

VA FORM 08-6231

ABBREVIATIONS LEGEND

AC	AIR CONDITIONING UNIT	ERP	ELECTRIC RADIANT CEILING PANEL	PFW	PUMPED FEED WATER
ACC	AIR COOLED CONDENSER	ET	EXPANSION TANK	POW	PROPYLENE GLYCOL-WATER SOLUTION
ACCU	AIR COOLED CONDENSING UNIT	EUH	ELECTRIC UNIT HEATER		PREHEAT
ACRCU	AIR COOLED RECIPROCATING CHILLER UNIT	EWC	EVAPORATIVE WATER COOLER	PH	POWER OPERATED, OPPOSED BLADE
ACU	ABSORPTION CHILLER UNIT	EX.	EXISTING	POD	DAMPER
AD	ACCESS DOOR	FC	FLEXIBLE CONNECTION	PPD	POWER OPERATED, PARALLEL BLADE
AF	AFTER FILTER	FCU	FAN COIL UNIT		DAMPER
AFCE	AIR FLOW CONTROL VALVE	FCW	FORWARD CURVED FAN	PRV	PRESSURE REDUCING VALVE
AFM	AIR FLOW MEASURING DEVICE	FLR	FLOOR	R/A	RETURN AIR
AFW	AIR FOIL WHEEL	F.DPR.	FIRE DAMPER	RCU	RECIPROCATING CHILLER UNIT
AHU	AIR HANDLING UNIT	FS	FACTORY FABRICATED FAN SECTION	RF	RETURN FAN
AP	ACCESS PANEL	FTR	FIN TUBE RADIATION	RH	REHEAT COIL
BWW	BACKWARD INCLINED WHEEL	GH	GRAVITY HOOD	Rh	RELATIVE HUMIDITY
BG	BOTTOM GRILLE (WALL TYPE)	HC	HEATING COIL	RV	POWER TYPE ROOF VENTILATOR
BR	BOTTOM REGISTER (WALL TYPE)	HO	HOOD	S/A	SUPPLY AIR
C	CONVERTOR	HE	AIR TO AIR HEAT EXCHANGER	SA	SOUND ATTENUATING UNIT
CC	COOLING COIL	HF	HEPA FILTER	SCD	SMOKE CONTROL DAMPER
CCF	CENTRIFUGAL CEILING FAN	HP	HORSEPOWER	SCR	SILICON CONTROLLED RECTIFIER
CCU	CENTRIFUGAL OR HELICAL ROTARY SCREW	HPR	HIGH PRESSURE STEAM CONDENSATE	SD.	SMOKE DAMPER
	CHILLER UNIT		RETURN	Sp. Gr.	SPECIFIC GRAVITY
CD	CEILING DIFFUSER	HPS	HIGH PRESSURE STEAM	SH	STEAM HUMIDIFIER
CF	CENTRIFUGAL FAN	HRP	HYDRONIC RADIANT CEILING PANEL	SP	STATIC PRESSURE
CG	CEILING GRILLE	HV	HEATING AND VENTILATING UNIT	SPS	STATIC PRESSURE SENSOR
CO	CLEAN OUT	ICF	IN-LINE CENTRIFUGAL FAN	TG	TOP GRILLE (WALL TYPE)
COMP.	COMPRESSOR	IEF	INDUSTRIAL EXHAUST FAN	TR	TOP REGISTER (WALL TYPE)
CONV.	CONVECTOR	IFB	INTEGRAL FACE AND BYPASS	TWU	THRU WALL UNIT
CP	CONDENSATE PUMP	IU	INDUCTION UNIT	UC	UNIT COOLER
CR	CEILING REGISTER	IV	INLET VANES	UH	UNIT HEATER
CU	CONDENSING UNIT	LCD	LINEAR CEILING DIFFUSER	URV	UPBLAST POWER TYPE ROOF VENTILATOR
CUH	CABINET UNIT HEATER	LPR	LOW PRESSURE STEAM CONDENSATE	UV	UNIT VENTILATOR
CW	COLD WATER		RETURN	V	VALVE
D	AUTOMATIC DAMPER	LPS	LOW PRESSURE STEAM	VAF	VANE AXIAL FAN
Db	DRY BULB TEMPERATURE	LTCP	LOCAL TEMPERATURE CONTROL PANEL	VCC	VOLUMETRIC CONTROL CENTER
dB	DECIBELS	LBS/HR	POUNDS PER HOUR	VD	VOLUME DAMPER (MANUAL OPPOSED
DD	DISCHARGE DAMPERS	MB	MIXING BOX		BLADE)
Dp	DEWPOINT TEMPERATURE	MER	MECHANICAL ROOM	VE	VOLUME EXTRACTOR
DX	DIRECT EXPANSION	MPR	MEDIUM PRESSURE STEAM CONDENSATE	VFD	VARIABLE FREQUENCY DRIVE
E/A	EXHAUST AIR		RETURN	VI	VIBRATION ISOLATOR
EC	EVAPORATIVE CONDENSER	MPS	MEDIUM PRESSURE STEAM	VIV	VARIABLE INLET VANES
ECC	ENGINEERING CONTROL CENTER	MAX.	MAXIMUM	VP	VACUUM PUMP
EDH	ELECTRIC COIL DUCT HEATER	MIN.	MINIMUM	VR	VACUUM STEAM CONDENSATE RETURN
EER	ENERGY EFFICIENCY RATIO	NOM.	NOMINAL	VSMC	VARIABLE SPEED MOTOR CONTROLLER
EF	EXHAUST FAN	O/A	OUTDOOR AIR	Wb	WET BULB TEMPERATURE
EGW	ETHYLENE GLYCOL-WATER SOLUTION (%	P	PUMP	WEF	WALL TYPE EXHAUST FAN
	GLYCOL BY VOLUME)	PC	PUMPED CONDENSATE	WF	WATER FILTER
EMD	END OF MAIN DRIP (STEAM)	PD	PRESSURE DROP	WFMD	WATER FLOW MEASURING DEVICE
ERC	ENERGY RECOVERY COIL	PEF	PROPELLER TYPE EXHAUST FAN	ATC	AUTOMATIC TEMPERATURE CONTROL
		PF	PRE-FILTER	(E)	EXISTING

MECHANICAL SYMBOLS & ABBREVIATIONS LEGEND

PIPING SYMBOLS

HEATING

- HPS — HIGH PRESSURE STEAM (60 PSIG & ABOVE)
- HPR — HIGH PRESSURE STEAM CONDENSATE RETURN
- LPS — LOW PRESSURE STEAM (15 PSIG AND BELOW)
- LPR — LOW PRESSURE STEAM CONDENSATE RETURN
- MPS — MEDIUM PRESSURE STEAM (16 PSIG THRU 59 PSIG)
- MPR — MEDIUM PRESSURE STEAM CONDENSATE RETURN
- CPD — CONDENSATE PUMP DISCHARGE
- HWH — HOT WATER HEATING SUPPLY
- HWR — HOT WATER HEATING RETURN
- GHS — HOT GLYCOL-WATER HEATING SUPPLY
- GHR — HOT GLYCOL-WATER HEATING RETURN
- V — VENT LINE

AIR CONDITIONING

- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RHG — REFRIGERANT HOT GAS
- CWIT — CONDENSER WATER TO TOWER
- CWIT — CONDENSER WATER FROM TOWER
- CH — CHILLED WATER SUPPLY
- CHR — CHILLED WATER RETURN
- GCS — CHILLED GLYCOL-WATER SUPPLY
- GCR — CHILLED GLYCOL-WATER RETURN
- MU — MAKE-UP WATER
- D — DRAIN LINE

GENERAL

- DIRECTION OF PIPE PITCH (DOWN)
- DIRECTION OF FLOW
- ANCHOR
- REDUCER OR INCREASER
- ECCENTRIC REDUCER
- TOP CONNECTION, 45° OR 90°
- BOTTOM CONNECTION, 45° OR 90°
- SIDE CONNECTION
- CAPPED OUTLET
- RISE OR DROP IN PIPE
- UNION
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESSORIES (SEE STD. DETAIL)
- FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES (SEE STD. DETAIL)
- STRAINER
- THERMOMETER
- PRESSURE GAUGE
- WATER FLOW MEASURING DEVICE
- WATER FLOW MEASURING DEVICE
- G — NATURAL GAS
- A — COMPRESSED AIR

VALVES SYMBOLS

- GATE VALVE
- GLOBE VALVE
- GATE VALVE w/ 3/4" HOSE ADAPTOR
- CHECK VALVE
- ANGLE GLOBE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- BALANCING COCK
- STRAIGHT-THRU MODULATING CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- SAFETY OR PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESSURE/TEMPERATURE)

FIRE RATING LEGEND

- 1 HR FIRE RATED
- 2 HR FIRE RATED
- COMBINED 1 HR RATED & SMOKE BARRIER
- COMBINED 2 HR RATED & SMOKE BARRIER
- SMOKE BARRIER

DOMESTIC WATER

- CW — COLD WATER
- HW — HOT WATER
- RW — RECIRULATING HOT WATER
- SV — SANITARY VENT
- SW — SANITARY WASTE PIPING

DRAWING SYMBOLS

- 26-SF3 — BUILDING NO. WHERE EQUIPMENT IS LOCATED. EQUIPMENT ABBREVIATION (SUPPLY FAN) SUPPLY FAN NO. 3 IN BUILDING NO. 26
- TU-1-1 — ITEM (TERMINAL UNIT SHOWN) ITEM NUMBER (TERMINAL UNIT NO. 1) SERVED BY SUPPLY FAN NO.1
- 2 / H11 — DETAIL NUMBER DRAWING NUMBER WHERE SHOWN
- 2 / H11 — SECTION LETTER DRAWING NUMBER WHERE SHOWN

DUCT SYMBOLS

- (UP) (DN) — SUPPLY AIR DUCT (UP & DOWN)
- (UP) (DN) — RETURN AIR DUCT (UP & DOWN)
- CEILING DIFFUSERS
- SUPPLY TOP REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN CEILING REGISTER OR GRILLE
- EXHAUST OR RETURN CEILING REGISTER OR GRILLE
- EXHAUST OR RETURN REGISTER OR TOP GRILLE (WALL TYPE)
- VANED ELBOW & AIR SPLIT TYPE DUCT TAKEOFF
- CONNECT NEW DUCT TO EXISTING DUCT
- RISE
- INCLINED RISE, IN DIRECTION OF AIR FLOW
- DROP
- INCLINED DROP, IN DIRECTION OF AIR FLOW
- FC — FLEXIBLE CONNECTION
- DUCT MOUNTED COIL (HOT WATER OR STEAM COIL)
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
- VANED ELBOW (SHORT RADIUS)
- STANDARD RADIUS ELBOW
- 24x12 — NEW DUCT (WIDTH X DEPTH)
- EXISTING DUCT TO BE REMOVED
- LOUVER
- FLEXIBLE DUCTWORK (INSULATED)
- VD — MANUAL VOLUME DAMPER
- F.DPR — FIRE DAMPER

AIR TERMINAL SYMBOLS

- A — CONSTANT VOLUME TERMINAL UNIT WITH HEATING COIL. LETTER INDICATES SIZE.
- A — VARIABLE VOLUME TERMINAL UNIT WITH HEATING COIL. LETTER INDICATES SIZE.
- A MB — DOUBLE DUCT MIXING BOX. LETTER INDICATES UNIT SIZE.
- A — FAN POWERED VARIABLE VOLUME TERMINAL UNIT WITH HEATING COIL. LETTER INDICATES SIZE.

CONTROLS

- ROOM CONTROL: THERMOSTAT, HUMIDISTAT
- DUCT HUMIDITY SENSOR
- DUCT STATIC PRESSURE SENSOR
- DUCT TEMPERATURE SENSOR WITH AVERAGING ELEMENT
- SMOKE DETECTOR (SEE ELECTRICAL SPEC.)

AIR FLOW CONTROL VALVE SCHEDULE

UNIT NO.	LOCATION FLOOR	LOCATION DUCT	TYPE	UNIT SIZE	DESIGN AIRFLOW	MAX AIRFLOW	MIN AIRFLOW	APPLICATION	NOTES
3-AFCV-1	BASEMENT	SA	CV	8	750	750	0	ANTE	
3-AFCV-2	BASEMENT	RA	CV	8	700	700	0	ANTE	
3-AFCV-3	BASEMENT	SA	CV	12	1650	1650	0	HD ST COMP	
3-AFCV-4	BASEMENT	EA	CV	8	635	635	0	HD ST COMP	
3-AFCV-5	BASEMENT	EA	CV	8	635	635	0	HD ST COMP	
3-AFCV-6	BASEMENT	EA	CV	6	425	425	0	HD ST COMP	
3-AFCV-7	BASEMENT	SA	CV	10	900	900	0	NON-HD ST COMP	
3-AFCV-8	BASEMENT	RA	CV	10	850	850	0	NON-HD ST COMP	
3-AFCV-9	BASEMENT	SA	CV	6	250	250	0	NON-HD STOR	
3-AFCV-10	BASEMENT	RA	CV	6	300	300	0	NON-HD STOR	
3-AFCV-11	BASEMENT	SA	CV	6	400	400	0	HD STORAGE	
3-AFCV-12	BASEMENT	EA	CV	6	600	600	0	HD STORAGE	
3-AFCV-13	BASEMENT	SA	CV	6	475	475	0	PHARMACY	
3-AFCV-14	BASEMENT	EA	CV	6	225	225	0	EMS	
3-AFCV-15	BASEMENT	RA	CV	6	250	250	0	PHARMACY	

CV CONSTANT VOLUME
SA SUPPLY AIR
RA RETURN AIR
EA EXHAUST AIR

STEAM HUMIDIFIER SCHEDULE

HUMID. NO.	SYSTEM	CFM	ABSORPTION DISTANCE	EAT Db	EAT %RH	LAT Db	LAT %RH	STEAM PSIG ENT. ON-OFF VALVE	STEAM PSIG ENT. CNTRL. VALVE	ON-OFF & CNTRL. VALVE LBS/ HR	DUCT SIZE
H-3	M-AHU-3	6000	< 1 FT	45	25	58	50	5	4	101	36X22

AIR TERMINAL UNIT, SINGLE DUCT

UNIT NO.	CFM MAX	CFM MIN	INLET SIZE	MAX SP AT MAX CFM	SOUND MAX SP	SOUND NC	EAT	EWT	GPM	MAX WPD	PIPE RUNOUT SIZE TO COIL	HEATING CFM	MIN. BTUH	CONTROL TYPE
TU-2-17	700	700	8"	0.35	1.5	35	55.0	180	1.3	5.0	3/4"	700	19107	DDC

NOTES:
1 PROVIDE DUCT TRANSITION AT UNIT WHERE UNIT INLET SIZE AND DUCT RUNOUT SIZE ARE DIFFERENT.
2 THE UNIT MAXIMUM SP IS THE PRESSURE DIFFERENCE BETWEEN THE UNIT INLET AND DISCHARGE INCLUDING REHEAT COIL AND SOUND ATTENUATOR. IT IS ALSO THE MINIMUM PRESSURE REQUIRED AT THE UNIT INLET TO OBTAIN THE RATED CFM.
3 REFER TO AIR TERMINAL UNIT SOUND REQUIREMENT SCHEDULE FOR MAXIMUM SOUND POWER LEVEL VALUES PERMITTED WITH SP ACROSS UNIT AND ROOM NC SHOWN.

SOUND ATTENUATING UNIT SCHEDULE

UNIT NO.	SYSTEM	UNIT SIZE DIA	L	W	H	CFM	MAX S.P.	DYNAMIC INSERTION LOSS DB OCTAVE BAND & MID-FREQUENCY (CPS) 63 / 1	125 / 2	250 / 3	500 / 4	1000 / 5	2000 / 6	4000 / 7	8000 / 8	NOTES
SA-3-1	M-AHU-T4	-	48	18	42	6000	0.05	2	2	4	14	17	21	12	4	1
SA-3-2	M-AHU-T4	-	48	24	22	4000	0.05	3	3	6	14	22	30	16	5	1

NOTES:
1. RECTANGULAR FILM LINED ATTENUATOR.

