

#### EQUIPMENT PLAN GENERAL NOTES

- A. SEE GIOO1 FOR GENERAL NOTES, SAFETY NOTES AND BASIS OF DESIGN COMPLIANCE.
- B. SEE SHEET QH100 FOR EQUIPMENT SCHEDULE.
- C. VA FURNISHED, VA INSTALLED (VV) AND EXISTING EQUIPMENT, VA INSTALLED (EV) ITEMS SHALL BE FURNISHED AND INSTALLED DURING THE CONSTRUCTION TIMELINE BY THE VA. THE GENERAL CONTRACTOR SHALL COORDINATE SCHEDULING AND ALLOW FOR ADEQUATE TIME IN THE PROJECT SCHEDULE FOR EQUIPMENT INSTALLATION.
- D. VA FURNISHED, CONTRACTOR INSTALLED (VC) ITEMS SHALL BE FURNISHED BY THE VA AND INSTALLED BY THE GENERAL CONTRACTOR DURING THE CONSTRUCTION TIMELINE. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE VA AND THE VA EQUIPMENT VENDOR AND ALLOW FOR ADEQUATE TIME IN THE PROJECT SCHEDULE FOR EQUIPMENT INSTALLATION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING WITH THE VA ALL ITEMS TO BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR (CC) AND EXISTING EQUIPMENT TO BE INSTALLED BY THE GENERAL CONTRACTOR
- THE GENERAL CONTRACTOR SHALL VERIFY, COORDINATE, AND PROVIDE ALL UTILITY SERVICES REQUIRED FOR OWNER INSTALLED EQUIPMENT AND CONTRACTOR INSTALLED EQUIPMENT.
- G. REFER TO PLUMBING AND ELECTRICAL DRAWINGS FOR UTILITY CONNECTIONS.
- H. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL BACKING PLATES FOR WALL MOUNTED EQUIPMENT OR EQUIPMENT SHELVING. SEE 6/A550 FOR BASIS OF DESIGN BACKING PLATE DETAIL. EQUIPMENT WEIGHT AND SUPPORT REQUIREMENTS ARE TO BE VERIFIED WITH THE MANUFACTURER AND BACKING PLATE SIZES, GAUGES, AND LOCATIONS ARE TO BE DESIGNED AND INSTALLED BY THE GENERAL CONTRACTOR.
- AT COMPLETION OF INSTALLATION, CLEAN AND ADJUST EQUIPMENT AS REQUIRED TO PRODUCE A CLEAN, READY-FOR-USE CONDITION.
- . INSTRUCT VA PERSONNEL AND TRANSMIT OPERATION INSTRUCTIONS IN ACCORDANCE WITH REQUIREMENTS IN SPECIFICATION SECTION 01 00 00, GENERAL REQUIREMENTS.
- K. UNLABELED FURNITURE SHOWN IS FOR COORDINATION PURPOSES. ALL FURNITURE IS VA PROVIDED AND INSTALLED UNLESS NOTED OTHERWISE.

### RATED PARTITION LEGEND

-++++++ SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE **→** ∘ **→** ∘ **→** 1-HOUR FIRE/SMOKE BARRIER

2-HOUR FIRE/SMOKE BARRIER

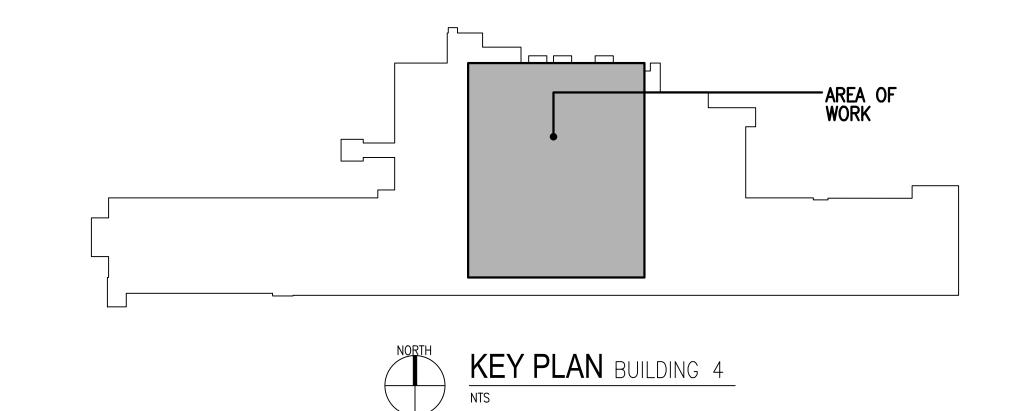
-+++++++ SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE

— • — • — 1-HOUR FIRE/SMOKE BARRIER (EXISTING) 2-HOUR FIRE/SMOKE BARRIER (EXISTING)

### SPECIAL SYMBOL LEGEND

DENOTES 5'-0" WHEELCHAIR TURNING RADIUS CLEARANCE.

EQUIPMENT - GENERAL PLAN - FIRST FLOOR



#### 10/28/2022 - ISSUE FOR 100 % CONSTRUCTION DOCUMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota. Date 10-28-22 License # 56382 |ISSUE FOR 100% CONSTRUCTION DOCUMENTS| 10/28/22 DATE

ARCHITECT/ENGINEER OF RECORD BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 www.bancroft-ae.com BAE PROJECT NO. 18-116

APPROVED: PROJECT COR

DATE: APPROVED: INFECTION CONTROL NURSE APPROVED: GEMS PROJECT MANAGER DATE: APPROVED: PATIENT SAFETY APPROVED: PROJECTS SECTION MANAGER DATE: APPROVED: CHIEF OF POLICE DATE: APPROVED: SAFETY MANAGER APPROVED: DIRECTOR FMS 

DATE: APPROVED: SERVICE LINE DIRECTOR

CONSTRUCT PACT CLINIC 10/28/22 EQUIPMENT - GENERAL PLAN -BUILDING 4 FIRST FLOOR FIRST FLOOR APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR CHECKED BY DRAWN DRAWING NO. 4 || DA APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE: | LOCATION ST. CLOUD VAHCS ST. CLOUD, MN 56303 DWG. DF



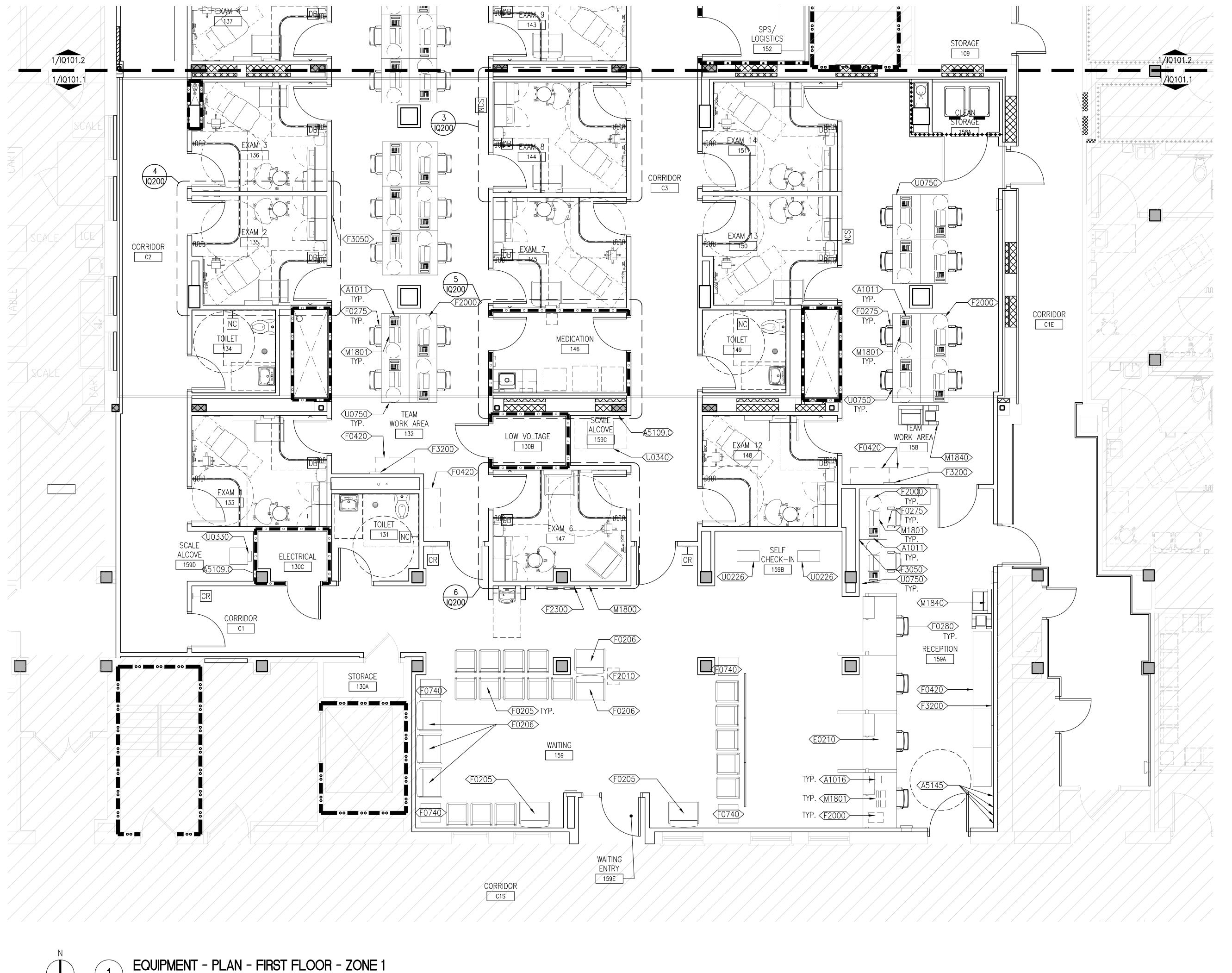


**U.S. Department** 

St. Cloud VA

of Veterans Affairs

Health Care System



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  AND ALLOW FOR ADEQUATE TIME IN THE PROJECT SCHEDULE
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### RATED PARTITION LEGEND

-+++++++

SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE

1-HOUR FIRE/SMOKE BARRIER

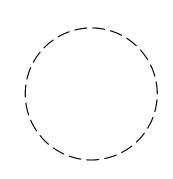
2-HOUR FIRE/SMOKE BARRIER

+++++++

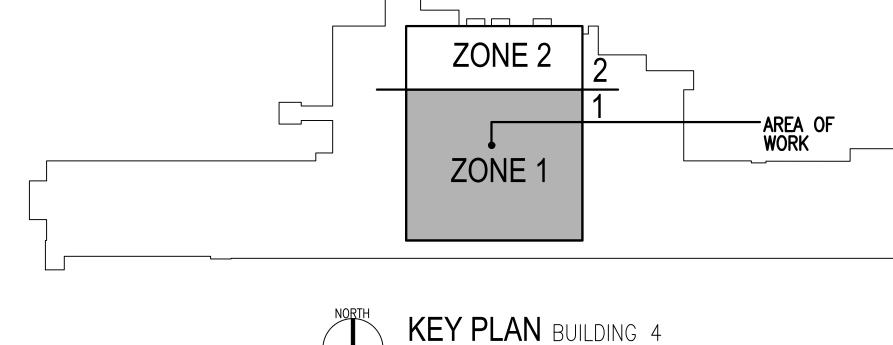
SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE
(EXISTING)

— ° — ° — 1-HOUR FIRE/SMOKE BARRIER (EXISTING)

# SPECIAL SYMBOL LEGEND



DENOTES 5'-0" WHEELCHAIR TURNING RADIUS CLEARANCE.



#### 10/28/2022 - ISSUE FOR 100 % CONSTRUCTION DOCUMENTS

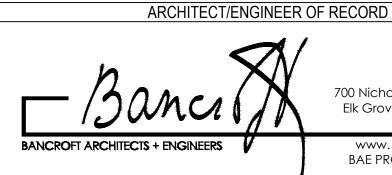
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

Print Name: DENNIS J MIKA.

Signature: DENNIS J MIKA.

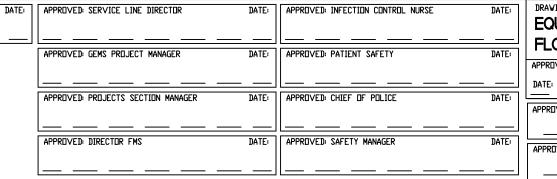
Signature: License # 56382

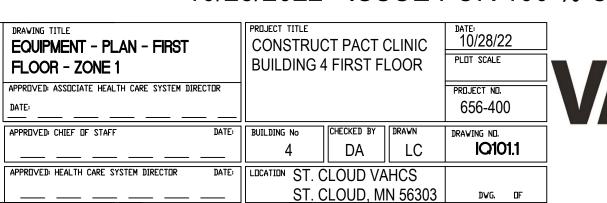
DATE





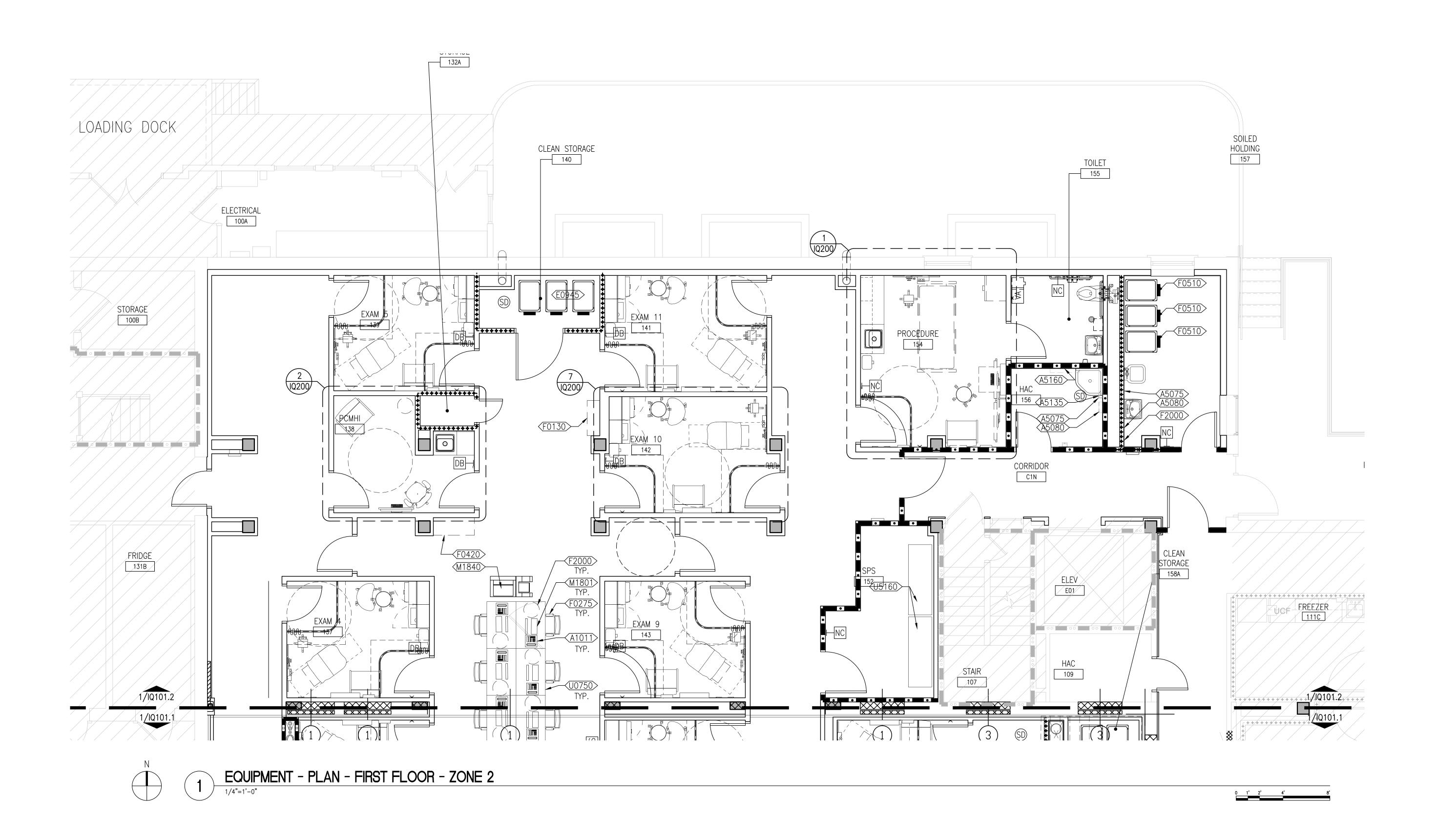
APPROVED: PROJECT COR











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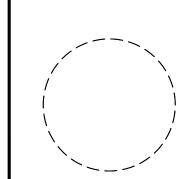
2-HOUR FIRE/SMOKE BARRIER

-+++++++ SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE

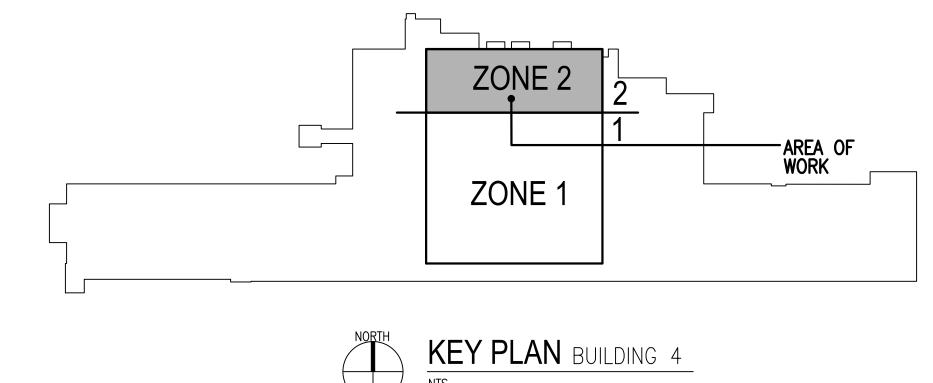
(EXISTING)

1-HOUR FIRE/SMOKE BARRIER (EXISTING)2-HOUR FIRE/SMOKE BARRIER (EXISTING)

## SPECIAL SYMBOL LEGEND



DENOTES 5'-0" WHEELCHAIR TURNING RADIUS CLEARANCE.



## 40/00/0000 100UE EOD 400 0/ 00NOTDUOTION DOOL

10/28/2022 - ISSUE FOR 100 % CONSTRUCTION DOCUMENTS

ARCHITECT/ENGINEER OF RECORD

APPRILVED: PROJECT CORR DATE: | APPRILVED: SERVICE LINE DIRECTION CONTROL NURSE DATE: | DRAVING TITLE | DRA

ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22

No REVISION DATE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

Print Name: DENNIS J MIKA

Signature: DENNIS J MIKA

License # 56382



700 Nicholas Blvd. Suite 300
Elk Grove Village, IL 60007
T: 847.952.9362

www. bancroft-ae.com
BAE PROJECT NO. 18-116

APPROVED: GEMS PROJECT MANAGER

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECTS SECTION MANAGER

DATE:

APPROVED: CHIEF OF POLICE

DATE:

APPROVED: SAFETY MANAGER

DATE:

APPROVED: SAFETY MANAGER

DATE:

DRAWING TITLE

EQUIPMENT - PLAN - FIRST
FLOOR - ZONE 2

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

APPROVED: CHIEF OF STAFF

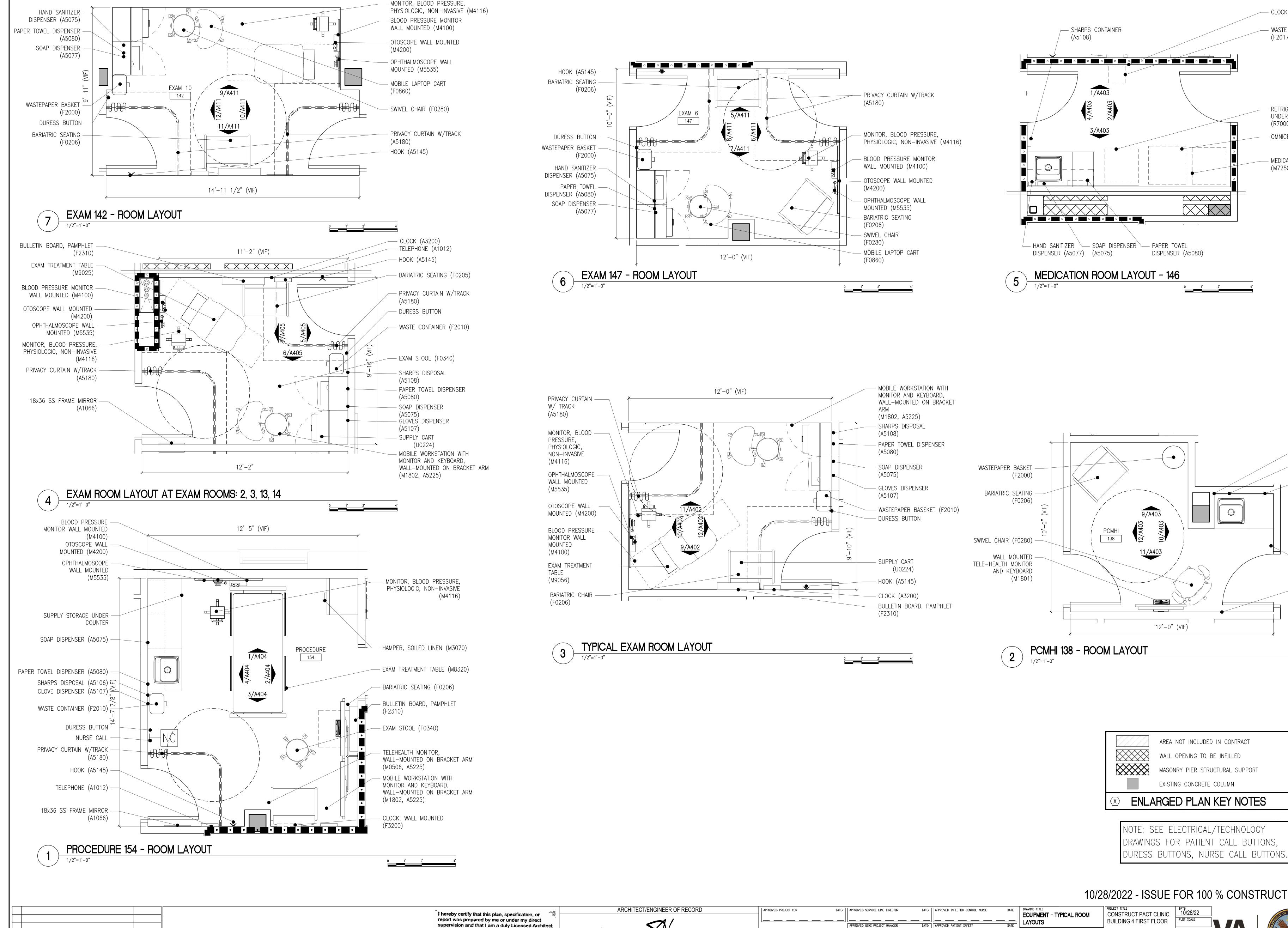
APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

DWG. DF



of Veterans Affairs
Veterans Health
Administration
St. Cloud VA
Health Care System



under the laws of the State of Minnesota.

Date 10-28-22 License # 56382

ISSUE FOR 100% CONSTRUCTION DOCUMENTS | 10/28/22

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APPROVED: GEMS PROJECT MANAGER DATE: APPROVED: PATIENT SAFETY APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR 700 Nicholas Blvd. Suite 300 APPROVED: PROJECTS SECTION MANAGER DATE: APPROVED: CHIEF OF POLICE Elk Grove Village, IL 60007 T: 847.952.9362 BANCROFT ARCHITECTS + ENGINEERS www.bancroft-ae.com APPROVED: DIRECTOR FMS DATE: APPROVED: SAFETY MANAGER APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE: LOCATION ST. CLOUD VAHCS BAE PROJECT NO. 18-116 

656-400 DRAWING NO.

CHECKED BY DRAWN

LC

ST. CLOUD, MN 56303 DWG. DF

4 || DA



- CLOCK (F3200)

REFRIGERATOR,

UNDERCOUNTER

- OMNICELL (M3150)

- MEDICATION CART

- SOAP DISPENSER

(A5077) - HAND SANITIZER

- DURESS BUTTON

- HOOK (A5145)

(A5080)

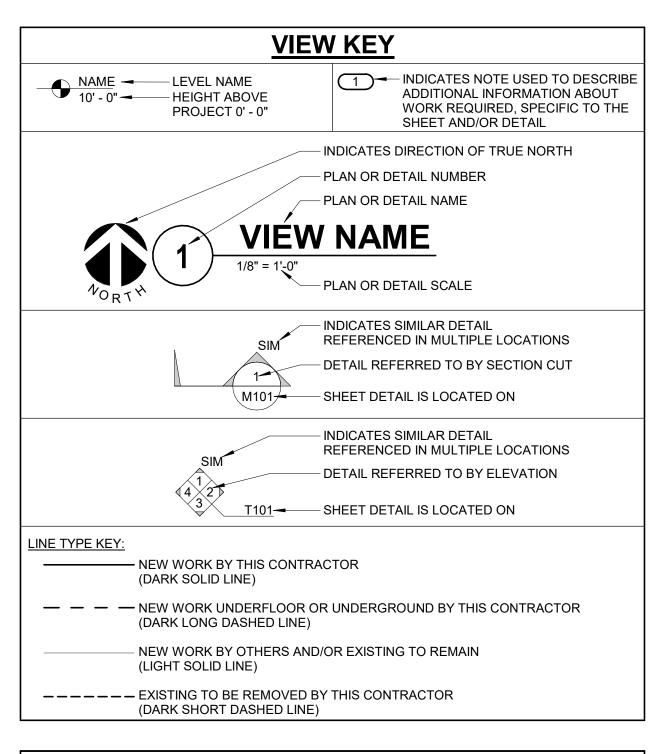
DISPENSER (A5075)

- PAPER TOWEL DISPENSER

(R7000)

(M7250)

WASTE RECEPTACLE



	<b>CONTRACTOR ABBREVIATION KEY</b>						
ABBR:	DESCRIPTION:						
A.C.	ASBESTOS ABATEMENT CONTRACTOR						
A.T.C.	AUTOMATIC TEMPERATURE CONTROL CONTRACTOR						
A.V.C.	AUDIO/VISUAL CONTRACTOR						
C.C.	CIVIL CONTRACTOR						
C.M.	CONSTRUCTION MANAGER						
E.C.	ELECTRICAL CONTRACTOR						
F.P.C.	FIRE PROTECTION CONTRACTOR						
F.S.C.	FOOD SERVICE CONTRACTOR						
G.C.	GENERAL CONTRACTOR						
H.C.	HEATING CONTRACTOR						
M.C.	MECHANICAL CONTRACTOR						
N.C.C.	NURSE CALL CONTRACTOR						
P.C.	PLUMBING CONTRACTOR						
S.C.	SECURITY CONTRACTOR						
T.C.	TECHNOLOGY CONTRACTOR						
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR						
V.C.	VENTILATION CONTRACTOR						

### RATED PARTITION LEGEND

-+++++++ SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE

1-HOUR FIRE/SMOKE BARRIER

2-HOUR FIRE/SMOKE BARRIER

FIRE / SMOKE BARRIER DESIGNATIONS THE LINE TYPES SHOWN ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY RATINGS WITH THE LATEST SET OF ARCHITECTURAL PLANS AND FURNISH ALL MATERIALS REQUIRED TO COMPLY WITH THOSE RATINGS WHETHER SHOWN OR NOT. ALL [FLOOR, FLOOR CEILING, AND ROOF CEILING] ASSEMBLIES SHALL BE DESIGNATED AS [1], [2], [3], [4] HOUR FIRE [/SMOKE], BARRIER(S), UNLESS NOTED OTHERWISE ON THE PLANS. RATINGS

WERE ACQUIRED FROM THE ARCHITECTURAL PLANS	
SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE	••••
1-HOUR FIRE/SMOKE BARRIER	
2-HOUR FIRE/SMOKE BARRIER	

NOT ALL SYMBOLS MAY APPLY.					
YMBOL:	DESCRIPTION:				
—CAF——	COMPRESSED AIR - FIRE PROTECTION				
—DFP——	DRAIN				
FP	FIRE PROTECTION				
—FPD——	FIRE PROTECTION - DRY SYSTEM				
	SERVICE WATER - POTABLE				
<del></del>	PIPE CAP				
—— <b>&gt;</b>	PIPE DOWN				
<del></del>	PIPE UP OR UP/DOWN				
<del></del>	NEW CONNECTION				
	UNION/FLANGE				
	DIRECTION OF FLOW IN PIPE				
1	ROUTE TO DRAIN				
—⋈——	SHUTOFF VALVE NORMALLY OPEN				
	AUTOMATIC DRAIN VALVE				
ш-	AIR PRESSURE MAINTENANCE DEVICE				
ᄚ	AIR SUPERVISORY SWITCH				
<b>₹</b>	ANGLE VALVE				
Ť	BUTTERFLY VALVE WITH MONITOR SWITCH				
	CHECK VALVE				
	INSPECTOR TEST AND DRAIN VALVE				
\$	OS&Y GATE VALVE				
	OS&Y GATE VALVE WITH MONITOR SWITCH				
<u> </u>	FLOW SWITCH				
<u> </u>	PRESSURE SWITCH				
_₩-®	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)				
⊏≍	MONITOR SWITCH				
	AREA BOUNDARY				
IO SYMBOL	LIGHT HAZARD				
OH1)	ORDINARY GROUP 1				
OH2)	ORDINARY GROUP 2				

FIRE PROTECTION ABBREVIATION KEY						
ABBR:	DESCRIPTION:					
AD	ACCESS DOOR					
AFF	ABOVE FINISHED FLOOR					
BFP	BACKFLOW PREVENTER					
I.E.	INVERT ELEVATION					
NC	NEW CONNECTION					
N.C.	NORMALLY CLOSED					
NIC	NOT IN CONTRACT					
N.O.	NORMALLY OPEN					
TYP	TYPICAL					
UNO	UNLESS NOTED OTHERWISE					

#### FIRE HYDRANT FLOW TEST DATA TEST DATE: RESIDUAL HYDRANT #: 22 HYDRANT ELEVATION: LOCATION: STATIC PRESSURE: RESIDUAL PRESSURE: 43 FLOW HYDRANT #: HYDRANT ELEVATION: LOCATION: STATIC PRESSURE: TOTAL FLOW:

SIZE OF MAIN:

INFORMATION PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL PERFORM FLOW TEST PRIOR TO FINAL HYDRAULLIC CALCULATIONS.

### FIRE SPRINKLER USAGE SCHEDULE

SEE FLOOR PLANS FOR ZONING REQUIREMENTS. ALL SPRINKLERS SHALL BE UL AND FM LISTED.

CONTRACTOR TO VERIFY SPRINKLER REQUIREMENTS BASED ON ACTUAL INSTALLATION, USAGE, ARCHITECTURAL CEILING PLAN AND NFPA 13 REQUIREMENTS.

TAG NAME IS PRIMARILY FOR IDENTIFIYING SPRINKLERS IN SUBMITTALS. IT MAY OR MAY NOT BE FOUND ELSEWHERE ON THE DRAWINGS. CONTRACTOR TO SUBMIT ALL SPRINKLER TYPES TO BE USED.

AREAS ARE GENERAL IN NATURE. CONTRACTOR TO MATCH UNSCHEDULED AREAS TO SIMILAR SPACES. SPRINKLERS SPECIFIED WITHIN FIRE SPRINKLER USAGE SCHEDULE ARE STANDARD COVERAGE TYPE. EXTENDED COVERAGE

SPRINKLERS ARE PERMITTED PROVIDED SPRINKLERS MEET THE REQUIREMENTS OF UL AND FM.

	SPRINKLER						
AREA TYPE (NOTE 1 & 5)	TAG NAME (NOTE 4)	SPRINKLER TYPE	RESPONSE CATEGORY	FINISH	TEMPERATURE RATING	MANUFACTURER & MODEL	NOTES
	SPR-2	UPRIGHT	QUICK	ROUGH BRASS	PER NFPA	VIKING VK OR APPROVED EQUAL	NOTE 2
EAS WITH FINISHED CEILINGS	SPR-3	RECESSED PENDENT	QUICK	CHROME PLATED	PER NFPA	VIKING VK OR APPROVED EQUAL	NOTE 2
SIDEWALL APPLICATIONS	SPR-5	SIDEWALL	QUICK	CHROME PLATED	PER NFPA	VIKING VK OR APPROVED EQUAL	NOTE 2

#### **MECHANICAL RENOVATION NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM LIMITED
- FIELD OBSERVATIONS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
- 2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ARCHITECT AND VA COR IN WRITING OF ANY CONFLICTS WITH NEW WORK
- 3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD
- 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF HIS/HER WORK AND SHALL NOTIFY ARCHITECT AND VA COR IN WRITING PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO HIS/HER
- AREA OF WORK. 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS.
- CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING. THE GC IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY
- THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING. 7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS. OR REWORK EXISTING MECHANICAL
- SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK. 8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT
- REMAIN ACTIVE. 9. OBTAIN PERMISSION FROM VA COR BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW SYSTEMS ARE INSTALLED
- 10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE. 11. DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT
- THAT HAS BEEN REMOVED. 12. ALL LOUD WORK SHALL BE COORDINATED WITH GENERAL CONTRACTOR TO AVOID ANY NOISE RESTRICTION TIME SLOTS.

#### **MECHANICAL SEQUENCING NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF SEQUENCING. REFER TO ARCHITECT'S INSTRUCTIONS FOR MORE DETAILS AND SCHEDULES FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF
- THE SEQUENCING CRITERIA. 2. REVIEW PROJECT SEQUENCING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES,
- ETC. WITH AFFECTED ADJACENT AREAS. 3. PROVIDE TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ZONE VALVES, ZONE
- ALARMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS.
- 4. INSTALL TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ETC. AS NECESSARY TO KEEP ALL OCCUPIED SPACES OPERATIONAL THROUGHOUT ALL PORTIONS OF THE PROJECT. 5. SEQUENCE DEMOLITION WORK TO MINIMIZE DOWNTIME

#### FIRE PROTECTION GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.

- 2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF
- 3. FIRE PROTECTION PIPE ROUTING IS SHOWN FOR GENERAL LAYOUT. DETERMINE EXACT NUMBER OF SPRINKLERS, PIPE SIZING, AND PIPE ROUTING.
- 4. CENTER SPRINKLERS IN CEILING TILES IN BOTH DIRECTIONS IN ALL AREAS. IN AREAS WITH 2'X4' CEILING TILES CENTERING USING A 2'X2' CEILING PATTERN IS ACCEPTABLE. NEW SPRINKLERS SHALL BE QUICK RESPONSE TYPE, UNLESS OTHERWISE NOTED.