DIFFUSER, REGISTER AND GRILLE SCHEDULE

UNIT NO.	MATERIAL	TYPE	NECK SIZE	FRAME SIZE	MOUNTING	AIR	OBD	REMARKS
SD-1	STEEL	SPD	6ø	24X24	L.I.T	SA	N	
SD-2	STEEL	SPD	8ø	24X24	L.I.T	SA	N	
SD-3	STEEL	SPD	8ø	24X24	GYP	SA	N	
SD-4	STEEL	SPD	10ø	24X24	L.I.T	SA	N	
SD-6	STEEL	HEPA	10ø	24X48	GYP	SA	N	
SD-7	STEEL	HEPA	12ø	24x48	GYP	SA	N	
RG-1	ALUM	ECG	-	12X24	L.I.T	RA	N	
RG-2	ALUM	ECG	-	24X24	L.I.T	RA	N	
RG-3	ALUM	GR	20x8	22x10	GYP	RA	Y	2
RG-4	ALUM	GR	24x10	26x12	GYP	RA	Y	2
RG-5	ALUM	GR	24x16	26x18	GYP	RA	Y	2
EG-1	ALUM	ECG	-	12X24	L.I.T	EA	N	
EG-2	ALUM	GR	20x8	22x10	GYP	EA	Y	2
EG-3	ALUM	GR	12x6	14x8	GYP	EA	Y	2

SPD SQUARE PLAQUE DIFFUSER
REG REGISTER
GR GRILLE
ECG ECG CRATE GRILLE
LIT LAY-IN TILE
GYP GYPSUM WALL OR CEILING
OBD OPPOSED BLADE DAMPER
LSD LINEAR SLOT DIFFUSER
HEPA HEPA DIFFUSER

SA SUPPLY AIR
RA RETURN AIR
EA EXHAUST AIR
SURF SURFACE MOUNT

1. DOUBLE DEFLECTION, 3/4" BLADE SPACING
2. 45 DEG DEFLECTION, 3/4" BLADE SPACING
3. STAINLESS STEEL FINISH

GRAVITY HOOD - CURB MOUNTED

UNIT NO.	THROAT SIZE, INCHES	SERVICE/UNIT	CFM	MAX S.P.	TYPE	OPERATOR	REMARKS
RH-1	34X40	OA/ M-AHU-3	6000	0.1	MOTZ	DDC	61X75 HOOD SIZE

NOTE: HOODS, SHROUDS, AND NECKS SHALL BE PROVIDED WITH COLOR SELECTION DURING SHOP DRAWING PHASE.

AIR FILTER SCHEDULE

FILTER NO.	CFM	SYSTEM	VA GRADE	RATED EFF %	MAX S.P. DROP INITIAL	MAX S.P. DROP FINAL	HOUSING TYPE	CARTRIDGES NO.	CARTRIDGES SIZE	CARTRIDGES ARRANGE
1-AF1	6000	M-AHU-3	A	30	0.3	1.0	AH CASING	NA	24"x 20"x 2"	NA
1-AF2	6000	M-AHU-3	C	90	0.5	2.0	AH CASING	NA	24"x24"x12"	NA

WATER COILS, HEATING

COIL NO.	SYSTEM	CFM	MAX FV	MAX APD	AIR TEMP ENTERING	AIR TEMP LEAVING	CIRCULATING FLUID FLUID	GPM	ENT	LWT	WPD	MIN. BTUH
HC-3	M-AHU-3	6000	500	0.20	20	65	PG50	22	180	150	1.3	297,300

NOTE:

WATER COILS, COOLING

COIL NO.	SYSTEM	CFM	MAX FV	MAX APD	EAT DB	EAT WB	LAT DB	LAT WB	CIRCULATING FLUID FLUID	GPM	ENT	LWT	WPD	MIN. BTUH
CC-3	M-AHU-3	6000	500	1.0	85	64	53	53	PG50	51.5	44	56	10	300,488

NOTE:

TERMINAL COIL SCHEDULE

UNIT NO.	CFM	TYPE	MAX FV	MAX APD	EAT	LAT	SIZE L" x H"	TOTAL MBH	EWT	LWT	GPM	MAX WPD	NOTES
TU-3-1	750	W	643	0.20	55	81.4	14 x 12	21.4	180	150	1.4	5.0	1
TU-3-2	1650	W	566	0.20	55	78.2	28 x 15	41.3	180	150	2.7	5.0	1
TU-3-3	900	W	600	0.20	55	78.6	18 x 12	22.9	180	150	1.5	5.0	1
TU-3-4	425	W	567	0.20	55	81.7	12 x 9	12.2	180	150	0.8	5.0	1
TU-3-5	400	W	534	0.20	55	83.3	12 x 9	12.2	180	150	0.8	5.0	1
TU-3-6	550	W	550	0.20	55	83.3	12 x 12	16.8	180	150	1.1	5.0	1

W WATER

NOTES:
1 PROVIDE DUCT TRANSITION AT UNIT WHERE UNIT INLET SIZE AND DUCT RUNOUT SIZE ARE DIFFERENT.
2

AIR HANDLING UNIT SOUND POWER SCHEDULE

UNIT NO.		OCTAVE BAND 63 / 1	125 / 2	250 / 3	500 / 4	1000 / 5	2000 / 6	4000 / 7	8000 / 8	NOTES
M-AHU-3	RADIATED	76	76	79	66	64	55	46	51	
	UNIT DISCHARGE	81	78	85	80	78	71	62	51	
	UNIT RETURN	80	82	82	80	78	74	74	69	

AIR HANDLING UNIT SCHEDULE

UNIT NO.	LOCATION	AREA SERVED	SUPPLY FAN NO.	RETURN FAN NO.	CFM SUPPLY	CFM MIN. OA	EXTERNAL STATIC PRESSURE, 1.	SPECIFIED INTERNAL LOSSES, 2.	UNSPECIFIED INTERNAL LOSSES, 3.	TYPE SYSTEM
M-AHU-3	BLDG. 46 FLOOR 5	BLDG. 9 & 46 BASEMENT	SF-3	RF-3	6000	3000	3.50	2.92	0.07	VAV

NOTES:
1. EXTERNAL STATIC PRESSURE REQUIRED AT DUCT CONNECTIONS TO INLET AND OUTLET OF AHU. MEASUREMENTS SHALL BE TAKEN WITHIN 3 FT OF INLET AND OUTLET AT A POINT OF MAXIMUM ACCURACY.
2 TOTAL OF MAXIMUM PRESSURE DROPS OF COMPONENTS WHICH ARE SPECIFIED SEPARATELY, IE., PREFILTERS, AFTERFILTERS, HEATING AND COOLING COILS.
3 INTERNAL LOSS ALLOWANCE SHALL INCLUDE LOSSES DUE TO ENTRANCE AND EXIT OF AHU, MIXING BOXES, DIFFUSER SECTION INCLUDING LOSSES DUE TO FAILURE TO PROPERLY CONVERT FAN DISCHARGE VELOCITY PRESSURE TO STATIC PRESSURE, FAN INLET CONDITIONS, CASINGS, HUMIDIFIERS, DAMPERS, ETC.

FAN SCHEDULE

UNIT NO.	LOCATION	CFM	S.P.	FAN TYPE	ARRANGEMENT, ROTATION & DISCHARGE	WHEEL TYPE	WHEEL MIN. DIA.	MAX. RPM	DRIVE	MAX. BHP	MOTOR HP	MOTOR VOLT	MOTOR PH	VARIABLE CONTROL TYPE
SF-3	5001 MECH ROOM	6000	3.50	PL	PLENUM FAN	ALUM	20"	2674	DIRECT	8.75	15	208	3	YES
RF-3	5001 MECH ROOM	4000	2.75	FC	FORWARD CURVED	ALUM	15"	1725	BELT	3.20	5	208	3	YES
M-EF-1	C101 CORRIDOR	450	1	BI	BACKWARD INCLINED	ALUM	-	1918	DIRECT	0.30	0.75	120	1	YES
M-EF-30	4TH FLOOR ROOF	1700	3.75	BI	BACKWARD INCLINED	STEEL	-	2856	BELT	1.80	3	208	3	YES
M-EF-102	4TH FLOOR ROOF	1700	3.75	BI	BACKWARD INCLINED	STEEL	-	2856	BELT	1.80	3	208	3	YES
M-EF-67	4TH FLOOR ROOF	675	2.5	BI	BACKWARD INCLINED	STEEL	-	2777	BELT	0.70	1	208	3	YES
M-EF-103	4TH FLOOR ROOF	675	2.5	BI	BACKWARD INCLINED	STEEL	-	2777	BELT	0.70	1	208	3	YES

NOTES:
1. SCHEDULED MAXIMUM BHP IS FOR SCHEDULED SP PLUS TEN PERCENT. FORWARD CURVED WHEEL MAY BE SUBMITTED IN LIEU OF AIR FOIL WHEEL FOR AIR HANDLING UNITS IF SCHEDULED MAXIMUM BHP IS MET. IF UNIT COIL PRESSURE DROPS SUBMITTED ARE LESS THAN SCHEDULED, THE SP REQUIREMENT MAY BE REDUCED ACCORDINGLY. MAXIMUM BHP MAY BE BASED ON THE REVISED SP PLUS TEN PERCENT. SMALLER DIAMETER FAN MAY BE SUBMITTED PROVIDED IT MEETS SPECIFIED SOUND LEVEL.

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

CONSULTANTS:

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Phone: 701-478-6336

MECHANICAL: Obermiller Nelson Engineering
2201 12th Street North, Suite E
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Seal: PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

ARCHITECT OF RECORD:
Stone Group Architects
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Phone: 605-271-1144

STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: MECHANICAL SCHEDULES

Elec File Name: 2019250_H7.dwg

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Project Number: VA #437-18-101

Building Number: 9 & 46

Drawing Number: ME-105

Drawing # 23 of 31

Veterans Health Administration

Department of Veterans Affairs

VA FORM 08-6231

SEQUENCE OF OPERATION

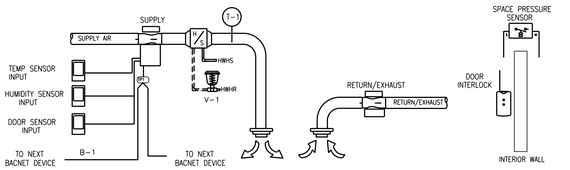
CONTROL MODE: THE CONTROL OF THE CLEAN ROOMS SHALL BE BASED ON A POSITIVE OR NEGATIVE PRESSURE DIFFERENCE BETWEEN THE CLEAN ROOM AND ADJACENT SPACES. REFER TO THE ROOM PRESSURIZATION SHEET FOR SPECIFIC PRESSURE RELATIONSHIPS AND CONTROL RANGES. THE SUPPLY AIRFLOW IN EACH ROOM SHALL BE SET TO A CONSTANT VOLUME. THE RETURN OR EXHAUST AIRFLOW VALVES SHALL MODULATE AS REQUIRED TO MAINTAIN SPACE PRESSURE AS LISTED ABOVE.

RETURN/EXHAUST AIR CONTROL: THE RETURN OR EXHAUST AIR VALVE SHALL TRACK THE SUPPLY AIR AND LAG IN AIRFLOW TO MAINTAIN POSITIVE SPACE PRESSURE. FOR NEGATIVE PRESSURE ROOMS, THE SUPPLY AIRFLOW VALVE SHALL LAG THE RETURN OR EXHAUST AIRFLOW VALVE TO MAINTAIN A NEGATIVE PRESSURE.

HEATING COIL CONTROL: THE HOT WATER CONTROL VALVE (V-1) SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE AT SET POINT. THE DISCHARGE AIR TEMPERATURE (T-1) SHALL BE MONITORED AND AN ALARM SHALL BE GENERATED IF IT DROPS BELOW 60 DEGREES (ADJ.) IN THE HEATING MODE.

BACNET: THE ROOM AIRFLOW VALVES WILL BE PROVIDED WITH BACNET CONTROLS. PROVIDE ALL PROGRAMMING AND INTEGRATION INTO THE BUILDING AUTOMATION SYSTEM. THE BAS SHALL MONITOR THE ROOM PRESSURE (B-1) TRANSMITTED FROM THE PRESSURE MONITOR PANEL. IF THE PRESSURE IS REPORTED OUTSIDE OF THE SET POINTS PROVIDED ON THE AIRFLOW SCHEMATIC FOR A MINIMUM OF 5 MINUTES (ADJUSTABLE), A "CLEAN ROOM PRESSURE ALARM" SHALL BE REPORTED TO THE OPERATOR'S WORKSTATION. MONITOR THE DOOR ALARM TO INDICATE WHETHER THE DOOR IS OPEN OR CLOSED. COORDINATE WITH MECHANICAL CONTRACTOR TO PROVIDE DOOR CONTACT FOR DOOR OPERATION VERIFICATION.

CONTROL WIRING/COORDINATION: ALL WIRING ASSOCIATED WITH THE CLEAN ROOMS AIRFLOW CONTROL VALVES, REHEAT VALVES, POWER/COMMUNICATIONS, PRESSURE SENSORS, DOOR CONTACTS, ETC. SHALL BE PROVIDED AND INSTALLED BY THE TEMPERATURE CONTROLS CONTRACTOR. THE CONTROL DEVICES INCLUDING DUCT TEMPERATURE SENSOR, SYSTEM CONTROLLER, SPACE PRESSURE SENSORS, ROOM THERMOSTAT AND HUMIDITY SENSOR, AND DOOR INTERLOCK FURNISHED BY THE AIRFLOW VALVE MANUFACTURER. THE CONTROL VALVE FOR THE RE-HEAT COIL SHALL BE PROVIDED BY THE TEMPERATURE CONTROLS CONTRACTOR. PRESSURE SENSORS SHALL BE PROVIDED BY EACH DOOR TO ADJACENT ROOMS.



POINT SCHEDULE

CONTROL DEVICE	POINT NAME	POINT DESCRIPTION	POINT TYPE AI	BI	AO	BO	ALARM HI	LOW	BIN
V-1	HtgValve	HEATING VALVE			X				
T-1	DischTemp	DISCHARGE TEMPERATURE	X					X	
B-1	BACNET	BACNET PRESSURE ALARM	X				X		

5 ME-106 CLEAN ROOMS AIRFLOW VALVE UNIT CONTROL

SCALE: NTS

SEQUENCE OF OPERATION:

OCCUPIED/UNOCCUPIED MODE: A TIME SCHEDULE SHALL CONTROL THE AIR HANDLING UNIT MODE. THE TIME SCHEDULE (ADJUSTABLE) SHALL BE SET SO THAT THE AIR HANDLING UNIT IS IN THE OCCUPIED MODE FROM 7 AM TO 6 PM ON NON-HOLIDAY WEEKDAYS. THE UNIT WILL HAVE THE CAPABILITY OF BEING STARTED AND STOPPED REMOTELY AT THE BAS. THE H-O-A SWITCH SHALL BE KEPT IN THE "AUTO POSITION." "HAND" AND "OFF" SHALL BE USED FOR MAINTENANCE ONLY. WHEN THE UNIT IS "OFF", THE OUTSIDE AIR DAMPER (D-1) AND RELIEF AIR DAMPER (D-3) SHALL BE FULLY CLOSED. WHEN THE UNIT IS "ON", D-1 AND D-3 SHALL MODULATE IN ACCORDANCE WITH THE SEQUENCE BELOW.

FIRE ALARM SHUTDOWN: IN THE FIRE-ALARM CONTROL MODE (WHEN SMOKE IS DETECTED BY DUCT SMOKE DETECTOR), THE SUPPLY AND RETURN FANS VARIABLE FREQUENCY DRIVES SHALL BE SET TO OFF AND THE FREQUENCY SIGNALS SHALL BE SET TO ZERO AND AN ALARM SIGNAL SHALL BE TRANSMITTED TO THE FIRE ALARM SYSTEM. EXHAUST FANS SERVING SPACE OF THE SUPPLY FAN SHALL CONTINUE TO RUN. SUPPLY AND RETURN FANS SHALL RESTART WHEN FIRE ALARM CIRCUIT IS RESET.

DISCHARGE DUCT STATIC PRESSURE SETPOINT OPTIMIZATION:

1. THE BUILDING AUTOMATION SYSTEM (BAS) SHALL CONTINUOUSLY MONITOR THE DAMPER POSITION OF ALL VAV TERMINAL UNITS. THE DISCHARGE DUCT STATIC PRESSURE (DPT-1) SHALL BE SENSED DIRECTLY AT THE DISCHARGE OF EACH AIR HANDLER. THE SENSOR MUST BE MOUNTED IN A NON-TURBULENT LOCATION.

2. WHEN ANY VAV DAMPER IS MORE THAN 75% (ADJ.) OPEN, THE SUPPLY FAN DISCHARGE DUCT STATIC PRESSURE SETPOINT SHALL BE RESET UPWARD BY 0.1 IN W.C. (ADJ.), AT A FREQUENCY OF 15 MINUTES (ADJ.), UNTIL NO DAMPER IS MORE THAN 75% OPEN OR THE STATIC PRESSURE SETPOINT HAS RESET UPWARD TO THE SYSTEM MAXIMUM DUCT STATIC PRESSURE SETPOINT OR THE AHU VARIABLE-FREQUENCY DRIVE IS AT THE MAXIMUM SPEED SETTING.