CONTRACTOR SHALL NOT MIX STANDARD RESPONSE SPRINKLERS WITH QUICK RESPONSE

- SPRINKLERS IN UNPARTITIONED SPACES. . PROVIDE COVERAGE ABOVE AND BELOW ALL DUCTWORK GREATER THAN 48" WIDE. PROVIDE COVERAGE ABOVE AND BELOW FLOATING CEILINGS. REFER TO ARCHITECTURAL
- 8. ALL AREAS TO BE CONSIDERED LIGHT HAZARD UNLESS NOTED OTHERWISE. 9. FIRE PROTECTION CONTRACTOR SHALL DESIGN AND INSTALL A SYSTEM IN COMPLIANCE WITH NFPA 13 AND NFPA 24. REFER TO 21 13 13 FOR ADDITIONAL REQUIREMENTS, INCLUDING RECORD DOCUMENTATION, TESTING AND INSPECTION. 10. REFER TO 21 08 00 FOR COMMISSIONING REQUIREMENTS.

#### **MECHANICAL GENERAL NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING
- CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT 2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
- 3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING
- WITH FABRICATION OR EQUIPMENT ORDERS. 4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER
- ACCESS. 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO
- COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO THE VA.
- 6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL
- CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF
- 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY
- AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES
- 3. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS. FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND
- 9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING. 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING. AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE

SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER

- FOR OUTDOOR USE 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE
- TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS. 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED
- OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT. 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS. PIPING, DUCTWORK, ETC.
- 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES. 15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR
- STARTERS, SWITCHES, AND DISCONNECTS. 16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT. 17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM NON-STRUCTURAL BUILDING
- ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS. 18. PROVIDE BALANCING DAMPER AT ALL SUPPLY DIFFUSERS, RETURN, AND EXHAUST
- GRILLES. ALL DAMPERS ARE NOT SHOWN ON PLANS. 19. CONTRACTOR SHALL REPAIR AND/ OR REPLACE ALL INSULATION AT EXISTING SHEET METAL DUCTWORK WHICH BECOMES DAMAGED DURING CONSTRUCTION ACTIVITIES AND SHALL REPAIR OR REPLACE ANY INSULATION AT NEW AND OLD DUCT CONNECTIONS AND ANY MISSING OR DAMAGED INSULATION ON REUSED OR EXISTING DUCTWORK.
- 20. CEILING ACCESS SHALL BE PROVIDED FOR ALL HVAC EQUIPMENT AND COMPONENTS LOCATED ABOVE THE CEILING THAT REQUIRE OPERATING, CLEANING, SERVICING, MAINTENANCE, AND/ OR CALIBRATION.

#### **ENGINEERING DISCIPLINE REFERENCE NOTES**

GENERAL NOTES FOR CONTRACTORS: SEE ALL PROJECT GENERAL NOTES AND OTHER REQUIREMENTS INCLUDING THE LIFE SAFETY AND INFECTION CONTROL WORK LOCATED WITHIN THE GENERAL DRAWINGS SECTION. COMPLY WITH ALL REQUIREMENTS AS THEY ARE A DIRECT PART OF THIS SECTION AS IF THEY WERE DIRECTLY INCLUDED AND PROVIDED HEREIN.

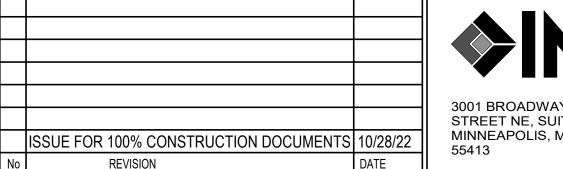
EQUIVALENCY SUBSTITUTIONS: THE "BASIS OF DESIGN (BOD) COMPLIANCE PROTOCOLS" ARE TO BE FOLLOWED FOR ALL MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SPECIFIED AND DETAILED THROUGHOUT ALL DRAWINGS AND SPECIFICATION SECTIONS, WHETHER THE BOD DESIGNATE IS SPECIFICALLY REFERENCED THEREIN OR NOT. SEE THE GENERAL DRAWINGS SECTION FOR THE SPECIFIC BOD COMPLIANCE REQUIREMENTS AND PROTOCOLS TO BE FOLLOWED.

	FIRE PROTECTION SHEET INDEX						
F000	FIRE PROTECTION - COVERSHEET						
FD100	FIRE PROTECTION - DEMOLITION PLAN - BASEMENT						
FD101	FIRE PROTECTION - DEMOLITION PLAN - FIRST FLOOR						
F100	FIRE PROTECTION - PLAN - BASEMENT						
F101	FIRE PROTECTION - PLAN - FIRST FLOOR						
<b>GRAND TOTA</b>	L: 5						

CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR

NKJ

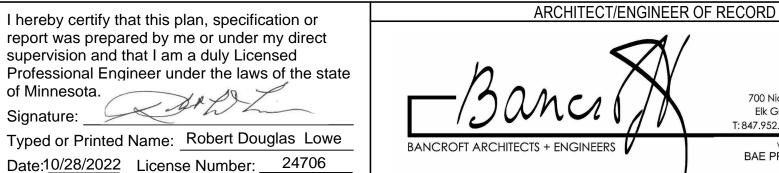
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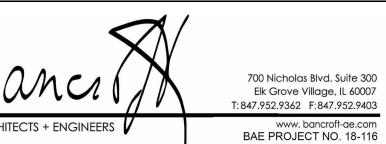


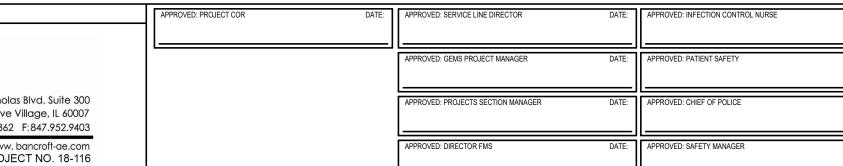


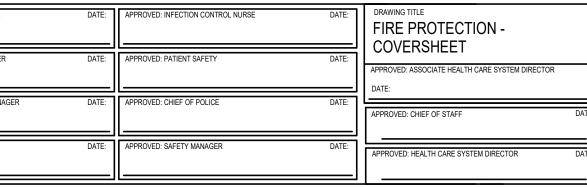
REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state Typed or Printed Name: Robert Douglas Lowe



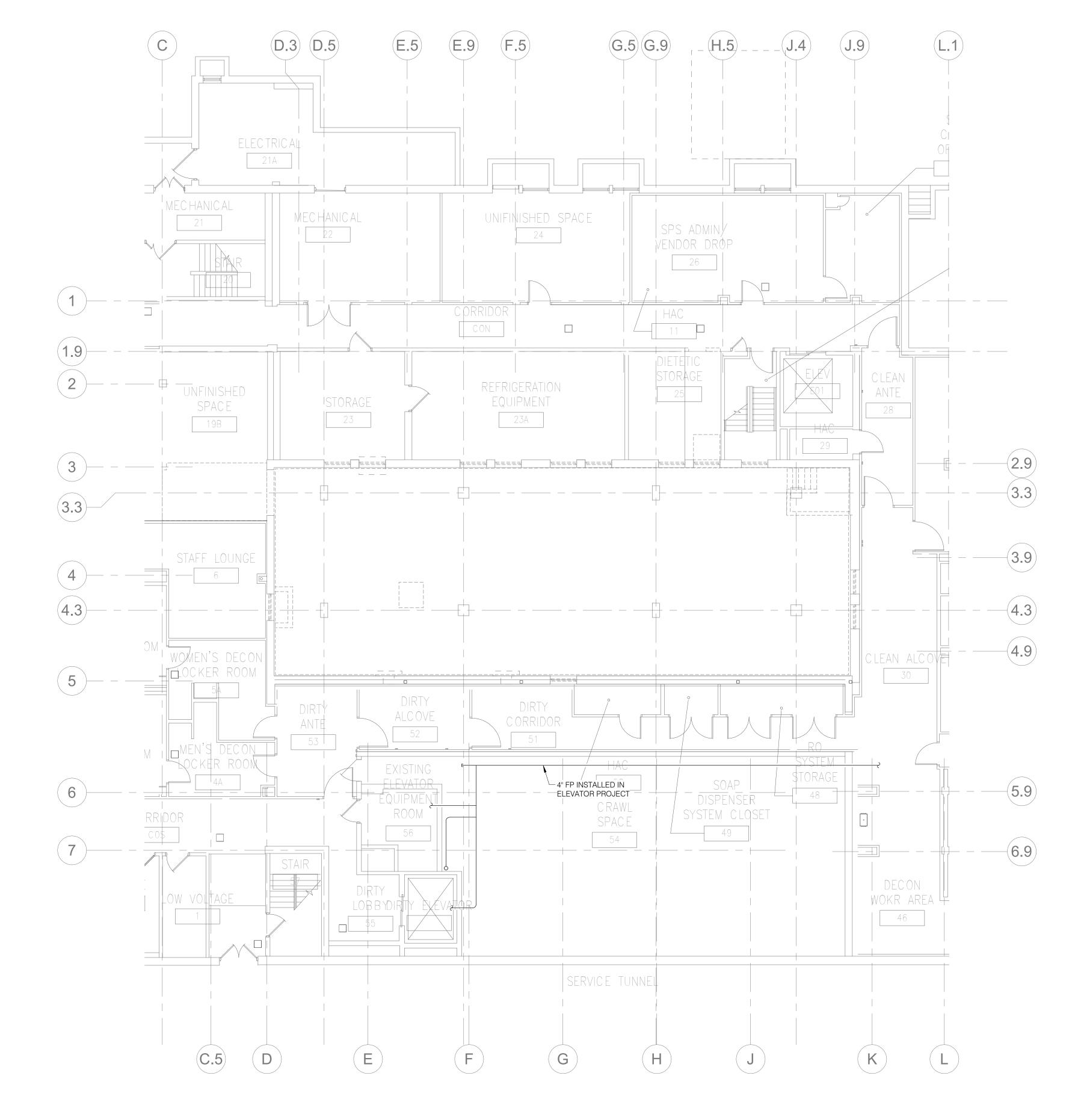








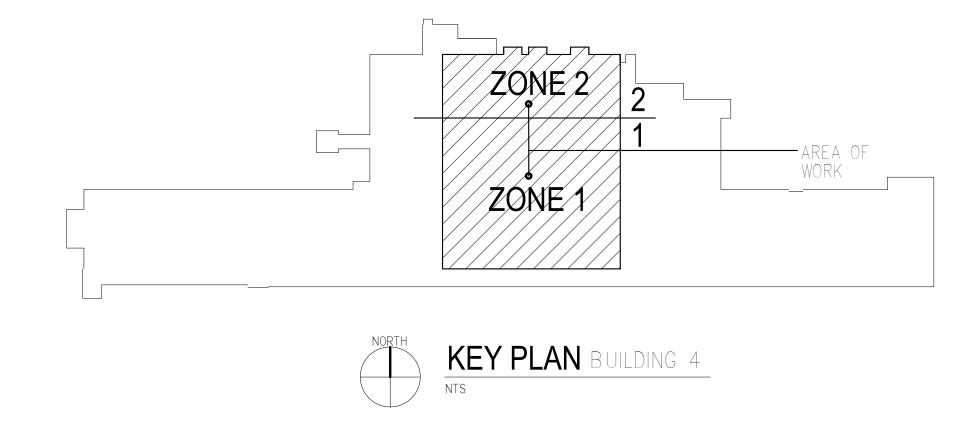




NOTE: NO DEMOLITION WORK IN THIS AREA. SHOWN FOR REFERENCE PURPOSES ONLY.

FIRE PROTECTION - DEMOLITION PLAN - BASEMENT

1/8" = 1'-0"



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			A = \ 41	
			3001 BROADWAY	PH: 612.540.5000
			STREET NE, SUITE 601	www.imegcorp.com
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MINNEAPOLIS, MN 55413	
Nο	DEV/ISION	DATE	00110	

REFERENCE SCALE IN INCHES

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1 com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

Typed or Printed Name: Robert Douglas Lowe

Date: 10/28/2022 License Number: 24706

ARCHITECT/ENGINEER OF RECORD

700 Nicholas Blvd. Suite 300
Elk Grove Village, IL 60007
T: 847.952.9362 F: 847.952.9403

www. bancroft-ae.com
BAE PROJECT NO. 18-116

APPROVED: SERVICE LINE DIRECTOR

DATE: APPROVED: INFECTION CONTROL NURSE

APPROVED: INFECTION CONTROL NURSE

DATE: FIRE PR
PLAN - E

APPROVED: PROJECTS SECTION MANAGER

DATE: APPROVED: CHIEF OF POLICE

APPROVED: DATE: APPROVED: CHIEF OF POLICE

APPROVED: DATE: APPROVED: CHIEF OF POLICE

APPROVED: CHIEF OF POLICE

APPROVED: CHIEF OF POLICE

APPROVED: HEAD

APPROVED

DRAWING TITLE
FIRE PROTECTION - DEMOLITION
PLAN - BASEMENT

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

APPROVED: CHIEF OF STAFF

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR

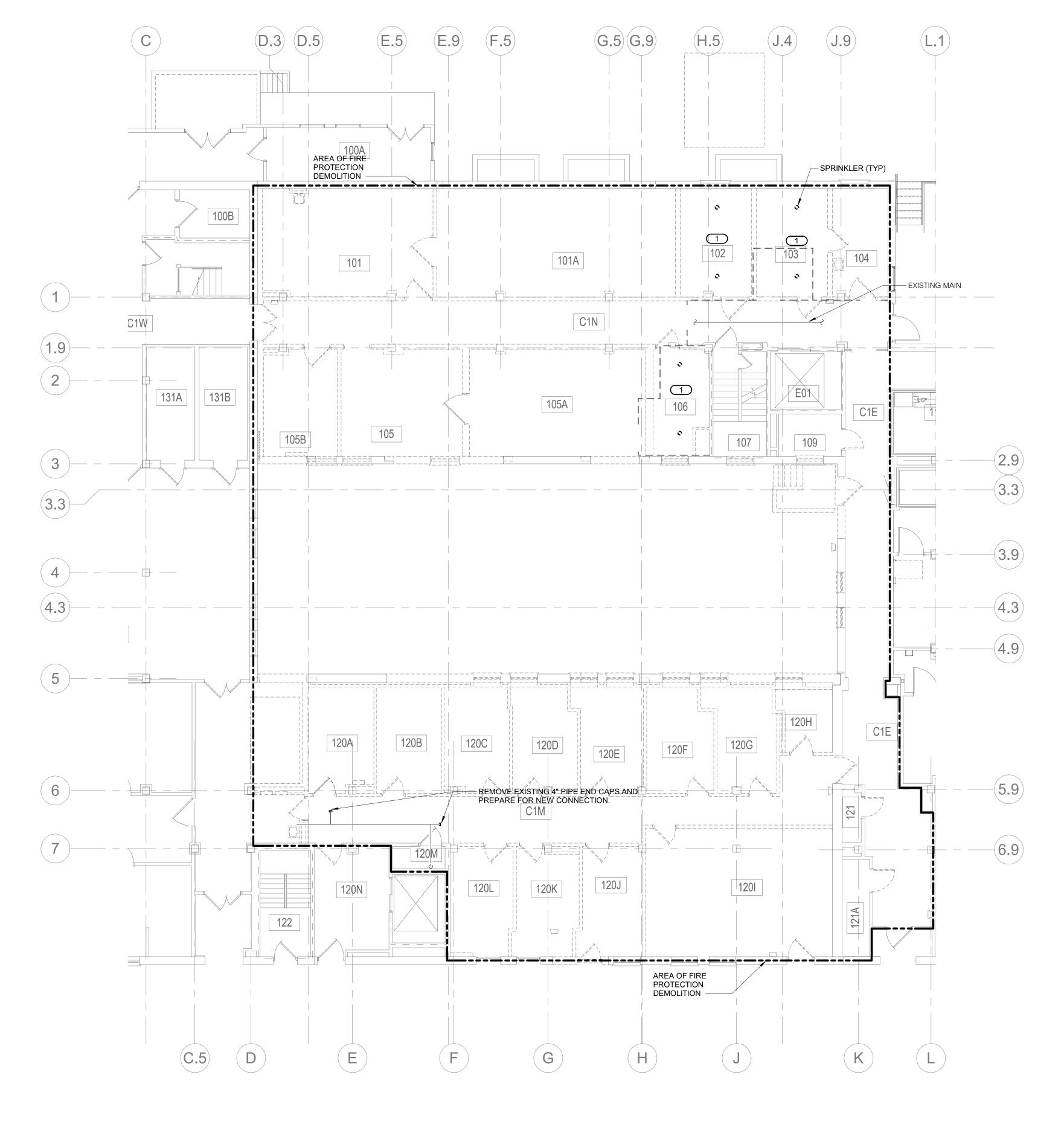
DATE:

DATE:

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

DWG. OF





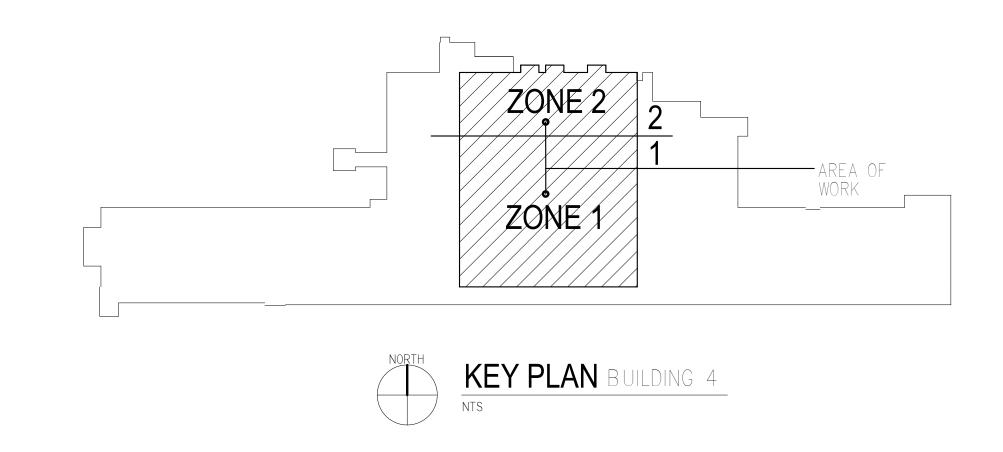
WITHIN THE AREA OF FIRE PROTECTION DEMOLITION REMOVE ALL SPRINKLER HEADS, BRANCH LINES, HANGERS, ETC. CAP PIPING AT MAINS.
 AREAS OUTSIDE THE DEFINED AREA OF FIRE PROTECTION DEMOLITION ARE OUTSIDE THE PRIMARY SCOPE OF WORK BUT MAY HAVE INCEDENTAL RELATED WORK PASSING THROUGH OR AT THE BOUNDARY.
 AREAS OUTSIDE THE AREA OF FIRE PROTECTION DEMOLITION ARE OCCUPIED AND SPRINKLER SYSTEMS SHALL REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION. ANY SHUT-DOWNS SHALL BE COORDINATED WITH COR. CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE WATCH DURING ANY SHUT-DOWNS.

#### KEYNOTES:

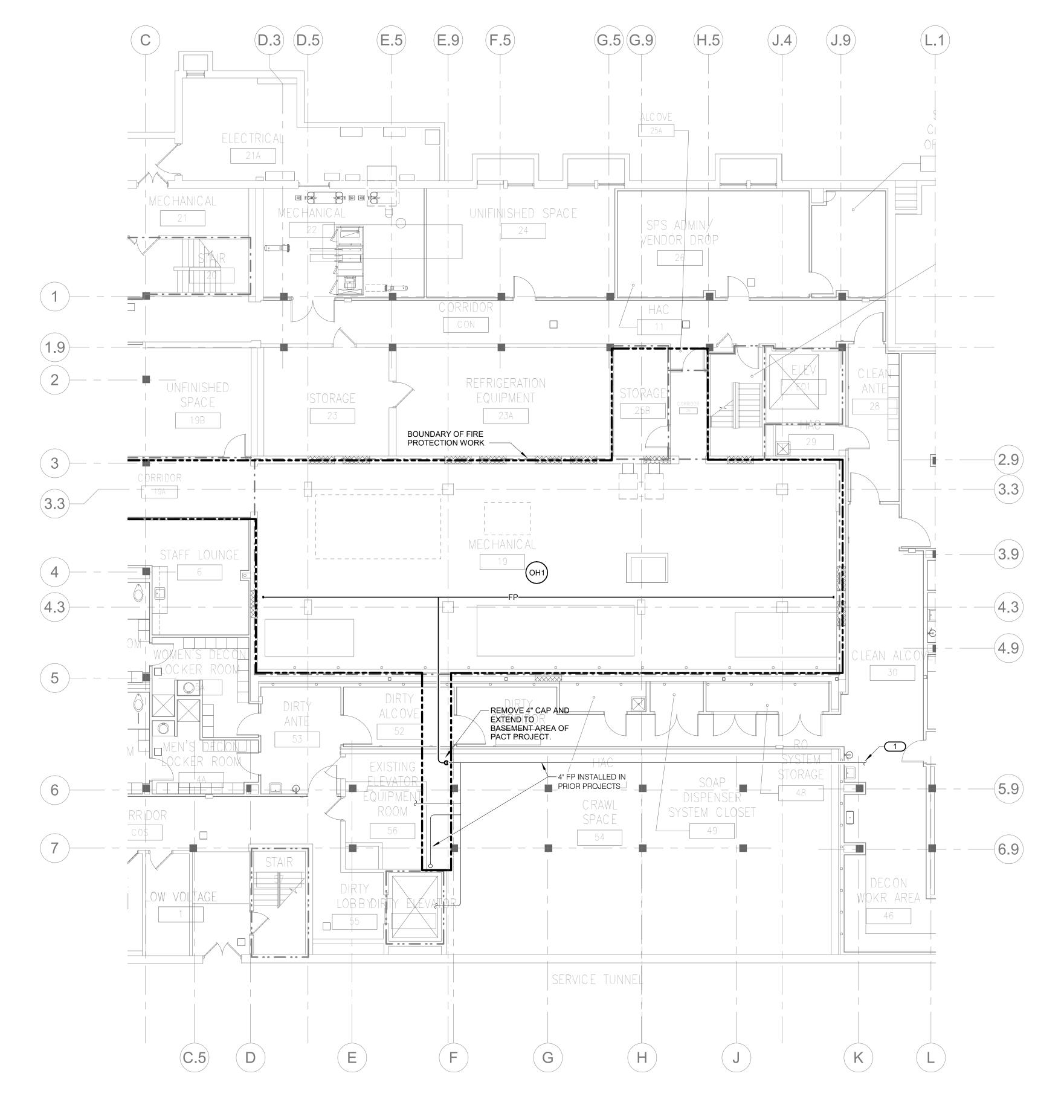
1. REMOVE SPRINKLERS AND PIPING. CAP PIPING AT MAIN. PROVIDE FIRE WATCH PER NFPA FOR OCCUPIED AREAS SERVED BY SPRINKLER SYSTEMS DURING REQUIRED SHUT-DOWNS.

FIRE PROTECTION - DEMOLITION PLAN - FIRST FLOOR

1/8" = 1'-0"



	I hereby certify that this plan, specification or	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR	DATE: APPROVED: SERVICE LINE DIRECTOR	DATE: APPROVED: INFECTION CONTROL NURSE	DRAWING TITLE  FIRE PROTECTION - DEMOLITI	TON PROJECT TITLE DATE: 10/28/2022	U.S. Department
	report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state			APPROVED: GEMS PROJECT MANAGER	DATE: APPROVED: PATIENT SAFETY	PLAN - FIRST FLOOR  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR	BUILDING 4 FIRST FLOOR  PROJECT NO. 656-400	of Veterans Affairs
3001 BROADWAY PH: 612.540.5000  STREET NE SUITE 601 was imageor com	of Minnesota. Signature:	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403		APPROVED: PROJECTS SECTION MANAGER	DATE: APPROVED: CHIEF OF POLICE	DATE:  APPROVED: CHIEF OF STAFF	DATE: BUILDING No CHECKED BY DRAWN DRAWING NO.	Veterans Health Administration
STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN 55413  STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN 55413	Typed or Printed Name: Robert Douglas Lowe  Date:10/28/2022 License Number: 24706			APPROVED: DIRECTOR FMS	DATE: APPROVED: SAFETY MANAGER	DATE: APPROVED: HEALTH CARE SYSTEM DIRECTOR	4   NKJ   TGE   FD101  DATE: LOCATION ST. CLOUD VAHCS   ST. CLOUD, MN 56303   DWG. OF	St. Cloud VA Health Care System



WITHIN THE AREA OF FIRE PROTECTION WORK, PROVIDE A COMPLETE FIRE SPRINKLER INSTALLATION SUCH THAT THE AREA WILL BE CONSIDERED SPRINKLERED THROUGHOUT IN ACCORDANCE WITH THE MINNESOTA FIRE CODE. PIPE ROUTING WHICH RESULTS IN PIPING BELOW FINISHED CEILINGS IN FINISHED AREAS MUST RECEIVE APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION. USE OF NON SPECIFIED SPRINKLERS MUST RECEIVE APPROVAL BY ENGINEER PRIOR TO INSTALLATION. DIVISION 21 CONTRACTOR SHALL BE RESPONSIBLE TO SURVEY EXISTING CONDITIONS, DETERMINE HYDRAULICALLY REMOTE AREAS, OBTAIN FLOW TEST DATA, AND SUBMIT HYDRAULIC CALCULATIONS TO ALL AUTHORITIES HAVING JURISDICTION. SEE SPECIFICATIONS FOR SPECIFIC HYDRAULIC CALCULATION REQUIREMENTS. DIVISION 21 CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORE DRILLING, CUTTING, PATCH AND REPAIR OF ALL SURFACES NECESSARY FOR THE INSTALLATION OF ITEMS INSTALLED AS PART OF THE DIVISION 21 CONTRACT. PATCH AND REPAIR TO MATCH SURROUNDING SURFACE. SPRINKLER HEAD AND PIPING LAYOUT SHALL BE DETERMINED BY DIVISION 21 CONTRACTOR. DIVISION 21 CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL PIPE ROUTING WITH OTHER TRADES AND BUILDING CONFIGURATION. REFER TO ARCHITECTURAL DRAWINGS FOR CURRENT REFLECTED CEILING PLAN INFORMATION. AREAS OUTSIDE THE AREA OF FIRE PROTECTION WORK ARE OCCUPIED AND SPRINKLER SYSTEMS SHALL REMAIN OPERATIONAL THROUGHOUT CONSTRUCTION. ANY SHUT-DOWNS SHALL BE COORDINATED WITH COR. CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE WATCH DURING ANY SHUT-DOWNS. . ALL AREAS TO BE CONSIDERED LIGHT HAZARD UNLESS NOTED OTHERWISE. 10. FIRE PROTECTION CONTRACTOR SHALL DESIGN AND INSTALL A SYSTEM IN COMPLIANCE WITH

#### KEYNOTES: #

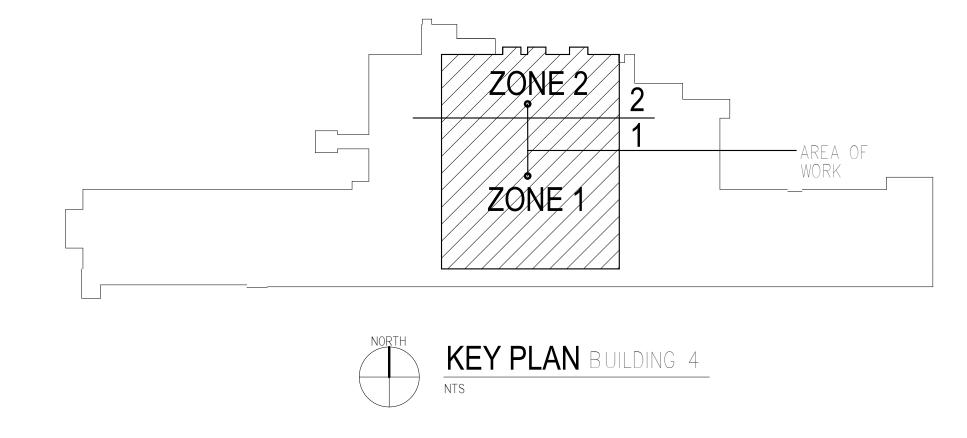
DOCUMENTATION, TESTING AND INSPECTION.

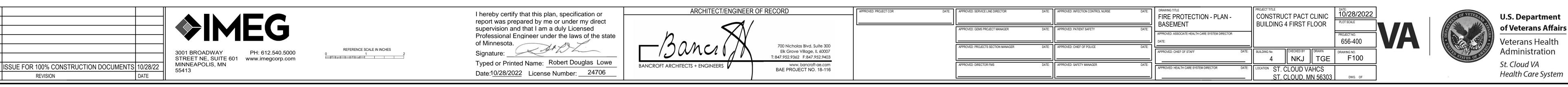
1. REFER TO 21 08 00 FOR COMMISSIONING REQUIREMENTS.

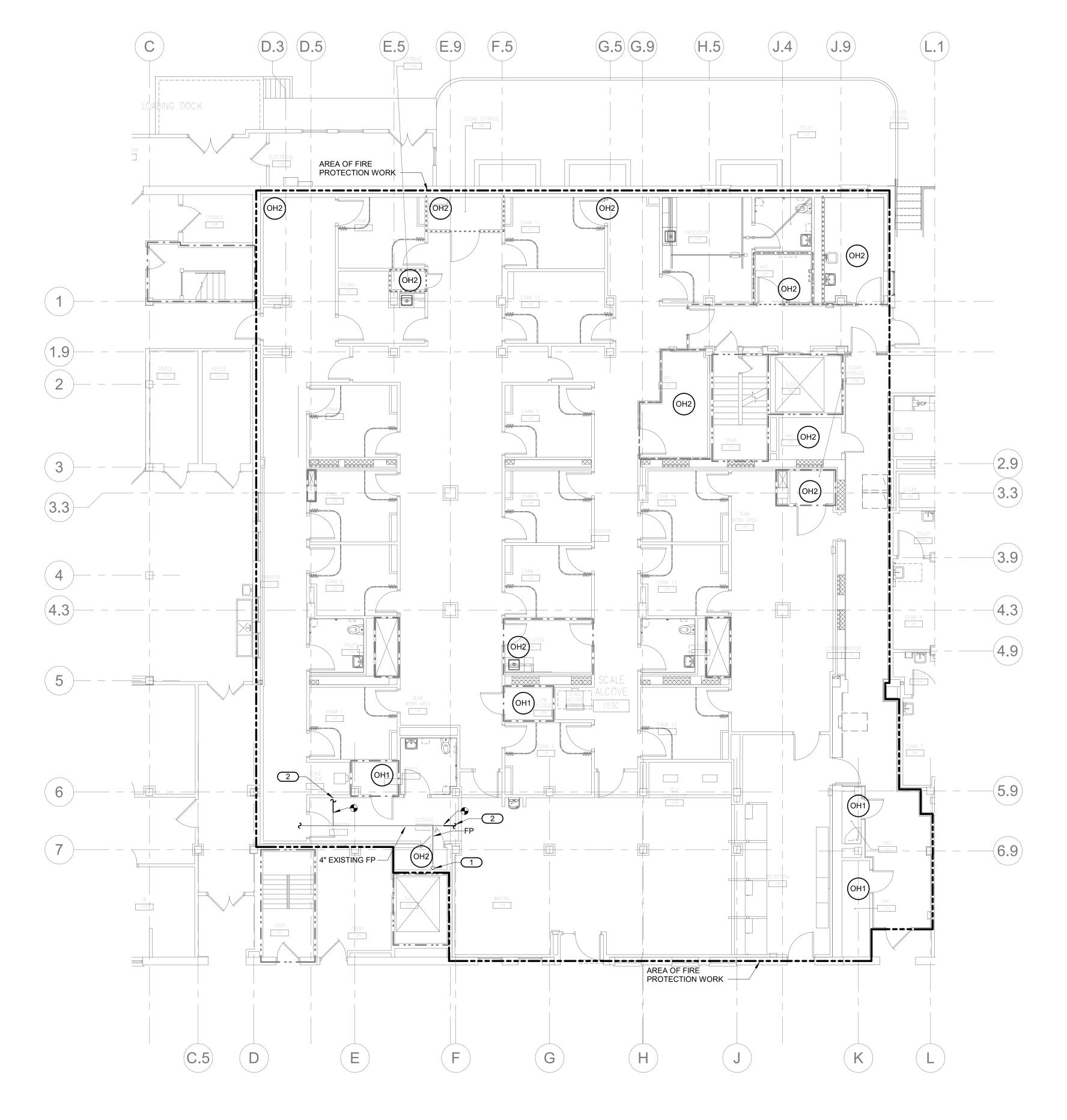
. EXISTING 4" FP MAIN INSTALLED IN ELEVATOR PROJECT. RISER AND ZONE VALVE LOCATED IN MECHANICAL ROOM 13.

NFPA 13 AND NFPA 24. REFER TO 21 13 13 FOR ADDITIONAL REQUIREMENTS, INCLUDING RECORD

FIRE PROTECTION - PLAN - BASEMENT







- WITHIN THE AREA OF FIRE PROTECTION WORK, PROVIDE A COMPLETE FIRE SPRINKLER INSTALLATION SUCH THAT THE AREA WILL BE CONSIDERED SPRINKLERED THROUGHOUT IN ACCORDANCE WITH THE MINNESOTA FIRE CODE.
- PIPE ROUTING WHICH RESULTS IN PIPING BELOW FINISHED CEILINGS IN FINISHED AREAS MUST RECEIVE APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION.
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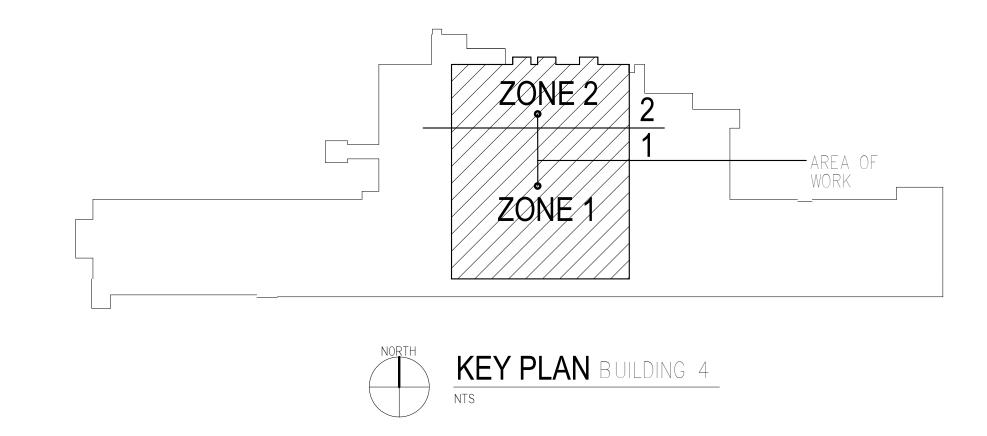
HYDRAULICALLY REMOTE AREAS, OBTAIN FLOW TEST DATA, AND SUBMIT HYDRAULIC

- SPRINKLER HEAD AND PIPING LAYOUT SHALL BE DETERMINED BY DIVISION 21 CONTRACTOR. DIVISION 21 CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL PIPE ROUTING WITH OTHER TRADES AND BUILDING CONFIGURATION. REFER TO ARCHITECTURAL DRAWINGS FOR CURRENT REFLECTED CEILING PLAN INFORMATION.
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- . ALL AREAS TO BE CONSIDERED LIGHT HAZARD UNLESS NOTED OTHERWISE. 10. FIRE PROTECTION CONTRACTOR SHALL DESIGN AND INSTALL A SYSTEM IN COMPLIANCE WITH NFPA 13 AND NFPA 24. REFER TO 21 13 13 FOR ADDITIONAL REQUIREMENTS, INCLUDING RECORD DOCUMENTATION, TESTING AND INSPECTION. 1. REFER TO 21 08 00 FOR COMMISSIONING REQUIREMENTS.

#### KEYNOTES: #

EXISTING FIRE PROTECTION MAIN UP FROM BASEMENT. EXTEND EXISTING ZONE PIPING TO PROVIDE SPRINKLER COVERAGE FOR PACT.

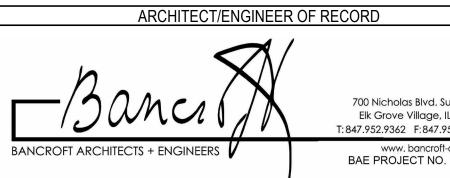




## 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

				CU
			3001 BROADWAY	PH: 612.540.500
			STREET NE, SUITE 601	www.imegcorp.cor
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MINNEAPOLIS, MN 55413	
No	DEVISION	DATE		

REFERENCE SCALE IN INCHES  I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state Typed or Printed Name: Robert Douglas Lowe Date:10/28/2022 License Number: 24706



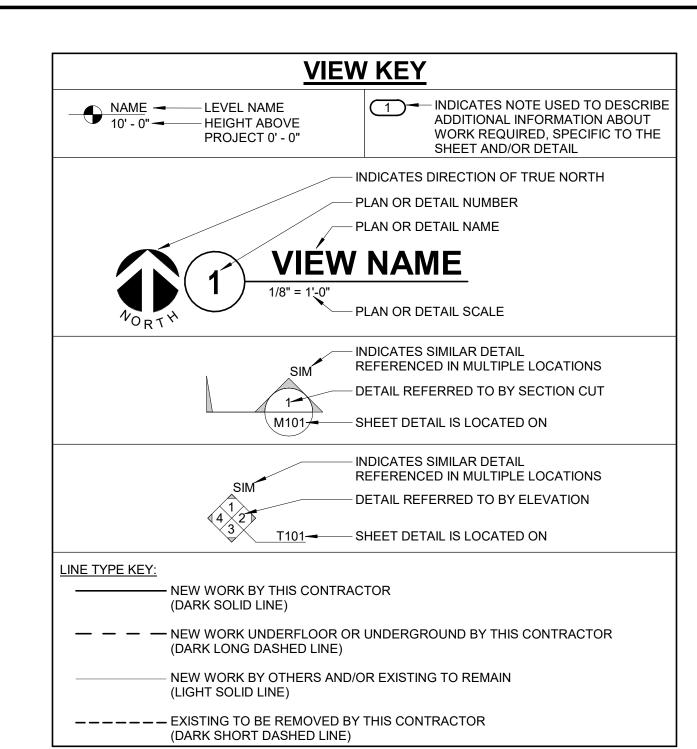
RD	APPROVED: PROJECT COR	DATE:	APPROVED: SERVICE LINE DIRECTOR	DATE:	APPROVED: INFECTION CONTROL NURSE	DATE:	F
			APPROVED: GEMS PROJECT MANAGER	DATE:	APPROVED: PATIENT SAFETY	DATE:	F
			APPROVED. GEWIS PROJECT WAINAGER	DATE.	APPROVED. PATIENT GALETT	DATE.	AP
0 Nicholas Blvd. Suite 300 k Grove Village, IL 60007 952.9362 F:847.952.9403			APPROVED: PROJECTS SECTION MANAGER	DATE:	APPROVED: CHIEF OF POLICE	DATE:	AP
www.bancroff-ae.com E PROJECT NO. 18-116			APPROVED: DIRECTOR FMS	DATE:	APPROVED: SAFETY MANAGER	DATE:	AP

FIRE PROTECTION - PLAN - FIRST CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR ILDING No CHECKED BY NKJ DRAWN DRAWING NO. F101 ST. CLOUD, MN 56303 DWG. OF



Veterans Health

Administration



CONTRACTOR ABBREVIATION KEY								
ABBR:	DESCRIPTION:							
A.C.	ASBESTOS ABATEMENT CONTRACTOR							
A.T.C.	AUTOMATIC TEMPERATURE CONTROL CONTRACTOR							
A.V.C.	AUDIO/VISUAL CONTRACTOR							
C.C.	CIVIL CONTRACTOR							
C.M.	CONSTRUCTION MANAGER							
E.C.	ELECTRICAL CONTRACTOR							
F.P.C.	FIRE PROTECTION CONTRACTOR							
F.S.C.	FOOD SERVICE CONTRACTOR							
G.C.	GENERAL CONTRACTOR							
H.C.	HEATING CONTRACTOR							
M.C.	MECHANICAL CONTRACTOR							
N.C.C.	NURSE CALL CONTRACTOR							
P.C.	PLUMBING CONTRACTOR							
S.C.	SECURITY CONTRACTOR							
T.C.	TECHNOLOGY CONTRACTOR							
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR							
V.C.	VENTILATION CONTRACTOR							
	ABBR:  A.C. A.T.C. A.V.C. C.C. C.M. E.C. F.P.C. F.S.C. G.C. H.C. M.C. N.C.C. P.C. S.C. T.C. T.C.C.							

#### FIRE / SMOKE BARRIER DESIGNATIONS

THE LINE TYPES SHOWN ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY RATINGS WITH THE LATEST SET OF ARCHITECTURAL PLANS AND FURNISH ALL MATERIALS REQUIRED TO COMPLY WITH THOSE RATINGS WHETHER SHOWN OR NOT. ALL [FLOOR, FLOOR CEILING, AND ROOF CEILING] ASSEMBLIES SHALL BE DESIGNATED AS [1], [2], 131, 141 HOUR FIRE I/SMOKEI, BARRIER(S), UNLESS NOTED OTHERWISE ON THE PLANS, RATINGS WERE ACQUIRED FROM THE ARCHITECTURAL PLANS. SMOKE DESISTIVE HAZADDOUS DOOM ENCLOSUDE

SIMORE RESISTIVE HAZARDOUS ROOM ENCLOSURE	
1-HOUR FIRE/SMOKE BARRIER	
2-HOUR FIRE/SMOKE BARRIER	

AW CA	4000
——СА——	ACID WASTE
	COMPRESSED AIR
——cw——	COLD WATER - POTABLE
D	DRAIN
_	
——DI——	DEIONIZED WATER
——DT——	DRAIN TILE
<u>—</u> G—	NATURAL GAS
GRV	GAS REGULATOR VENT
—GSAN—	SANITARY DRAINAGE (GREASE SANITARY DRAINAGE)
——GV——	GREASE VENT
——HW——	HOT WATER - POTABLE
——HWС——	HOT WATER CIRCULATING - POTABLE
HW140	HOT WATER - POTABLE NUMBER INDICATES TEMP
—HWC140—	HOT WATER CIRC POTABLE NUMBER INDICATES TEMP
——IA——	INSTRUMENT AIR
——MA——	MEDICAL AIR
MV	MEDICAL VACUUM
N	NITROGEN
—NCW—	NON-POTABLE COLD WATER
NHW	NON-POTABLE HOT WATER
NO	NITROUS OXIDE
—OR—	OIL RETURN
os	OIL SUPPLY
O	OXYGEN
——Р——	PROPANE GAS
——PD——	PUMPED DISCHARGE
——PW——	PURE WATER
RO	REVERSE OSMOSIS WATER
——SAN——	SANITARY DRAINAGE
—scw—	SOFT COLD WATER
SHW	SOFT HOT WATER
—ST(1,000)—	STORM DRAINAGE (ROOF SQUARE FOOTAGE)
—STS—	STORM DRAINAGE (SECONDARY)
STW	SOFT TEMPERED WATER
TW	TEMPERED WATER
V	VENT
VAC	LAB VACUUM
W	SERVICE WATER - POTABLE
WAGD	WASTE ANETHESIA GAS DISPOSAL
<del></del>	PIPE CONTINUATION
	PIPE CAP
——⇒	PIPE DOWN
~	
	PIPE LIP OR LIP/DOWN
o	PIPE UP OR UP/DOWN
•	DIDE SERVING FIVELIDE ON FLOOR AROVE
——• ——• <sub>FE</sub>	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
•	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION
•	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE
•	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION
¬ RD-1	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  BOOF DRAIN PROPERTIES SYMBOL
~ <sub>FC</sub>	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)
¬ RD-1	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  BOOF DRAIN PROPERTIES SYMBOL
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RD-1 6"(1000)	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)  NEW CONNECTION
RD-1 6"(1000)	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)  NEW CONNECTION  DIELECTRIC CONNECTION  UNION/FLANGE
RD-1 6"(1000)	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)  NEW CONNECTION  DIELECTRIC CONNECTION  UNION/FLANGE  SHUTOFF VALVE NORMALLY OPEN
RD-1 6"(1000)	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)  NEW CONNECTION  DIELECTRIC CONNECTION  UNION/FLANGE  SHUTOFF VALVE NORMALLY OPEN  SHUTOFF VALVE NORMALLY CLOSED
RD-1 6"(1000)	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)  NEW CONNECTION  DIELECTRIC CONNECTION  UNION/FLANGE  SHUTOFF VALVE NORMALLY OPEN  SHUTOFF VALVE NORMALLY CLOSED  THERMOSTATIC BALANCING VALVE
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RD-1 6"(1000)	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)  PITCH PIPE IN DIRECTION  DIRECTION OF FLOW IN PIPE  ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)  NEW CONNECTION  DIELECTRIC CONNECTION  UNION/FLANGE  SHUTOFF VALVE NORMALLY OPEN  SHUTOFF VALVE NORMALLY CLOSED  THERMOSTATIC BALANCING VALVE  CHECK VALVE
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	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE ROUTE TO DRAIN ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.) NEW CONNECTION DIELECTRIC CONNECTION UNION/FLANGE SHUTOFF VALVE NORMALLY OPEN SHUTOFF VALVE NORMALLY CLOSED THERMOSTATIC BALANCING VALVE CHECK VALVE SOLENOID VALVE SAFETY/RELIEF VALVE VACUUM BREAKER PRESSURE GAUGE (FURNISHED WITH BALL VALVE) PRESSURE SENSOR (FURNISHED WITH BALL VALVE)
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	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE ROUTE TO DRAIN ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.) NEW CONNECTION DIELECTRIC CONNECTION UNION/FLANGE SHUTOFF VALVE NORMALLY OPEN SHUTOFF VALVE NORMALLY CLOSED THERMOSTATIC BALANCING VALVE CHECK VALVE SOLENOID VALVE SAFETY/RELIEF VALVE VACUUM BREAKER PRESSURE GAUGE (FURNISHED WITH BALL VALVE) PRESSURE SENSOR (FURNISHED WITH BALL VALVE) TEMPERATURE SENSOR WITH WELL THERMOMETER WITH WELL (DIAL TYPE) THERMOMETER WITH WELL (FILLED TYPE) REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
RD-1 6"(1000)	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE ROUTE TO DRAIN ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.) NEW CONNECTION DIELECTRIC CONNECTION UNION/FLANGE SHUTOFF VALVE NORMALLY OPEN SHUTOFF VALVE NORMALLY CLOSED THERMOSTATIC BALANCING VALVE CHECK VALVE SOLENOID VALVE SAFETY/RELIEF VALVE VACUUM BREAKER PRESSURE GAUGE (FURNISHED WITH BALL VALVE) PRESSURE SENSOR (FURNISHED WITH BALL VALVE) TEMPERATURE SENSOR WITH WELL THERMOMETER WITH WELL (FILLED TYPE) REDUCER - REFERENCE SPECIFICATION
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	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE ROUTE TO DRAIN ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.) NEW CONNECTION DIELECTRIC CONNECTION UNION/FLANGE SHUTOFF VALVE NORMALLY OPEN SHUTOFF VALVE NORMALLY CLOSED THERMOSTATIC BALANCING VALVE CHECK VALVE SOLENOID VALVE SAFETY/RELIEF VALVE VACUUM BREAKER PRESSURE GAUGE (FURNISHED WITH BALL VALVE) PRESSURE SENSOR (FURNISHED WITH BALL VALVE) TEMPERATURE SENSOR WITH WELL THERMOMETER WITH WELL (DIAL TYPE) THERMOMETER WITH WELL (FILLED TYPE) REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB PRESSURE REDUCING VALVE (LIQUID/GAS) PUMP
	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE ROUTE TO DRAIN ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.) NEW CONNECTION DIELECTRIC CONNECTION UNION/FLANGE SHUTOFF VALVE NORMALLY OPEN SHUTOFF VALVE NORMALLY CLOSED THERMOSTATIC BALANCING VALVE CHECK VALVE SOLENOID VALVE SAFETY/RELIEF VALVE VACUUM BREAKER PRESSURE GAUGE (FURNISHED WITH BALL VALVE) PRESSURE SENSOR (FURNISHED WITH BALL VALVE) TEMPERATURE SENSOR WITH WELL THERMOMETER WITH WELL (DIAL TYPE)  THERMOMETER WITH WELL (FILLED TYPE) REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB PRESSURE REDUCING VALVE (LIQUID/GAS)
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	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN) PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE ROUTE TO DRAIN  ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.) NEW CONNECTION DIELECTRIC CONNECTION UNION/FLANGE SHUTOFF VALVE NORMALLY OPEN SHUTOFF VALVE NORMALLY CLOSED THERMOSTATIC BALANCING VALVE CHECK VALVE SOLENOID VALVE SAFETY/RELIEF VALVE VACUUM BREAKER PRESSURE GAUGE (FURNISHED WITH BALL VALVE)  TEMPERATURE SENSOR (FURNISHED WITH BALL VALVE)  TEMPERATURE SENSOR WITH WELL THERMOMETER WITH WELL (DIAL TYPE)  THERMOMETER WITH WELL (FILLED TYPE)  REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB PRESSURE REDUCING VALVE (LIQUID/GAS) PUMP METER ALIGNMENT GUIDE

PLUMBING SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

**SYMBOL: DESCRIPTION:** 

——AV—— | ACID VENT

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BT	
СВ	BATHTUB  CATCH BASIN
CI	CAST IRON
CO	CLEANOUT
cs	CLINICAL SINK
DB	DIALYSIS BOX
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
E	EXISTING
EE	EMERGENCY EYEWASH
ES	EMERGENCY SHOWER
ESE	EMERGENCY SHOWER/EYEWASH
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FM	FLOW METER
FS	FLOOR SINK
GD	GARBAGE DISPOSER
GI	GREASE INTERCEPTOR
НВ	HOSE BIBB
I.E.	INVERT ELEVATION (FOR REFERENCE ONLY)
LAV	LAVATORY
MB	MOP BASIN
MH	MANHOLE
MV	MIXING VALVE
NC	NEW CONNECTION
NIC	NOT IN CONTRACT
NT	NEUTRALIZATION TANK
os	OIL SEPARATOR
RD	ROOF DRAIN
SH	SHOWER
SK	SINK
SS	SERVICE SINK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WATER HEATER
WMF	WASHING MACHINE FIXTURE
WM	WATER METER
WS	WATER SOFTENER
UB	UTILITY BOX
UNO	UNLESS NOTED OTHERWISE
YCO	YARD CLEANOUT

#### PLUMBING FIXTURE ROUGH-IN SCHEDULE

NOTES: 1) SANITARY RISER UP IN WALL TO FIXTURE SHALL BE A MINUMUM OF 2". 2) 1/2" CW AND HW APPLIÉS ONLY TO THE FINAL VERTICAL RISE-DROP TO EACH FIXTURE. BRANCH PIPING TO VERTICAL RISE-DROP SHALL BE A MINIMUM OF 3/4" UNLESS NOTED OTHERWISE. 3) SIZES SHOWN ARE MINIMUMS. SIZES SHOWN ON THE DRAWING THAT ARE LARGER THAN THE SIZES LISTED IN THE SCHEDULE SHALL DICTATE THE ROUGH-IN SIZE.

TAG NAME	DOMESTIC CW (NOTE 3)	DOMESTIC HW (NOTE 3)	SANITARY (NOTE 3)	VENT (NOTE 3)	REMARKS
CS-1	1"	3/4"	4"	2" -	
EWC-1	1/2"	-	1 1/4"	1 1/4"	
FD-2		-	2	1 1/2"	
FD-4		-	4"	2"	
LAV-1	1/2"	1/2"	1 1/4"	1 1/4"	
MB-1	3/4"	3/4"	3"	1 1/2"	
MB-2	3/4"	3/4"	3"	1 1/2"	
SK-1	1/2"	1/2"	1 1/2"	1 1/4"	
WC-1	1 1/2"	-	4"	2"	
WC-2	1 1/2"	-	4"	2"	

#### **MECHANICAL RENOVATION NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM LIMITED FIELD OBSERVATIONS. EXISTING BUILDING DOCUMENTS. AND STAFF, VERIFY EXISTING
- CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING. 2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ARCHITECT AND VA COR IN WRITING OF ANY CONFLICTS
- 3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE
- FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF HIS/HER WORK
- AND SHALL NOTIFY ARCHITECT AND VA COR IN WRITING PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO HIS/HER AREA OF WORK.
- 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING.
- 6. THE GC IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING. 7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL
- DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK. 8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING

EITHER ARRANGE NEW EQUIPMENT. PIPING. OR DUCTWORK IN SUCH A FASHION THAT IT

- CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT REMAIN ACTIVE. 9. OBTAIN PERMISSION FROM VA COR BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW
- SYSTEMS ARE INSTALLED. 10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.
- 11. DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT THAT HAS BEEN REMOVED. 12. ALL LOUD WORK SHALL BE COORDINATED WITH GENERAL CONTRACTOR TO AVOID ANY
- NOISE RESTRICTION TIME SLOTS.

#### **MECHANICAL SEQUENCING NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF SEQUENCING. REFER TO ARCHITECT'S INSTRUCTIONS FOR MORE DETAILS AND SCHEDULES FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF
- THE SEQUENCING CRITERIA. 2. REVIEW PROJECT SEQUENCING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES, ETC. WITH AFFECTED ADJACENT AREAS.
- 3. PROVIDE TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ZONE VALVES, ZONE ALARMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS.
- 4. INSTALL TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ETC. AS NECESSARY TO KEEP ALL OCCUPIED SPACES OPERATIONAL THROUGHOUT ALL PORTIONS OF THE PROJECT. SEQUENCE DEMOLITION WORK TO MINIMIZE DOWNTIME.

#### **PLUMBING GENERAL NOTES:**

- 1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT. 2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN
  - THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.
- 3. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES. 4. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
- 5. INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY ALL ELEVATIONS BEFORE BEGINNING WORK. 6. VERIFY UNDERGROUND PIPE SIZES, INVERT ELEVATIONS, AND LOCATIONS PRIOR TO
- BEGINNING ANY WORK. 7. REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO PLUMBING FIXTURES.
- 8. FOR CLARITY, NOT ALL VALVES HAVE BEEN SHOWN. PROVIDE SHUTOFF VALVES IN DOMESTIC WATER PIPING SERVING EACH ROOM WITH FIXTURES. ANGLE STOPS SHALL NOT
- BE CONSIDERED SHUTOFF VALVES. 9. EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL DEMOLITION INFORMATION.
- 10. P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL INFORMATION.

#### **MECHANICAL GENERAL NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT
- 2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR
- PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES. 3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING
- WITH FABRICATION OR EQUIPMENT ORDERS. 4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER
- ACCESS. 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR
- EXPENSE TO THE VA. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL
- CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY
- AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES. 8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND
- 9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC, COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS
- PANELS PRIOR TO BIDDING. 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER
- 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS
- 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL
- RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT. 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS, CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC.
- 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES. 15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS. SWITCHES, AND DISCONNECTS.
- 16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT. 17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.
- 18. PROVIDE BALANCING DAMPER AT ALL SUPPLY DIFFUSERS, RETURN, AND EXHAUST GRILLES. ALL DAMPERS ARE NOT SHOWN ON PLANS. 19. CONTRACTOR SHALL REPAIR AND/ OR REPLACE ALL INSULATION AT EXISTING SHEET METAL DUCTWORK WHICH BECOMES DAMAGED DURING CONSTRUCTION ACTIVITIES AND SHALL REPAIR OR REPLACE ANY INSULATION AT NEW AND OLD DUCT CONNECTIONS AND ANY
- MISSING OR DAMAGED INSULATION ON REUSED OR EXISTING DUCTWORK. 20. CEILING ACCESS SHALL BE PROVIDED FOR ALL HVAC EQUIPMENT AND COMPONENTS LOCATED ABOVE THE CEILING THAT REQUIRE OPERATING, CLEANING, SERVICING, MAINTENANCE, AND/ OR CALIBRATION.

#### **ENGINEERING DISCIPLINE REFERENCE NOTES**

FOR OUTDOOR USE.

GENERAL NOTES FOR CONTRACTORS: SEE ALL PROJECT GENERAL NOTES AND OTHER REQUIREMENTS INCLUDING THE LIFE SAFETY AND INFECTION CONTROL WORK LOCATED WITHIN THE GENERAL DRAWINGS SECTION. COMPLY WITH ALL REQUIREMENTS AS THEY ARE A DIRECT PART OF THIS SECTION AS IF THEY WERE DIRECTLY INCLUDED AND PROVIDED HEREIN.

EQUIVALENCY SUBSTITUTIONS: THE "BASIS OF DESIGN (BOD) COMPLIANCE PROTOCOLS" ARE TO BE FOLLOWED FOR ALL MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SPECIFIED AND DETAILED THROUGHOUT ALL DRAWINGS AND SPECIFICATION SECTIONS, WHETHER THE BOD DESIGNATE IS SPECIFICALLY REFERENCED THEREIN OR NOT. SEE THE GENERAL DRAWINGS SECTION FOR THE SPECIFIC BOD COMPLIANCE REQUIREMENTS AND PROTOCOLS TO BE FOLLOWED.

	PLUMBING SHEET INDEX	
P000	PLUMBING - COVERSHEET	
PDU100	PLUMBING - DEMOLITION PLAN - BASEMENT UNDERFLOOR	
PD100	PLUMBING - DEMOLITION PLAN - BASEMENT	
PD101	PLUMBING - DEMOLITION PLAN - FIRST FLOOR	
PD102	PLUMBING - DEMOLITION PLAN - LOWER ROOF	
PU100	PLUMBING - PLAN - BASEMENT UNDERFLOOR	
P100	PLUMBING - PLAN - BASEMENT	
P101	PLUMBING - PLAN - FIRST FLOOR	
P102	PLUMBING - PLAN - LOWER ROOF	
P300	PLUMBING - DETAILS	
P400	PLUMBING - WATER RISER DIAGRAM	
P401	PLUMBING - WASTE AND VENT RISER DIAGRAM	
P500	PLUMBING - SCHEDULES AND MATERIAL LIST	
<b>GRAND TOTA</b>	L: 13	

10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 REVISION DATE

3001 BROADWAY STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN

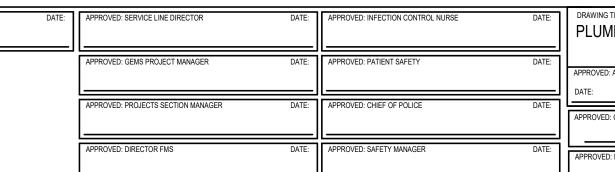
REFERENCE SCALE IN INCHES 



BAE PROJECT NO. 18-116

ARCHITECT/ENGINEER OF RECORD

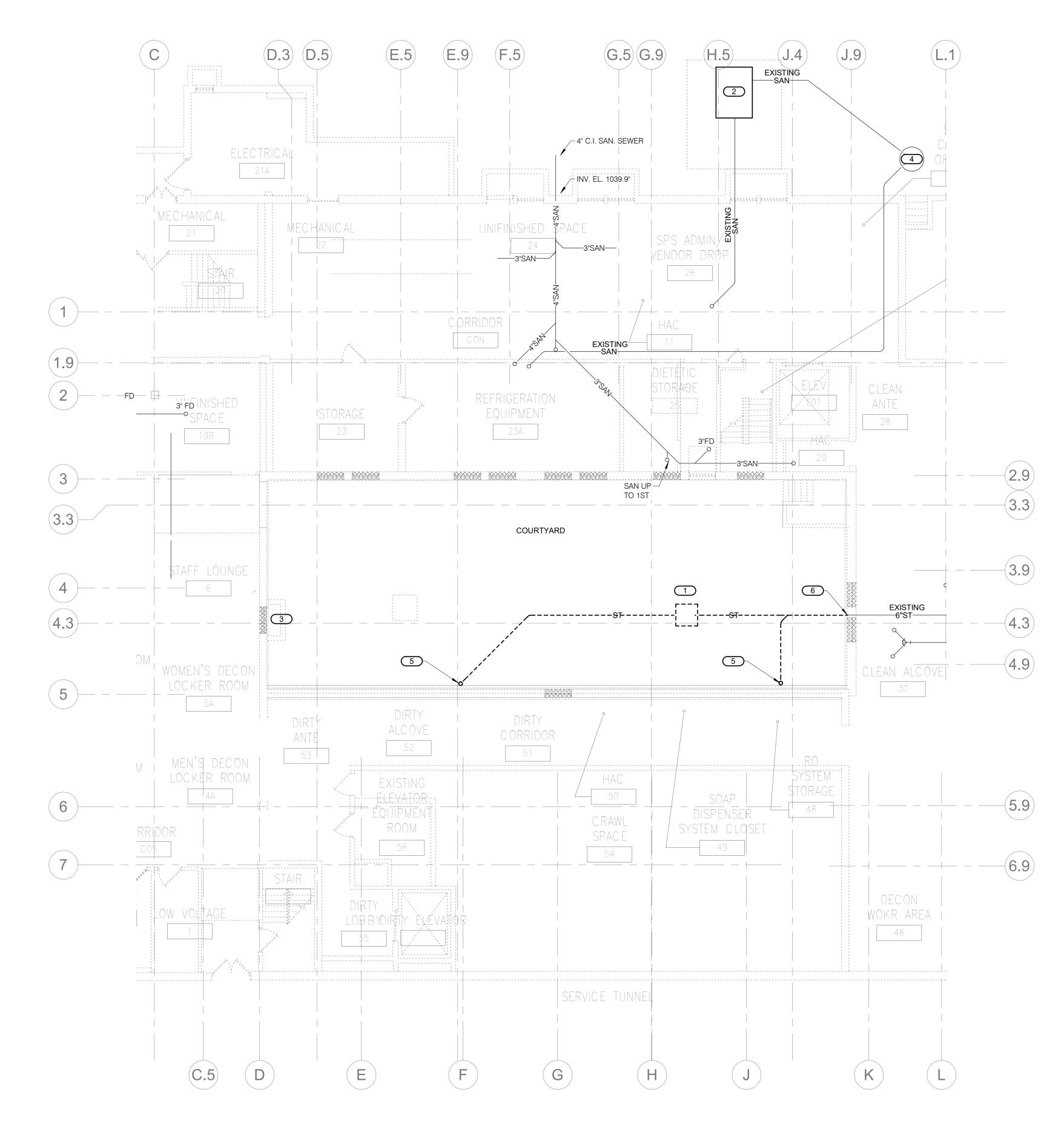
700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com

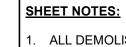


CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR PLUMBING - COVERSHEET NKJ ST. CLOUD, MN 56303







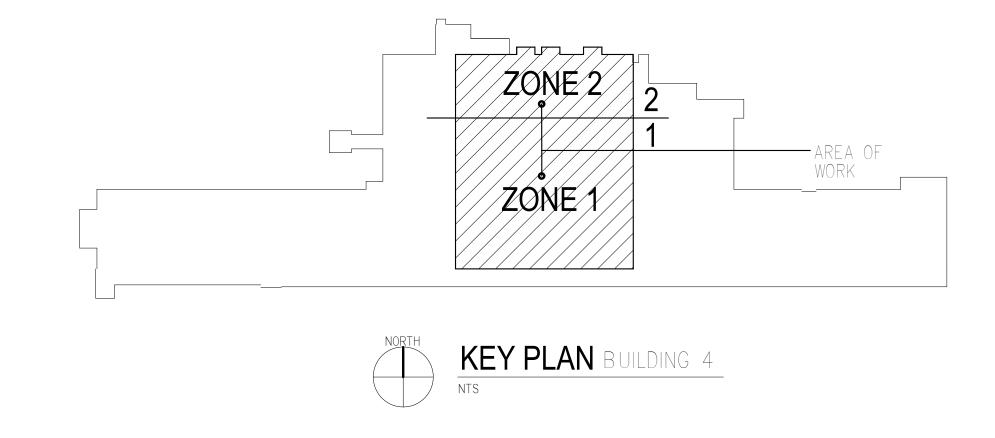


I. ALL DEMOLISHED PIPING SHALL BE REMOVED BACK TO SOURCE AND TERMINATED IN A METHOD THAT LEAVES NO DEAD ENDS.

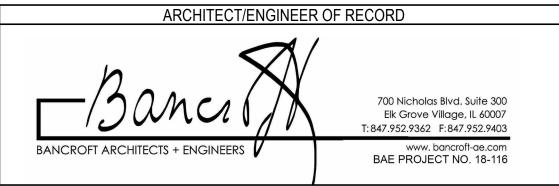
#### KEYNOTES: #

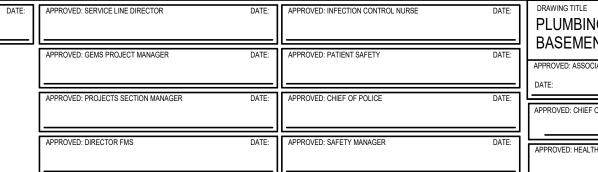
REMOVE CATCH BASIN AND RELATED PIPING.
REMOVE DOWNSPOUT PIPING UP TO CHANGE IN MATERIAL.
APPROXIMATE LOCATION OF GREASE TRAP.
REMOVE GREASE TRAP.
REMOVE AREA DRAIN AND PIPING. CAP PIPING AT MAIN.
APPROXIMATE LOCATION OF EXISTING MANHOLE
REMOVE 4"ST DOWNSPOUT PIPING UP AND WHERE CHANGE IN PIPE MATERIAL.
REMOVE 6"ST BACK TO THIS POINT AND PREPARE TO NEW CONNECTION.