3. WHEN ALL VAV DAMPERS ARE LESS THAN 65% (ADJ.) OPEN, THE SUPPLY FAN DISCHARGE DUCT STATIC PRESSURE SETPOINT SHALL BE RESET DOWNWARD BY 0.1 IN W.C.(ADJ.), AT A FREQUENCY OF 15 MINUTES (ADJ.), UNTIL AT LEAST ONE DAMPER IS MORE THAN 65% OPEN OR THE STATIC PRESSURE SETPOINT HAS RESET DOWNWARD TO THE SYSTEM MINIMUM DUCT STATIC PRESSURE SETPOINT OR THE AHU VARIABLE-FREQUENCY DRIVE IS AT THE MINIMUM SPEED SETTING.

4. THE CONTROL BANDS, SETPOINT INCREMENT VALUES, SETPOINT DECREMENT VALUES AND ADJUSTMENT FREQUENCIES SHALL BE ADJUSTED TO MAINTAIN MAXIMUM STATIC PRESSURE OPTIMIZATION WITH STABLE SYSTEM CONTROL AND MAXIMUM COMFORT CONTROL.

5. THE BAS SHALL HAVE THE CAPABILITY TO ALLOW THE OPERATOR TO EXCLUDE PROBLEM ZONES THAT SHOULD NOT BE CONSIDERED WHEN DETERMINING THE OPTIMIZED SETPOINT.

6. THE BAS SHALL ALSO READ THE STATUS OF THE SUPPLY AIR STATIC PRESSURE SENSOR AND DISPLAY THE ACTIVE DUCT STATIC PRESSURE READING ON THE STATUS SCREEN.

7. THE BAS SHALL HAVE THE ABILITY TO IDENTIFY, AND DISPLAY TO THE USER, THE VAV BOX THAT SERVES THE CRITICAL ZONE (THAT IS, THE ZONE WITH THE MOST WIDE-OPEN VAV DAMPER). THIS INFORMATION SHALL UPDATE DYNAMICALLY AS THE LOCATION OF THE CRITICAL ZONE CHANGES BASED ON BUILDING LOAD, AND DUCT STATIC PRESSURE SETPOINT OPTIMIZATION CONTROL.

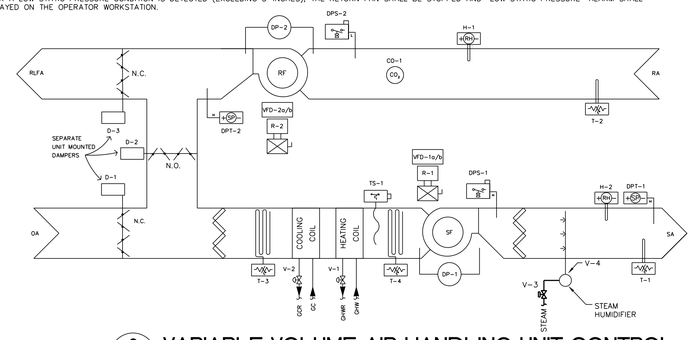
8. DURING THE COMMISSIONING/CHECK-OUT PROCESS, THE CONTROLS CONTRACTOR SHALL DEMONSTRATE THE PERFORMANCE OF FAN PRESSURE OPTIMIZATION

UNOCCUPIED CASING TEMPERATURE CONTROL: WHEN THE UNIT IS OFF, THE HEATING COIL VALVE SHALL MODULATE WHEN THE TEMPERATURE DROPS BELOW 45 DEGREES (ADJUSTABLE) TO MAINTAIN 60 DEGREES (ADJUSTABLE) IN THE AIR HANDLER CASING MEASURED BY T-3.

LOW TEMPERATURE DETECTION CONTROL: THE STATUS OF A MANUAL LOW TEMPERATURE DETECTION SWITCH (TS-1) INSTALLED ON THE LEAVING SIDE OF THE HEATING COIL SHALL BE MONITORED. IF THE AIR TEMPERATURE AS SENSED BY TS-1 FALLS BELOW 45 DEGREES (ADJUSTABLE), A "LOW AIR TEMPERATURE" ALARM SHALL BE GENERATED AT THE OPERATOR'S WORKSTATION. IF THE TEMPERATURE DROPS BELOW 40 DEGREES (ADJUSTABLE), THE SUPPLY AND RETURN FANS SHALL BE STOPPED AND A CRITICAL "LOW AIR TEMPERATURE" ALARM SHALL BE DISPLAYED ON THE OPERATOR WORKSTATION. THE OPERATOR SHALL HAVE THE ABILITY TO MANUALLY RESTART THE SUPPLY FAN AT THE UNIT.

HIGH STATIC PRESSURE CONTROL: THE STATUS OF A HIGH STATIC PRESSURE SWITCH (DPS-1) INSTALLED ON THE DISCHARGE SIDE OF THE SUPPLY FAN SHALL BE MONITORED. WHENEVER A HIGH STATIC PRESSURE CONDITION IS DETECTED (EXCEEDING 3-INCHES), THE SUPPLY FAN SHALL BE STOPPED AND "HIGH STATIC PRESSURE" ALARM SHALL BE DISPLAYED ON THE OPERATOR WORKSTATION.

LOW STATIC PRESSURE CONTROL: THE STATUS OF A LOW STATIC PRESSURE SWITCH (DPS-2) INSTALLED ON THE INLET SIDE OF THE RETURN FAN SHALL BE MONITORED. WHENEVER A LOW STATIC PRESSURE CONDITION IS DETECTED (EXCEEDING 3-INCHES), THE RETURN FAN SHALL BE STOPPED AND "LOW STATIC PRESSURE" ALARM SHALL BE DISPLAYED ON THE OPERATOR WORKSTATION.



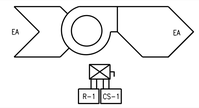
2 ME-106 VARIABLE VOLUME AIR HANDLING UNIT CONTROL - M-AHU-3

NO SCALE

SEQUENCE OF OPERATION

CONTROL MODE: THE EXHAUST FAN SHALL RUN CONTINUOUSLY.

EXHAUST FAN CONTROL: THE EXHAUST FAN SHALL ALWAYS BE ON. THE FAN MOTOR SHALL BE MONITORED BY A CURRENT SENSING SWITCH. IF THE EXHAUST FAN CANNOT BE PROVEN RUNNING, AN "EXHAUST FAN FAILURE" ALARM SHALL BE GENERATED.



POINT SCHEDULE

CONTROL DEVICE	POINT NAME	POINT DESCRIPTION	POINT TYPE AI	BI	AO	BO	ALARM HI	LOW	BIN	notes
R-1	ExhFanCtrl	EXHAUST FAN CONTROL RELAY				X				
CS-1	ExhFanStatus	EXHAUST FAN STATUS		X						

4 ME-106 EXHAUST FAN CONTROL

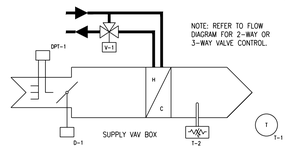
SCALE: NTS

SEQUENCE OF OPERATION:

OCCUPIED/UNOCCUPIED MODE: A TIME SCHEDULE SHALL CONTROL THE TERMINAL UNIT MODE. THE TIME SCHEDULE (ADJUSTABLE) SHALL INITIALLY BE SET SO THAT THE SPACE IS IN THE OCCUPIED MODE 7AM TO 6PM ON NON-HOLIDAY WEEKDAYS. INITIALLY, ALL TERMINAL UNITS SHALL USE THE SAME TIME SCHEDULE. THE SPACE THERMOSTAT OVERRIDE SWITCH SHALL BE MONITORED. THE SPACE SHALL RETURN TO THE OCCUPIED MODE FOR 2 HOURS (ADJUSTABLE) IF THE OVERRIDE SWITCH, IF ENABLED, IS PRESSED.

NIGHT CYCLE: IN THE UNOCCUPIED MODE, IF THE SPACE TEMPERATURE (T-1) FALLS BELOW THE UNOCCUPIED HEATING TEMPERATURE SETPOINT, THE TERMINAL UNIT SHALL ACTIVATE THE NIGHT CYCLE TO SIGNAL THE AIR HANDLING UNIT TO START. THE NIGHT CYCLE SHALL REMAIN ACTIVE UNTIL THE SPACE TEMPERATURE IS SATISFIED OR THE TIME SCHEDULE CHANGES THE UNIT TO THE OCCUPIED MODE.

HEATING/COOLING MODE: THE TERMINAL UNIT SHALL START IN THE DEAD BAND MODE. IF THE SPACE TEMPERATURE (T-1) IS ABOVE THE COOLING SETPOINT, THE UNIT SHALL BE IN THE COOLING MODE. IF THE SPACE TEMPERATURE IS BELOW THE HEATING SETPOINT, THE UNIT SHALL BE IN THE HEATING MODE.



DAMPER CONTROL: IN THE COOLING MODE, THE INLET DAMPER (D-1) SHALL MODULATE THE SUPPLY AIRFLOW BETWEEN THE MINIMUM AIRFLOW SETPOINT AND THE MAXIMUM AIRFLOW SETPOINT TO MAINTAIN THE SPACE TEMPERATURE (T-1) AT THE COOLING SETPOINT. IN THE HEATING MODE, THE SUPPLY AIRFLOW SHALL BE HELD AT THE HEATING AIRFLOW SETPOINT.

HEATING COIL VALVE CONTROL: THE CONTROL VALVE (V-1) ON THE HOT WATER RETURN LINE TO THE TERMINAL UNIT HEATING COIL SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE AT THE HEATING SETPOINT.

AIRFLOW AND TEMPERATURE MONITORING: MONITOR SUPPLY AIRFLOW (DPT-1) AND SUPPLY AIR TEMPERATURE (T-2).

AUXILIARY HEAT CONTROL: FOR SPACES WITH AUXILIARY HEATING DEVICES, THE CONTROL VALVE FOR THE PERIMETER RADIATION SHALL MODULATE IN PARALLEL WITH THE HEATING VALVE FOR THE VAV BOX.

POINT SCHEDULE

CONTROL DEVICE	POINT NAME	POINT DESCRIPTION	POINT TYPE AI	BI	AO	BO	ALARM HI	LOW	BIN
T-1	SpaceTempSpt	SPACE TEMPERATURE SETPOINT	X						
T-1	SpaceTemp	SPACE TEMPERATURE	X				X	X	
DPT-1	SupAirFlow	SUPPLY AIRFLOW	X				X	X	
T-2	DischTemp	DISCHARGE AIR TEMPERATURE	X						
D-1	SupDamper	SUPPLY DAMPER CONTROL			X				
V-1	HtgValve	HEATING CONTROL VALVE			X				
V-2	AuxHtgValve	AUXILIARY HEATING CONTROL VALVE			X				

3 ME-106 AIR TERMINAL UNIT CONTROL DIAGRAM VAV

SCALE: NTS

TEMPERATURE CONTROL: THE SUPPLY AIR TEMPERATURE, SENSED BY T-1, SHALL BE MAINTAINED AT SET POINT BY BAS MODULATING V-1 OR D-1 AND D-2 OR V-2 IN SEQUENCE. THE SUPPLY AIR TEMPERATURE SET POINT SHALL BE VARIED FROM 55 TO 60 DEGREES F (ADJUSTABLE) AS THE RETURN AIR TEMPERATURE VARIES FROM 78 TO 72 DEGREES F (ADJUSTABLE). D-3 SHALL BE POSITIONED OPPOSITE D-2 EITHER THROUGH A MECHANICAL LINKAGE OR THROUGH A SEPARATE ACTUATOR FROM THE SAME DDC OUTPUT. UPON LOSS OF AIR FLOW SENSOR BY DPS-1, V-1 SHALL MODULATE TO MAINTAIN 55 DEG. F (ADJUSTABLE) UNIT CASING TEMPERATURE MONITORED BY T-2.

a. COOLING CONTROL: WHEN THE TEMPERATURE OF THE OUTSIDE AIR IS ABOVE 65 DEG. F, THE DCP SHALL PREVENT THE MODULATION OF D-1, D-2 AND D-3 AND SHALL ASSUME THE MINIMUM OUTSIDE AIR POSITION. THE DCP SHALL MODULATE THE COOLING VALVE (V-2) TO MAINTAIN THE SUPPLY AIR TEMPERATURE SENSED BY T-1.

b. ECONOMIZER CONTROL: WHEN THE TEMPERATURE OF THE OUTSIDE AIR IS BETWEEN 65 DEG. F (ADJUSTABLE) AND THE SUPPLY AIR TEMPERATURE, SENSED BY T-1, DAMPERS D-1, D-2, AND D-3 SHALL MODULATE TO MAINTAIN THE MIXED AIR TEMPERATURE AT 2 DEGREES LESS THAN THE SCHEDULED SUPPLY AIR TEMPERATURE. THE BAS SHALL MODULATE THE COOLING VALVE (V-2) TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY T-1 AS REQUIRED.

c. HEATING AND ECONOMIZER CONTROL: WHEN THE TEMPERATURE OF THE OUTSIDE AIR IS BELOW THE SUPPLY AIR TEMPERATURE, SENSED BY T-1, DAMPERS D-2 AND D-3 SHALL MODULATE TO MAINTAIN THE MIXED AIR TEMPERATURE AT 2 DEGREES LESS THAN THE SCHEDULED SUPPLY AIR TEMPERATURE. D-1 SHALL BE POSITIONED OPPOSITE D-2. IF D-1 IS CLOSED TO MINIMUM OUTSIDE AIR, D-2 IS OPEN, AND D-3 IS CLOSED TO MINIMUM RELIEF AIR IN THIS MODE, THEN THE HEATING VALVE (V-1) SHALL BE MODULATED TO MAINTAIN THE SUPPLY AIR TEMPERATURE.

SUPPLY FAN CONTROL: THE CAPACITY OF THE SUPPLY FAN SHALL BE CONTROLLED BY A VARIABLE FREQUENCY DRIVE. IN THE OCCUPIED MODE, THE SUPPLY FAN SHALL START (R-1) AND THE SPEED OF THE SUPPLY FAN (VFD-1A) SHALL MODULATE TO MAINTAIN THE SUPPLY DUCT STATIC PRESSURE (DPT-1) AT 1.0" W.C. (ADJUSTABLE). ALL OTHER AIR HANDLERS SHALL REMAIN CONSTANT SPEED. IN THE "OFF" MODE, THE SUPPLY FAN SHALL BE OFF AND THE SPEED SHALL BE SET TO 0 HZ. THE STATUS OF THE SUPPLY FAN (DP-1) SHALL BE MONITORED. WHENEVER THE SUPPLY FAN IS COMMANDED TO RUN AND THE STATUS CANNOT BE PROVEN, A "SUPPLY FAN FAILURE" ALARM SHALL BE DISPLAYED ON THE OPERATOR WORKSTATION.

RETURN FAN CONTROL: THE CAPACITY OF THE RETURN FAN SHALL BE CONTROLLED BY A VARIABLE FREQUENCY DRIVE. THE RETURN FAN SHALL START (R-2) WHENEVER THE SUPPLY FAN IS PROVEN RUNNING. THE RETURN FAN VFD SHALL BE SET TO MAINTAIN A CONSTANT SPEED DIFFERENCE (VFD-2A) BETWEEN THE SPEED OF THE SUPPLY FAN AND THE SPEED OF THE RETURN FAN. THE RETURN STATIC PRESSURE (DPT-2) SHALL BE MONITORED. THE VARIABLE FREQUENCY DRIVE SHALL BE OFF AND THE SPEED SHALL BE SET TO 0 HZ IF THE SUPPLY FAN IS NOT RUNNING. WHENEVER THE RETURN FAN IS COMMANDED TO RUN AND THE STATUS (DP-2) CANNOT BE PROVEN, A "RETURN FAN FAILURE" ALARM SHALL BE DISPLAYED ON THE OPERATOR WORKSTATION.

OUTSIDE AIR DAMPER CONTROL: INITIALLY, THE OUTSIDE AIR DAMPER (D-1) SHALL BE SET TO THE MINIMUM AMOUNT AS INDICATED ON THE AIR HANDLER SCHEDULE AND COORDINATED WITH THE TESTING & BALANCING CONTRACTOR. THE OUTSIDE AIR DAMPER SHALL FURTHER BE CONTROLLED BY THE CARBON DIOXIDE SENSOR (CO-1) IN THE RETURN AIR DUCTWORK. THE OUTSIDE AIR DAMPER SHALL BE SET BASED ON MAINTAINING A 1,000 PPM CO2 SETTING.