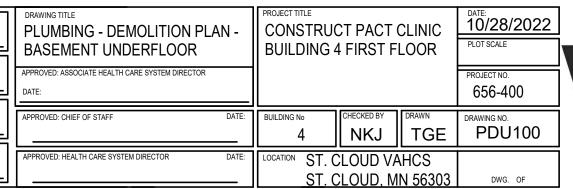




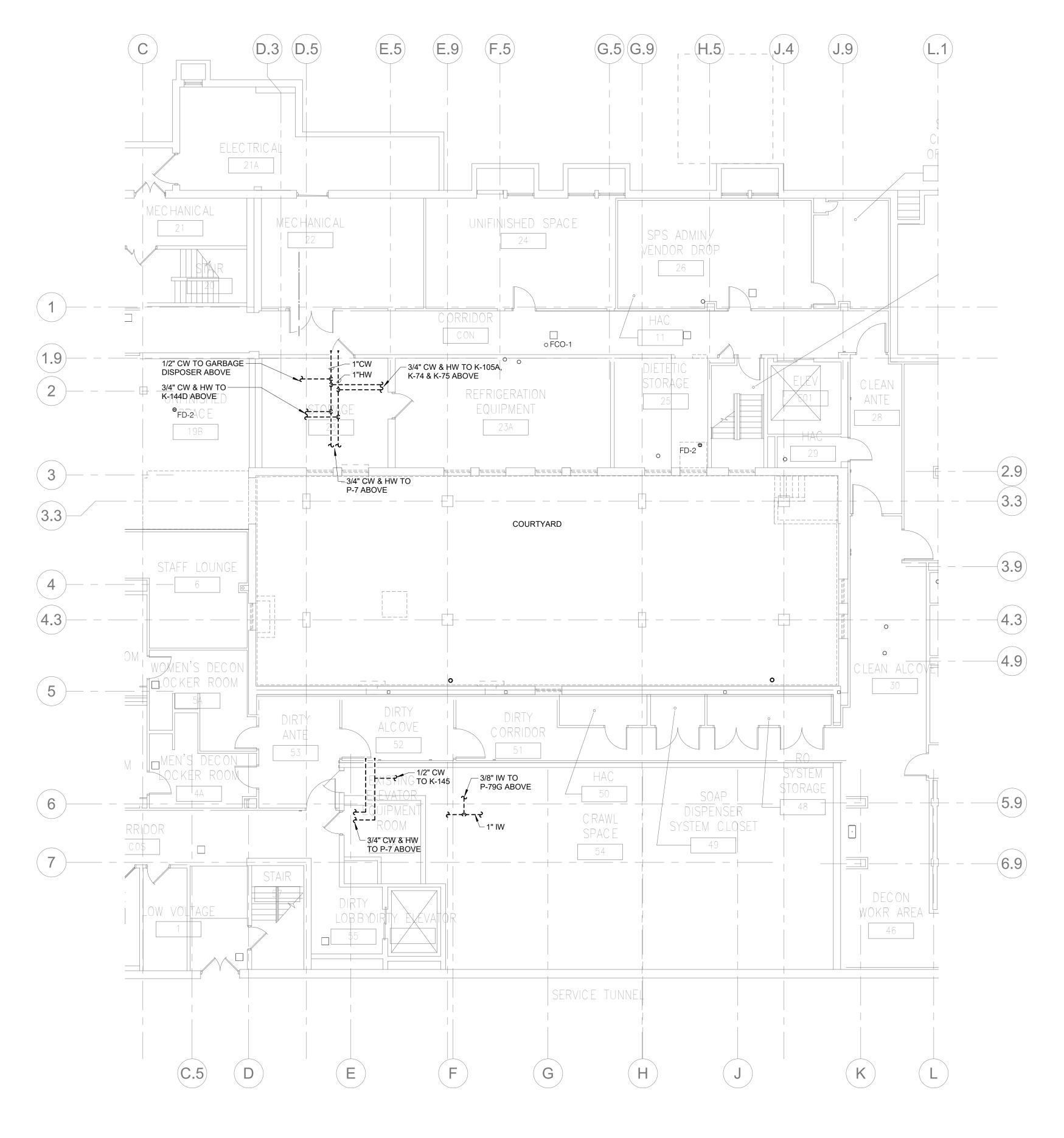
3001 BROADWAY PH: 612.540.5000 STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN  FE412		<b>♦IMEG</b>		
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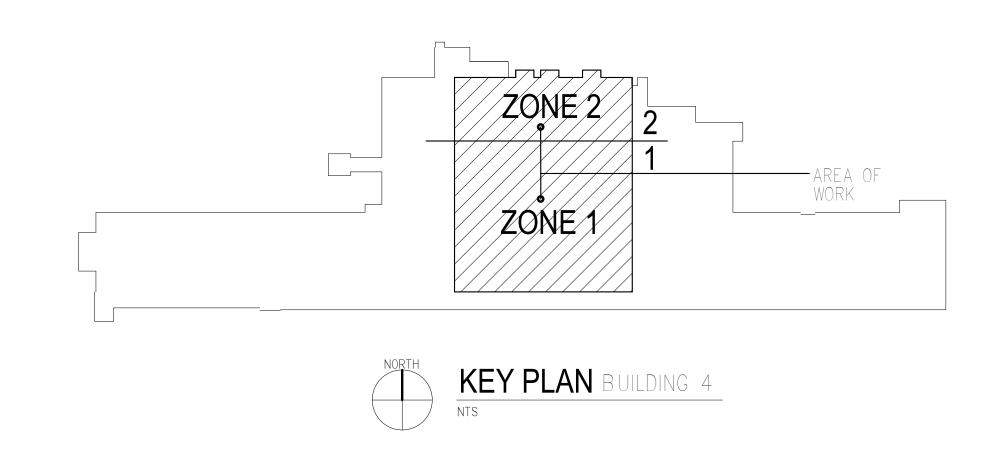
SHEET NOTES:

1. ALL DEMOLISHED PIPING SHALL BE REMOVED BACK TO SOURCE AND TERMINATED IN A METHOD THAT LEAVES NO DEAD ENDS.

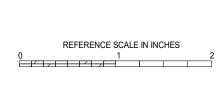
KEYNOTES: #

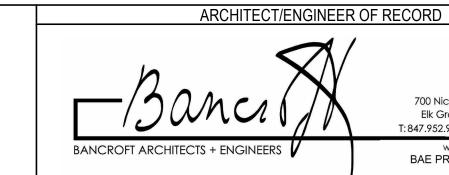
PLUMBING - DEMOLITION PLAN - BASEMENT

1/8" = 1'-0"



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			STREET NE, SUITE 601 www.imegcorp.com	, - <u>I</u>
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N <sub>a</sub>	DEVICION	DATE		



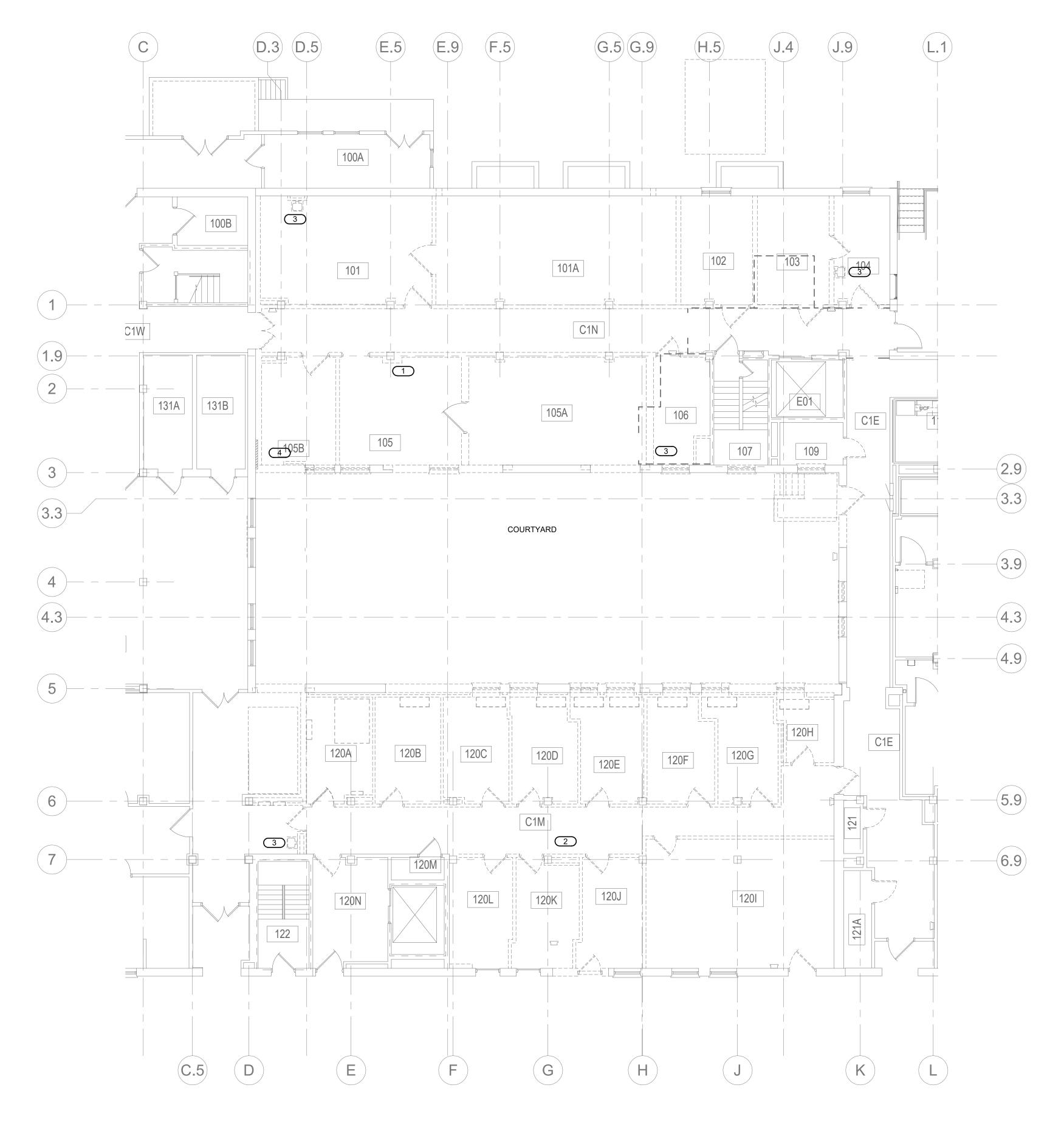


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\	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T:847.952.9362 F:847.952.9403	
	www. bancroft-ae.com BAE PROJECT NO. 18-116	

DATE:	APPROVED: SERVICE LINE DIRECTOR	DATE:	APPROVED: INFECTION CONTROL NURSE	DATE:	PLUM BASE
,	APPROVED: GEMS PROJECT MANAGER	DATE:	APPROVED: PATIENT SAFETY	DATE:	APPROVED:
	APPROVED: PROJECTS SECTION MANAGER	DATE:	APPROVED: CHIEF OF POLICE	DATE:	APPROVED
	APPROVED: DIRECTOR FMS	DATE:	APPROVED: SAFETY MANAGER	DATE:	APPROVED

MBING - DEMOLITION PLAN -	PROJECT TITLE  CONSTRUCT PACT CLINIC  BUILDING 4 FIRST FLOOR  DATE: 10/28/2022  PLOT SCALE	
: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR	PROJECT NO. 656-400	
D: CHIEF OF STAFF DATE:	BUILDING No CHECKED BY NKJ DRAWN DRAWING NO. TGE PD100	
D: HEALTH CARE SYSTEM DIRECTOR DATE:	ST. CLOUD VAHCS ST. CLOUD, MN 56303  DWG. OF	





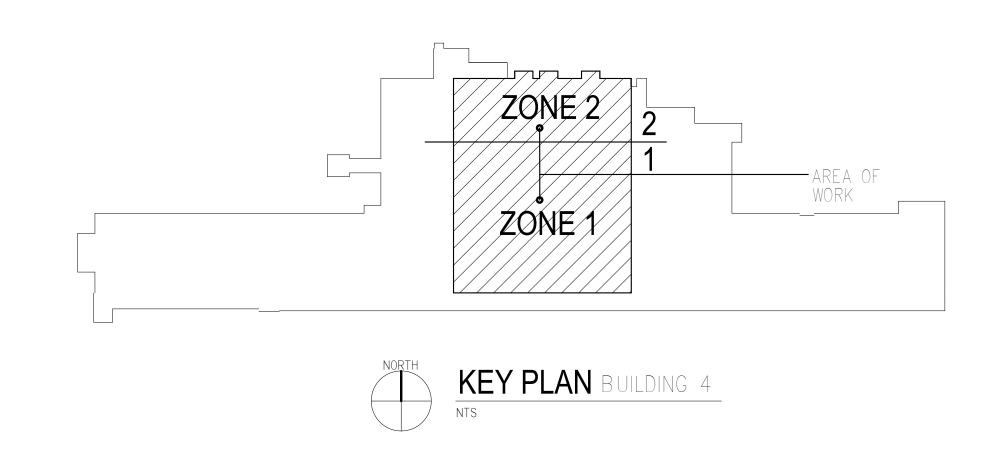
I. ALL DEMOLISHED PIPING SHALL BE REMOVED BACK TO SOURCE AND TERMINATED IN A METHOD THAT LEAVES NO DEAD ENDS.

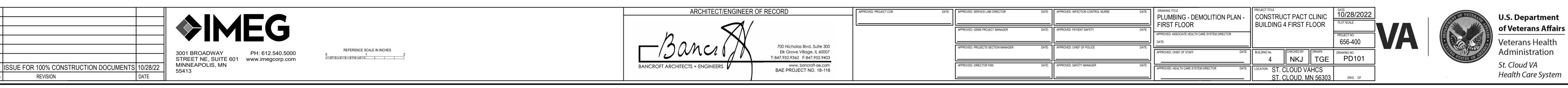
#### KEYNOTES: #

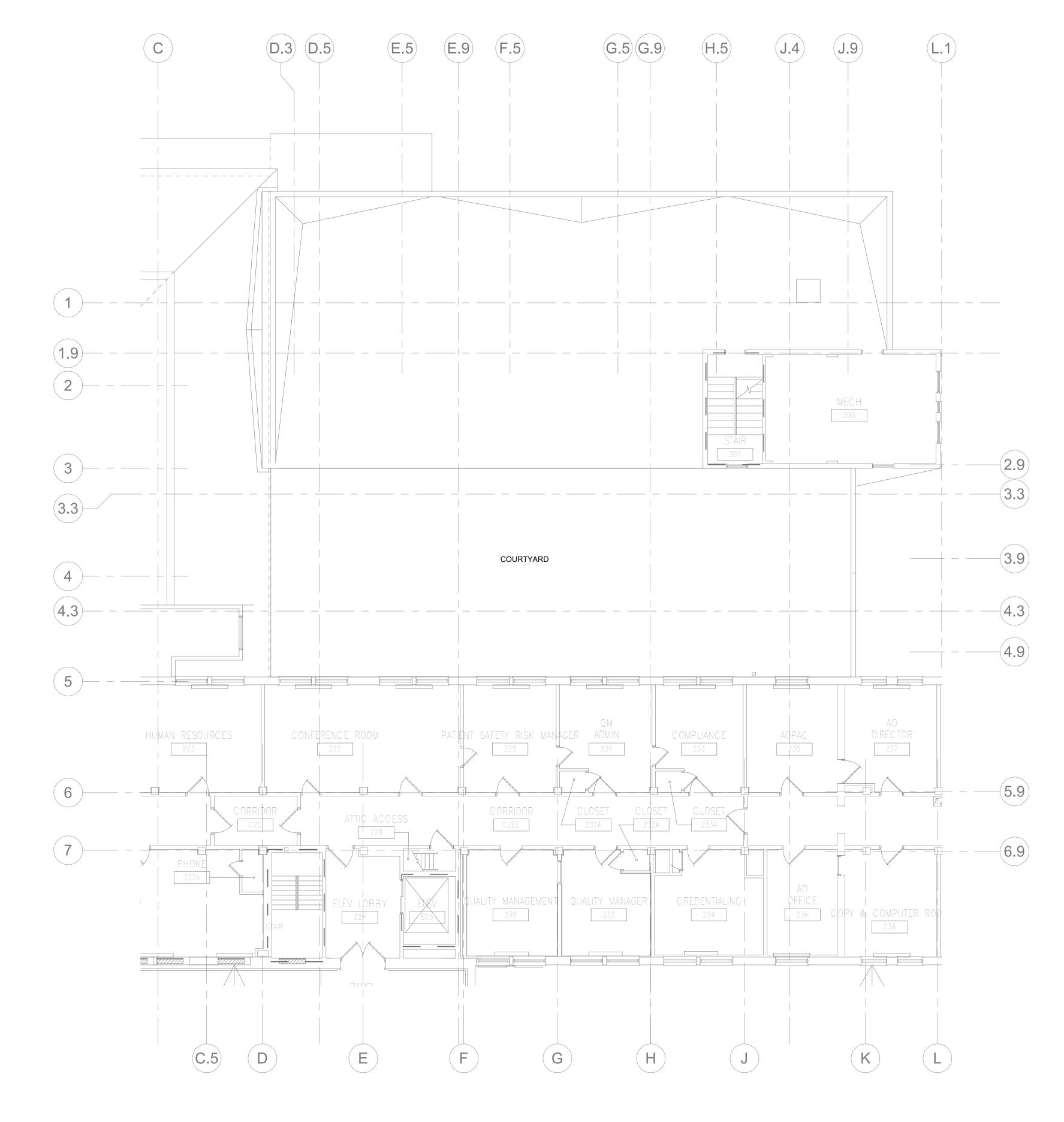
REMOVE EXISTING FLOOR SINKS AND H & CW WATER PIPING. CAP PIPING AT MAINS.
 REMOVE EXISTING EWC AND PIPING. CAP PIPING AT MAINS.
 REMOVE EXISTING SINK AND PIPING ABOVE FLOOR. PIPING BELOW FLOOR SLAB DEMOED IN PREVIOUS PROJECT.
 REMOVE EXISTING SINK, CART WASH EQUIPMENT, AND PIPING. CAP PIPING AT

PLUMBING - DEMOLITION PLAN - FIRST FLOOR

1/8" = 1'-0"



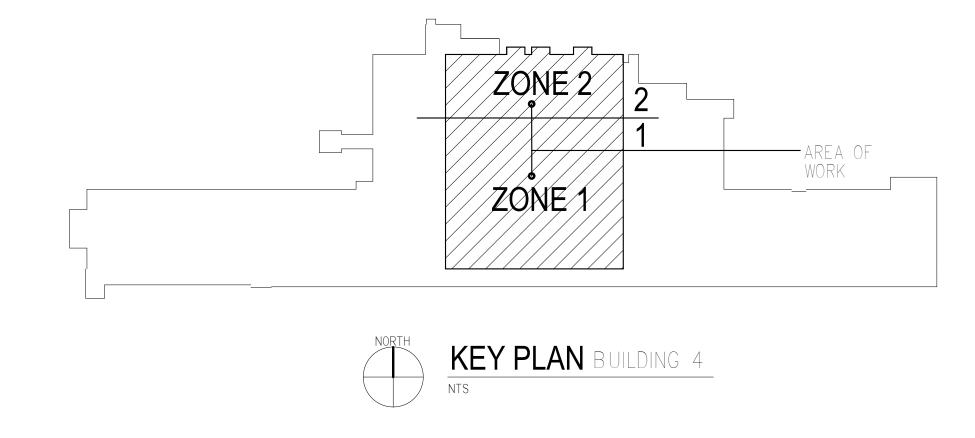




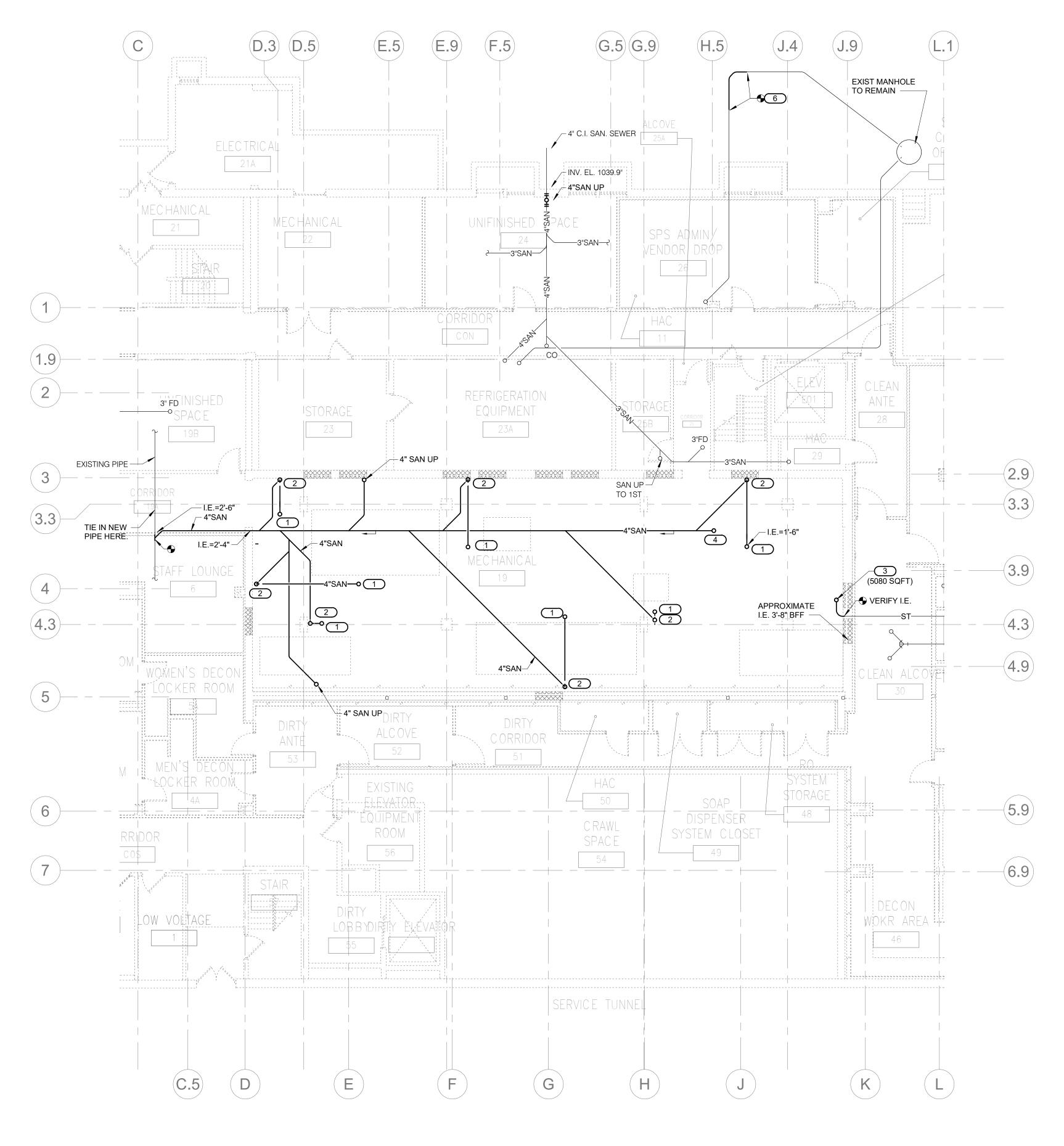
NOTE: NO DEMOLITION WORK IN THIS AREA. SHOWN FOR REFERENCE PURPOSES ONLY.

LOWER ROOF DEMOLITION - PLUMBING

1/8" = 1'-0"



	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR DATE: APPROVED: SERVICE LINE DIRECTOR	DATE: APPROVED: INFECTION CONTROL NURSE	DRAWING TITLE PLUMBING - DEMOLITION PLAN	- CONSTRUCT PACT CLINIC DATE: 10/28/2022	U.S. Department
		APPROVED: GEMS PROJECT MANAGER	DATE: APPROVED: PATIENT SAFETY	DATE: LOWER ROOF  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR	BUILDING 4 FIRST FLOOR  PLOT SCALE  PROJECT NO.	of Veterans Affairs
	700 Nicholas Blvd. Suite 300	APPROVED: PROJECTS SECTION MANAGER	DATE: APPROVED: CHIEF OF POLICE	DATE:	656-400	Veterans Health
3001 BROADWAY PH: 612.540.5000 0 REFERENCE SCALE IN INCHES  STREET NE, SUITE 601 www.imegcorp.com	Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403			APPROVED: CHIEF OF STAFF	DATE: BUILDING NO CHECKED BY DRAWN DRAWING NO.  1 TGE PD102	Administration
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 MINNEAPOLIS, MN 55413	BANCROFT ARCHITECTS + ENGINEERS Www.bancroft-ae.com BAE PROJECT NO. 18-116	APPROVED: DIRECTOR FMS	DATE: APPROVED: SAFETY MANAGER	DATE: APPROVED: HEALTH CARE SYSTEM DIRECTOR	LOCATION ST. CLOUD VAHCS ST. CLOUD MN 56303	St. Cloud VA Health Care System
THE TREVIOUR DATE					ST. CLOUD, MN 56303 DWG. OF	



. ALL DEMOLISHED PIPING SHALL BE REMOVED BACK TO SOURCE AND TERMINATED IN A METHOD THAT LEAVES NO DEAD ENDS.

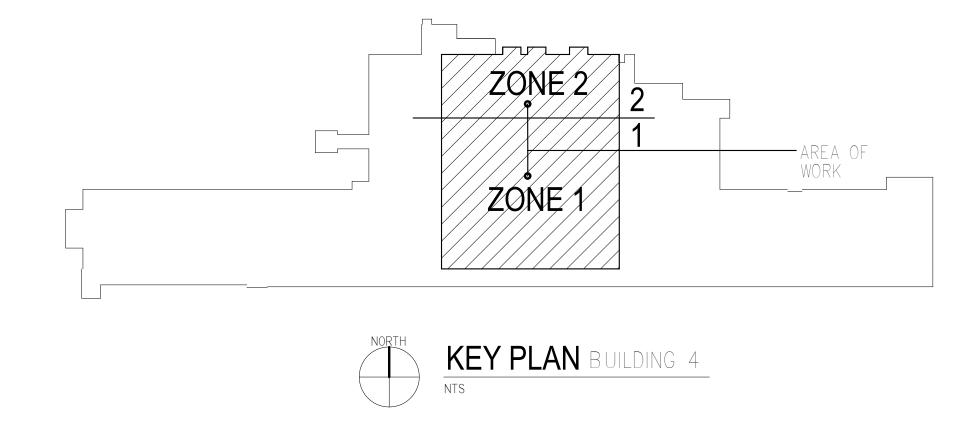
KEYNOTES: #

1. 4" SAN UP TO FD 2. 2" V UP 3. 6" ST UP 4. 4" SAN UP TO FCO 5. 4" SAN UP

CONNECT NEW WASTE PIPING TO EXISTING
GREASE TRAP INLET AND OUTLET PIPING.
VERIFY AND MAINTAIN EXISTING PIPE SIZE AND LOCATIONS.

PLUMBING - PLAN - BASEMENT UNDERFLOOR

1/8" = 1'-0"



### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

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ARCHITECT/ENGINEER OF RECORD BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www. bancroft-ae.com BAE PROJECT NO. 18-116 DATE: APPROVED: SERVICE LINE DIRECTOR

PROJECT TITLE
PLUMBING - PLAN - BASEMENT
UNDERFLOOR

PROJECT TITLE
CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

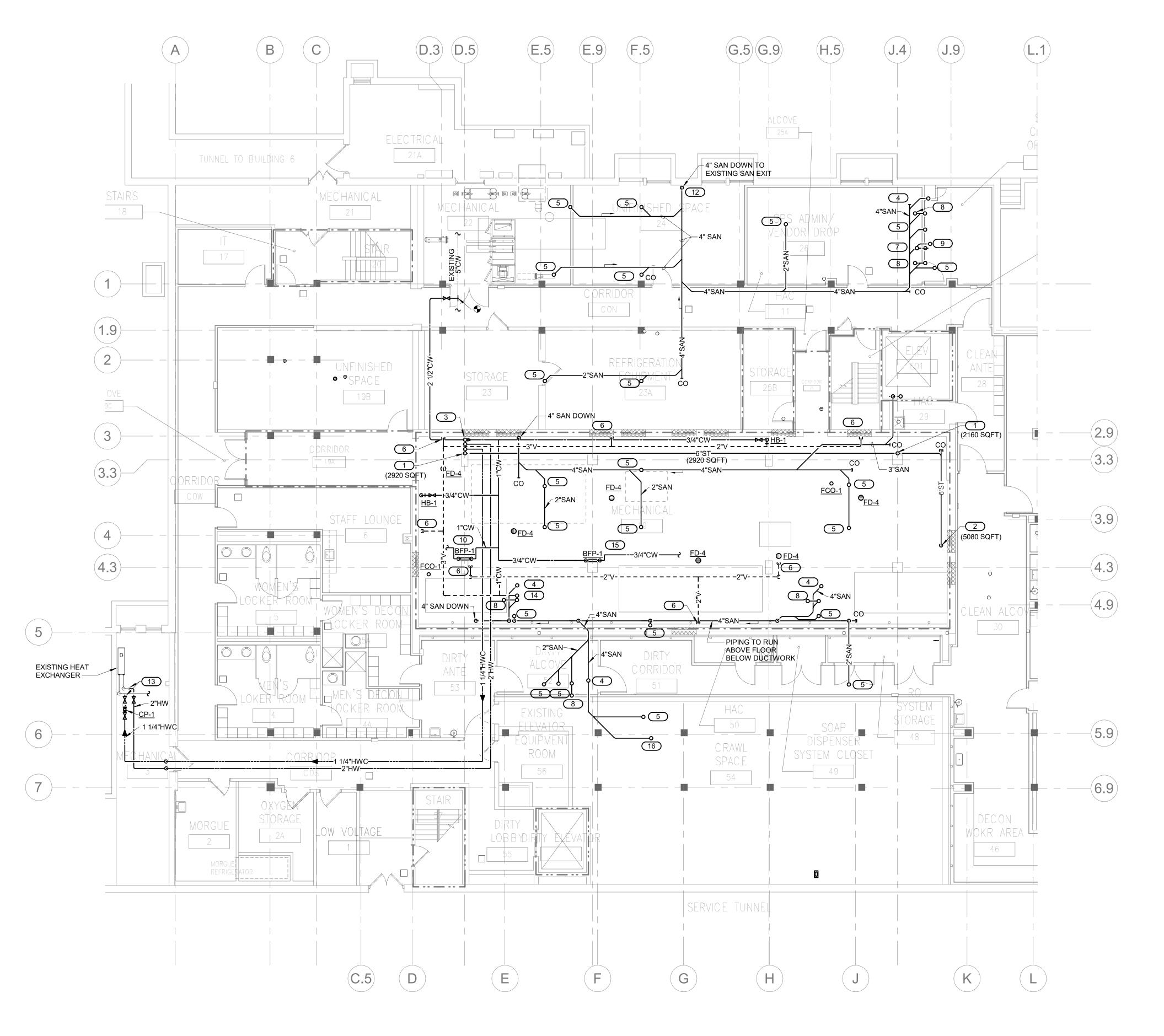
DATE:
10/28/2022
PLOT SCALE APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR DATE: BUILDING No CHECKED BY DRAWN DRAWING NO.

NKJ TGE PU100

DATE: LOCATION ST. CLOUD VAHCS ST. CLOUD, MN 56303 DWG. OF



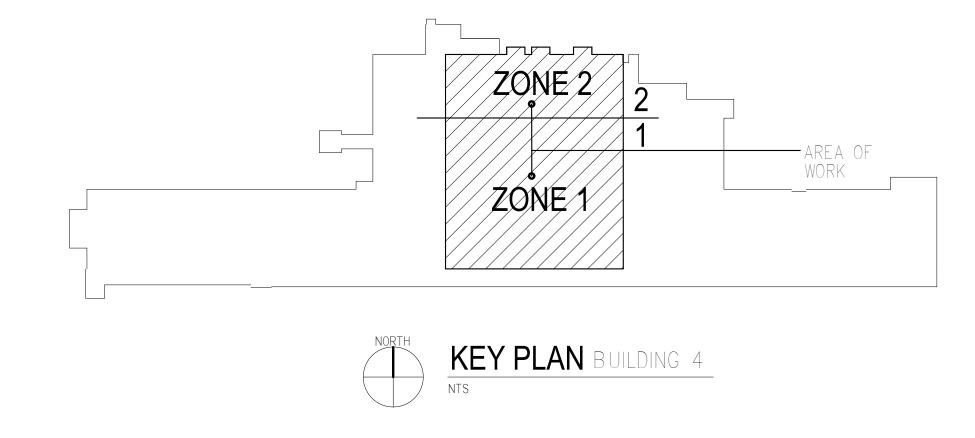
Administration

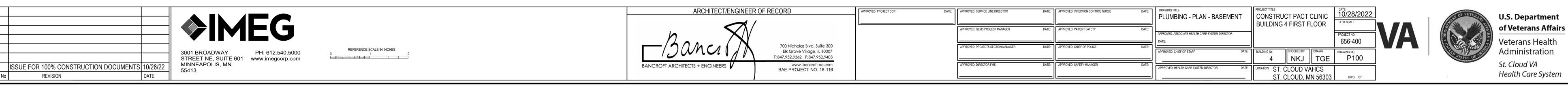


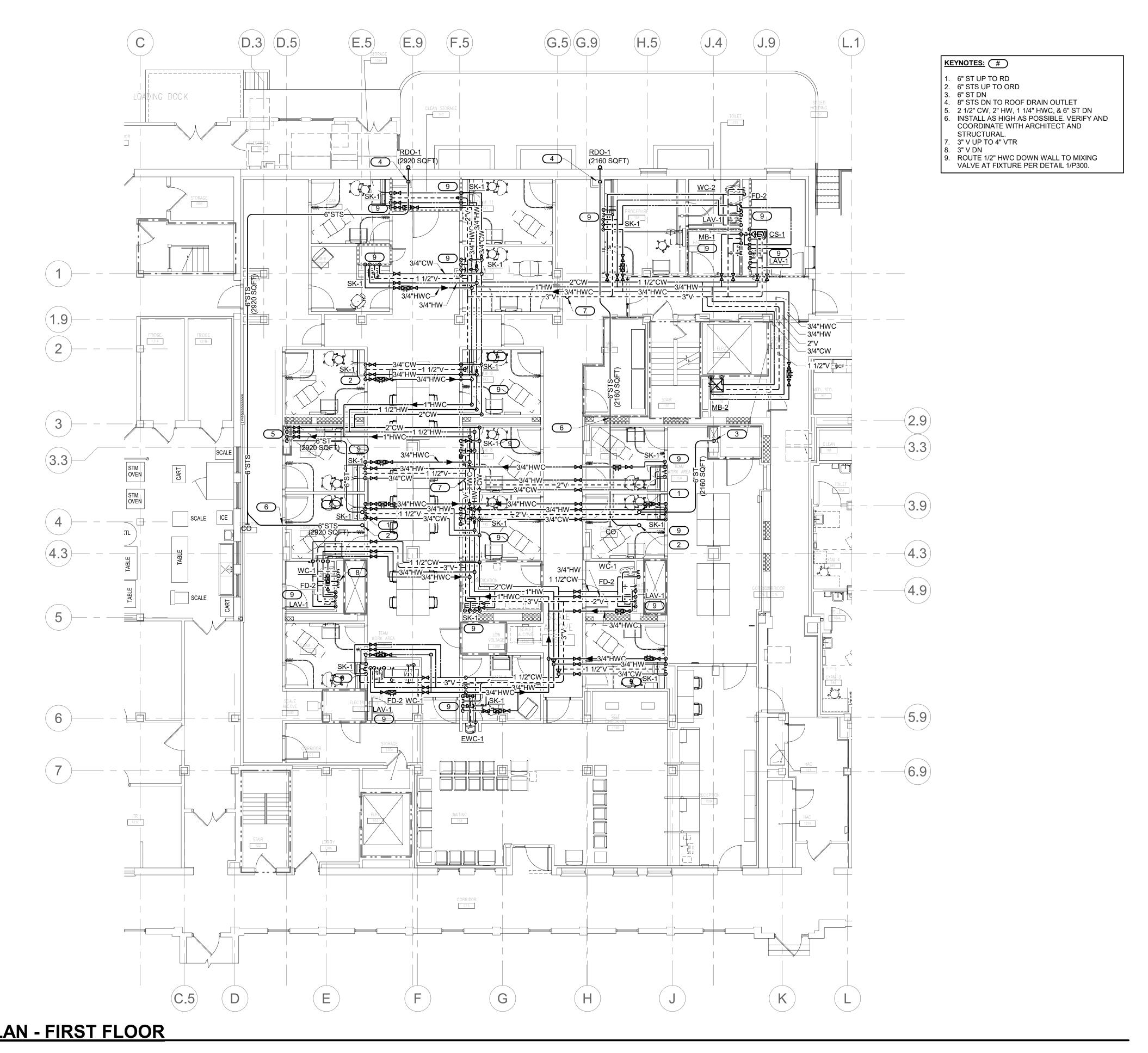
KEYNOTES: # . 6" ST UP . 6" ST DN 3. 2 1/2" CW, 2" HW, 1 1/4" HWC, & 6" ST UP 4. 4" SAN UP TO WC 5. 2" SAN UP TO SINK OR LAV6. 2" V DN TO FD 7. 3" W UP TO MB 8. 2" SAN UP TO FD 9. 4" SAN UP TO CS 10. 1" CW TO HEATING WATER FILL WITH RPZ BACKFLOW PREVENTER. REFER TO 3/P300 DETAIL. 11. 2" V UP 12. 4" SAN DN AND CONNECT TO EXISTING. 3. ROUTE NEW 2 1/2" HW AND 1" HWC INTO EXISTING MECHANICAL ROOM. CONNECT NEW PIPING TO EXISTING CAPPED HW & HWC AT EXISTING HEAT EXCHANGER. PROVIDE NEW RECIRCULATING PUMP (CP-1), PIPING, VALVES, CONTROLS AND VALVES, REFER TO 4/P300 FOR DETAIL. VERIFY EXACT LOCATION FOR EQUIPMENT AND PIPING CONNECTIONS PRIOR TO INSTALLATION. 15. 3/4" CW TO CONDENSATE COOLER WITH RPZ BACKFLOW PREVENTER. REFER TO 3/P300 DETAIL. 16. 2" SAN UP TO EWC