HUMIDITY CONTROL: WHEN THE SYSTEM IS NOT CALLING FOR HUMIDITY, SENSED BY H-1, "ON-OFF" TWO WAY CONTROL VALVE V-3 SHALL REMAIN CLOSED. WHEN THE SYSTEM IS CALLING FOR HUMIDITY V-3 SHALL REMAIN OPEN. THE RETURN AIR HUMIDITY, SENSED BY H-1, SHALL BE MAINTAINED AT SET POINT BY THE SYSTEM MODULATING HUMIDITY CONTROL VALVE V-4 TO MAINTAIN THE DESIRED RELATIVE HUMIDITY. THE CONTROLS SYSTEM SHALL OVERRIDE THIS CONTROL TO MAINTAIN MAXIMUM HUMIDITY OF 80% (ADJUSTABLE) AS SENSED BY H-2. THE CONTROLS SYSTEM 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.

TEMPERATURE MONITORING: MONITOR THE SUPPLY AIR TEMPERATURE (T-1), RETURN AIR TEMPERATURE (T-2), LEAVING HEATING COIL TEMPERATURE (T-4), MIXED AIR TEMPERATURE (T-3), AND RETURN AIR CARBON DIOXIDE LEVELS (CO-1).

EMERGENCY CONSTANT SPEED OPERATION: ON ALL VARIABLE SPEED FANS IN VAV SYSTEMS UPON FAILURE OF THE VFD, THE FANS SHALL BE STARTED/STOPPED MANUALLY AT THE UNIT OR THE ECC THROUGH THE BY-PASS STARTER. FANS SHALL THEN BE OPERATED AT CONSTANT SPEED.

POWER OUTAGE OPERATION: ON THE EVENT OF A POWER OUTAGE AIR HANDLING UNIT SHALL AUTOMATICALLY RESTART WHEN POWER HAS BEEN RE-ESTABLISHED.

UNIT START-UP: ON UNIT START-UP, ENABLE SUPPLY AND RETURN FANS FOR A MINIMUM OF 5 MINUTES (ADJUSTABLE) BEFORE STARTING PROGRAM IN ORDER TO EQUALIZE ALL UNIT SENSORS.

POINT SCHEDULE

CONTROL DEVICE	POINT NAME	POINT DESCRIPTION	POINT TYPE AI	BI	AO	BO	ALARM HI	LOW	BIN
T-1	DischAirTemp	DISCHARGE AIR TEMPERATURE	X				X	X	
T-2	RetAirTemp	RETURN AIR TEMPERATURE	X						
T-3	MixAirTemp	MIXED AIR TEMPERATURE	X					X	
T-4	LeavHeatCoilTemp	LEAVING HEATING COIL TEMPERATURE	X						
DPT-1	SupDuctSP	SUPPLY DUCT STATIC PRESSURE	X				X	X	
DPT-2	RetDuctSP	RETURN DUCT STATIC PRESSURE	X				X	X	
DPS-1	HiPressSw	HIGH DUCT PRESSURE SWITCH		X					
DPS-2	LoPressSw	LOW DUCT PRESSURE SWITCH		X					
DP-1	SupFanStatus	SUPPLY FAN STATUS		X					
DP-2	RetFanStatus	RETURN FAN STATUS		X					
VFD-1 a	SupFanSpeed	SUPPLY FAN VFD SPEED			X				
VFD-1 b	VFDPnts	VFD POINTS	X	X			X	X	
VFD-2 a	RetFanSpeed	RETURN FAN VFD SPEED			X				
VFD-2 b	VFDPnts	VFD POINTS	X	X			X	X	
R-1	SupFanCtrl	SUPPLY FAN CONTROL				X			
R-2	RetFanCtrl	RETURN FAN CONTROL				X			
D-1	OADamper	OUTDOOR AIR DAMPER			X				
D-2	RADamper	RETURN AIR DAMPER			X				
D-3	RLFADamper	RELIEF AIR DAMPER			X				
TS-1	Freezestat	FREEZESTAT		X					
V-1	HtgValve	HEATING VALVE			X				
V-2	CoiValve	COOLING VALVE			X				
V-3	OnOffHumValve	ON/OFF HUMIDIFIER VALVE				X			
V-4	ModHumValve	MODULATING HUMIDIFIER VALVE			X				
H-1	RetHumSens	RETURN AIR HUMIDITY SENSOR	X						
H-2	SupHumSens	SUPPLY AIR HUMIDITY SENSOR	X				X		
CO-1	CarbonSen	CARBON DIOXIDE SENSOR	X				X		

CLEANROOM SUITE BALANCING SEQUENCE

STEPS 1-3 CAN BE DONE IN ANY ORDER

1. BALANCE EXISTING ISOLATOR IN THE HD STERILE COMPOUNDING ROOM TO THE REQUIRED AIRFLOW OF THE ISOLATOR, BALANCE BY ADJUSTING 3-AFCV-6. ONCE SET, THIS FLOW RATE CAN NOT BE ALTERED.

2. BALANCE THE NEW BIOSAFETY CABINET IN THE HD STERILE COMPOUNDING ROOM TO THE REQUIRED AIRFLOW OF THE BIOSAFETY CABINET, BALANCE BY ADJUSTING 3-AFCV-5. ONCE SET, THIS FLOW RATE CAN NOT BE ALTERED.

3. BALANCE THE OTHER NEW BIOSAFETY CABINET IN THE HD STERILE COMPOUNDING ROOM TO THE REQUIRED AIRFLOW OF THE BIOSAFETY CABINET, BALANCE BY ADJUSTING 3-AFCV-4. ONCE SET, THIS AIR FLOW RATE CAN NOT BE ALTERED.

4. TO ACHIEVE THE PROPER DIFFERENTIAL PRESSURE IN THE HD STERILE COMPOUNDING ROOM, ADJUST 3-AFCV-3 AIRFLOW ADJUST AS REQUIRED TO ACHIEVE A PROPER NEGATIVE DIFFERENTIAL PRESSURE OF 0.01" WC TO 0.03" WC WITH RESPECT TO THE ANTE ROOM. BALANCE EACH HEPA DIFFUSER IN THE HD STERILE HD COMPOUNDING ROOM EQUALLY.

5. BALANCE EACH HEPA DIFFUSER IN THE NON-HD STERILE COMPOUNDING ROOM TO THE AIRFLOW INDICATED ON THE SCHEMATIC AND DRAWINGS. ONCE THE DIFFUSERS AND 3-AFCV-7 ARE SET, THIS FLOW RATE CAN NOT BE ALTERED.

6. TO ACHIEVE THE PROPER DIFFERENTIAL PRESSURE IN THE NON-HD STERILE COMPOUNDING ROOM, ADJUST 3-AFCV-8 AIRFLOW RATE. ADJUST AS REQUIRED TO ACHIEVE A PROPER POSITIVE DIFFERENTIAL PRESSURE OF 0.02" WC TO 0.03" WC WITH RESPECT TO THE ANTE ROOM.

7. BALANCE EACH DIFFUSER IN THE NON-HD STORAGE ROOM TOTHE AIRFLOW INDICATED ON THE SCHEMATIC AND DRAWINGS. ONCE THE DIFFUSERS AND 3-AFCV-9 ARE SET, THIS FLOW RATE CAN NOT BE ALTERED.

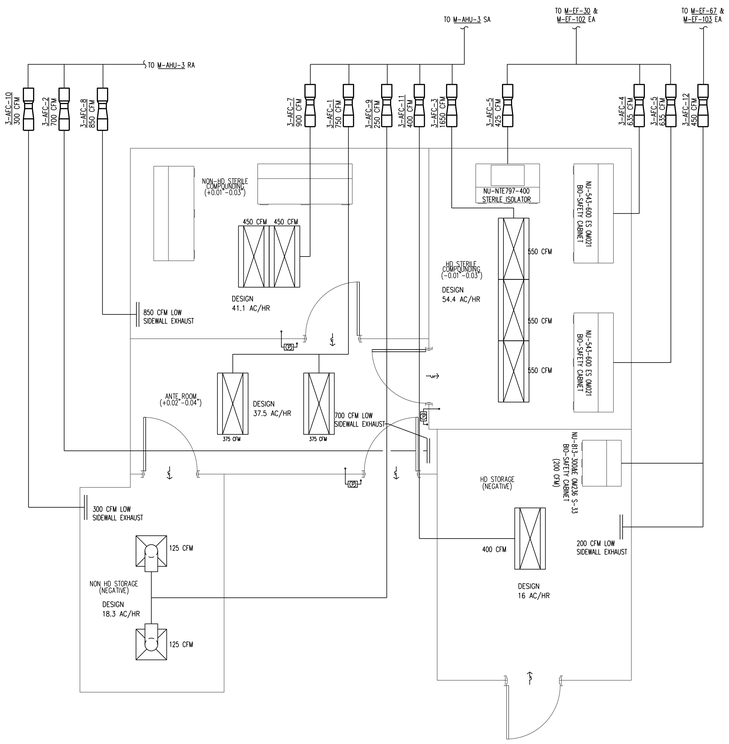
8. TO ACHIEVE THE PROPER ROOM NEGATIVE PRESSURE WITH RESPECT TO THE ANTE ROOM, BALANCE 3-AFCV-10 TO THE AIRFLOW INDICATED ON THE SCHEMATIC AND THE DRAWINGS. ONCE 3-AFCV-10 IS SET, THIS FLOW RATE CAN NOT BE ALTERED.

9. BALANCE EACH HEPA DIFFUSER IN THE ANTE ROOM TO THE AIR FLOW INDICATED ON THE SCHEMATIC AND DRAWINGS. ONCE THE DIFFUSERS AND 3-AFCV-1 ARE SET, THIS FLOW RATE CAN NOT BE ALTERED.

10. TO ACHIEVE THE PROPER DIFFERENTIAL PRESSURE IN THE ANTE ROOM, ADJUST 3-AFCV-2 AIRFLOW RATE. ADJUST AS REQUIRED TO ACHIEVE A PROPER POSITIVE DIFFERENTIAL PRESSURE OF 0.02" WC TO 0.04" WC WITH RESPECT TO THE GENERAL PHARMACY AREA.

11. BALANCE HEPA DIFFUSER IN THE HD STORAGE ROOM TO THE AIRFLOW INDICATED ON THE SCHEMATIC AND DRAWINGS. ONCE THE DIFFUSER AND 3-AFCV-11 ARE SET, THIS AIR FLOW RATE CAN NOT BE ALTERED.

12. TO ACHIEVE THE PROPER ROOM NEGATIVE PRESSURE WITH RESPECT TO THE GENERAL PHARMACY AREA, BALANCE THE NEW BIOSAFETY CABINET AND THE EXHAUST GRILLE IN THE HD STORAGE COMPOUNDING ROOM. BALANCE TO THE REQUIRED AIRFLOW OF THE BIOSAFETY CABINET AND ADJUST THE AIRFLOW RATE OF THE EXHAUST GRILLE AND 3-AFCV-12 AS REQUIRED SO THE ROOM IS NEGATIVE. ONCE SET, THIS FLOW RATE CAN NOT BE ALTERED.



1 ME-106 AIRFLOW SCHEMATIC DESIGN

NO SCALE

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

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Drawing Title: MECHANICAL CONTROL DIAGRAMS AND AIRFLOW SCHEMATIC

Elec File Name: 2019250_H8.dwg

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: JCP | Drawn: SGA

Project Number: VA #437-18-101

Building Number: 9 & 46

Drawing Number: ME-106

Drawing # 24 of 31

Veterans Health Administration

Department of Veterans Affairs

VA FORM 08-6231

ELECTRICAL SYMBOLS LEGEND

LIGHTING

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
A a	CEILING SURFACE MOUNTED LIGHT FIXTURE, CAPITAL LETTER INDICATES FIXTURE TYPE, SMALL LETTER INDICATES SWITCHING.	
	RECESSED CEILING MOUNTED LIGHT FIXTURE	
	WALL MOUNTED INCAND. OR H.I.D. LIGHT FIXTURE, SURFACE OR, RECESSED MOUNTED	
	CEILING EXIT SIGN, SHADED SIDE INDICATES LIGHTED FACE, ARROWS INSTALLED AS SHOWN	
	WALL EXIT SIGN	6 INCHES ABOVE DOOR FRAME TO BOTTOM
	SUSPENDED FIXTURE	
	SURFACE FLUORESCENT	
	RECESSED FLUORESCENT	
	FIXTURE CONNECTED TO EMERGENCY LIFE SAFETY POWER WHEN SHADED	
	EMERGENCY BATTERY LIGHT	7 FOOT 6 INCHES
	EMERGENCY REMOTE LAMP	7 FOOT 6 INCHES
PC	PHOTO CELL	9 FOOT
M	CEILING MOUNTED MOTION SENSOR SWITCH	
M	WALL MOUNTED MOTION SENSOR SWITCH	84 INCHES
M PP	MOTION SENSOR SWITCH POWER PACK	
C 2	CONTACTOR (NUMBER INDICATES NUMBER OF POLES)	
$	SINGLE POLE (HORSEPOWER RATED WHEN USED AS MOTOR DISCONNECT)	48 INCHES
$2	DOUBLE POLE	48 INCHES
$3	3-WAY	48 INCHES
$4	4-WAY	48 INCHES
$M	OCCUPANCY SENSOR SWITCH	48 INCHES
$K	KEY OPERATED	48 INCHES
$P	WITH PILOT LIGHT (CAN BE USED WITH OTHER SWITCH TYPES)	48 INCHES
$D	FLUORESCENT DIMMER	48 INCHES
$MC	MOMENTARY CONTACT	48 INCHES
	DIMMER (600 WATT UNLESS OTHERWISE NOTED)	48 INCHES
$L	LIGHTING INTENSITY SELECTOR PANEL	48 INCHES
$LV	LOW VOLTAGE SWITCH	48 INCHES

POWER

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
	DUPLEX RECEPTACLE ("C" INDICATES EMERGENCY CRITICAL BRANCH POWER)	18 INCHES
	DOUBLE DUPLEX RECEPTACLE ("C" INDICATES EMERGENCY CRITICAL BRANCH POWER)	18 INCHES
A	TYPE L14-30 RECEPTACLE	18 INCHES
B	TYPE L14-50 RECEPTACLE	18 INCHES
G	GFCI TYPE RECEPTACLE	18 INCHES
	MULTI-OUTLET ASSEMBLY - M.O.A., PROVIDE DEVICES AS SHOWN ON PLANS	18 INCHES
	DUPLEX RECEPTACLE, HALF SWITCHED	18 INCHES
R	FLOOR OUTLET, 'R' INDICATES RECESSED, 'F' INDICATES FLUSH, 'S' INDICATES SURFACE MOUNT	
TS	TIME SWITCH	
T	DRY TYPE TRANSFORMER	
PB	PUSH BUTTON	
HC	POWER DOOR HANDICAP PUSH PAD	42 INCHES
B	EMERGENCY BOILER SHUTDOWN PUSH BUTTON	48 INCHES
T E	THERMOSTAT - PROVIDE BY DIVISION 16	48 INCHES
T	THERMOSTAT - FURNISHED BY DIVISION 15, INSTALLED BY DIVISION 16	48 INCHES
$M	THERMAL SWITCH (MOTOR OVERLOAD TYPE)	48 INCHES
	POWER POLE	
1	MOTOR (NUMBER REFERS TO MOTOR AND EQUIPMENT SCHEDULE SEE SCHEDULE FOR WIRING AND CONTROLLER REQUIREMENTS)	
	SURFACE LIGHTING AND APPLIANCE PANELBOARD	
	RECESSED LIGHTING AND APPLIANCE PANELBOARD	
	SWITCHBOARD OR MOTOR CONTROL CENTER AS NOTED	
	SPECIAL EQUIPMENT CABINET AS NOTED	
CB	ENCLOSED MOLDED CASE CIRCUIT BREAKER	
VFD	VARIABLE FREQUENCY CONTROLLER WITH DISCONNECT	
	NON-FUSED DISCONNECT	
F	FUSED DISCONNECT	
	MAGNETIC STARTER	
	COMBINATION STARTER-DISCONNECT	