1 PLUMBING - PLAN - BASEMENT

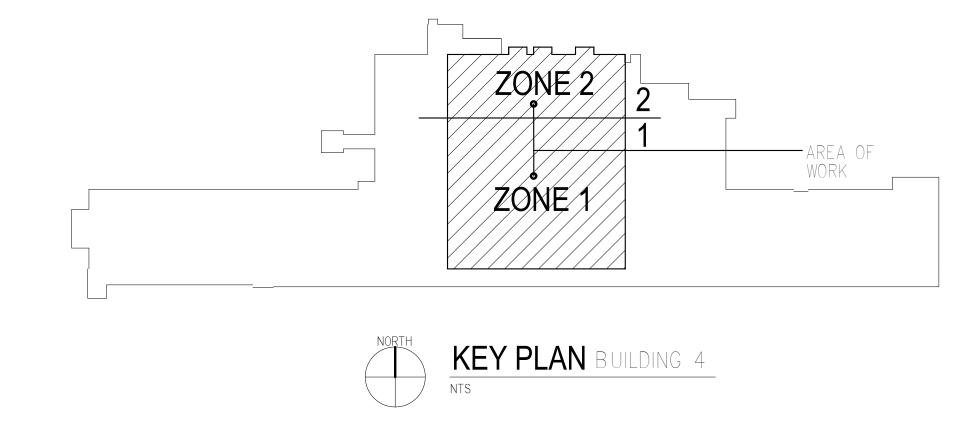
1/8" = 1'-0"



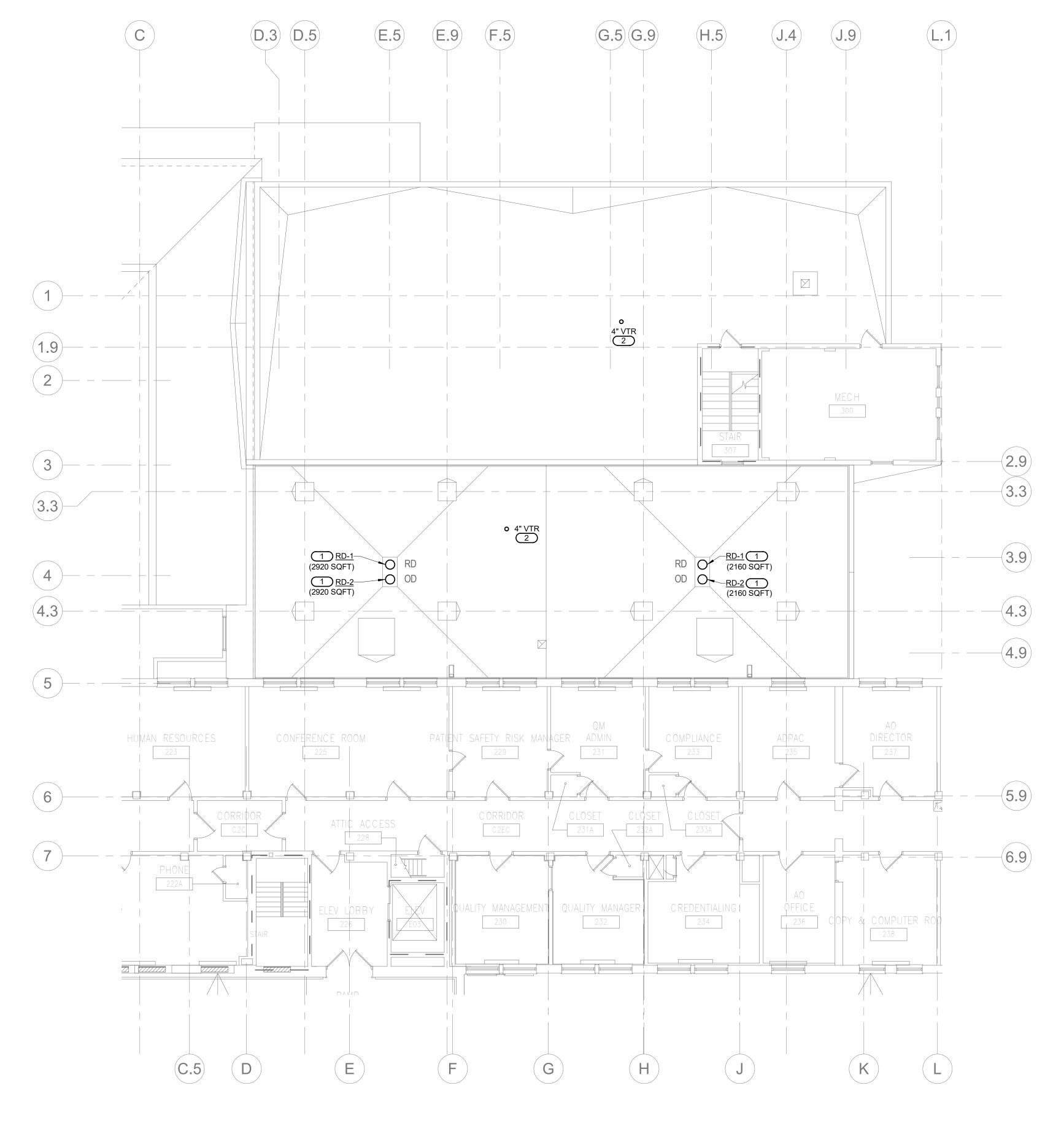








BANCROFT ARCHITECTS + ENGINEERS APPROVED: DATE: UNINDERPOSED SAFETY MANAGER BAE PROJECT NO. 18-116  BANCROFT ARCHITECTS + ENGINEERS APPROVED: SAFETY MANAGER BAE PROJECT NO. 18-116  BANCROFT ARCHITECTS + ENGINEERS APPROVED: SAFETY MANAGER BAE PROJECT NO. 18-116  BANCROFT ARCHITECTS + ENGINEERS APPROVED: SAFETY MANAGER BAE PROJECT NO. 18-116  BANCROFT ARCHITECTS + ENGINEERS APPROVED: SAFETY MANAGER BAE PROJECT NO. 18-116  St. Cloud VA    Approved: Health care system director   Location   ST. CLOUD   VAHCS
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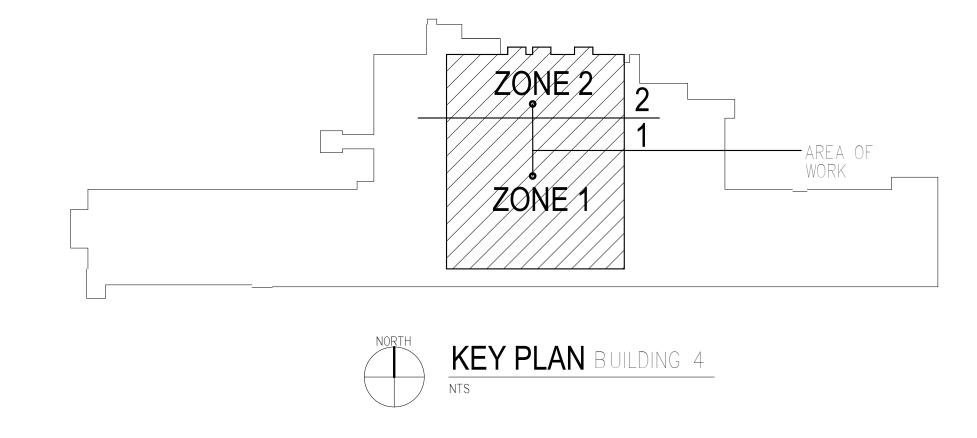
KEYNOTES: #

1. PROVIDE PRIMARY AND SECONDARY ROOF DRAINS. REFER TO DETAIL 6/P300 AND COORDINATE WITH ARCHITECTURAL.

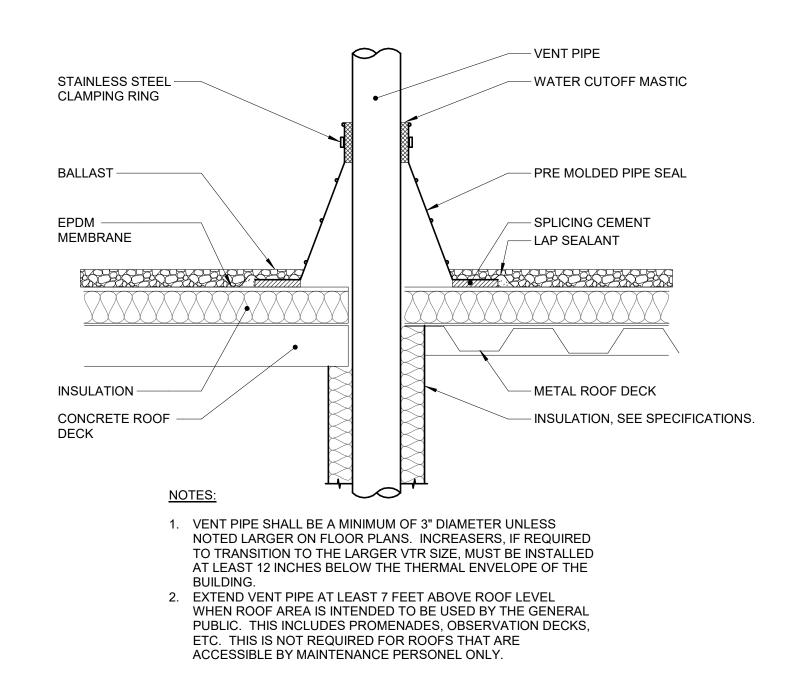
2. PROVIDE VENT THROUGH ROOF. REFER DETAIL 7/P300. COORDINATE WITH ARCHITECTURAL.

PLUMBING - PLAN - LOWER ROOF

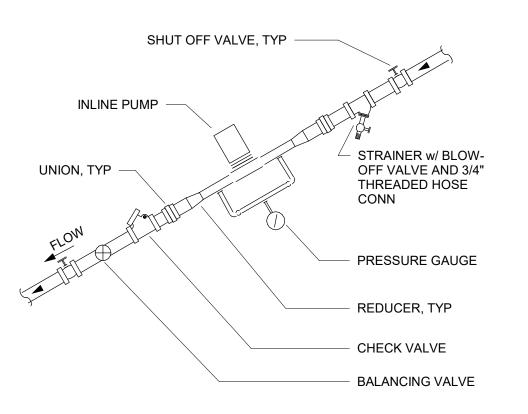
1/8" = 1'-0"



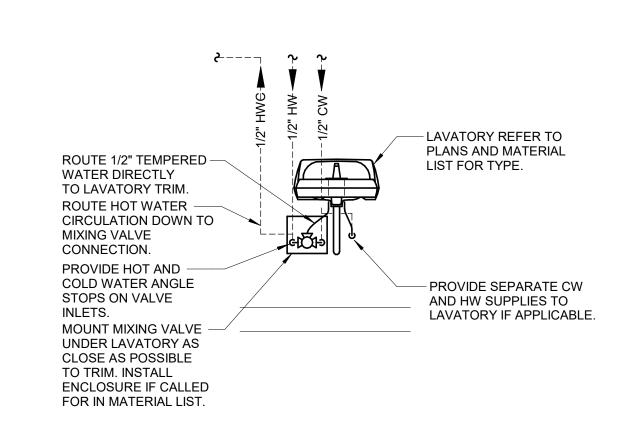
	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR	DATE: APPROVED: SERVICE LINE DIRECTOR	DATE: APPROVED: INFECTION CONTROL NURSE	DRAWING TITLE PLUMBING - PLAN - LOWER ROO	PROJECT TITLE CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR PLOT SCALE PLOT SCALE	SENT OF VETERANG	U.S. Department
	700 Nicholas Blvd. Suite 300		APPROVED: GEMS PROJECT MANAGER	DATE: APPROVED: PATIENT SAFETY	DATE:  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR  DATE:	PROJECT NO. 656-400		of Veterans Affairs Veterans Health
3001 BROADWAY PH: 612.540.5000 STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN  3001 BROADWAY PH: 612.540.5000    STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN	Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403  Www. bancroft-ae.com		APPROVED: PROJECTS SECTION MANAGER  APPROVED: DIRECTOR FMS	DATE: APPROVED: CHIEF OF POLICE  DATE: APPROVED: SAFETY MANAGER	DATE:  APPROVED: CHIEF OF STAFF  DATE:  APPROVED: HEALTH CARE SYSTEM DIRECTOR  DATE:  DATE:	TE: BUILDING No CHECKED BY DRAWN DRAWING NO.  NKJ TGE P102	STATES OF BUILD	Administration St. Cloud VA
No         REVISION         DATE	BAE PROJECT NO. 18-116				- Introves Historia and Order Street	ST. CLOUD, MN 56303 DWG. OF	e e	Health Care System



**VENT PIPE FLASHING** 



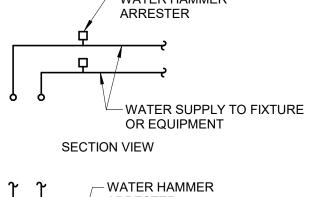
TRAPEZE OR STRUCTURA



## LAVATORY MIXING VALVE DETAIL

PROVIDE WATER HAMMER ARRESTER (WHA-#) AT PLUMBING FIXTURES AND QUICK CLOSING VALVES AS INDICATED ON DRAWINGS AND AS RECOMMENDED BY STANDARD PDI-WH201. REFER TO PLUMBING MATERIAL LIST FOR WATER HAMMER ARRESTER DESCRIPTION.



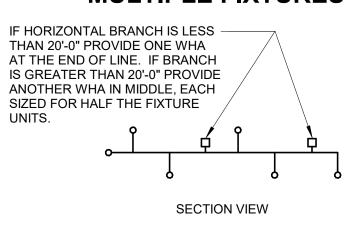


ON EQUIPMENT
SECTION VIEW
WATER HAMMER ARRESTER  O  PLAN VIEW
DDI SIZE DIDE SIZE FIXTU

PLAN VIEW				
PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD		
Α	1/2"	1-11		
В	3/4"	12-32		
С	1"	33-60		
D	1-1/4"	61-113		
E	1-1/2"	114-154		
F	2"	155-330		

INSTALL WHA'S PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE WHA AS SHOWN PER THE TABLES ABOVE. PROVIDE ACCESSIBILITY TO WHA WITH ACCESS PANEL OR INSTALL ABOVE ACCESSIBLE CEILING.

### **MULTIPLE FIXTURES**



SECTION VIEW	
PLAN VIEW	

FIXTURE UNI	T CALCULATIO	ON
FIXTURE	COLD	НОТ
WATER CLOSET (F.V.)	10	
WATER CLOSET (TANK)	5	
URINAL	5	
LAVATORY	1.5	1.5
JANITOR'S SINK	3	3
SHOWER/BATHTUB	2	3
DRINKING FOUNTAIN	2	-
KITCHEN SINK	2	2
ICE MAKER / BEVERAGE	1	-

# 5 INSULATED PIPE HANGER & SUPPORT

SEE DRAWINGS &

REFERENCE DETAIL:

WATER

ALL PIPING

— PIPE INSERT

AND PIPE

PIPE SUPPORT

PIPE SIZES 12" & LARGER HANGER **BOLT SPACER** SLEEVE SCH 40 STEEL PIPE -

PIPE INSERT AND PIPE SHIELD AT PIPE SUPPORT -

SHIELD AT

SPECIFICATIONS FOR EXACT

MOUNTING TYPE & SPACING ON

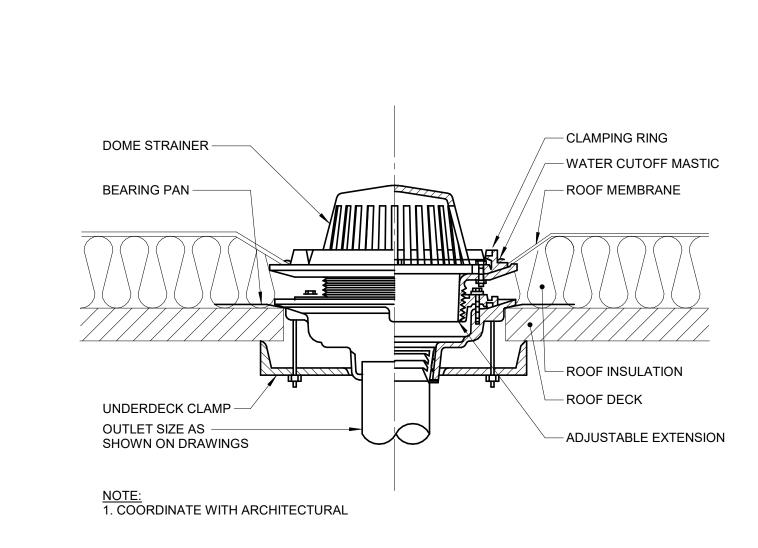
FOLLOWING PIPING 1 1/2" AND

1. DOMESTIC COLD AND HOT

CLEVIS

HANGER

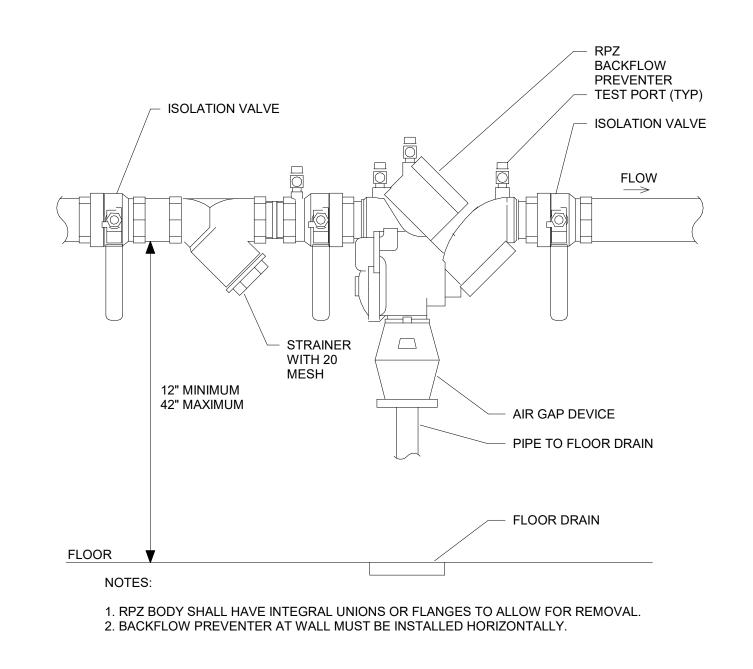
2. RAIN WATER LEADERS



6 ROOF DRAIN DETAIL

12" = 1'-0"

# WATER HAMMER ARRESTER LOCATION DETAIL NO SCALE

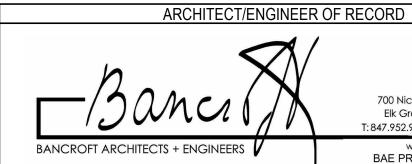


# RPZ BACKFLOW PREVENTER DETAIL NO SCALE .

### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

				EG
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	3001 BROADWAY STREET NE, SUITE 601 MINNEAPOLIS, MN	PH: 612.540.5000 www.imegcorp.com
No	REVISION	DATE	55413	

REFERENCE SCALE IN INCHES 



700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116

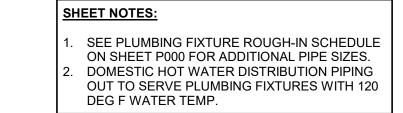
PLUMBING - DETAILS CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

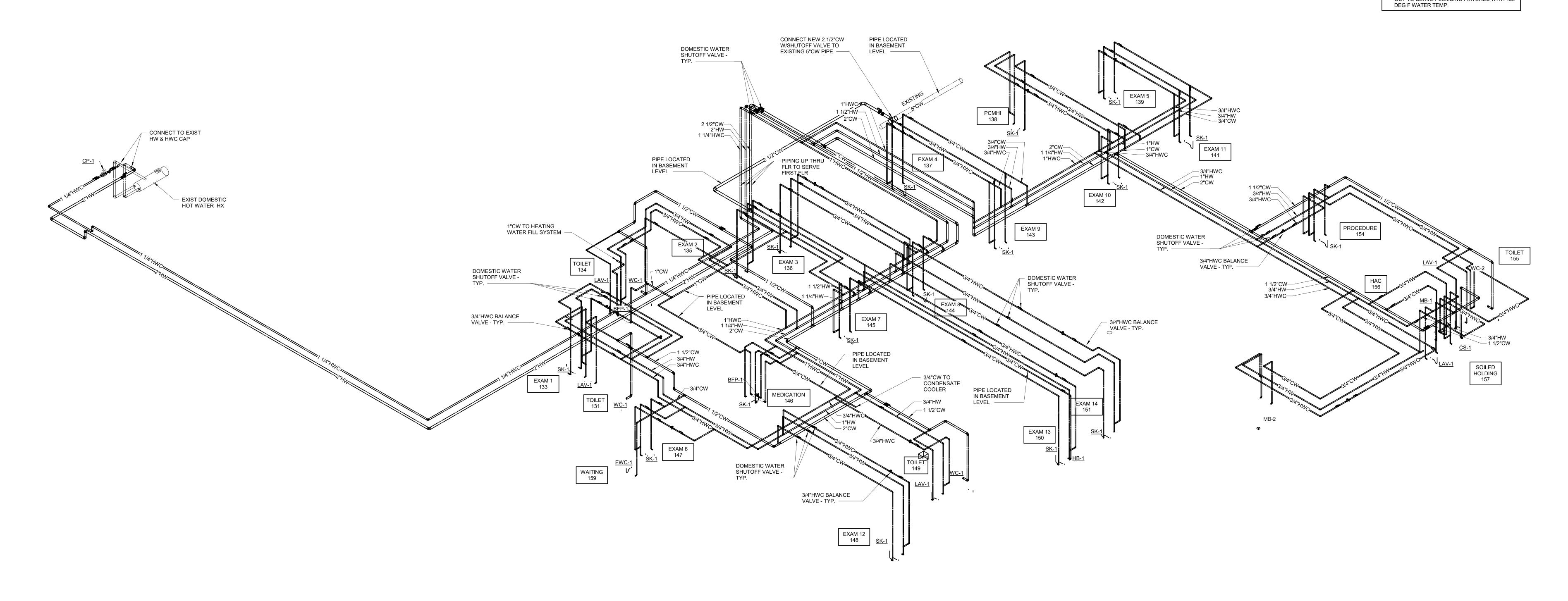
DATE:
10/28/2022

PLOT SCALE BUILDING No CHECKED BY DRAWN DRAWING NO. P300 ST. CLOUD, MN 56303









1 WATER RISER DIAGRAM
NO SCALE

### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

<b> </b>				
			3001 BROADWAY	PH: 612.540.50
			STREET NE, SUITE 601	www.imegcorp.co
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MINNEAPOLIS, MN 55413	
No	REVISION	DATE		

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ARCHITECT/ENGINEER OF RECORD

700 Nich
Elk Gro
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BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www. bancroff-ae.com BAE PROJECT NO. 18-116 DATE:

APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: PATIENT SAFETY

DATE:

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DATE:

DATE:

PLUMBING - WATER RISER
DIAGRAM

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

APPROVED: CHIEF OF STAFF

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

APPROVED: CHIEF OF STAFF

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

PROJECT NO.
656-400

PROJECT NO.
656-400

PROJECT NO.
656-400

PROJECT NO.
656-400

PAWN
NKJ
TGE
P400

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR

DATE:

ST. CLOUD VAHCS
ST. CLOUD, MN 56303

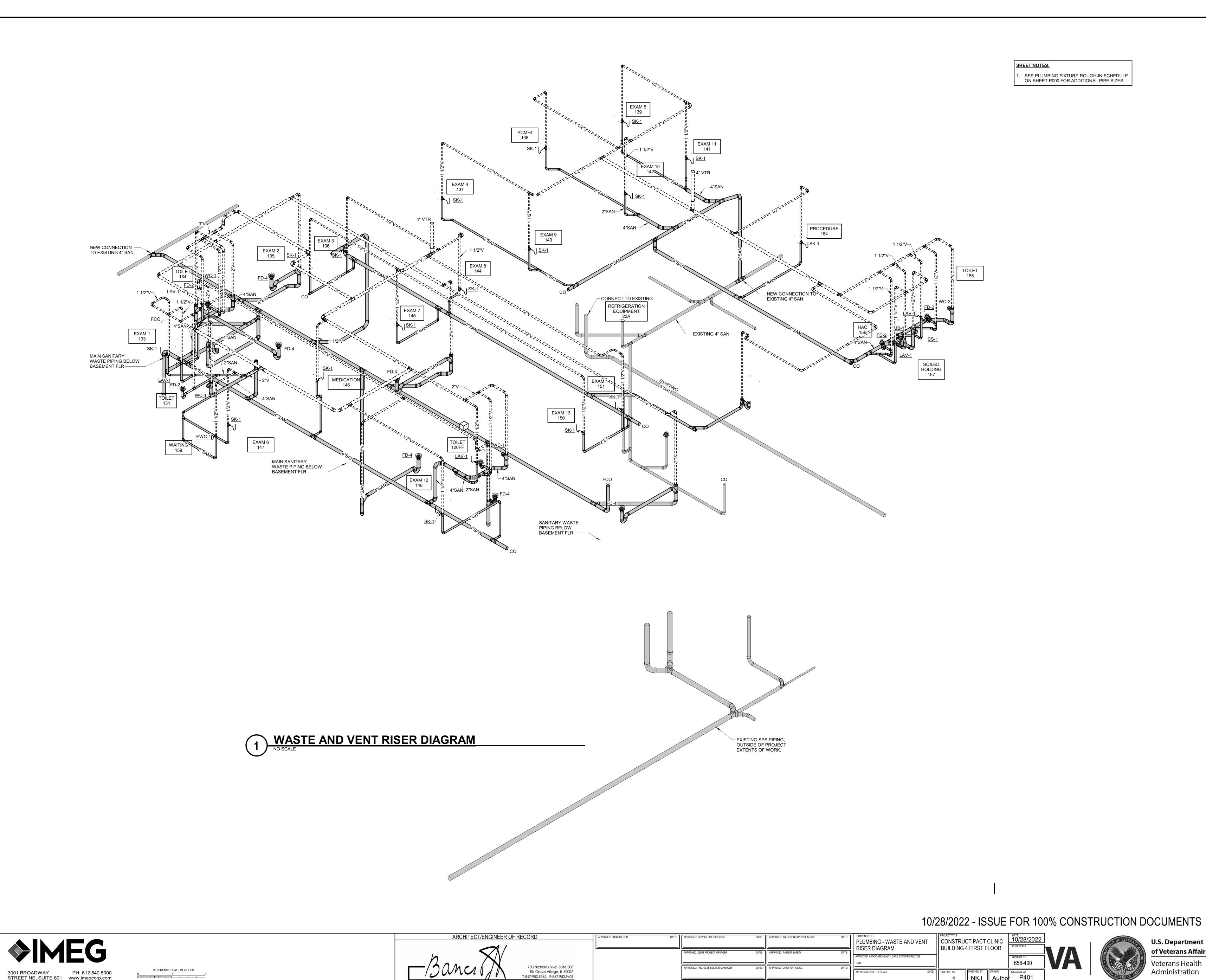
DWG. OF



U.S. Department
of Veterans Affairs

Veterans Health
Administration

St. Cloud VA
Health Care System



www.bancroft-ae.com BAE PROJECT NO. 18-116

REFERENCE SCALE IN INCHES

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3001 BROADWAY PH: 612.540.5000 STREET NE, SUITE 601 www.imegcorp.com

MINNEAPOLIS, MN 55413

DATE

ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22

REVISION

TE: BUILDING No CHECKED BY DRAWN DRAWING NO.

4 NKJ Author P401

DATE: LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303 DWG. OF

**U.S. Department** of Veterans Affairs Veterans Health Administration St. Cloud VA Health Care System

**PLUMBING MATERIAL LIST** DESCRIPTION BFP-1 BACK FLOW PREVENTER - REDUCED PRESSURE ZONE, LEAD FREE BRONZE CONSTRUCTION. SIZE SAME AS PIPE. NON-CORROSIVE INTERNAL PARTS. STAINLESS STEEL SPRINGS, DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN SPRING-LOADED CHECK VALVES. BALL STYLE SHUT-OFF VALVES ON INLET AND OUTLET OF UNIT, AIR GAP DRAIN FITTING, TEST PORTS WITH SHUT-OFF VALVES. RATED FOR 175 PSI AT 33°F TO 140°F, 15 PSI (MAXIMUM) PRESSURE DROP AT 10 FPS, FACTORY TESTED, ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LINE, APPROVED BY USC FCCC & HR, AWWA C511-92, ASSE 1013, IAPMO AND SBCCI LISTED. MOUNT WITHIN 60" OF FINISHED FLOOR. ROUTE DRAIN PIPE FROM AIR GAP FITTING TO FLOOR DRAIN. PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM OF EACH UNIT AND ADDITIONAL VALVE UPSTREAM OF EACH STRAINER. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED. CP-1 CIRCULATING PUMP - VARIABLE SPEED CONTROLLER WITH SETTINGS TO ADJUST AND MAINTAIN A CONSTANT: SPEED, FIXED PRESSURE, OR PROPORTIONAL PRESSURE. LEAD FREE BRONZE OR STAINLESS STEEL CONSTRUCTION, PERMANENTLY LUBRICATED SEALED BEARINGS, MECHANICAL SEAL, OIL LUBRICATED, ECM MOTOR WITH INTEGRATED VARIABLE SPEED CONTROL, FLANGED CONNECTIONS, RATED FOR 125 PSIG AT 225°F, UL LISTED. 8 GPM @ 10 FEET OF HEAD. MOTOR SHALL BE 0.65 AMPS. ELECTRICAL REQUIREMENTS - 120V, 1 PHASE HARD-WIRE CS-1 CLINICAL SINK - WALL MOUNTED, WHITE VITREOUS CHINA, BLOWOUT ACTION FLUSHING RIM, 1-1/2" TOP SPUD, STAINLESS STEEL RIM GUARDS. FLUSH VALVE - EXPOSED, BRASS CONSTRUCTION, CHROME-PLATED FINISH, 1' I.P.S., SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, WALL AND SPUD FLANGES, 6.5 GPF. BEDPAN WASHER - WALL MOUNTED, BRASS CONSTRUCTION, SELF-CLOSING DOUBLE FOOT CONTROL MIXING VALVE WITH INTEGRAL STOPS, OUTLET TO WALL WITH VOLUME CONTROL. HOSE WITH INSULATED HANDLE. ANGLE SPRAY NOZZLE, ELEVATED CHROME-PLATED VACUUM BREAKER. EXPOSED PIPING, FITTINGS, AND FLANGES SHALL BE CHROME-PLATED. SINK FAUCET - WALL MOUNTED. BRASS CONSTRUCTION, CHROME-PLATED | FINISH, ADJUSTABLE INLETS, 8" SPOUT WITH INTEGRAL 3/4" HOSE THREADED OUTLET AND VACUUM BREAKER, CHECK STOPS, QUARTER-TURN 6" WRIST BLADE HANDLES, PAIL HOOK, FORKED WALL BRACE. ACCESSORIES - SUPPORT CARRIER RATED FOR 350 LBS. MOUNT CLINICAL SINK WITH CARRIER MOUNTED SECURELY TO FLOOR. TOP OF RIM SHALL BE AT 20" TO 30" ABOVE FINISHED FLOOR (VERIFY EXACT MOUNTING HEIGHT WITH OWNER). EWC-1 ELECTRIC WATER COOLER - WALL HUNG, 18 GAUGE STAINLESS STEEL CABINET AND NON-SPLASH BASIN WITH STAINLESS STEEL FINISH. STREAM PROJECTOR WITH PROTECTIVE HOOD, PUSH BAR OR LEVER OPERATING CONTROLS ON FRONT AND SIDES. BUILT-IN FLOW REGULATOR. PLASTIC P-TRAP ASSEMBLY. ADJUSTABLE THERMOSTAT, MOUNTING ACCESSORIES, TANK DRAIN AND ANGLE STOPS, HERMETIC COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT. COMPLIANT TO LATEST ANSI A117.1 AND ADA STANDARDS. UNIT SHALL COMPLY WITH FEDERAL ACT S.3874. BOTTLE FILLING STATION - UNIT MOUNTED, STAINLESS STEEL CONSTRUCTION AND FINISH, INTEGRAL DRAIN, SENSOR OPERATED WITH AUTOMATIC SHUTOFF, REPLACEABLE LEAD-CHLORINE-TASTE-ODOR WATER FILTER, BOTTLE COUNTER, FILTER REPLACEMENT INDICATOR. UNIT SHALL PROVIDE 8.0 GPH OF WATER FROM 80°F TO 50°F AT 90°F AMBIENT. WATER SYSTEM SHALL BE OF LEAD FREE CONSTRUCTION. TANK SHALL BE TESTED TO 125 PSIG. ORIFICE SHALL BE AT 36" (MAXIMUM) ABOVE FINISHED FLOOR. BOTTOM OF APRON SHALL BE AT 27" ABOVE FINISHED FLOOR IN COMPLIANCE WITH LATEST ADA STANDARDS. ELECTRICAL REQUIREMENTS - 1/5 HP MOTOR, 120V-1 PHASE, CORD AND PLUG, PLAIN RECEPTACLE MOUNTED WITHIN EWC LOWER ENCLOSURE, GFCI FCO-1 FLOOR CLEANOUT - ADJUSTABLE, CAST IRON HOUSING, ANCHOR FLANGE, TAPERED THREAD PLUG, SECURED NICKEL BRONZE TOP. TOP STYLE SHALL MATCH FLOOR FINISH AS FOLLOWS: UNFINISHED FLOOR - ROUND SOLID SCORIATED TOP TILE OR TERRAZZO - ROUND RECESSED TOP CARPET - ROUND TOP WITH CARPET FLANGE. FD-2 FLOOR DRAIN - CAST IRON BODY, NICKEL BRONZE ADJUSTABLE TOP, 6" ROUND 2" BOTTOM OUTLET, FLASHING COLLAR, DEEP SEAL TRAP FD-4 FLOOR DRAIN - CAST IRON BODY, HEAVY DUTY CAST IRON GRATE, 12" SQUARE, 4" BOTTOM OUTLET, DEEP SUMP, SUSPENDED PERFORATED SEDIMENT BUCKET, FLASHING COLLAR, DEEP SEAL TRAP.

## PLUMBING MATERIAL LIST 1019 OR 1052 LISTED AND APPROVED.

HB-1 HOSE BIBB - FOR INDOOR USE, BRASS VALVE BODY AND SEAT, STANDARD FINISH, NON-FERROUS METAL STEM, AUTOMATIC DRAINING, VACUUM BREAKER, 3/4" MALE HOSE THREAD, KEY OPERATED, 360 DEGREE SWIVEL INLET, ASSE

VERIFY NUMBER OF KEY OPERATORS TO BE PROVIDED WITH OWNER. MOUNT AT ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE ON DRAWINGS. LAV-1 LAVATORY - ACCESSIBLE WALL MOUNTED, WHITE VITREOUS CHINA, 20"x18", 4" HIGH CONTOURED BACKSPLASH, SINGLE FAUCET HOLE, DRILLED FOR CONCEALED ARM CARRIER.

> BRASS CONSTRUCTION, CHROME-PLATED FINISH, SPOUT WITH LAMINAR FLOW OUTLET, 4" CENTERSET INSTALLATION, PERFORATED GRID STRAINER WITH 1-1/4" 17 GAUGE TAILPIECE, SOLID BRASS SOLENOID WITH BUILT-IN FILTER. SOLID BRASS THERMOSTATIC MIXING VALVE MEETING ASSE 1070 REQUIREMENTS WITH ADJUSTABLE TEMPERATURE LIMIT STOP AND INTEGRAL CHECK VALVES, WATERPROOF CONNECTORS AND CABLE.

LAVATORY TRIM - SENSOR ACTIVATED MIXING FAUCET, BATTERY POWERED.

MOUNT CONTROLS AND BATTERIES IN WATERPROOF VANDAL-RESISTANT ENCLOSURE BELOW LAVATORY.

MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 2005 AND ASME/ANSI STANDARD A112.18.1M. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.

INSULATION KIT - PRE-MANUFACTURED FOR P-TRAP, STOP VALVES AND SUPPLY

ACCESSORIES - QUARTER-TURN 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY STOPS, CHROME PLATED SOFT COPPER SUPPLY LINES, DRAIN AND TAILPIECE, 1-1/4" 17 GAUGE CAST BRASS P-TRAP, SUPPORT CARRIER.

MB-1 MOP BASIN - NEO-ANGLE CORNER STYLE, PRECAST TERRAZZO, 24"x24"x12", 6" DEEP FRONT. STAINLESS STEEL INTEGRAL DRAIN WITH REMOVABLE STRAINER, 3" OUTLET, STAINLESS STEEL THRESHOLD.

TRIM - EXPOSED TWO HANDLE MIXING FAUCET, BRASS CONSTRUCTION, CHROME-PLATED FINISH, SINGLE WING HANDLES, 1/4 TURN CERAMIC DISC CARTRIDGE, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, CHECK STOPS OR INLINE CHECK VALVES TO PREVENT THERMAL CROSSOVER. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. ACCESSORIES - MOP HANGER, HOSE AND HOSE BRACKET, DEEP SEAL TRAP

MB-2 MOP BASIN - NEO-ANGLE CORNER STYLE, PRECAST TERRAZZO, 24"x24"x12". 6" DEEP FRONT, STAINLESS STEEL INTEGRAL DRAIN WITH REMOVABLE STRAINER, 3" OUTLET, STAINLESS STEEL THRESHOLD. TRIM - EXPOSED TWO HANDLE MIXING FAUCET, BRASS CONSTRUCTION,

CHROME-PLATED FINISH, SINGLE WING HANDLES, 1/4 TURN CERAMIC DISC CARTRIDGE, 3/4" HOSE THREAD SPOUT WITH INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, CHECK STOPS OR INLINE CHECK VALVES TO PREVENT THERMAL CROSSOVER. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. ACCESSORIES - MOP HANGER, HOSE AND HOSE BRACKET, DEEP SEAL TRAP

RD-1 ROOF DRAIN - CAST IRON BODY, SECURED CAST IRON DOME, 15" ROUND. BOTTOM OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN. ADJUSTABLE EXTENSION TO MATCH INSULATION THICKNESS,

OUTLET SIZE AS LISTED ON DRAWINGS. RD-2 ROOF DRAIN - CAST IRON BODY, SECURED CAST IRON DOME, 15" ROUND. BOTTOM OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP,

BEARING PAN, ADJUSTABLE EXTENSION TO MATCH INSULATION THICKNESS, 4" TALL INTERNAL STANDPIPE, OUTLET SIZE AS LISTED ON DRAWINGS. RDO-1 ROOF DRAIN OUTLET - LAMBS TONGUE DOWNSPOUT NOZZLE, BRONZE BODY, INTEGRAL ANCHORING FLANGE. OUTLET SIZE AS LISTED ON DRAWINGS. SK-1 SINK - ACCESSIBLE SELF-RIMMING SINGLE COMPARTMENT WITH FAUCET DECK,

18 GAUGE TYPE 304 STAINLESS STEEL, (SIDE-TO-SIDE) x (FRONT-TO-BACK) OVERALL SIZE, DEEP BOWL, COMPLETELY UNDERCOATED, 3-1/2" DIAMETER DRAIN OUTLET LOCATION CENTERED SINK TRIM - SENSOR ACTIVATED MIXING FAUCET, BATTERY POWERED, BRASS

CONSTRUCTION, CHROME-PLATED FINISH, DECK MOUNTED, RIGID GOOSENECK SPOUT WITH NOMINAL 6" REACH AND LAMINAR FLOW SPOUT. SOLID BRASS SOLENOID WITH BUILT-IN FILTER, SOLID BRASS THERMOSTATIC MIXING VALVE MEETING ASSE 1070 REQUIREMENTS WITH ADJUSTABLE TEMPERATURE LIMIT STOP AND INTEGRAL CHECK VALVES, WATERPROOF CONNECTORS AND CABLE

MOUNT CONTROLS AND BATTERIES IN WATERPROOF VANDAL-RESISTANT ENCLOSURE BELOW SINK OR ABOVE DECK IN FAUCET BASE

ACCESSORIES - 1-1/2" 17 GAUGE CHROME-PLATED BRASS TAILPIECE AND P-TRAP, QUARTER-TURN BALL VALVE TYPE 3/8" CHROME-PLATED BRASS ANGLE SUPPLIES WITH STOPS, CHROME-PLATED SOFT COPPER SUPPLY LINES. INSULATION KIT - PRE-MANUFACTURED FOR P-TRAP, STOP VALVES, AND SUPPLY

WC-1 WATER CLOSET - ACCESSIBLE, WALL MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2" TOP

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, 1.28 GALLONS PER FLUSH, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, SPUD COUPLING AND FLANGE, WALL FLANGE WITH SET SCREW, MECHANICAL OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW, 3 YEAR

SEAT - WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED SOLID PLASTIC. SELF-SUSTAINING HINGE, STAINLESS STEEL OR PLATED STEEL POSTS AND

CONTRACTOR OPTION: COMBINATION WATER CLOSET/FLUSH VALVE PACKAGED SYSTEM BY AMERICAN STANDARD, KOHLER, SLOAN, OR ZURN

ACCESSORIES - WATER CLOSET SUPPORT CARRIER RATED FOR 500 LBS. MOUNT WATER CLOSET WITH CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT SHALL BE AT 17"-19" ABOVE FINISHED FLOOR (VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER). VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

WC-2 WATER CLOSET - BARIATRIC, ACCESSIBLE, WALL MOUNTED, FLUSH VALVE TYPE WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2' TOP SPUD., BEDPAN LUGS

FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, 1.28 GALLONS PER FLUSH, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, SPUD COUPLING AND FLANGE. WALL FLANGE WITH SET SCREW. MECHANICAL OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW, 3 YEAR

SEAT - WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED SOLID PLASTIC. SELF-SUSTAINING HINGE, STAINLESS STEEL OR PLATED STEEL POSTS AND

CONTRACTOR OPTION: COMBINATION WATER CLOSET/FLUSH VALVE PACKAGED SYSTEM BY AMERICAN STANDARD, KOHLER, SLOAN, OR ZURN

ACCESSORIES - WATER CLOSET SUPPORT CARRIER RATED FOR 1000 LBS. MOUNT WATER CLOSET WITH CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT SHALL BE AT 17"-19" ABOVE FINISHED FLOOR (VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER). VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.

WHA-1 WATER HAMMER ARRESTER – PISTON TYPE, PRE-CHARGED WITH 60 PSIG AIR. LEAD FREE, COPPER BODY, BRASS OR HIGH HEAT POLY-PROPYLENE PISTON WITH DUAL EPDM O-RING SEALS LUBRICATED WITH FDA APPROVED SILICONE LUBRICANT. PDI CERTIFIED, A.S.S.E. 1010 APPROVED FOR SEALED WALL INSTALLATION, RATED FOR 1-11 FIXTURE UNITS.

PLUMBING - SCHEDULES AND

MATERIAL LIST

INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

#### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

**GENERAL SHEET NOTES:** 

MAINTENANCE STAFF.

ALL FIXTURES, TRIM, AND EQUIPMENT SHALL

VA PLUMBING STANDARDS AND THE FACILITY

MATERIALS SHALL CONFORM TO REQUREMENTS OF THE

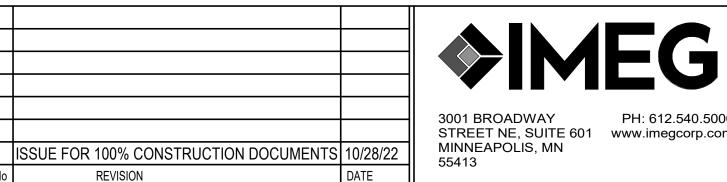
COORDINATE WITH STATION STANDARDS.

# CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR

NKJ

ST. CLOUD, MN 56303





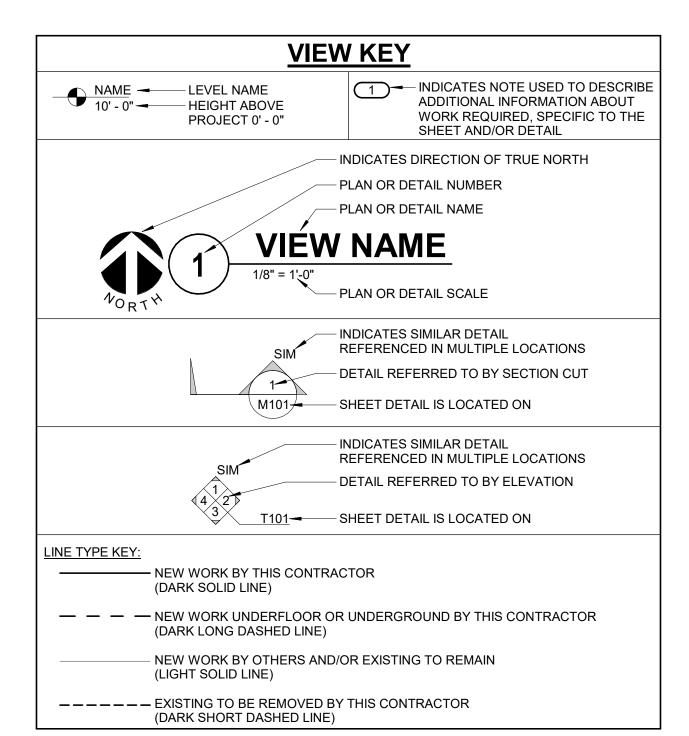






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ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.T.C.	AUTOMATIC TEMPERATURE CONTROL CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

٧.٥.	VENTILATION CONTRACTOR	
<u>FIF</u>	RE / SMOKE BARRIE	R DESIGNATIONS
SHALL VERIFY		E OF THE CONTRACTOR. THE CONTRACTOR CHITECTURAL PLANS AND FURNISH ALL INGS WHETHER SHOWN OR NOT.
[3], [4] HOUR FIF		SEMBLIES SHALL BE DESIGNATED AS [1], [2], ED OTHERWISE ON THE PLANS. RATINGS
SMOKE RESIS	TIVE HAZARDOUS ROOM ENCLOSURE	
1-HOUR FIRE/S	SMOKE BARRIER	
2-HOUR FIRE/S	SMOKE BARRIER	

DPP	DRAIN
——G——	NATURAL GAS
——GV——	GAS REGULATOR VENT
GWR	GLYCOL WATER RETURN
GWS	GLYCOL WATER SUPPLY
——НСК——	HEATING/CHILLED WATER RETURN
—HCS—	HEATING/CHILLED WATER SUPPLY
——HG——	REFRIGERANT HOT GAS
——HPC——	HIGH PRESSURE CONDENSATE
——HPS——	HIGH PRESSURE STEAM
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
——LCS——	LOW PRESSURE CLEAN STEAM
——LIQ——	REFRIGERANT LIQUID
——LPC——	LOW PRESSURE CONDENSATE
——LPS——	LOW PRESSURE STEAM
CD	CONDENSATE DRAIN
PD	PUMPED DISCHARGE
RWR	REHEAT WATER RETURN
RWS	REHEAT WATER SUPPLY
——SUC—	REFRIGERANT SUCTION
SV	SAFETY RELIEF VENT
——VAC——	LAB VACUUM
<del></del> 3	PIPE CAP
—— <del>—</del>	PIPE DOWN
——o	PIPE UP OR UP/DOWN
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
	NEW CONNECTION
—	DIELECTRIC CONNECTION
.1.	
<del></del>	UNION/FLANGE
<del></del>	SHUTOFF VALVE NORMALLY OPEN
<b>——</b>	SHUTOFF VALVE NORMALLY CLOSED
<b>──</b> ₩──	THROTTLING VALVE
	BALANCING VALVE (NUMBER INDICATES GPM)
<del></del>	AUTOMATIC BALANCING VALVE
<u></u>	MIXING VALVE
.e.	CONTROL VALVE (TURES WAY)
<b>──</b> �	CONTROL VALVE (THREE-WAY)
——————————————————————————————————————	CONTROL VALVE (TWO-WAY)
	SOLENOID VALVE
	CHECK VALVE
<b>⋡</b> つ	SAFETY/RELIEF VALVE
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	PRESSURE REPUBLICATIVE (LIQUID (0.40)
	PRESSURE REDUCING VALVE (LIQUID/GAS)
l—δ—	PRESSURE REDUCING VALVE (STEAM)
	TRIPLE DUTY VALVE (ANGLE TYPE)
무	, , , , , , , , , , , , , , , , , , ,
	TRIPLE DUTY VALVE (IN-LINE TYPE)
—(D)—	PUMP
<u> </u>	
<sub>l</sub> Y	VACUUM BREAKER
<del></del>	"WYE" - STRAINER
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	BASKET STRAINER
	FLEXIBLE CONNECTION
	PRESSURE/TEMPERATURE TEST PLUG
	REDUCER - REFERENCE SPECIFICATION
_	FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
<del></del>	SUCTION DIFFUSER WITH SUPPORT FOOT
<del>8</del>	AUTOMATIC AIR VENT
1	MANUAL AIR VENT
¥	310/32/31 (VEIVI
*	DRAIN VALVE WITH HOSE CONNECTION AND CAP
— <b>⋈</b> —Р	PRESSURE SENSOR (FURNISHED WITH BALL VALVE)
— <b>⋈</b> —(P)	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	, , , , , , , , , , , , , , , , , , ,
	DIFFERENTIAL PRESSURE SENSOR
SP	STATIC SWITCH
FM	
	FLOW METER
· Fl	
<del>- 4</del>	FLOW SWITCH
	FLOW SENSOR
FS}	
	STEAM TRAP (REFER TO SCHEDULE)
	EST STEAM TOAD (DEFEN TO SOLIED) !! E\
	F&T STEAM TRAP (REFER TO SCHEDULE)
D <sub>T.*</sub>	F&T STEAM TRAP (REFER TO SCHEDULE)  INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE)
D <sub>T-*</sub>	INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE)
D <sub>T-*</sub>	INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE) ALIGNMENT GUIDE
D <sub>T-*</sub> D <sub>T-*</sub>	INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE) ALIGNMENT GUIDE PIPE ANCHOR
	INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE) ALIGNMENT GUIDE

**MECHANICAL SYMBOL LIST** 

NOT ALL SYMBOLS MAY APPLY.

**SYMBOL:** DESCRIPTION:

BOILER BLOW DOWN

BOILER FEED WATER

——CR—— CONDENSER WATER RETURN

——CS—— CONDENSER WATER SUPPLY

—CWR— CHILLED WATER RETURN

——CWS—— CHILLED WATER SUPPLY

——DPP—— DRAIN

——CS15—— CLEAN STEAM - NUMBER INDICATES PRESSURE IN PSIG.

——CA—— COMPRESSED AIR

	NOT ALL SYMBOLS MAY APPLY.
SYMBOL:	DESCRIPTION:
OTWIDOL.	
	DIRECTION OF AIR FLOW
<u>-</u> -	FLEXIBLE DUCT
-	MANUAL VOLUME DAMPER
- R	RISE IN DIRECTION OF AIR FLOW
- D	DROP IN DIRECTION OF AIR FLOW
-	DUCT CAP
-	DUCT DOWN
-	DUCT UP
	SUPPLY/OUTSIDE AIR DUCT SECTION
	RETURN AIR DUCT SECTION
	EXHAUST/RELIEF AIR DUCT SECTION
	4-WAY DIFFUSER WITH BLANKOFF IN ONE DIRECTION
<u>CD-1</u> 6/115	AIR TERMINAL PROPERTIES SYMBOL NECK SIZE/CFM
[ <u>##</u>	TERMINAL AIR BOX (REFER TO SCHEDULE)
	TERMINAL AIR BOX w/REHEAT COIL (REFER TO SCHEDULE)
	FAN POWERED TERMINAL AIR BOX w/REHEAT COIL (REFER TO SCHEDULE)
H	HUMIDIFIER
/////MD	OPPOSED BLADE DAMPER
/////// MD	PARALLEL BLADE DAMPER
<b>—</b> °	DIFFERENTIAL PRESSURE SENSOR HUMIDISTAT SENSOR
H	HUMIDISTAT / SENSOR
©	CARBON MONOXIDE SENSOR
©2	CARBON DIOXIDE SENSOR
©	OCCUPANCY SENSOR
©	PRESSURE SENSOR/MONITOR
P	PRESSURE SENSOR (DUCT MOUNTED)
① 〒	THERMOSTAT/SENSOR
	TEMPERATURE SENSOR THERMOSTAT/SENSOR WITH HEAVY DUTY ENCLOSURE
	TEMPERATURE SENSOR WITH WELL
	THERMOMETER WITH WELL (DIAL TYPE)
	THERMOMETER WITH WELL (FILLED TYPE)
<u> </u>	AIRFLOW MEASUREMENT SYMBOL XX - AHU SYMBOL Y - SEQUENTIAL NUMBER

MECHANICAL ABBREVIATION KEY		
ABBR:	DESCRIPTION:	
AD	ACCESS DOOR	
AFF	ABOVE FINISHED FLOOR	
С	COMMON	
СО	CLEANOUT	
CD-E	CEILING DIFFUSER - EXISTING	
CFSD	CONTROL/FIRE/SMOKE DAMPER	
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)	
DPS	DIFFERENTIAL PRESSURE SWITCH	
EA	EXHAUST/RELIEF AIR	
ECFSD	EXISTING CONTROL FIRE SMOKE DAMPER	
EFD	EXISTING FIRE DAMPER	
EFSD	EXISTING FIRE SMOKE DAMPER	
EP	ELECTRICAL TO PNEUMATIC VALVE	
ESD	EXISTING SMOKE DAMPER	
FD	FIRE DAMPER	
FOB	FLAT ON BOTTOM	
FOT	FLAT ON TOP	
FSD	FIRE/SMOKE DAMPER	
MA	MIXED AIR	
MV	MIXING VALVE	
NC	NEW CONNECTION	
N.C.	NORMALLY CLOSED	
NIC	NOT IN CONTRACT	
N.O.	NORMALLY OPEN	
OA	OUTSIDE AIR	
PS	PRESSURE SWITCH	
RA	RETURN AIR	
SA	SUPPLY AIR	
SD	SMOKE DAMPER	
TAB	TERMINAL AIR BOX	
TD	TRANSFER DUCT	
TYP	TYPICAL	
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)	
UNO	UNLESS NOTED OTHERWISE	

#### **MECHANICAL GENERAL NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING
- CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT. 2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS. INCLUDING THOSE OF OTHER TRADES.
- 3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION. MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
- 4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER
- 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO THE VA.
- 6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY
- AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES. 8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS,
- FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND

9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE

- GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING. 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING,
- AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
- 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
- 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT. 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND
- REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC. 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.
- 15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS, SWITCHES, AND DISCONNECTS. 16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL
- EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT. 17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE
- APPROVED IN ACCORDANCE WITH SPECIFICATIONS. 18. PROVIDE BALANCING DAMPER AT ALL SUPPLY DIFFUSERS, RETURN, AND EXHAUST
- GRILLES. ALL DAMPERS ARE NOT SHOWN ON PLANS. 19. CONTRACTOR SHALL REPAIR AND/ OR REPLACE ALL INSULATION AT EXISTING SHEET METAL DUCTWORK WHICH BECOMES DAMAGED DURING CONSTRUCTION ACTIVITIES AND SHALL
- REPAIR OR REPLACE ANY INSULATION AT NEW AND OLD DUCT CONNECTIONS AND ANY MISSING OR DAMAGED INSULATION ON REUSED OR EXISTING DUCTWORK. 20. CEILING ACCESS SHALL BE PROVIDED FOR ALL HVAC EQUIPMENT AND COMPONENTS LOCATED ABOVE THE CEILING THAT REQUIRE OPERATING, CLEANING, SERVICING, MAINTENANCE, AND/ OR CALIBRATION.

#### **ENGINEERING DISCIPLINE REFERENCE NOTES**

ARFA OF WORK

GENERAL NOTES FOR CONTRACTORS: SEE ALL PROJECT GENERAL NOTES AND OTHER REQUIREMENTS INCLUDING THE LIFE SAFETY AND INFECTION CONTROL WORK LOCATED WITHIN THE GENERAL DRAWINGS SECTION. COMPLY WITH ALL REQUIREMENTS AS THEY ARE A DIRECT PART OF THIS SECTION AS IF THEY WERE DIRECTLY INCLUDED AND PROVIDED HEREIN.

EQUIVALENCY SUBSTITUTIONS: THE "BASIS OF DESIGN (BOD) COMPLIANCE PROTOCOLS" ARE TO BE FOLLOWED FOR ALL MATERIALS, FOUIPMENT, ASSEMBLIES AND SYSTEMS SPECIFIED. AND DETAILED THROUGHOUT ALL DRAWINGS AND SPECIFICATION SECTIONS. WHETHER THE BOD DESIGNATE IS SPECIFICALLY REFERENCED THEREIN OR NOT. SEE THE GENERAL DRAWINGS SECTION FOR THE SPECIFIC BOD COMPLIANCE REQUIREMENTS AND PROTOCOLS TO BE FOLLOWED.

### **MECHANICAL RENOVATION NOTES:**

BEFORE STARTING WORK. NOTIFY ARCHITECT AND VA COR IN WRITING OF ANY CONFLICTS

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM LIMITED
- FIELD OBSERVATIONS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING. 2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS
- WITH NEW WORK. 3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD
- 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF HIS/HER WORK AND SHALL NOTIFY ARCHITECT AND VA COR IN WRITING PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO HIS/HER
- 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING.
- 6. THE GC IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING.
- 7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT
- DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK 8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT

10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR

- REMAIN ACTIVE. 9. OBTAIN PERMISSION FROM VA COR BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW SYSTEMS ARE INSTALLED.
- TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE. 11. DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT THAT HAS BEEN REMOVED.
- 12. ALL LOUD WORK SHALL BE COORDINATED WITH GENERAL CONTRACTOR TO AVOID ANY NOISE RESTRICTION TIME SLOTS.

### **MECHANICAL SEQUENCING NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES. INCLUDING BUT NOT LIMITED TO FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF SEQUENCING. REFER TO ARCHITECT'S INSTRUCTIONS FOR MORE DETAILS AND SCHEDULES FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF
- THE SEQUENCING CRITERIA. REVIEW PROJECT SEQUENCING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES. ETC. WITH AFFECTED ADJACENT AREAS.
- 3. PROVIDE TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ZONE VALVES, ZONE ALARMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS. 4. INSTALL TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ETC, AS NECESSARY TO KEEP
- ALL OCCUPIED SPACES OPERATIONAL THROUGHOUT ALL PORTIONS OF THE PROJECT. 5. SEQUENCE DEMOLITION WORK TO MINIMIZE DOWNTIME.

**PIPING GENERAL NOTES:** 

- 1. THE SIZE OF BRANCH PIPING TO TERMINAL HEATING DEVICES AND COILS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
- 2. PIPE DRAIN LINES FROM EQUIPMENT TO NEAREST FLOOR DRAIN. 3. INSTALL ALL REFRIGERANT LIQUID AND SUCTION PIPING SIZED PER EQUIPMENT MANUFACTURER RECOMMENDATIONS.

FACH OTHER

#### **VENTILATION GENERAL NOTES:**

- 1. THE SIZE OF EACH BRANCH DUCT TO A TERMINAL AIR BOX (TAB) SHALL MATCH THE TAB'S INLET SIZE UNLESS THE BRANCH IS GREATER THAN 6 FEET IN LENGTH, IN WHICH CASE THE BRANCH SHOULD BE INCREASED ONE DUCT SIZE, OR NOTED OTHERWISE. 2. ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES WHEN IN CLOSE PROXIMITY TO
- PROVIDE ACCESS DOORS AT ALL DUCT MOUNTED EQUIPMENT. CONTRACTOR MAY REUSE PORTIONS OF EXISTING DUCT PROVIDED SIZES AND PRESSURE CLASSES ARE CORRECT, DUCT IS THOROUGHLY CLEANED AND FREE OF DEFECTS, AND ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS ARE SEALED AS SPECIFIED FOR NEW DUCTWORK.

#### **TAB PRE-DEMOLITION NOTES:**

- 1. BEFORE ANY DEMOLITION WORK IS BEGUN A COMPLETE AIR BALANCE TEST SHALL BE PERFORMED BY THE TESTING, ADJUSTING AND BALANCING (TAB) CONTRACTOR ON EXISTING AIR HANDLERS AND EXHAUST FANS SERVING THE AREAS AFFECTED BY CONSTRUCTION, EQUIPMENT TO BE DEMOLISHED DOES NOT REQUIRE TESTING, PROVIDE
- AIR BALANCE TESTING ONLY ON EQUIPMENT THAT WILL CONTINUE TO BE USED TO SERVE RENOVATED AREAS AFTER THE CONSTRUCTION PHASE IS COMPLETED. PROVIDE DUCT TRAVERSE READINGS AT LOCATIONS DESIGNATED ON THE DRAWINGS BY THE "AIRFLOW MEASUREMENT SYMBOL". THOSE MEASUREMENTS SHALL BE INCLUDED IN THE PRE DEMOLITION REPORT AND SHALL BE DESIGNATED WITH THE IDENTIFIER AS MARKED ON THE DRAWINGS. READINGS SHALL BE DESIGNATED WITH THE ROOM NAME AND NUMBER AS MARKED ON THE DRAWINGS. IF FLOOR PLANS DO NOT HAVE UNIQUE ROOM NAMES AND NUMBERS, TAB CONTRACTOR SHALL INCLUDE FLOOR PLAN WITH UNIQUE NUMBER DESIGNATIONS ASSIGNED TO READINGS THAT MATCH THOSE USED IN THE FINAL
- ACCEPTABLE, PROVIDED THEY ARE LEGIBLE. IN THE EVENT A DUCT TRAVERSE LOCATION AS MARKED ON THIS PLAN IS INACCESSIBLE FOR MEASUREMENT, THE TAB CONTRACTOR SHALL PERFORM THE TRAVERSE AT AN ALTERNATE LOCATION OR SHALL TAKE MULTIPLE DUCT TRAVERSES AND/OR READINGS AS SHOWN. IN THE EVENT TRAVERSES ARE TAKEN AT ALTERNATE LOCATION(S), TAB

PRE-DEMOLITION REPORT. DRAWINGS THAT ARE HAND-MARKED WITH RED INK ARE

- REQUIRED TO DETERMINE THE AIRFLOW READING WHERE THE DUCT TRAVERSE SYMBOL IS CONTRACTOR SHALL INCLUDE A DRAWING THAT SHOWS THE LOCATIONS WHERE THE ACTUAL MEASUREMENTS WERE TAKEN.
- 4. TAKE A DUCT STATIC PRESSURE READING AT EACH LOCATION WHERE A DUCT TRAVERSE READING IS TAKEN AND INCLUDE IN THE FINAL PRE-DEMOLITION TAB REPORT. TAB CONTRACTOR SHALL COMPILE AND SUBMIT COPIES OF THE FINAL PRE-DEMOLITION REPORT WITHIN 10 WORKING DAYS AFTER THE FIELD MEASUREMENTS ARE COMPLETED.
- FINAL TAB REPORT SHALL BE SUBMITTED FOR REVIEW TO THE ARCHITECT/ENGINEER. TESTING SHALL INCLUDE ALL ITEMS REQUIRED IN THE SPECIFICATIONS. TAB CONTRACTOR SHALL PROVIDE DUCT TRAVERSE READINGS AT LOCATIONS DESIGNATED ON THE DRAWINGS BY THE "AIRFLOW MEASUREMENT SYMBOL". THOSE MEASUREMENTS SHALL BE INCLUDED IN THE POST-CONSTRUCTION REPORT AND SHALL BE
- DESIGNATED WITH THE IDENTIFIER AS MARKED ON THE CONSTRUCTION DRAWINGS. GRILLE AND DIFFUSER READINGS SHALL BE DESIGNATED WITH THE ROOM NAME AND NUMBER AS MARKED ON THE DRAWINGS. IF THE DRAWINGS DO NOT HAVE UNIQUE ROOM NAMES AND NUMBERS, TAB CONTRACTOR SHALL INCLUDE FLOOR PLANS WITH UNIQUE NUMBER DESIGNATIONS ASSIGNED TO TRAVERSES, GRILLES, AND DIFFUSERS THAT MATCH THOSE USED IN THE FINAL PRE-DEMOLITION REPORT. SIMILAR ROOM NAMES, NUMBERS, OR DESIGNATIONS SHALL BE USED TO SIMPLIFY THE CROSS- REFERENCING OF READINGS
- TAKEN BETWEEN PRE-DEMOLITION AND POST-CONSTRUCTION REPORTS. BALANCING CONTRACTOR SHALL PRE-BALANCE ALL EXISTING SYSTEMS TO REMAIN PER SPECIFICATION SECTION 23 05 93. BALANCE READINGS WILL BE REQUIRED AT AIR OUTLETS AND DUCT TRAVERSES TO VERIFY EXISTING AIRFLOW TO UNAFFECTED SPACES.

#### **TAB POST-CONSTRUCTION NOTES:**

- 1. AFTER CONSTRUCTION ACTIVITIES ARE COMPLETE, TESTING, ADJUSTING (TAB) AND BALANCING CONTRACTOR SHALL REBALANCE AIR HANDLING UNITS AND EXHAÚST FANS AS REQUIRED TO ACHIEVE THE NEW AIRFLOW VALUES SHOWN ON THE CONSTRUCTION DRAWINGS.
- AREAS SERVED BY THIS EQUIPMENT WHICH WERE NOT RENOVATED SHALL BE RE-BALANCED TO THE AIRFLOW RATES MEASURED BEFORE THE RENOVATION OCCURRED
- (REFER TO THE FINAL PRE- DEMOLITION REPORT). IF DUCT TRAVERSE LOCATION AS MARKED ON THE DRAWINGS IS INACCESSIBLE FOR MEASUREMENT, THE TAB CONTRACTOR SHALL PERFORM THE TRAVERSE AT AN ALTERNATE LOCATION OR SHALL TAKE MULTIPLE DUCT TRAVERSES AND/OR GRILLE READINGS AS REQUIRED TO DETERMINE THE FLOW RATE. IN THE EVENT TRAVERSES ARE TAKEN AT AN
- ALTERNATE LOCATION(S), TAB CONTRACTOR SHALL INCLUDE A DRAWING THAT SHOWS THE LOCATIONS WHERE THE ACTUAL MEASUREMENTS WERE TAKEN. 4. A DUCT STATIC PRESSURE READING SHALL BE TAKEN AT EACH LOCATION WHERE A DUCT TRAVERSE READING IS TAKEN AND SHALL BE INCLUDED IN THE FINAL POST-CONSTRUCTION
- 5. TAB CONTRACTOR SHALL COMPILE AND SUBMIT COPIES OF THE FINAL POST-
- CONSTRUCTION TAB REPORT AS REQUIRED BY SECTION 23 05 93. 6. THE FINAL POST CONSTRUCTION REPORT SHALL INCLUDE ALL ITEMS REQUIRED IN THE
- SPECIFICATIONS.