SYSTEMS

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
S	CEILING MOUNTED RECESSED SPEAKER	
S	CEILING SURFACE MOUNTED SPEAKER	
S	WALL MOUNTED SPEAKER	90 INCHES
C	CLOCK	90 INCHES TO BOTTOM
CS	CLOCK/SPEAKER UNIT	90 INCHES TO BOTTOM
M	MICROPHONE OUTLET	18 INCHES
MF	MICROPHONE FLOOR OUTLET	
V	VOLUME CONTROL	48 INCHES
AMP	AMPLIFIER CABINET	
A	AUXILIARY INPUT OUTLET	18 INCHES
2	COMPUTER OUTLET (NUMBER INDICATES QUANTITY OF CABLES AND JACKS, NO NUMBER INDICATES ONE)	18 INCHES
2 2	COMBINATION COMPUTER/TELEPHONE OUTLET IN SINGLE GANG OPENING (NUMBER INDICATES QUANTITY OF CABLES AND JACKS, NO NUMBER INDICATES ONE)	18 INCHES
W	TELEPHONE OUTLET ("W" INDICATES WALL MOUNTED AT 48 INCHES)	18 INCHES
	COMPUTER/TELEPHONE OUTLET, PROVIDE ROUGH-IN AND CONDUIT ONLY	18 INCHES
	FLOOR MOUNTED COMMUNICATIONS OUTLET	
	COMMUNICTIONS FLOOR OUTLET WITH FURNITURE WHIP	
TV	TELEVISION OUTLET	18 INCHES
	REQUEST TO EXIT DEVICE	3 INCHES ABOVE DOOR FRAME
R	DOOR POSITION SWITCH, RECESSED	
S	DOOR POSITION SWITCH, SURFACE MOUNT	
	DOOR POSITION SWITCH	
CR	CARD READER	48 INCHES
KP	KEY PAD	48 INCHES
DB	DOOR BELL	48 INCHES
	SURVEILLANCE CAMERA	
	CEILING MOUNTED SECURITY SENSOR	

FIRE ALARM

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
F	MANUAL STATION	48 INCHES
H	FIXED TEMPERATURE DETECTOR	
DS	DUCT PHOTOELECTRIC DETECTOR	
S	PHOTOELECTRIC DETECTOR ('S' INDICATES SLEEPING ROOM WITH AUX. CONTACT, 'G' INDICATES WITH GUARD,'E' INDICATES FOR ELEVATOR RECALL)	
C	COMBINATION FIRE/SMOKE DAMPER OR SMOKE DAMPER BY DIVISION 15	
H	HORN/STROBE WITH STROBE	BOTTOM OF LENS, 80 INCHES
S	SPEAKER HORN WITH STROBE	BOTTOM OF LENS, 80 INCHES
C	CHIME WITH STROBE	BOTTOM OF LENS, 80 INCHES
	STROBE LIGHT	BOTTOM OF LENS, 80 INCHES
FA	FIRE ALARM SPEAKER	
FM	FIRE ALARM MODULE/RELAY	
DH	MAGNETIC DOOR HOLD OPEN	
DH I	INTEGRAL MAGNETIC DOOR CLOSER (PROVIDED BY DIVISION 8)	
SS	SUPERVISORY SWITCH (NUMBER INDICATES NUMBER OF DEVICES AT THIS LOCATION	
PS	PRESSURE SWITCH	
FS	FLOW SWITCH	
FACP	FIRE ALARM CONTROL PANEL	
ANN	FIRE ALARM ANNUNCIATOR	

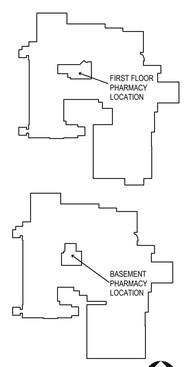
MISC/ABBREVATIONS

SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
J	CEILING-MOUNTED JUNCTION BOX	
J	WALL JUNCTION BOX	18 INCHES
	DASHED LINES INDICATE EXISTING FIXTURES, DEVICES, OR EQUIPMENT	
	HASH MARKS INDICATE ITEM NOTED TO BE REMOVED	
	CONDUIT CONCEALED IN WALL OR CEILING, QUANTITY OF CONDUCTORS NOT SHOWN, PROVIDE AS REQUIRED FOR DEVICE/CIRCUIT NUMBERS SHOWN.	
	CONDUIT UP	
	CONDUIT DOWN	
	CONDUIT CONCEALED IN FLOOR	
UG	UNDERGROUND CONDUIT AT 24 INCHES MINIMUM	
L1-2,4,6 #10	HOME RUN TO PANELBOARD, QUANTITY OF CONDUCTORS REQUIRED NOT INDICATED, PROVIDE QUANTITY AS REQUIRED FOR CIRCUIT NUMBERS SHOWN, SWITCHING ARRANGEMENT, OR NUMBER OF HOME RUNS SHOWN. '#10' INDICATES WIRE SIZE, NO NUMBERS INDICATES #12, 3/4 INCH CONDUIT MINIMUM.	
	SURFACE CONDUIT OR SURFACE RACEWAY	
1	NOTE IDENTIFICATION	
	WIRE BASKET TYPE CABLE TRAY	
	COMMUNICATIONS CABLE SUPPORT HANGER	
A	AMPERE	
AC	ABOVE COUNTER	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
AHU	AIR HANDLING UNIT	
C	CONDUIT	
CUH	CABINET UNIT HEATER	
EF	EXHAUST FAN	
EWC	ELECTRIC WATER COOLER	
FA	FIRE ALARM	
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	
GR	GROUND	
PH	PHASE	
TV	TELEVISION	
W	WIRE	
WP	WEATHERPROOF	

NOTES:
1. THIS IS A COMPREHENSIVE SYMBOL SCHEDULE. NOT ALL SYMBOLS ARE APPLICABLE TO THESE DRAWINGS.3. FOR DEVICES SHOWN AS 48 INCHES MOUNTING HEIGHT, WHEN INSTALLED IN MASONRY BLOCK WALLS, MOUNTING AT 48 INCHES TO THE TOP OF THE OUTLET BOX IS ACCEPTABLE.
2. MOUNTING HEIGHT IS TO THE CENTER OF DEVICE UNLESS OTHERWISE INDICATED.

LUMINAIRE SCHEDULE

TYPE	MANUFACTURERS	CATALOG INFORMATION	FIXTURE DESCRIPTION	LED DATA TYPE	DRIVER DATA TYPE	INPUT WATTS	VOLTAGE	MOUNTING	REMARKS
A	METALUX OR EQUAL	2GR SERIES	2' X 4' RECESSED LED TROFFER, REGRESSED ALUMINUM DOOR FRAME HINGED AND LATCHED WITH 0.125 INCH THICK PATTERN #12 DIFFUSER. 4800 LUMENS.	4000K LED	0-10V DIMMING DRIVER	38	120	RECESSED	
C	FAIL SAFE OR EQUAL	CLM SERIES	2 FOOT X 4 FOOT, RECESSED WITH FLANGE AND OVERLAPPING DOOR, DIE FORMED ALUMINUM, #12 PATTERN .125 ACRYLIC DIFFUSER, WHITE ALUMINUM HOUSING. ISO CLASS 5-8 RATED, IP-65 COMPLIANT, ANTIMICROBRIAL, GASKETED SEAL, 4000K.	4000K LED 7240 LUMENS	LED DRIVER	73	MVOLT	RECESSED	
U	FAIL SAFE OR EQUAL	UCL SERIES	2 FOOT LED UNDERCABINET FIXTURE, SOLID FACE, ACRYLIC LENS, WHITE FINISH, 3500K, 750 LUMENS/FT, INTEGRAL LIGHT SWITCH	4000K LED	LED DRIVER	9	120	SURFACE	



KEYPLAN
NTS
NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

8/15/2019 1:01:07 PM

CONSULTANTS:

CONTRACTOR:
MDM Construction
2215 Sheyenne St.
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Phone: 701-356-3956

ELECTRICAL:
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MECHANICAL:
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Phone: 701-280-0500

Seal
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ARCHITECT TEAM:

ARCHITECT OF RECORD:
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Sioux Falls, SD 57103
Phone: 605-271-1144

STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
SYMBOLS LEGEND
LUMINAIRE SCHEDULE

Elec File Name:
19-174 EA-101.DWG

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

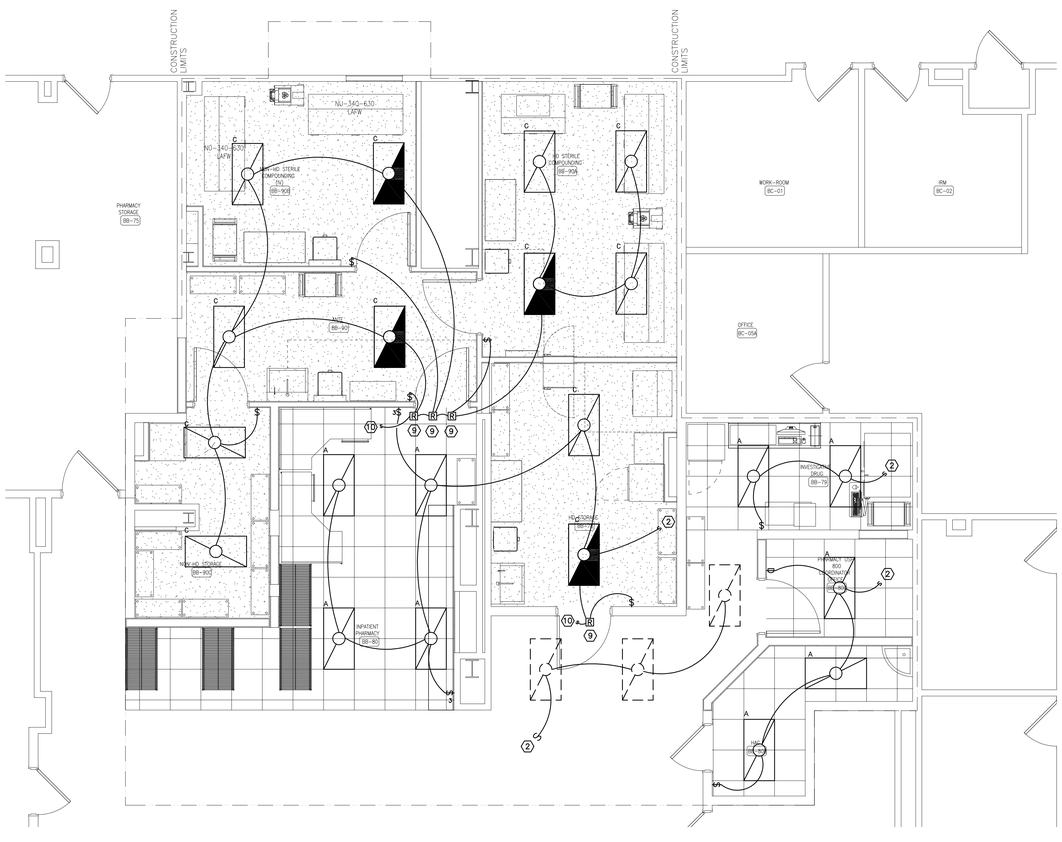
Location
FARGO, NORTH DAKOTA

Date **09/23/2019** | Checked **MB** | Drawn **CH**

Project Number **VA #437-18-101**
Building Number **9 & 46**
Drawing Number **EA-101**
Drawing # 25 of 31

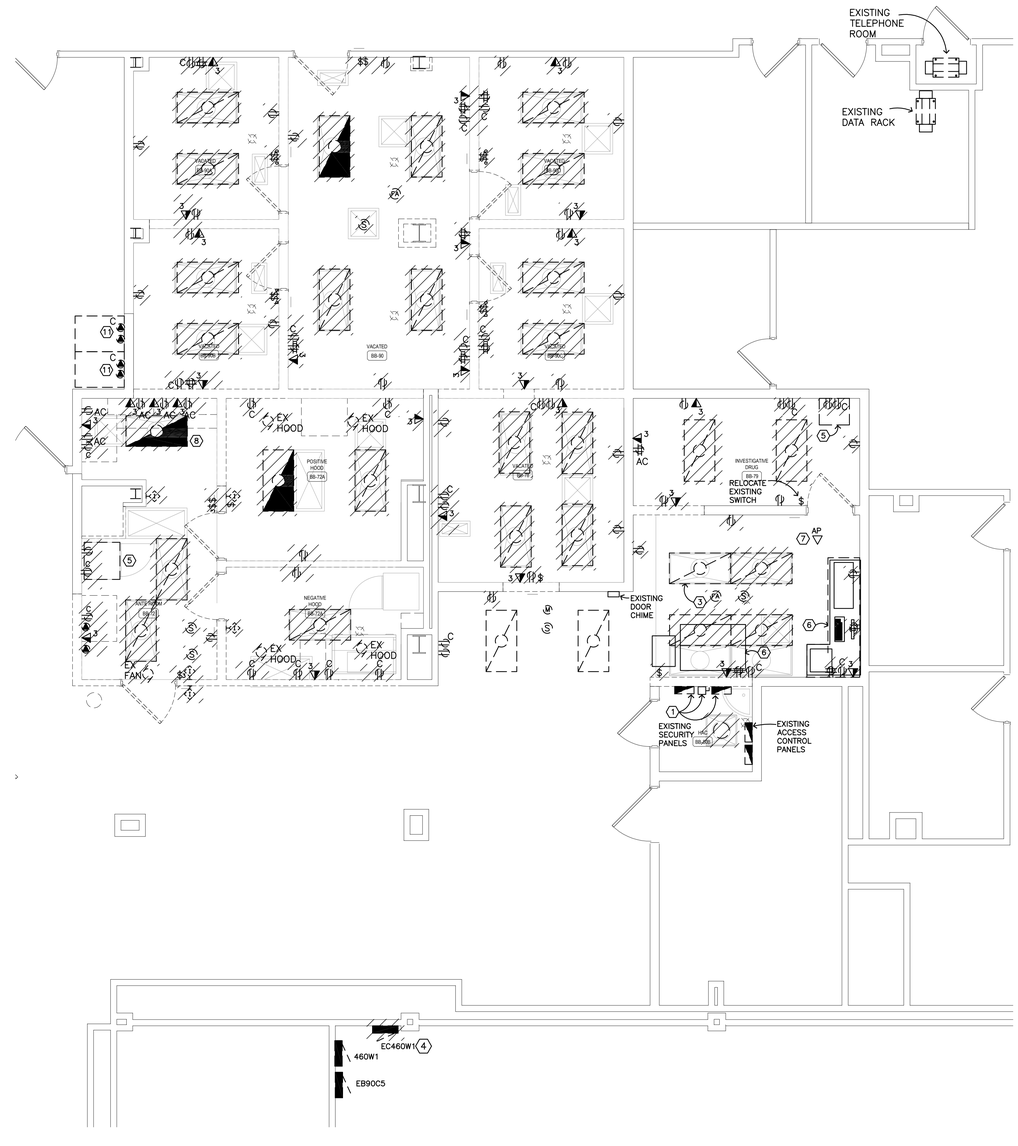
Veterans Health Administration
Department of Veterans Affairs

VA FORM 08-6231



2 BASEMENT LIGHTING PLAN

NORTH 0' 2' 4' 8'



1 BASEMENT ELECTRICAL DEMOLITION PLAN

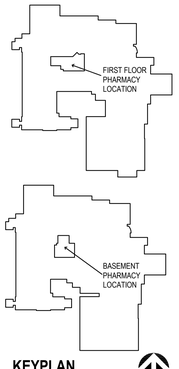
NORTH 0' 2' 4' 8'

PLAN NOTES:

1. REMOVE EXISTING CARD ACCESS CONTROL PANELS AND ASSOCIATED MANUAL POWER TRANSFER SWITCH, SALVAGE AND RELOCATE TO ADJACENT WALL, SEE REVISED ROOM LAYOUT FOR LOCATION.
2. TO EXISTING LIGHTING CIRCUIT.
3. SALVAGE LIGHT AND REINSTALL.
4. REPLACE EXISTING PANEL WITH NEW PANELBOARD, SEE PANEL SCHEDULE FOR ADDITIONAL INFORMATION. RECONNECT NEW PANEL TO EXISTING 100A FEEDER, AND RECONNECT ALL EXISTING LOADS.
5. TEMPORARILY RELOCATE EXISTING REFRIGERATOR CIRCUITS AS DIRECTED BY OWNER TO ACCOMMODATE PHASED CONSTRUCTION.
6. TEMPORARILY RELOCATE EXISTING FASTPAK/SARGENT EQUIPMENT CONNECTIONS AS DIRECTED BY OWNER TO ACCOMMODATE PHASED CONSTRUCTION.
7. REMOVE EXISTING WIRELESS ACCESS POINT TO ACCOMMODATE INSTALLATION OF NEW CEILING, SALVAGE AND REINSTALL IN NEW GRID.
8. REMOVE LIGHT FIXTURE, MAINTAIN AND EXTEND EXISTING LIFE SAFETY LIGHTING CIRCUIT AND EXTEND TO REVISED LIFE SAFETY LIGHT FIXTURE LOCATIONS.
9. PROVIDE UL924 EMERGENCY LIGHTING RELAY, SEE DETAIL 4/EE-103 FOR REQUIREMENTS.
10. CONNECT TO EXISTING LIFE SAFETY LIGHT CIRCUIT.
11. EXISTING (2) 15A/2P CRITICAL BRANCH CIRCUITS AND (2) 15A/2P NORMAL POWER CIRCUITS FOR EXISTING FREEZERS TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION FOR TEMPORARY DOOR INTO PHASE 1 CONSTRUCTION. INTERCEPT AND EXTEND CIRCUITS AS REQUIRED TO TEMPORARY FREEZER LOCATIONS, COORDINATE WITH OWNER FOR EXACT LOCATION.