M000	MECHANICAL - COVERSHEET
MHD100	MECHANICAL - VENTILATION - DEMOLITION PLAN - BASEMENT
MHD101	MECHANICAL - VENTILATION - DEMOLITION PLAN - FIRST FLOOR
MHD102	MECHANICAL - VENTILATION - DEMO PLAN - LOWER ROOF
MH100	MECHANICAL - VENTILATION - PLAN - BASEMENT
MH101	MECHANICAL - VENTILATION - PLAN - FIRST FLOOR
MH102	MECHANICAL - VENTILATION - PLAN - LOWER ROOF
MH200	MECHANICAL - VENTILATION - ENLARGED PLANS
MH201	MECHANICAL - SPACE AIRFLOW AND PRESSURE PLAN
MH300	MECHANICAL - VENTILATION - SECTIONS
MH400	MECHANICAL - VENTILATION - DETAILS
MH500	MECHANICAL - VENTILATION - SCHEDULES
MI100	MECHANICAL - CONTROL SEQUENCES - AHU-01
MI101	MECHANICAL - CONTROL SEQUENCES - AHU-01 (CONT.)
MI102	MECHANICAL - CONTROL SEQUENCES

	PIPING SHEET INDEX
MPD100	MECHANICAL - PIPING - DEMOLITION PLAN - BASEMENT
MPD101	MECHANICAL - PIPING - DEMOLITION PLAN - FIRST FLOOR
MP100	MECHANICAL - PIPING - PLAN - BASEMENT
MP101	MECHANICAL - PIPING - PLAN - FIRST FLOOR
MP200	MECHANICAL - PIPING - ENLARGED PLANS
MP300	MECHANICAL - PIPING - SECTIONS
MP400	MECHANICAL - PIPING - DETAILS
MP401	MECHANICAL - PIPING - FLOW DIAGRAMS
MP402	MECHANICAL - PIPING - FLOW DIAGRAMS
MP403	MECHANICAL - PIPING - FLOW DIAGRAMS
MP500	MECHANICAL - PIPING - SCHEDULES
<b>GRAND TOTAL</b>	L: 11

10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

MINNEAPOLIS, MN ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22

DATE

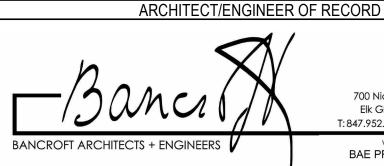
REVISION



REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state Typed or Printed Name: Robert Douglas Lowe

Date:10/28/2022 License Number: 24706

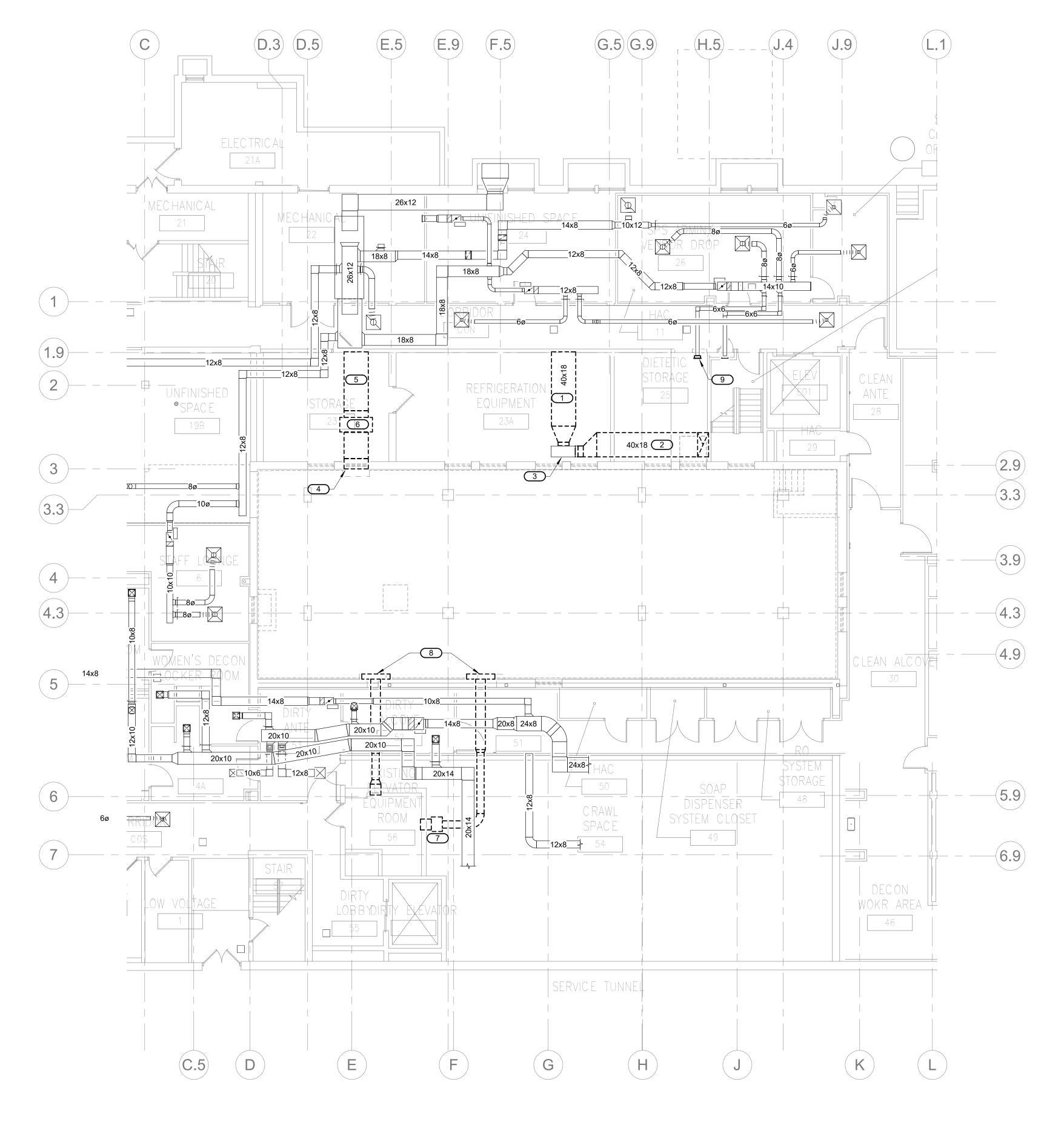


700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 E: APPROVED: SERVICE LINE DIRECTO

CONSTRUCT PACT CLINIC MECHANICAL - COVERSHEET **BUILDING 4 FIRST FLOOR** APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTO NKJ WDM M000 ST. CLOUD, MN 56303



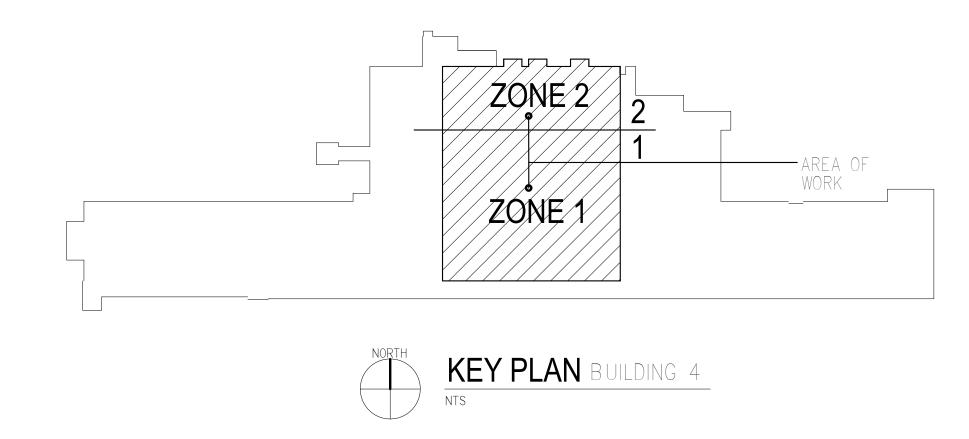




#### KEYNOTES: #

- DEMOLISH EXISTING EXHAUST DUCT BACK TO EXISTING EXHAUST FAN. CAP DUCT AT FAN.
  DEMOLISH EXISTING EXHAUST DUCT AND RISER BACK TO EXISTING EXHAUST FAN. CAP
- DUCT AT FAN. EXISTING EXHAUST FAN TO REMAIN DURING CONSTRUCTION. THIS FAN WILL BE USED FOR CONSTRUCTION ISOLATION INFECTION
- CONTROL. SEE ARCHITECTURAL FOR SEQUENCING. FAN WILL BE DEMOLISHED AT END OF CONSTRUCTION. DEMOLISH EXISTING O/A DUCT BACK FROM
- EXISTING HOOD TO BE DEMOLISHED. CAP AT EXISTING FAN COIL UNIT. DEMOLISH EXISTING SUPPLY DUCT BACK TO EXISTING FAN COIL UNIT AS INDICATED. CAP
- DUCT AT FAN. DEMOLISH EXISTING FAN COIL UNIT AND ALL ASSOCIATED PIPING, WIRING, AND CONTROLS.
- DEMOLISH EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK, WIRING, CONTROLS, AND SUPPORTS.
- DEMOLISH EXISTING INTAKE AND EXHAUST HOODS ON WALL APPROX. 1 FOOT ABOVE GRADE. DEMOLISH ALL CONNECTED DUCTWORK BACK TO THE EXISTING ELEVATOR EQUIPMENT ROOM. SEE ARCHITECTURAL FOR
- WALL PATCHING. DISCONNECT AND REMOVE EXISTING SUPPLY GRILLE. COVER AND SEAL OPENING DURING CONSTRUCTION.



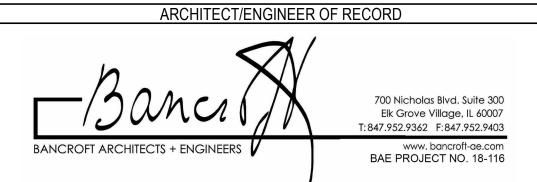


## 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

			3001 BROADWAY	PH: 612.54
			STREET NE, SUITE 601	www.imegcoi
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No	DEVISION	DATE	1	

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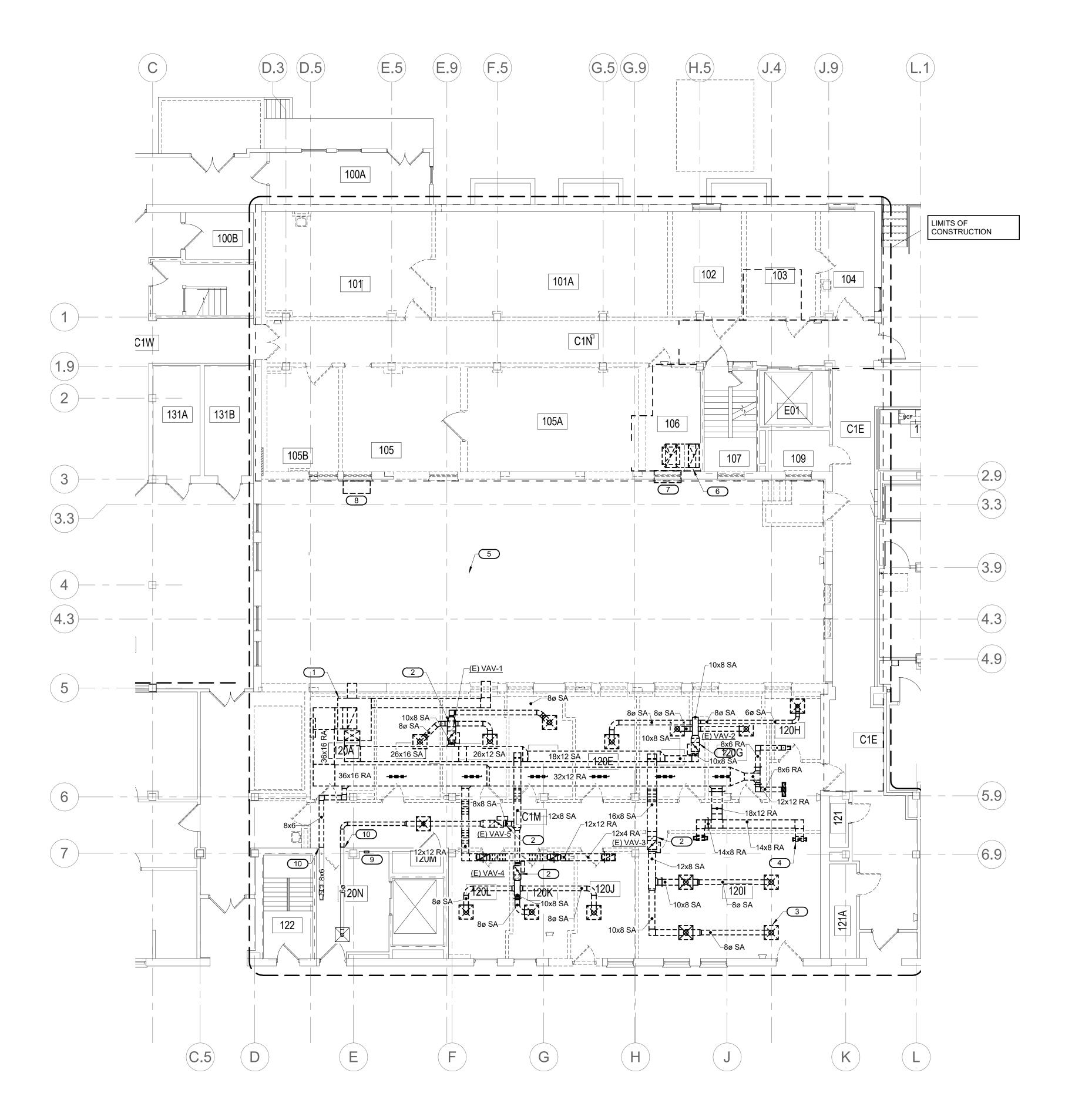
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state Signature: Typed or Printed Name: Robert Douglas Lowe Date:10/28/2022 License Number: 24706



DATE: APPROVED: SERVICE LINE DIRECTOR

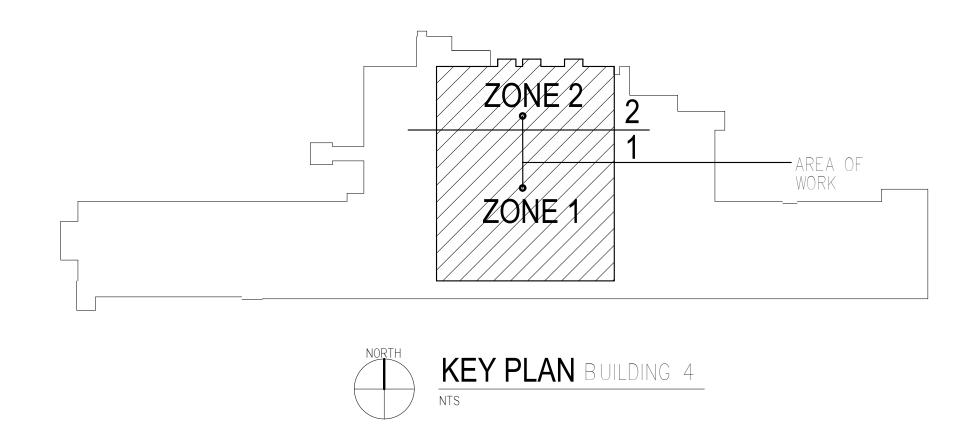
DRAWING TITLE
MECHANICAL - VENTILATION DEMOLITION PLAN - BASEMENT CONSTRUCT PACT CLINIC 10/28/2022 | BUILDING 4 FIRST FLOOR APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR BUILDING NO CHECKED BY DRAWN DRAWING NO. WDM MHD100 ST. CLOUD, MN 56303 DWG. OF





MECHANICAL - VENTILATION - DEMOLITION PLAN - FIRST FLOOR

1/8" = 1'-0"



## 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

**CONSTRUCTION NOTES:** 

AND SUPPORTS.

HANGERS AND SUPPORTS.

ADDITIONAL INFORMATION.

WIRING AND CONTROLS.

FOR SEQUENCING PLAN.

WALL PATCHING.

ROOF PATCHING INFORMATION.

KEY NOTES:

A. DUCTWORK AND EQUIPMENT SHOWN DASHED IS TO

REMOVED. REMOVAL INCLUDES BUT IS NOT LIMITED TO ALL ASSOCIATED DUCTWORK, WIRING, CONTROLS, HANGERS

REMOVE AHU SHOWN DASHED. REMOVAL INCLUDES BUT IS NOT LIMITED TO ALL ASSOCIATED DUCTWORK, HEATING AND COOLING COILS, PIPING, VALVES, WIRING, CONTROLS,

REMOVE VAV BOX. REMOVAL INCLUDES BUT IS NOT LIMITED TO ASSOCIATED PIPING, VALVES, WIRING, CONTROLS &

REMOVE SUPPLY AIR DIFFUSER SHOWN DASHED (TYPICAL).
REMOVE RETURN AIR GRILLE SHOWN DASHED (TYPICAL).
CONDENSING UNIT - SEE PIPING DEMOLITION DRAWING FOR

DEMOLISH EXISTING WINDOW A/C UNIT AND ALL ASSOCIATED

DEMOLISH EXISTING EXHAUST DUCT RISER DOWN TO BASEMENT AND UP TO ROOF. SEE ARCHITECTURAL FOR

DEMOLISH EXISTING INTAKE HOOD ON WALL APPROX. 1 FOOT ABOVE GRADE. DEMOLISH ASSOCIATED DUCTWORK BACK INTO BUILDING AND CAP. SEE ARCHITECTURAL FOR

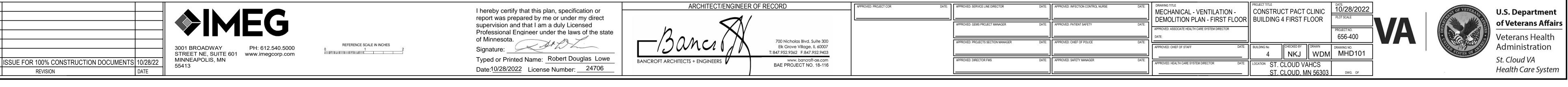
NOTE: THIS EQUIPMENT TO BE USED FOR CONSTRUCTION INFECTION ISOLATION STRATEGIES. SEE ARCHITECTURAL

EXISTING LOBBY THERMOSTAT SHALL BE DISCONNECTED AND REMOVED. DISCONECT AND REMOVE EXISITNG WIRING OR TUBING BACK OT THE EXISTING UNIT THAT BEING REMOVED. PROVIDE FLAT PLATE COVER. PAINT TO MATCH

WALL. COORDINATE COLOR WITH ARCHITECT. MAINTAIN EXISTING LOBBY SUPPLY AND RETURN DUCTWORK AS

PRESERVED FOR RECONNECTION AND REUSE IN NEW SYSTEM. SEE MH101 FOR EXTENT OF NEW WORK.

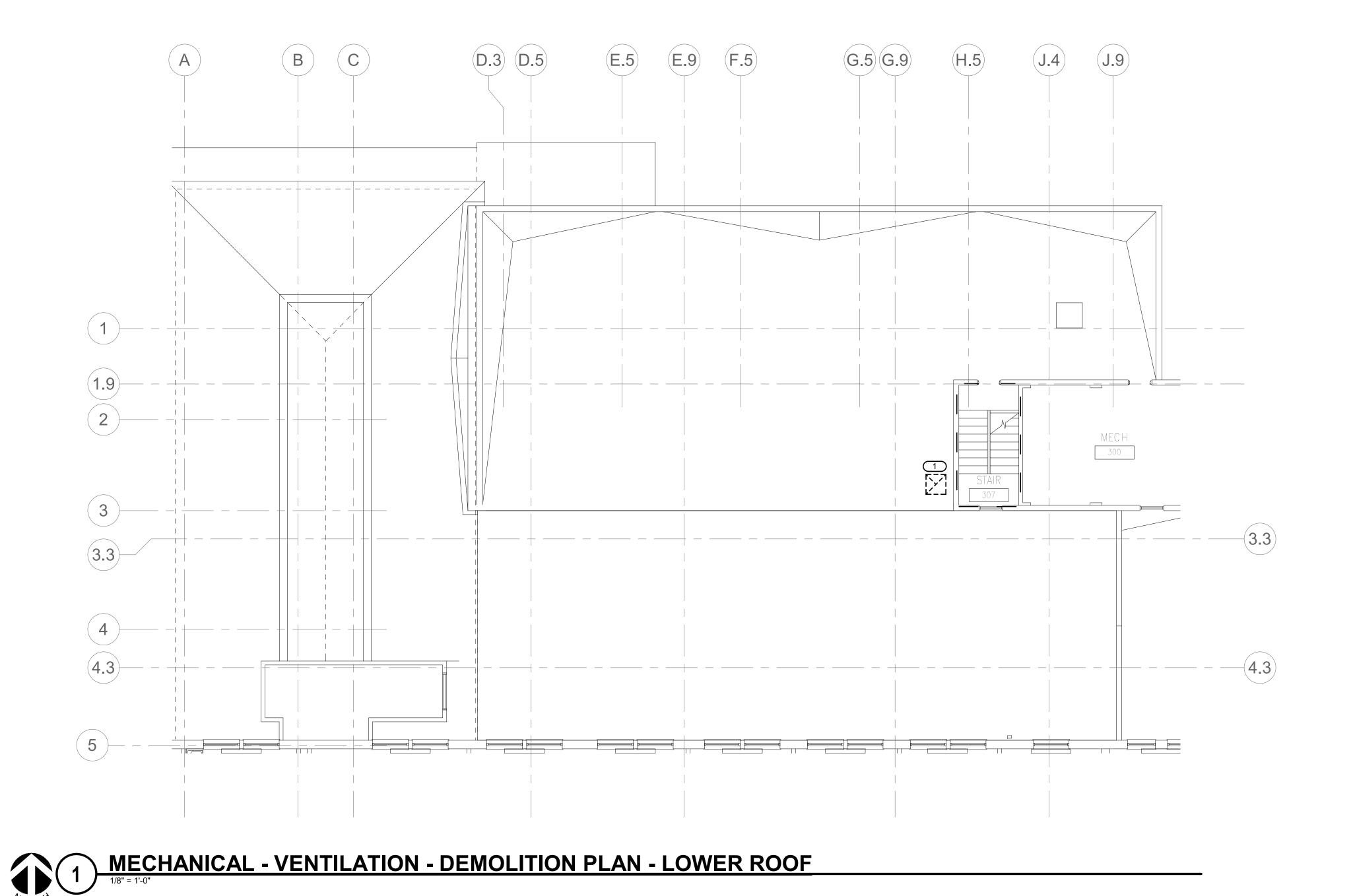
0. EXTENT OF DUCTWORK DEMOLITION. EXISTING SUPPLY AND RETURN DUCTWORK IN ELVATOR LOBBY AREA TO BE

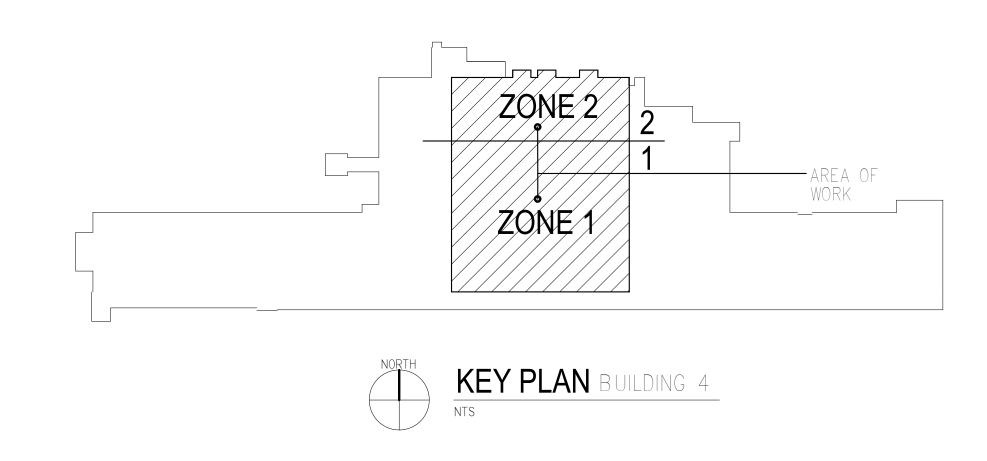


KEYNOTES: #

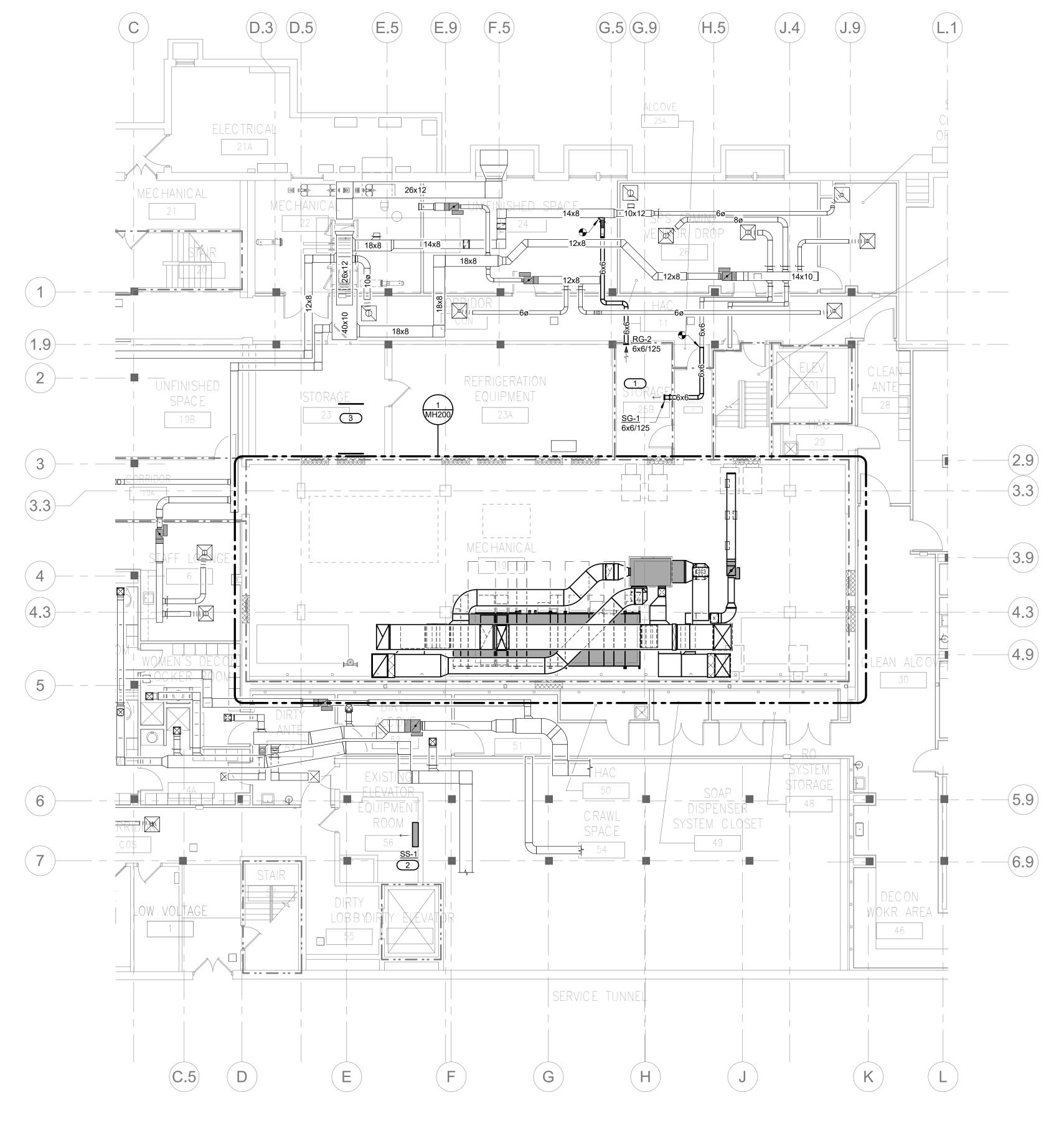
1. REMOVE EXISTING EXHAUST HOOD AND ASSOCIATED ROOF CURB. SEE ARCHITECTURAL FOR ROOF PATCHING AND WATERPROOFING.

NOTE: THIS OPENING TO BE USED FOR CONSTRUCTION INFECTION ISOLATION STRATEGIES. SEE ARCHITECTURAL FOR SEQUENCING PLAN.

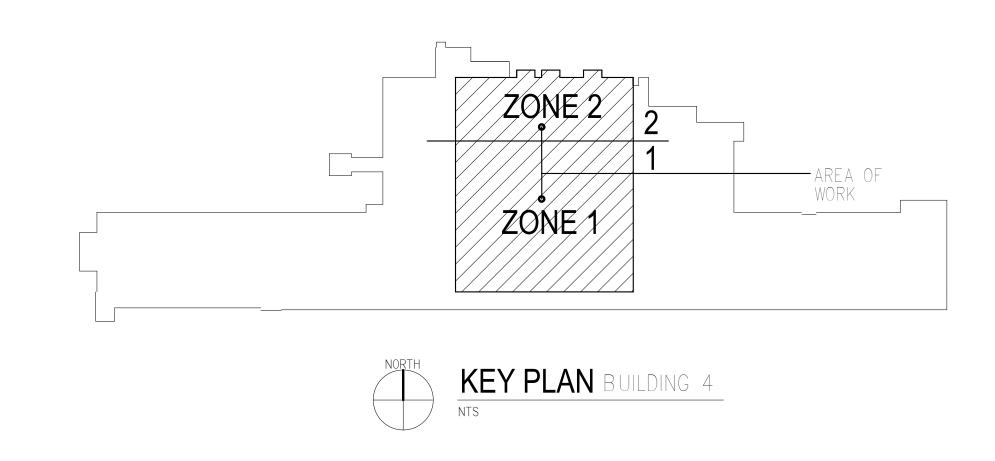




	I hereby certify that this plan, specification or	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR	DATE: APPROVED: SERVICE LINE DIRECTOR	DATE: APPROVED: INFECTION CONTROL NURSE	DATE: DRAWING TITLE	PROJECT TITLE  CONSTRUCT PACT CLINIC 10/28/2022	OF VETER U.S. Donartmont
3001 BROADWAY STREET NE, SUITE 601 Www.imegcorp.com ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 REVISION DATE  REFERENCE SCALE IN INCHES WWW.imegcorp.com	report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.  Signature:  Typed or Printed Name: Robert Douglas Lowe Date: 10/28/2022 License Number: 24706	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403  Www. bancroft-ae.com BAE PROJECT NO. 18-116		APPROVED: GEMS PROJECT MANAGER  APPROVED: PROJECTS SECTION MANAGER  APPROVED: DIRECTOR FMS	DATE: APPROVED: PATIENT SAFETY  DATE: APPROVED: CHIEF OF POLICE  DATE: APPROVED: SAFETY MANAGER	DATE:  DA	CONSTRUCT PACT CLINIC   10/28/2022   PLOT SCALE   PROJECT NO.   656-400	U.S. Department of Veterans Affairs Veterans Health Administration St. Cloud VA Health Care System



MECHANICAL - VENTILATION - PLAN - BASEMENT



### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

KEYNOTES: #

REBALANCE EXISTING SYSTEM TO
 ACCOMODATE NEW SUPPLY AND RETURN
 GRILLES IN STORAGE 25B.
 NEW SPLIT SYSTEM EVAPORATOR UNIT. SEE
 PIPING SHEET MP100 FOR EXTENT OF WORK.

SHEET NOTES:

DOCUMENTS.

A. PROVIDE BALANCING DAMPERS AT ALL SUPPLY DIFFUSERS & GRILLES AND ALL RETURN/ EXHAUST GRILLES. ALL DAMPERS MAY NOT BE VISIBLE ON CONSTRUCTION

B. CONTRACTOR SHALL REPAIR AND/ OR REPLACE ANY DUCTWORK OR INSULATION THAT IS DAMGED DURING CONSTRUCTION.

				<b>EU</b>
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			STREET NE, SUITE 601	www.imegcorp.com
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No	REVISION	DATE		

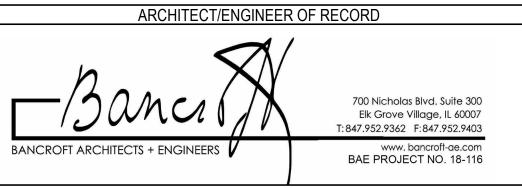
REFERENCE SCALE IN INCHES

0 1 2

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Signature:

Typed or Printed Name: Robert Douglas Lowe Date: 10/28/2022 License Number: 24706



DATE:	APPROVED: SERVICE LINE DIRECTOR	DATE:	APPROVED: INFECTION CONTROL NURSE	DATE:	MECHAN PLAN - E
	APPROVED: GEMS PROJECT MANAGER	DATE:	APPROVED: PATIENT SAFETY	DATE:	APPROVED: ASSO
	APPROVED: PROJECTS SECTION MANAGER	DATE:	APPROVED: CHIEF OF POLICE	DATE:	APPROVED: CHIEF
	APPROVED: DIRECTOR FMS	DATE:	APPROVED: SAFETY MANAGER	DATE:	APPROVED: HEAL

PROJECT TITLE

HANICAL - VENTILATION N - BASEMENT

DIATE:
CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

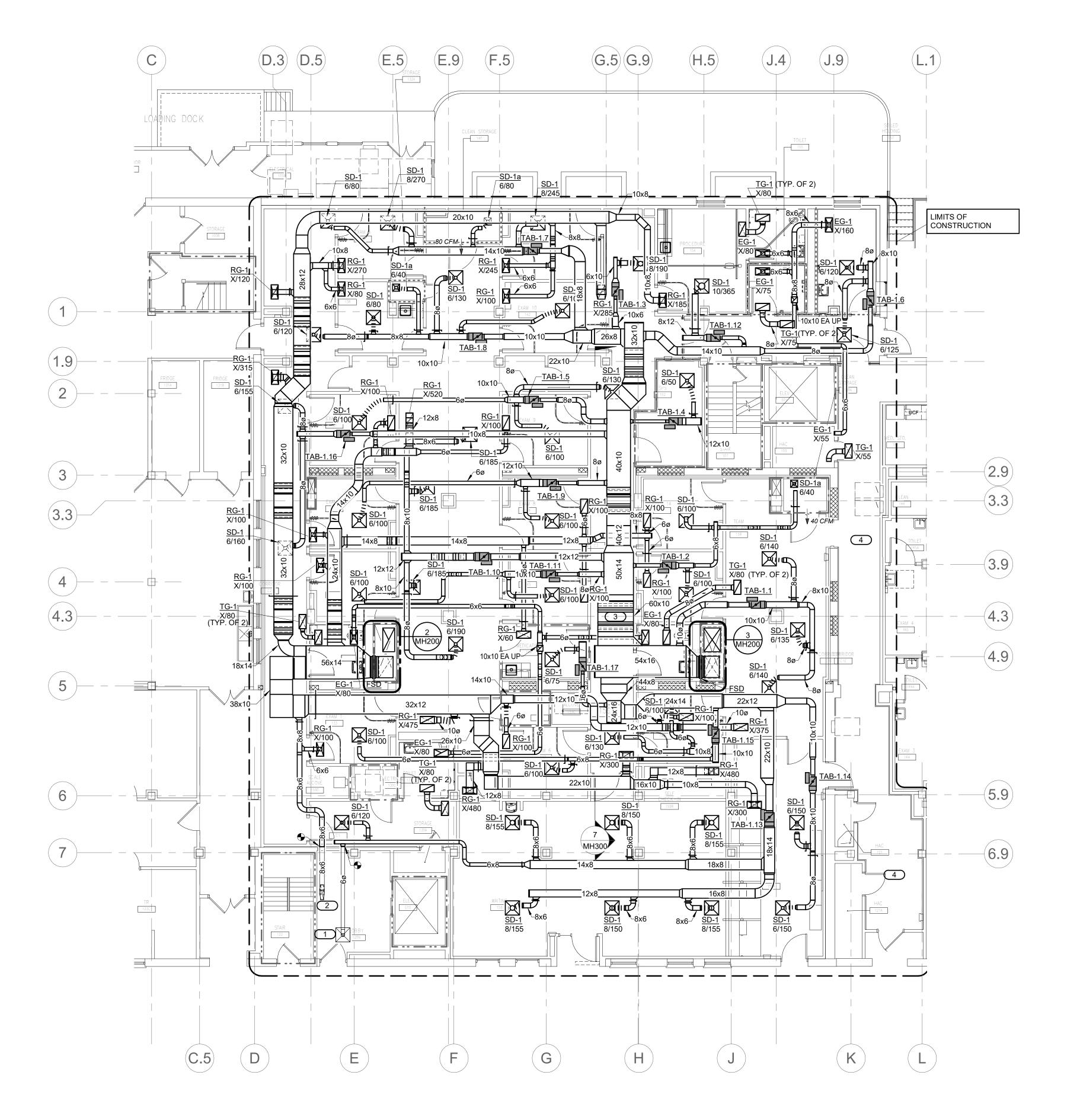
PROJECT NO.
656-400

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DATE:
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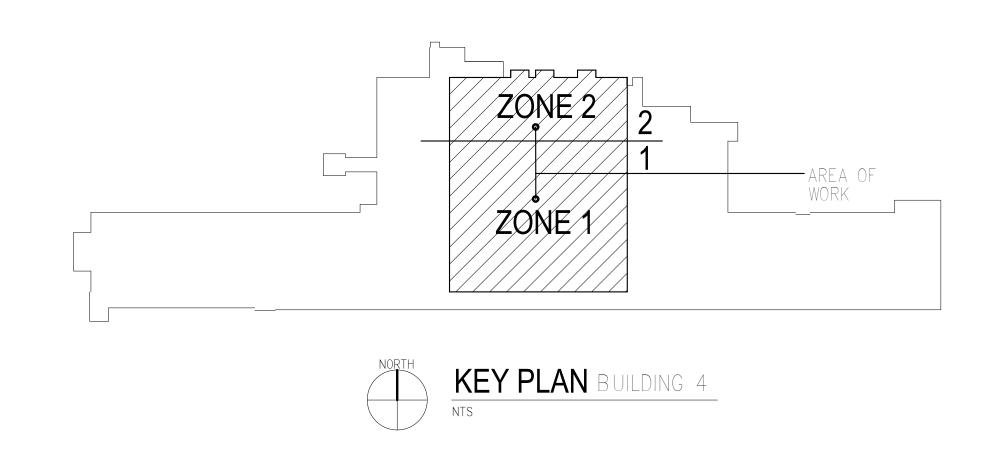
DICHECKED BY
NKJ
DRAWN
MH100





MECHANICAL - VENTILATION - PLAN - FIRST FLOOR

1/8" = 1'-0"



### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

**CONSTRUCTION NOTES:** 

WHERE POSSIBLE.