GENERAL NOTES:

1. IRM ROOMS ARE A SECURED SPACE AND WILL REQUIRE AN AUTHORIZED ESCORT AT ALL TIMES, COORDINATE ACCESS WITH VA OI&T REPRESENTATIVES A MINIMUM OF TWO WEEKS PRIOR TO BEGINNING ANY WORK IN THIS SPACE.
2. ALL ITEMS NOTED TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED TO THEIR SOURCE UNLESS OTHERWISE NOTED. ADDITIONAL ITEMS NOT SHOWN ON PLANS SHALL BE IDENTIFIED AND BROUGHT TO THE ENGINEERS ATTENTION FOR INSTRUCTION ON WHAT ACTION SHALL BE TAKEN. ALL DEMOLITION IN REMODEL AREAS SHALL BE INCLUDED IN THE CONTRACT.
3. PROVIDE SUPPORT FOR ANY CABLING, CONDUIT, OR OTHER WIRING SYSTEMS THAT MAY HAVE BEEN LEFT BY DEMOLITION CREW. REMOVE ALL ABANDONED CONDUITS, CABLING AND CIRCUITS FROM REMODEL AREA.
4. EXISTING LIGHTING FIXTURES, DEVICES ETC TO BE DEMOLISHED SHALL BE TURNED OVER TO OWNER FOR ACCEPTANCE OR REFUSAL. ALL MATERIAL REJECTED SHALL BE PROPERLY DISPOSED OF BY THE DIVISION 26 CONTRACTOR.
5. ALL EXISTING WIRING/CONDUITS TO BE DEMOLISHED WITHIN THE SCOPE OF THIS PROJECT SHALL BE REMOVED BACK TO SOURCE. THIS INCLUDES POWER, DATA, SPEAKERS, FIRE ALARM, AND LIGHTING. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED WIRING AND AND CONDUITS TO RECONNECT EXISTING RECEPTACLES, LIGHTING AND SYSTEMS DEVICES DEACTIVATED DURING DEMOLITION THAT ARE TO REMAIN.
6. EXTEND EXISTING WIRING AND CONDUITS AS REQUIRED FOR DEVICES NOTED TO BE RELOCATED.



KEYPLAN

NTS

NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

8/15/2019 1:01:07 PM

CONSULTANTS:

CONTRACTOR: MDM Construction, 2215 Sheyenne St., Fargo, ND 58078, Phone: 701-356-3956

ELECTRICAL: MBN Engineering, 503 7th Street North, Suite 200, Fargo, ND 58102, Phone: 701-478-6336

MECHANICAL: Obermiller Nelson Engineering, 2201 12th Street North, Suite E, Fargo, ND 58102, Phone: 701-280-0500

Seal: PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

ARCHITECT OF RECORD: Stone Group Architects, 600 East 7th Street, Sioux Falls, SD 57103, Phone: 605-271-1144

STONE GROUP ARCHITECTS

Image Group Architecture & Interiors, 403 Center Avenue, Suite 300, Moorhead, MN 56560, 218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: BASEMENT ELECTRICAL DEMOLITION AND LIGHTING PLANS

Elec File Name: 19-174 ED-101.DWG

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: MB | Drawn: CH

Project Number: VA #437-18-101

Building Number: 9 & 46

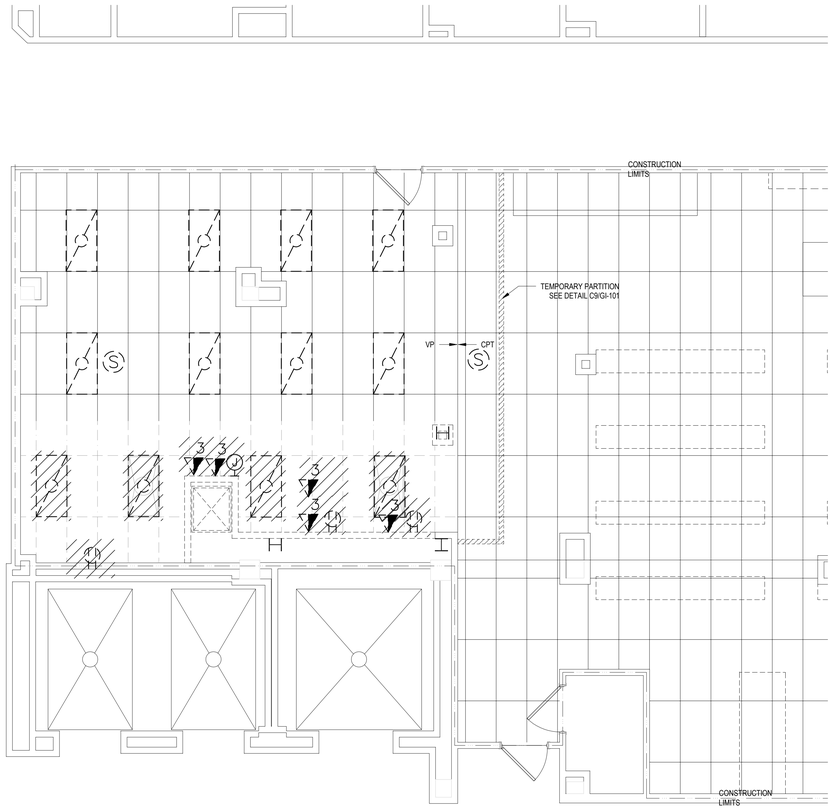
Drawing Number: ED-101

Drawing # 26 of 31

Veterans Health Administration

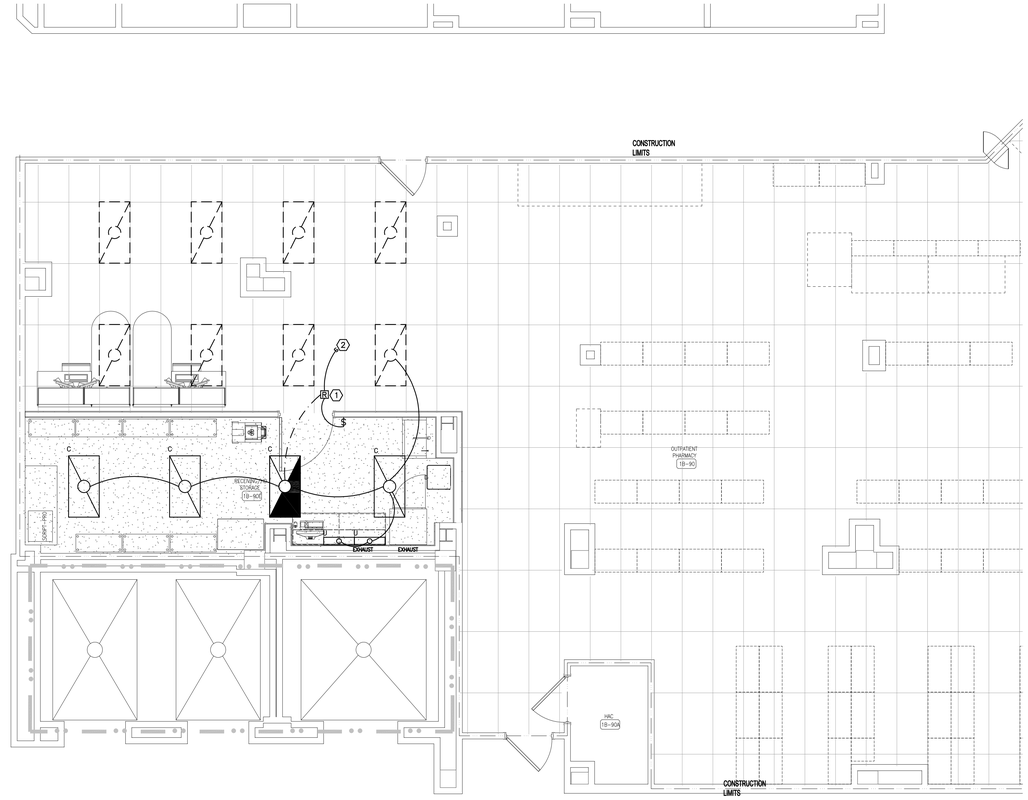
Department of Veterans Affairs

VA FORM 08-6231



NORTH 1 **FIRST FLOOR ELECTRICAL DEMOLITION PLAN**

0' 2' 4' 8'

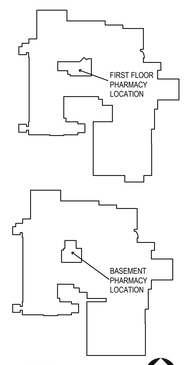


NORTH 1 **FIRST FLOOR LIGHTING PLAN**

0' 2' 4' 8'

GENERAL NOTES:

1. IRM ROOMS ARE A SECURED SPACE AND WILL REQUIRE AN AUTHORIZED ESCORT AT ALL TIMES, COORDINATE ACCESS WITH VA O&T REPRESENTATIVES A MINIMUM OF TWO WEEKS PRIOR TO BEGINNING ANY WORK IN THIS SPACE.
2. ALL ITEMS NOTED TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED TO THEIR SOURCE UNLESS OTHERWISE NOTED. ADDITIONAL ITEMS NOT SHOWN ON PLANS SHALL BE IDENTIFIED AND BROUGHT TO THE ENGINEERS ATTENTION FOR INSTRUCTION ON WHAT ACTION SHALL BE TAKEN. ALL DEMOLITION IN REMODEL AREAS SHALL BE INCLUDED IN THE CONTRACT.
3. PROVIDE SUPPORT FOR ANY CABLING, CONDUIT, OR OTHER WIRING SYSTEMS THAT MAY HAVE BEEN LEFT BY DEMOLITION CREW. REMOVE ALL ABANDONED CONDUITS, CABLING AND CIRCUITS FROM REMODEL AREA.
4. EXISTING LIGHTING FIXTURES, DEVICES ETC TO BE DEMOLISHED SHALL BE TURNED OVER TO OWNER FOR ACCEPTANCE OR REFUSAL. ALL MATERIAL REJECTED SHALL BE PROPERLY DISPOSED OF BY THE DIVISION 26 CONTRACTOR.
5. ALL EXISTING WIRING/CONDUITS TO BE DEMOLISHED WITHIN THE SCOPE OF THIS PROJECT SHALL BE REMOVED BACK TO SOURCE. THIS INCLUDES POWER, DATA, SPEAKERS, FIRE ALARM, AND LIGHTING. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED WIRING AND AND CONDUITS TO RECONNECT EXISTING RECEPTACLES, LIGHTING AND SYSTEMS DEVICES DEACTIVATED DURING DEMOLITION THAT ARE TO REMAIN.
6. EXTEND EXISTING WIRING AND CONDUITS AS REQUIRED FOR DEVICES NOTED TO BE RELOCATED.



KEYPLAN
NTS
NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

8/15/2019 1:01:07 PM

CONSULTANTS:

CONTRACTOR: MDM CONSTRUCTION
MDM Construction
2215 Sheyenne St.
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Seal: PRELIMINARY NOT FOR CONSTRUCTION

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STONE GROUP ARCHITECTS

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403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: **FIRST FLOOR ELECTRICAL DEMOLITION PLAN AND LIGHTING PLAN**

Elec File Name: 19-174 ED-102.DWG

Project Title: **RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO**

Location: FARGO, NORTH DAKOTA

Date: **09/23/2019** | Checked: **MB** | Drawn: **CH**

Project Number: **VA #437-18-101**

Building Number: **9 & 46**

Drawing Number: **ED-102**

Drawing # of 31

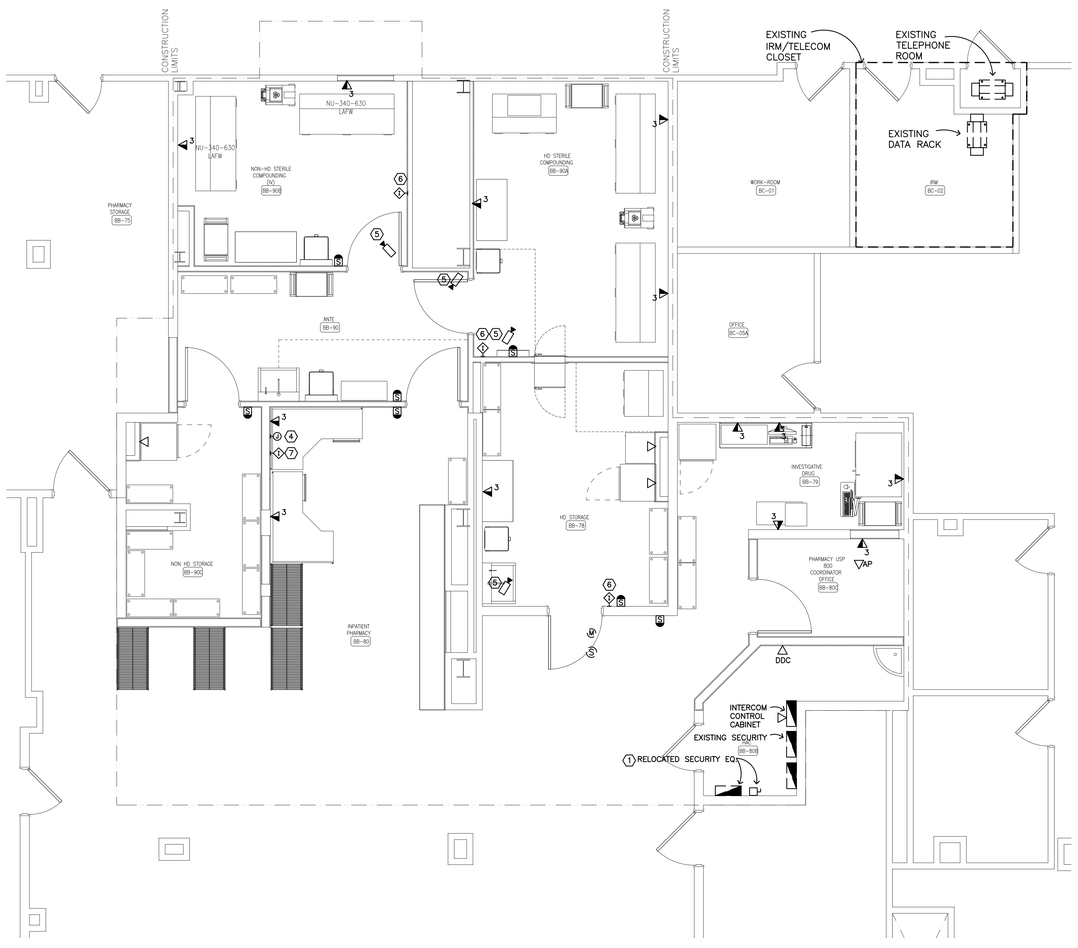
Veterans Health Administration

Department of Veterans Affairs

VA FORM 08-6231

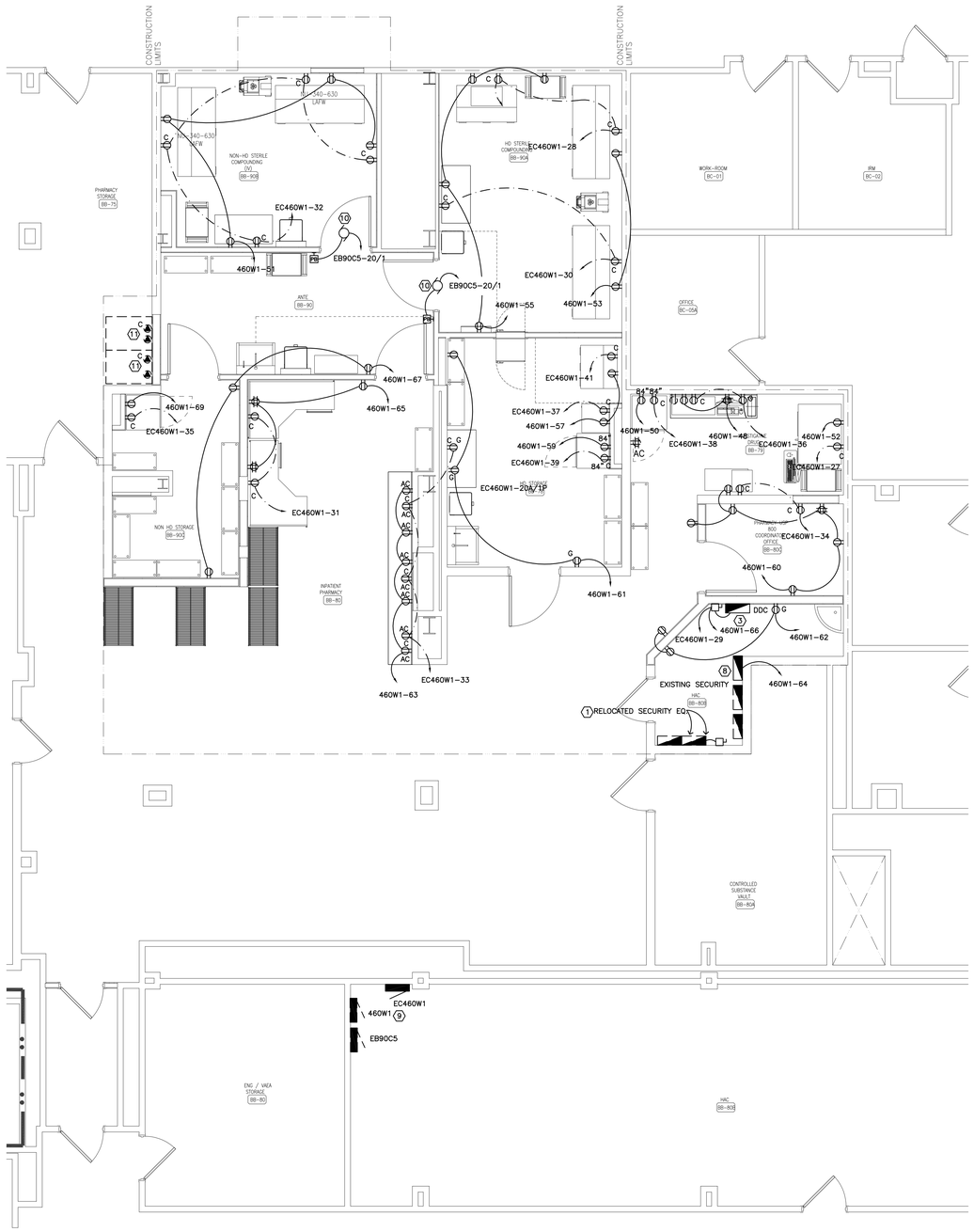
PLAN NOTES:

1. REINSTALL EXISTING CARD ACCESS CONTROL PANELS AND ASSOCIATED MANUAL POWER TRANSFER SWITCH.
2. RECONNECT TO EXISTING CIRCUIT FROM EC460W1.
3. SEE DETAIL 3/EE-103 FOR REQUIREMENTS.
4. PROVIDE JUNCTION BOX WITH (2) 1" CONDUITS STUBBED TO ACCESSIBLE CEILING SPACE FOR OWNER PROVIDED SECURITY CAMERA WIRING.
5. PROVIDE JUNCTION BOX IN CEILING WITH 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE FOR OWNER PROVIDED SECURITY CAMERA. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH IN.
6. PROVIDE FLUSH MOUNTED, CHEMICAL RESISTANT INTERCOM STATION WITH REMOVABLE FILM AND MEMBRANE SWITCHES EQUAL TO TOA N-8033MS SERIES. CONFIGURE FOR POINT TO POINT COMMUNICATION WITH MASTER STATION AT PHARMACY BB-80 DESK, SEE ALSO SECTION 27 51 23.
7. PROVIDE EQUAL TO TOA N-8010MS SERIES DESKTOP MASTER STATION, FULL DUPLEX HANDS FREE OR HANDSET OPERATION. CONFIGURE FOR SELECTIVE CALL AND ALL CALL TO ROOM STATIONS, SEE ALSO SECTION 27 51 23.
8. PROVIDE 120V CONNECTION FOR INTERCOM AMPLIFIER CABINET.
9. ADD (12) 20A/1P BREAKERS TO EXISTING SQUARE D PANEL FOR ADDITIONAL NORMAL POWER CIRCUITS FROM PANEL 460W1.
10. PROVIDE 120V CONNECTION TO MOTORIZED DOOR OPERATOR AND ASSOCIATED CONTROLS.
11. RECONNECT EXISTING 15A/2P FREEZER CIRCUITS TO PANEL 9OW1 AND EC9OW1.



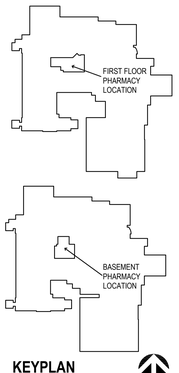
NORTH 2 BASEMENT SYSTEM PLAN

0' 2' 4' 8'



NORTH 1 BASEMENT POWER PLAN

0' 2' 4' 8'



KEYPLAN

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NORTH

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

8/15/2019 1:01:07 PM

CONSULTANTS:

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STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: BASEMENT POWER AND SYSTEMS PLANS

Elec File Name: 19-174 EE-101.DWG

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: MB | Drawn: CH

Project Number: VA #437-18-101

Building Number: 9 & 46

Drawing Number: EE-101

Drawing # 28 of 31

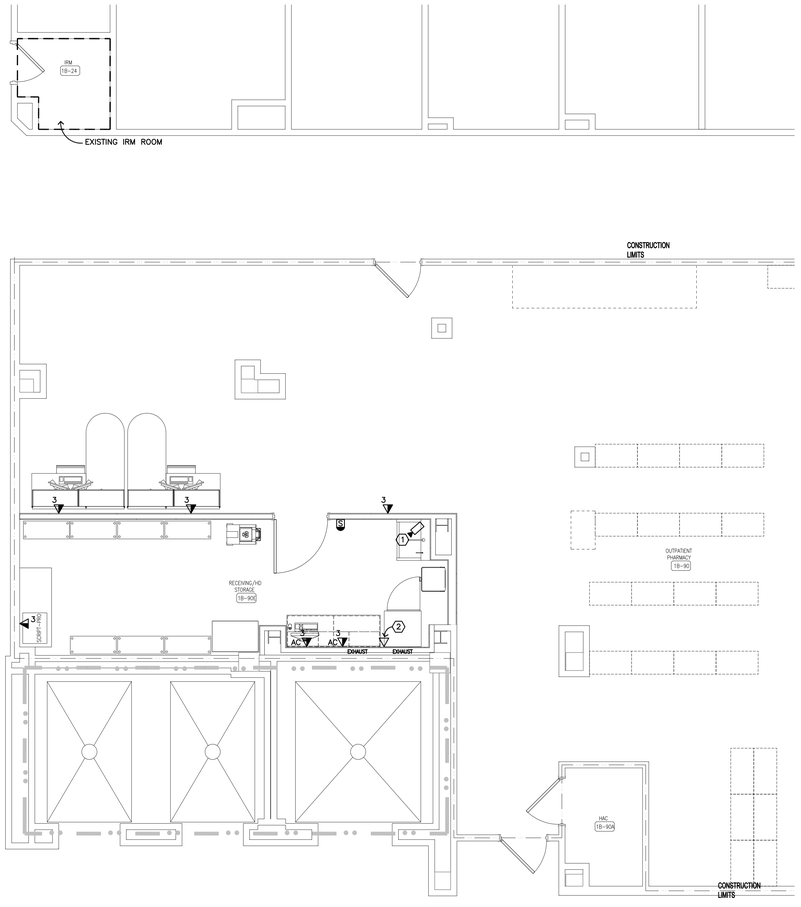
Veterans Health Administration

Department of Veterans Affairs

VA FORM 08-6231

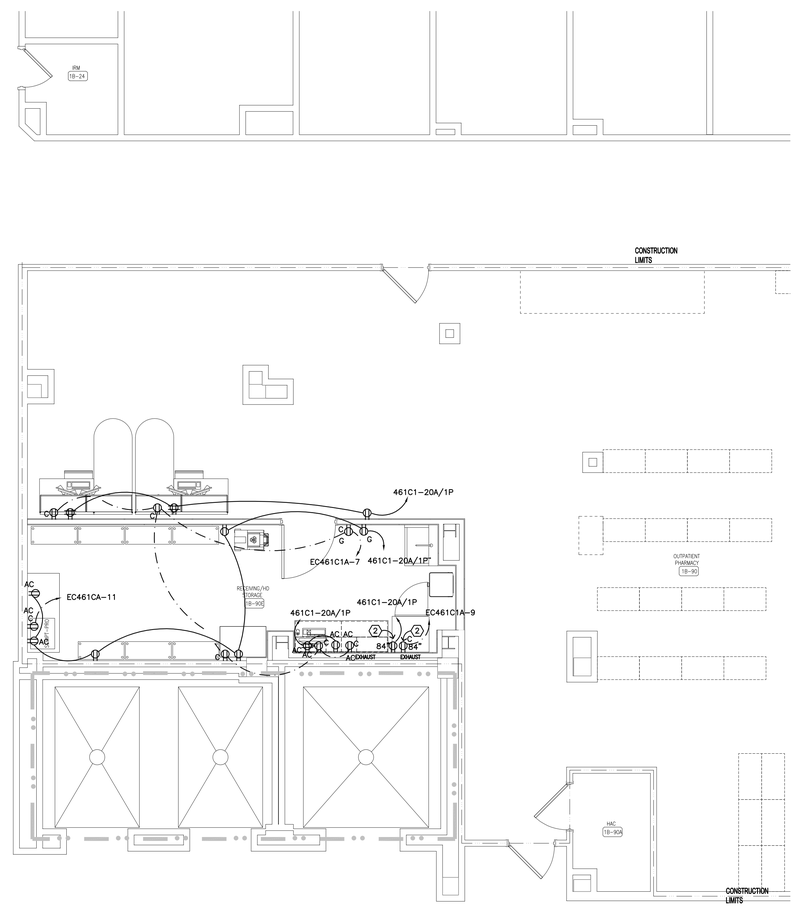
PLAN NOTES:

1. PROVIDE JUNCTION BOX IN CEILING WITH 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE FOR OWNER PROVIDED SECURITY CAMERA. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH IN.
2. COORDINATE PLACEMENT OF RECEPTACLES WITH HVAC EXHAUST SYSTEM GRILL.



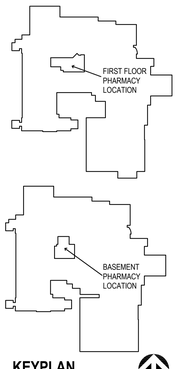
2 FIRST FLOOR SYSTEMS PLAN

NORTH 0' 2' 4' 8'



1 FIRST FLOOR POWER PLAN

NORTH 0' 2' 4' 8'



KEYPLAN

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Issue	Date:	Description

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VA FORM 08-6231

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STONE GROUP ARCHITECTS

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IMAGE group ARCHITECTURE & INTERIORS

Drawing Title
FIRST FLOOR POWER AND SYSTEMS PLANS

Elec File Name:
19-174 EE-102.DWG

Project Title
RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location
FARGO, NORTH DAKOTA

Date: 09/23/2019
Checked: MB
Drawn: CH

Project Number: VA #437-18-101
Building Number: 9 & 46
Drawing Number: **EE-102**
Drawing # 29 of 31

Veterans Health Administration

Department of Veterans Affairs

PANELBOARD LOAD SCHEDULE

PANEL: EC460W1 | MAIN: MLO | VOLTS: 208Y/120, 3 PH., 4W. | ENCLOSURE: NEMA 1 | LOCATION: BB-09
RATING: 100 AMP | AIC RATING: 10,000 | MOUNTING: SURFACE | FED FROM: BLDG#46 CBE

CKT #	TRIP AMPS	POLE	LOAD IN VOLT-AMPERES: LIGHTING	RECPT	MTRS&EQUIP	KITCHEN	HEAT/AC	LOAD DESCRIPTION	PH	LOAD DESCRIPTION	HEAT/AC	KITCHEN	MTRS&EQUIP	RECPT	LIGHTING	TRIP AMPS	POLE	CKT #
1	15							EX. FREEZER	A	EX.LOAD						20	1	2
3		2							B	EX.LOAD						20	1	4
5	20	1						EX.LOAD	C	EX.LOAD						20	1	6
7	20	1						EX.LOAD	A	EX.LOAD						20	1	8
9	20	1						EX.LOAD	B	EX.LOAD						20	1	10
11	20	1						EX.LOAD	C	EX.LOAD						20	1	12
13	20	1						EX.LOAD	A	EX.LOAD						20	1	14
15	20	1						EX.LOAD	B	EX.LOAD						20	1	16
17	20	1						EX.LOAD	C	EX.LOAD						20	1	18
19	20	1						EX.LOAD	A	EX.LOAD						20	1	20
21	100							PNL EC460W2	B	EX.LOAD						20	1	22
23									C	EX. FREEZER						15		24
25		3							A								2	26
27	20	1						BB-79 FASTPAK	B	BB-90A						20	1	28
29	20	1						DDC	C	BB-90A						20	1	30
31	20	1						BB-80 REC	A	BB-90B						20	1	32
33	20	1						BB-80 REC	B	BB-800 OFFICE						20	1	34
35	*20	1						BB-90C REF	C	BB-79 SARGENT						20	1	36
37	*20	1						BB-78 REF	A	BB-79 REF						*20	1	38
39	*20	1						BB-78 REF	B	SPARE						20	1	40
41	20	1						BB-78 EQ	C	SPARE						20	1	42

LOAD CALCULATIONS

LOAD TYPE	VA / PHASE A	B	C	TOTAL VA	DEMAND FACTOR	DIVERSIFIED LOAD
LIGHTING	0	0	0	0	1.00	0
RECEPTACLES	0	0	0	0	0.50	0
MOTORS & EQUIP	0	0	0	0	0.90	0
KITCHEN EQUIP.	0	0	0	0	0.65	0
HEAT / AC	0	0	0	0	0.90	0
LARGEST MOTOR					0.25	0
TOTAL AMPS:	0			TOTAL VA:		0

NOTES:

PANELBOARD LOAD SCHEDULE

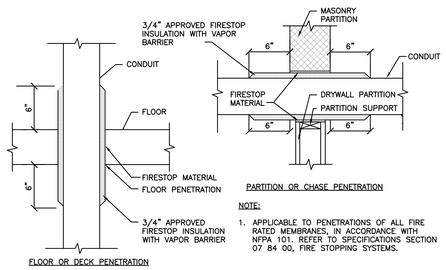
PANEL: EB465C4 | MAIN: MLO | VOLTS: 208Y/120, 3 PH., 4W. | ENCLOSURE: NEMA 1 | LOCATION:
RATING: 225 AMP | AIC RATING: 10,000 | MOUNTING: SURFACE | FED FROM: BLDG#46 EBE

CKT #	TRIP AMPS	POLE	LOAD IN VOLT-AMPERES: LIGHTING	RECPT	MTRS&EQUIP	KITCHEN	HEAT/AC	LOAD DESCRIPTION	PH	LOAD DESCRIPTION	HEAT/AC	KITCHEN	MTRS&EQUIP	RECPT	LIGHTING	TRIP AMPS	POLE	CKT #
1	60				5800			AHU SUPPLY	A	M-EF-30			1320			15		2
3					5800				B				1320					4
5		3			5800				C				1320				3	6
7	30				2100			AHU-RETURN	A	M-EF-67			600			15		8
9					2100				B				600					10
11		3			2100				C				600				3	12
13	40							SPARE	A	M-EF-102			1320			15		14
15									B				1320					16
17		3							C				1320				3	18
19	30							SPARE	A	M-EF-103			600			15		20
21									B				600					22
23		3							C				600				3	24
25	30							SPARE	A	SPARE						15		26
27									B									28
29		3							C								3	30
31	15							SPARE	A	SPARE						20	1	32
33									B	SPARE						20	1	34
35		3							C	SPARE						20	1	36
37	20							SPARE	A	SPARE						20	1	38
39									B	SPARE						20	1	40
41		3							C	SPARE						20	1	42

LOAD CALCULATIONS

LOAD TYPE	VA / PHASE A	B	C	TOTAL VA	DEMAND FACTOR	DIVERSIFIED LOAD
LIGHTING	0	0	0	0	1.00	0
RECEPTACLES	0	0	0	0	0.50	0
MOTORS & EQUIP	11740	11740	11740	35220	0.90	31698
KITCHEN EQUIP.	0	0	0	0	0.65	0
HEAT / AC	0	0	0	0	0.90	0
LARGEST MOTOR					0.25	0
TOTAL AMPS:	88			TOTAL VA:		31,698

NOTES:



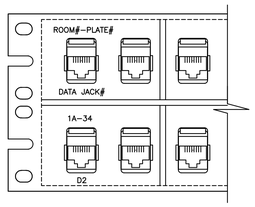
FLOOR OR DECK PENETRATION

PARTITION OR CHASE PENETRATION

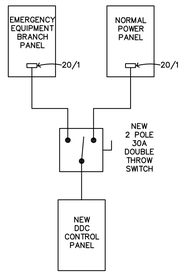
NOTE:

1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101. REFER TO SPECIFICATIONS SECTION 07 84 00, FIRE STOPPING SYSTEMS.

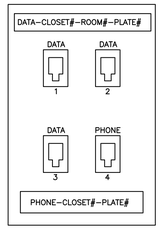
2 CONDUIT PENETRATION OF SMOKE/FIRE BARRIERS
NO SCALE



5 PATCH PANEL SAMPLE LABELS
NO SCALE



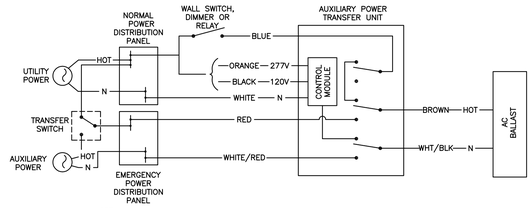
3 TEMPERATURE CONTROL PANEL ONE-LINE
NO SCALE



NOTES:

1. = (3) DATA, (1) PHONE JACK.
2. SEE SECTION 27 10 05 FOR PLATE AND JACK REQUIREMENTS.
3. DATA JACKS TO BE ORANGE COLOR, PHONE JACKS TO BE IVORY.
4. PLATES ARE LABELED AS SHOWN, NUMBER PLATES ARE CLOCKWISE FROM THE DOOR.
5. LABEL ALL VOICE AND DATA CABLES AT BOTH ENDS WITH "DATA CLOSET# – ROOM# – PLATE# – JACK#"
6. ALL (4) JACKS TO BE CATEGORY 6e CABLES.
7. DATA JACKS ARE NUMBERED LEFT TO RIGHT, TOP TO BOTTOM

6 TYPICAL COMMUNICATIONS DETAIL
NO SCALE

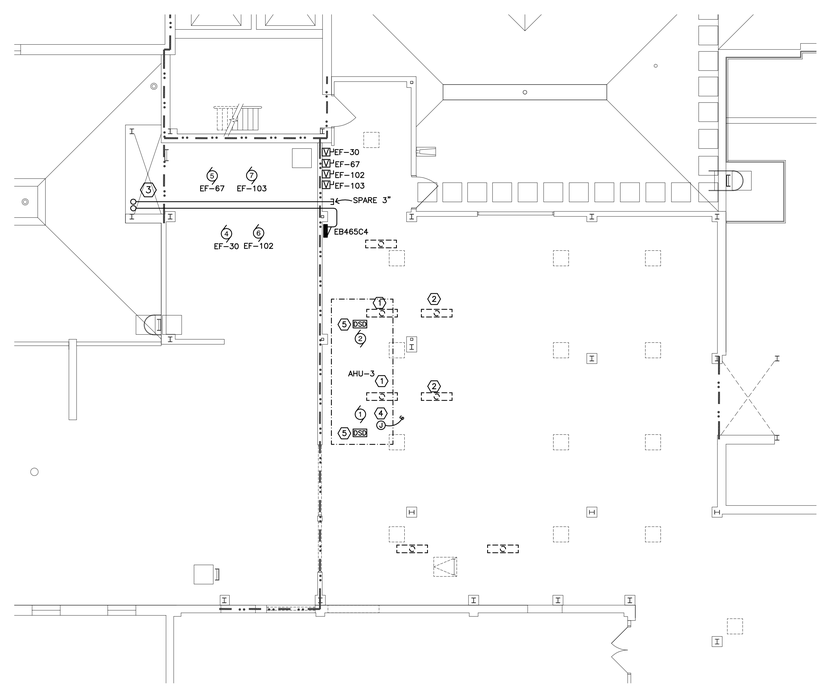


NOTE:
A WALL SWITCH IS WIRED TO THE RELAY TO CONTROL WHETHER THE FIXTURE IS ON OR OFF. THE RELAY IS INTENDED TO PROVIDE THE FIXTURE POWER FROM A NORMAL OR CRITICAL PANEL DURING NORMAL OPERATING CONDITIONS. IN THE EVENT OF LOSS OF POWER, THE RELAY IS TO PROVIDE POWER FROM A LIFE SAFETY PANEL. WHEN NORMAL POWER RETURNS, THE RELAY IS TO RETURN NORMAL POWER TO THE FIXTURE.

4 EMERGENCY RELAY ONE LINE DIAGRAM
NO SCALE

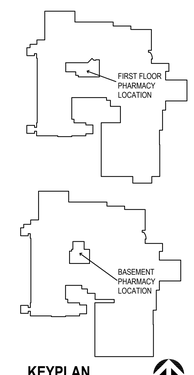
PLAN NOTES:

1. RELOCATE EXISTING LIGHT FIXTURES TO ACCOMMODATE NEW AIR HANDLING UNIT, COORDINATE EXACT LAYOUT WITH NEW DUCTWORK AND HVAC EQUIPMENT.
2. APPROXIMATE REVISED LOCATION OF RELOCATED LIGHT FIXTURES.
3. ROUTE NEW PANEL FEEDER PLUS (1) SPARE 3" CONDUIT DOWN EXISTING MECHANICAL CHASE TO BASEMENT CEILING SPACE.
4. PROVIDE 120V CONNECTION FROM NEAREST AVAILABLE CIRCUIT FOR SERVICE LIGHTS AND SERVICE RECEPTACLE IN AHU.
5. PROVIDE DUCT SMOKE DETECTOR IN SUPPLY AND RETURN WITH ASSOCIATED CONNECTIONS TO FAN SHUTDOWN RELAY.



NORTH

1 PARTIAL PENTHOUSE ELECTRICAL PLAN
0' 4' 8' 16'



KEYPLAN
NTS
NORTH

MOTOR AND EQUIPMENT SCHEDULE

MOTOR NO	DESCRIPTION OF MOTOR OR EQUIPMENT	LOCATION (ROOM NO)	LOAD IN HORSEPOWER (HP) OR FULL LOAD AMPS (FLA)	VOLTAGE, PHASE	PANEL AND CIRCUIT NUMBER OR MCC NUMBER	CONDUCTOR SIZE AND QUANTITY	GROUND CONDUCTOR SIZE	CONDUIT SIZE	CONTROLLER: MAGNETIC STARTER/DISCONNECT	STARTER SIZE	VARIABLE FREQUENCY DRIVE	OCC SENSOR	TIMER SWITCH	THERMOSTAT	CONTROLLER BY (DIV. NO.)	CONTROLLER LOCATION (ROOM NO.)	DISCONNECT: DISCONNECT SIZE	FUSIBLE / NON FUSIBLE	NEMA RATING	DISCONNECT BY (DIV. NO.)	CONTROL OR AUXILIARY DEVICE (SEE NOTES): VFD	OCC SENSOR	TIME SWITCH	THERMOSTAT	SPEED SWITCH	GAS DETECTION	FIRE ALARM CONTROL RELAY	FIRE ALARM DUCT DETECTORS (SUPPLY AND RETURN)	INTERLOCK WITH
1	M-AHU-3 SUPPLY	PENT.5001	15 HP	208, 3	EB465C4-1,3,5	3 #6	#10	1"			X				23	ON UNIT				ON VFD	3							5	
2	M-AHU-3 RETURN	PENT.5001	5 HP	208, 3	EB465C4-7,9,11	3 #10	#10	3/4"			X				23	ON UNIT				ON VFD	3							5	
3	M-EF-1	1ST FLR HALL	3/4 HP	120, 1	EB461C1-20A/1	2 #10	#10	1"												ON UNIT									
4	M-EF-30	4TH FLR ROOF	3 HP	208, 3	EB465C4-2,4,6	3 #12	#12	3/4"			X				23	PENT.5001				ON UNIT	2								
5	M-EF-67	4TH FLR ROOF	1 HP	208, 3	EB465C4-8,10,12	3 #12	#12	3/4"			X				23	PENT.5001				ON UNIT	2								
6	M-EF-102	4TH FLR ROOF	3 HP	208, 3	EB465C4-14,16,18	3 #12	#12	3/4"			X				23	PENT.5001				ON UNIT	2								
7	M-EF-103	4TH FLR ROOF	1 HP	208, 3	EB465C4-20,22,24	3 #12	#12	3/4"			X				23	PENT.5001				ON UNIT	2								

NOTES FOR AUXILIARY CONTROL DEVICE
1. ELECTRICAL CONTRACTOR TO FURNISH, SET, AND WIRE AUXILIARY CONTROL DEVICE
2. ELECTRICAL CONTRACTOR TO SET, AND WIRE AUXILIARY CONTROL DEVICE FURNISHED BY OTHERS
3. ELECTRICAL CONTRACTOR TO WIRE AUXILIARY CONTROL DEVICE FURNISHED AND SET BY OTHERS
4. DEVICE FURNISHED, SET AND WIRED BY OTHERS
5. PROVIDE DUCT DETECTOR IN SUPPLY AND RETURN DUCTS FOR FA SYSTEM

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

8/15/2019 1:01:07 PM

VA FORM 08-6231

CONSULTANTS:

CONTRACTOR: MDM Construction
2215 Sheyenne St.
Fargo, ND 58078
Phone: 701-356-3956

ELECTRICAL: MBN Engineering
503 7th Street North, Suite 200
Fargo, ND 58102
Phone: 701-478-6336

MECHANICAL: Obermiller Nelson Engineering
2201 12th Street North, Suite E
Fargo, ND 58102
Phone: 701-280-0500

Seal: PRELIMINARY NOT FOR CONSTRUCTION

ARCHITECT TEAM:

ARCHITECT OF RECORD:
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Sioux Falls, SD 57103
Phone: 605-271-1144

STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: PARTIAL PENTHOUSE ELECTRICAL PLAN AND ELECTRICAL DETAILS

Elec File Name: 19-174 EE-103.DWG

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: MB | Drawn: CH

Project Number: VA #437-18-101

Building Number: 9 & 46

Drawing Number: EE-103

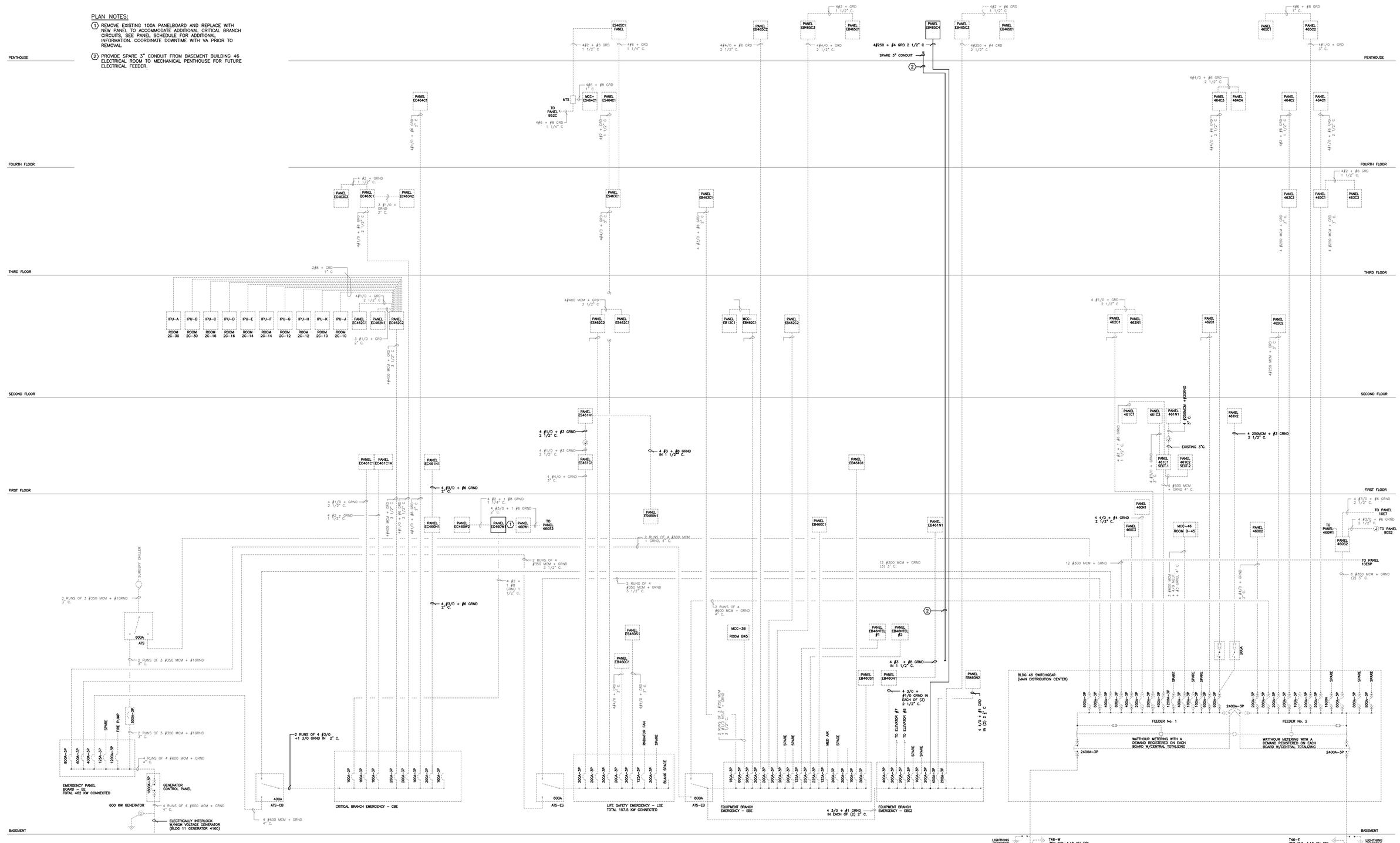
Drawing # 30 of 31

Veterans Health Administration

Department of Veterans Affairs

PLAN NOTES:

1. REMOVE EXISTING 100A PANELBOARD AND REPLACE WITH NEW PANEL TO ACCOMMODATE ADDITIONAL CRITICAL BRANCH CIRCUITS, SEE PANEL SCHEDULE FOR ADDITIONAL INFORMATION. COORDINATE DOWNTIME WITH VA PRIOR TO REMOVAL.
2. PROVIDE SPARE 3" CONDUIT FROM BASEMENT BUILDING 46 ELECTRICAL ROOM TO MECHANICAL PENTHOUSE FOR FUTURE ELECTRICAL FEEDER.



1 ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

90% CONSTRUCTION DOCUMENTS

Issue	Date:	Description

8/15/2019 1:01:07 PM

VA FORM 08-6231

CONSULTANTS:

CONTRACTOR:
MDM Construction
2215 Sheyenne St.
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Phone: 701-478-6336

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2201 12th Street North, Suite E
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Seal
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ARCHITECT TEAM:

ARCHITECT OF RECORD:
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Sioux Falls, SD 57103
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STONE GROUP ARCHITECTS

Image Group Architecture & Interiors
403 Center Avenue, Suite 300
Moorhead, MN 56560
218-233-2062

IMAGE group ARCHITECTURE & INTERIORS

Drawing Title: ELECTRICAL ONE-LINE DIAGRAM

Elec File Name: 19-174 EE-104.DWG

Project Title: RENOVATE PHARMACY FOR USP 800 COMPLIANCE - FARGO

Location: FARGO, NORTH DAKOTA

Date: 09/23/2019 | Checked: MB | Drawn: CH

Project Number: VA #437-18-101

Building Number: 9 & 46

Drawing Number: EE-104

Drawing # 31 of 31

Veterans Health Administration

Department of Veterans Affairs