KEYNOTES: #

**SHEET NOTES:** 

DOCUMENTS.

 A. LOCATE ALL VAV BOXES AWAY FROM DOORS AND DOOR SWINGS FOR EASY LADDER ACCESS.
 B. LOCATE VAV BOXES WITHIN THE ROOM THEY SERVE

C. LOCATE VAV REHEAT COIL VALVING IN SUCH A MANNER THAT BOTH THE VAV CONTROLLER AND VALVING CAN BE ACCESSED BY A SINGLE LADDER POSITION.

D. PROVIDE 36" CLEARANCE AROUND VAV CONTROLLER.E. DUCTWORK SHALL BE ROUTED FLUSH TO STRUCTURE IN

F. FACE SIZE FOR AIR TERMINALS WITH 'X' DESIGNATOR ARE LISTED IN AIR TERMINAL SCHEDULE ON SHEET MH500.

REBALANCE EXISTING SUPPLY DIFFUSER TO 100 CFM.
REBALANCE EXISTING RETURN GRILLE TO 100 CFM.
SUPPLY DUCT MUST BE ROUTED UNDER STRUCTURAL

OCCUPIED BY VARIOUS OTHER SYSTEMS. DUCT SHALL BE ROUTED FLUSH TO STRUCTURE. COORDINATE WITH

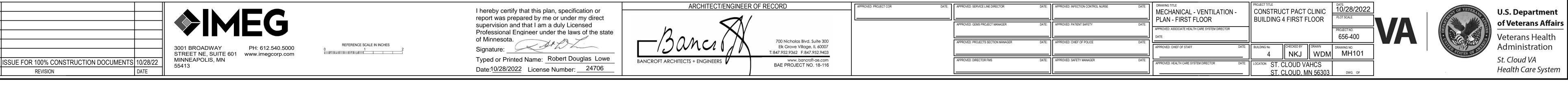
MECHANICAL RENOVATIONS. NO NEW DUCTWORK IN

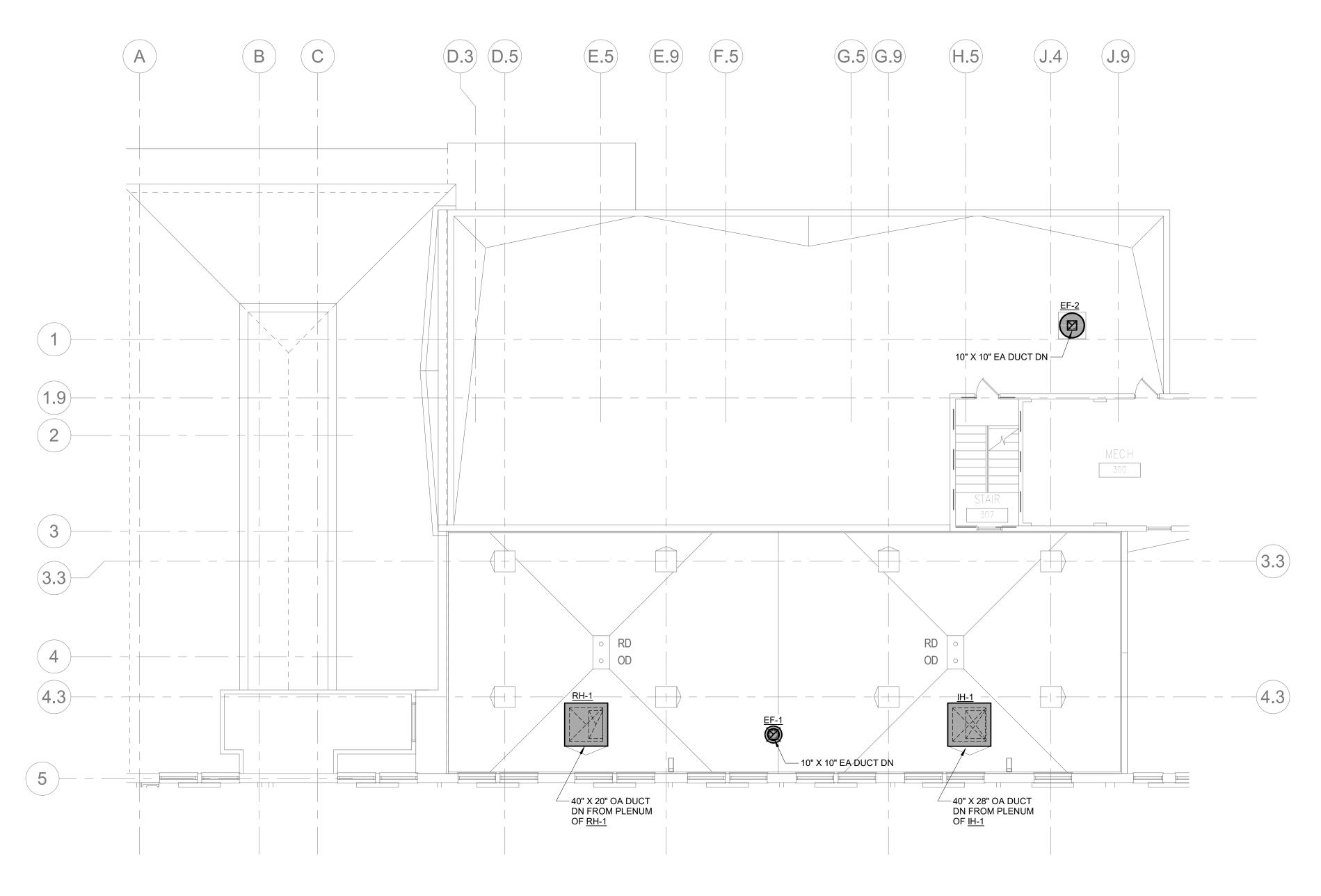
BEAM AT THIS LOCATION. THIS AREA IS ALSO

ALL OTHER DISCIPLINES.
THIS AREA IS NOT WITHIN THE SCOPE FOR

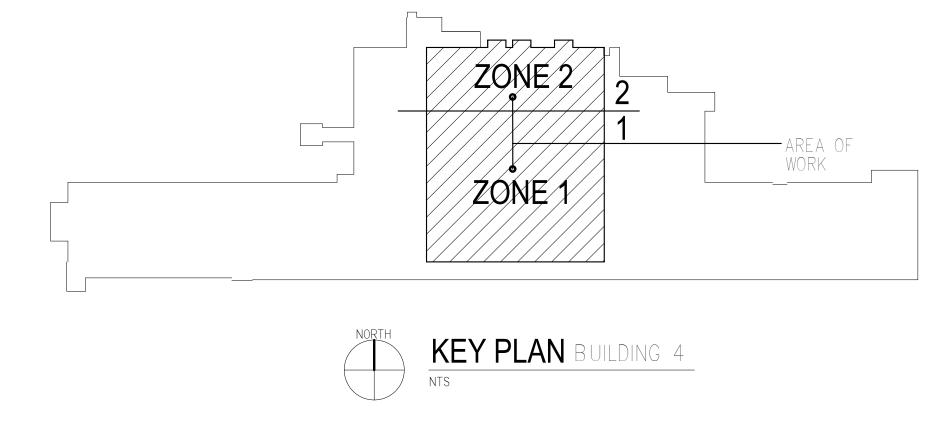
PROVIDE BALANCING DAMPERS AT ALL SUPPLY DIFFUSERS & GRILLES AND ALL RETURN/ EXHAUST GRILLES. ALL DAMPERS MAY NOT BE VISIBLE ON CONSTRUCTION

CONTRACTOR SHALL REPAIR AND/ OR REPLACE ANY DUCTWORK OR INSULATION THAT IS DAMGED DURING CONSTRUCTION.



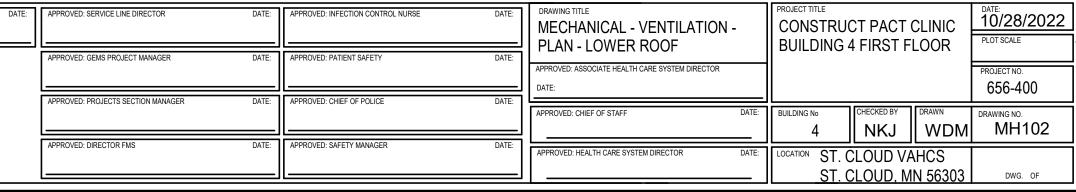






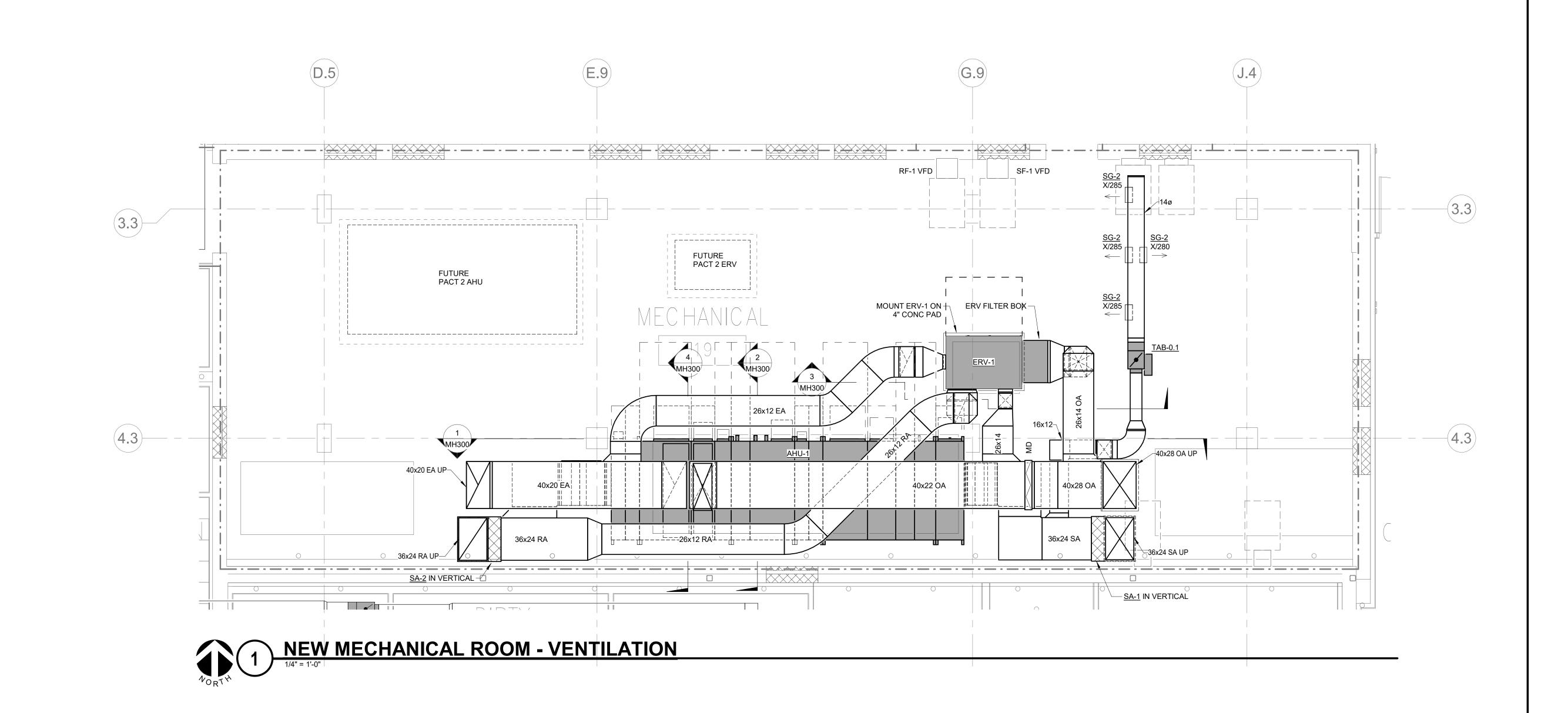
-Bana	er my direct censed ws of the state ouglas Lowe	report was prepared by me or under supervision and that I am a duly Lice Professional Engineer under the laws of Minnesota.  Signature:	REFERENCE SCALE IN INCHES 0 1 2	3001 BROADWAY STREET NE, SUITE 601 MINNEAPOLIS, MN 55413  PH: 612.540.5000 www.imegcorp.com	10/28/22 DATE	STRUCTION DOCUMENTS	ISSUE FOR 100% CONS	IS	REFERENCE SCALE IN INCHES  1 2  Signature:	Typed or Printed Name: Robert Douglas Lowe  BANCROFT ARCHITECTS + ENGINEERS
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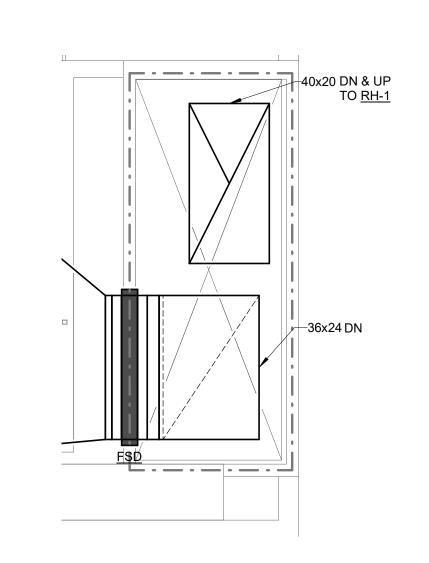
ARCHITECT/ENGINEER	OF RECORD
-Banci XX	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T:847.952.9362 F:847.952.9403
ancroft architects + engineers 🗸	www. bancroft-ae.com BAE PROJECT NO. 18-116

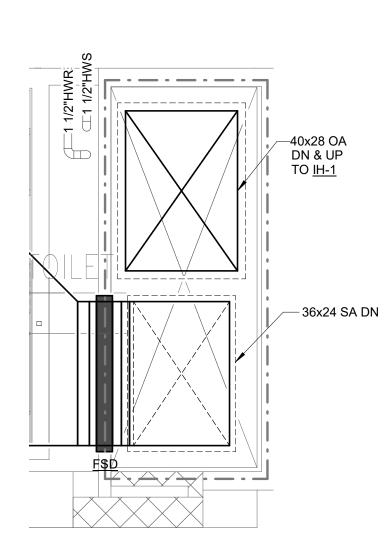
















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Signature:

Typed or Printed Name: Robert Douglas Lowe

Date:10/28/2022 License Number: 24706

ARCHITECT/ENGINEER OF RECORD

700 Nic
Elk Gri
T: 847.952.9

BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300
Elk Grove Village, IL 60007
T:847.952.9362 F:847.952.9403

www.bancroft-ae.com
BAE PROJECT NO. 18-116

DATE:

APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECTS SECTION MANAGER

DATE:

APPROVED: CHIEF OF POLICE

DATE:

APPROVED: DATE:

APPROVED: DIRECTOR FMS

DATE:

APPROVED: SAFETY MANAGER

DATE:

APPROVED: APPROVED: SAFETY MANAGER

DATE:

APPROVED: DATE:

DRAWING TITLE

MECHANICAL - VENTILATION ENLARGED PLANS

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

APPROVED: CHIEF OF STAFF

DATE:

BUILDING 4 FIRST FLOOR

PROJECT NO.
656-400

PROJECT NO.
656-400

PROJECT NO.
656-400

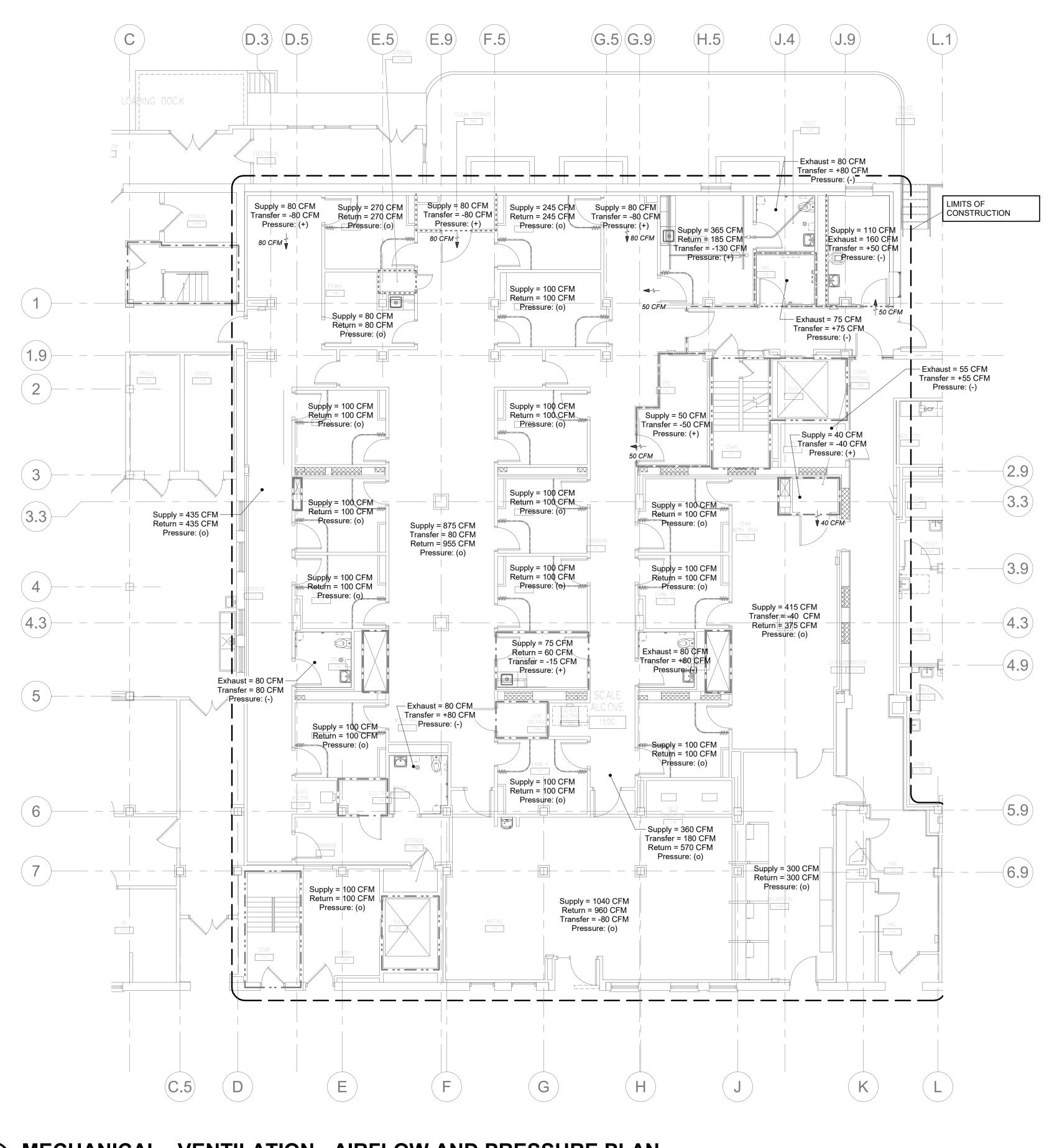
APPROVED: CHIEF OF STAFF

DATE:

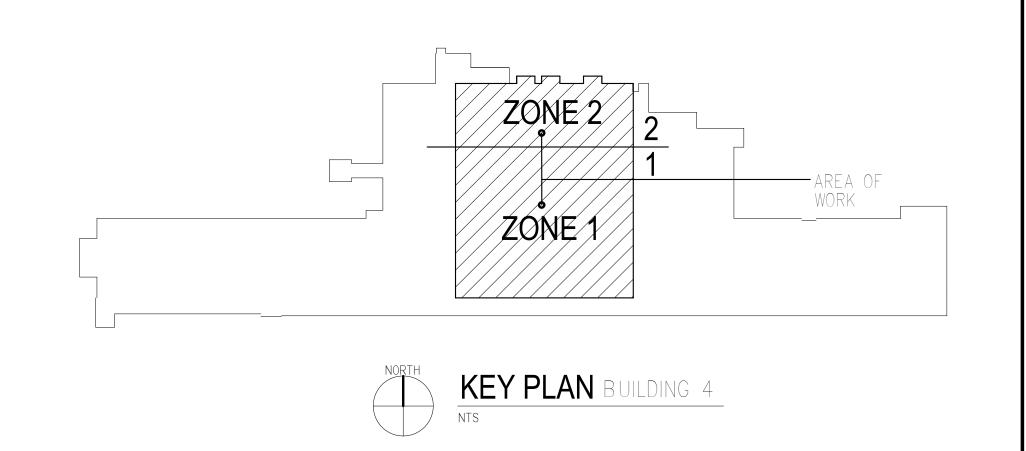
LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

DMG. OF



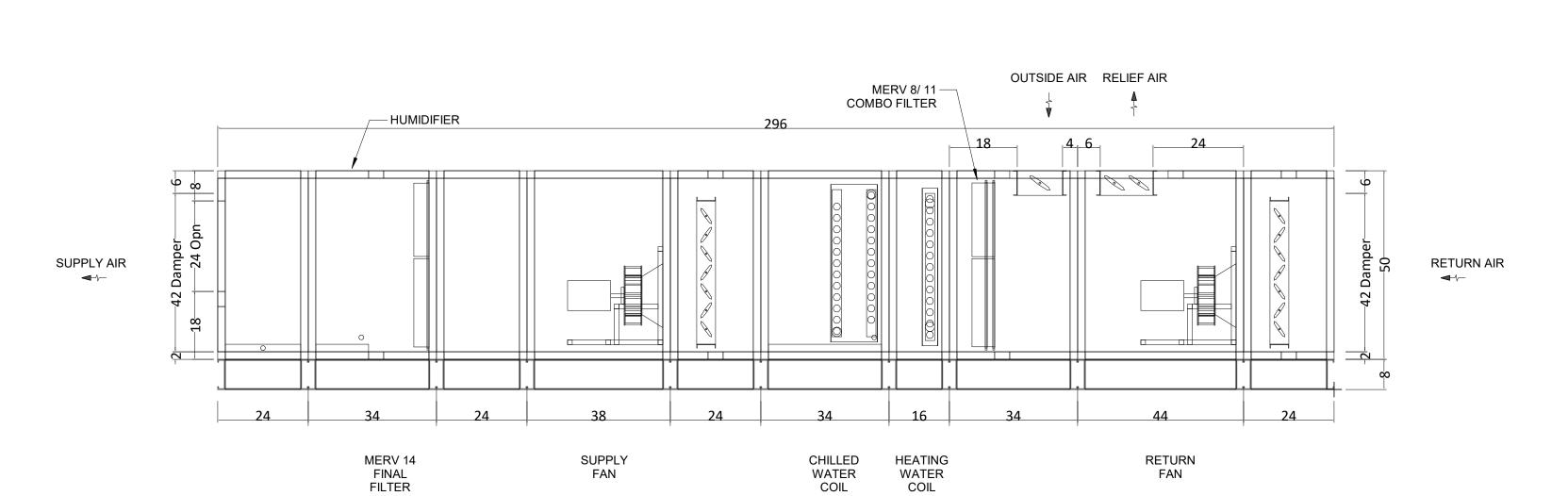






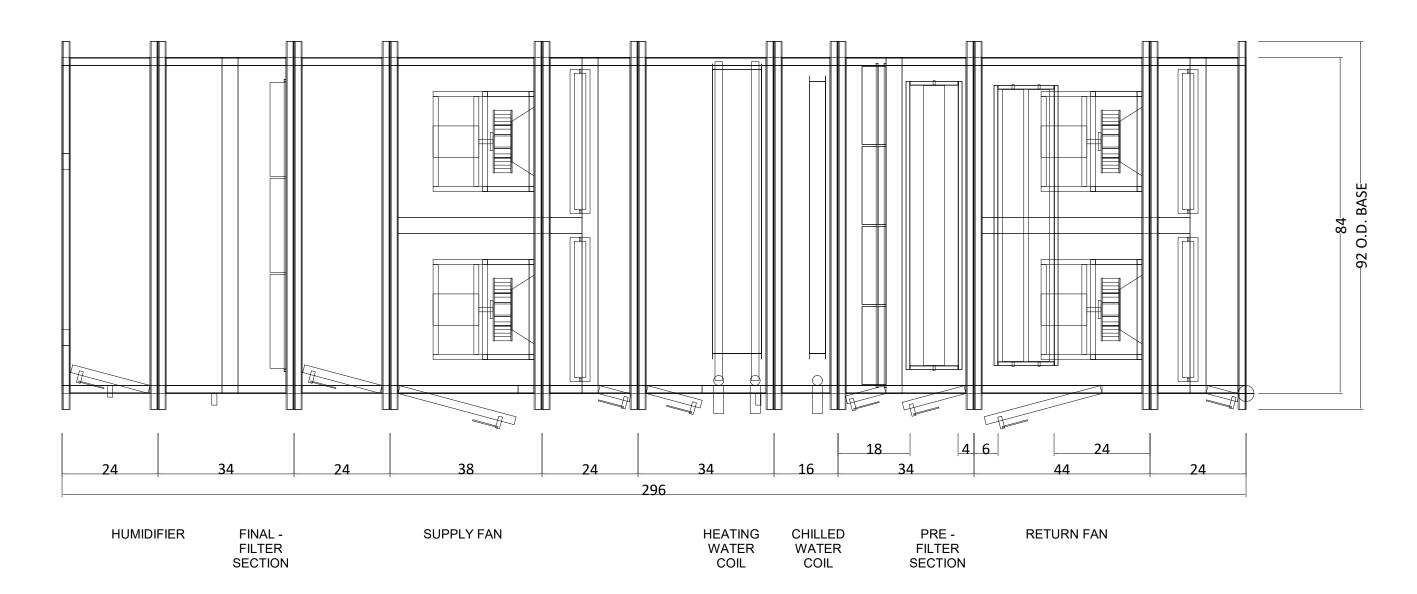
		I hereby certify that this plan, specification or	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR	DATE: APPROVED: SERVICE LINE DIRECTOR	DATE: APPROVED: INFECTION CONTROL NURSE DATE	DRAWING TITLE  MECHANICAL - SPACE AIRELOW	PROJECT TITLE  CONSTRUCT PACT CLINIC 10/28/2022	OF VETER	IS Department
	PILL CAD FAR FORD	report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.	700 Nicholas Blvd. Suite 300		APPROVED: GEMS PROJECT MANAGER  APPROVED: PROJECTS SECTION MANAGER	DATE: APPROVED: PATIENT SAFETY DATE  DATE: APPROVED: CHIEF OF POLICE DATE	MECHANICAL - SPACE AIRFLOW AND PRESSURE PLAN  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR DATE:	BUILDING 4 FIRST FLOOR  PROJECT NO. 656-400		J.S. Department of Veterans Affairs Veterans Health
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22  No REVISION DATE	3001 BROADWAY PH: 612.540.5000 0 1 2 STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN 55413	Signature: Robert Douglas Lowe Date:10/28/2022 License Number: 24706	BANCROFT ARCHITECTS + ENGINEERS  Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403  www. bancroft-ae.com BAE PROJECT NO. 18-116		APPROVED: DIRECTOR FMS	DATE: APPROVED: SAFETY MANAGER DATE	APPROVED: CHIEF OF STAFF DATE:  APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE:	BUILDING No 4 NKJ PAWN DRAWING NO. WDM MH201  LOCATION ST. CLOUD VAHCS ST. CLOUD, MN 56303 DWG. OF	St. C	it. Cloud VA Health Care System

. AIR HANDLING UNIT SHALL BE ORDERED WITH SHIPPING SPLITS AS DESCRIBED BELOW. UNIT SECTIONS ARE REQUIRED TO FIT THROUGH A 3' WIDE DOOR. . FAN SECTIONS WILL BE DISASSEMBLED BY CONTRACTOR FOR TRANSPORT INTO MECHANICAL ROOM. FAN SECTIONS SHALL BE RE-ASSEMBLED PER MANUFACTUER'S INSTRUCTIONS.



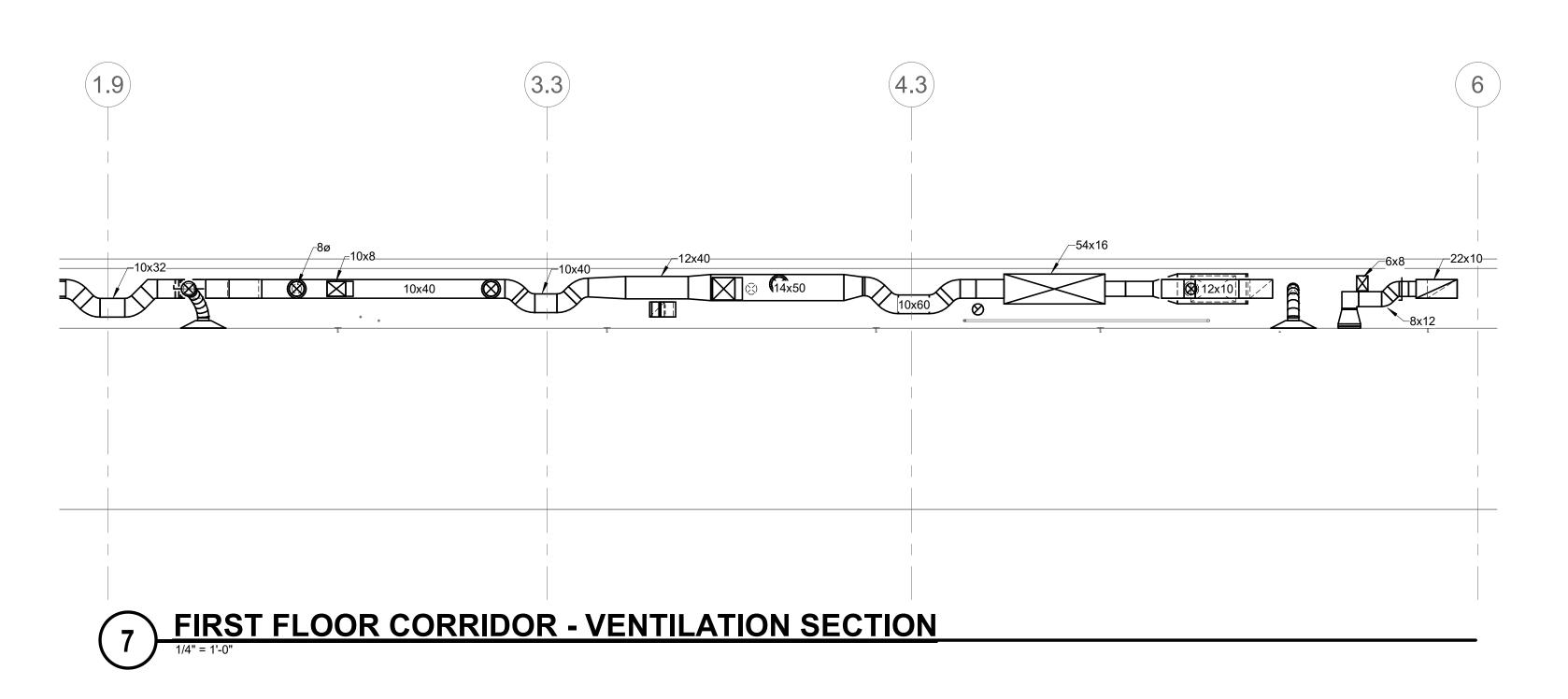
## 5 AIR HANDLING UNIT AHU-1 - ELEVATION NO SCALE

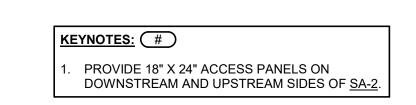
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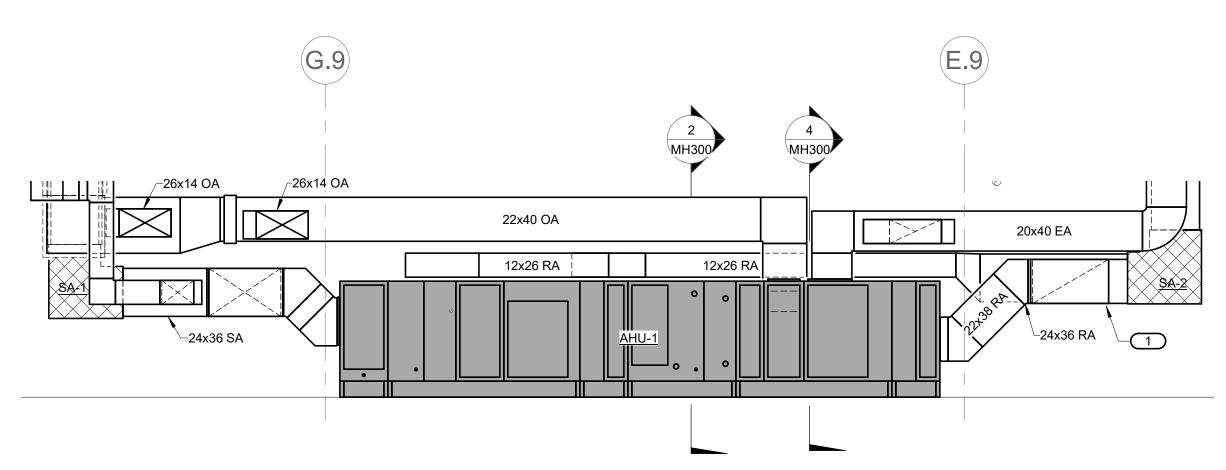


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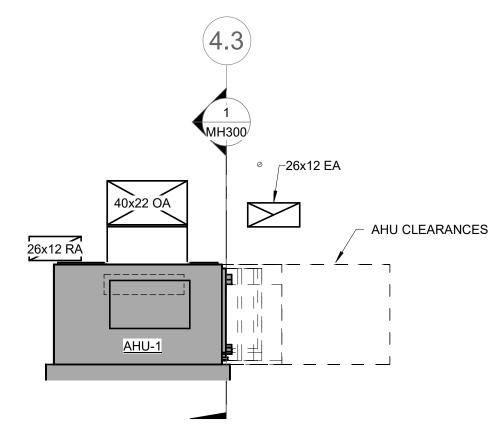
# 6 AIR HANDLING UNIT AHU-1 - PLAN NO SCALE





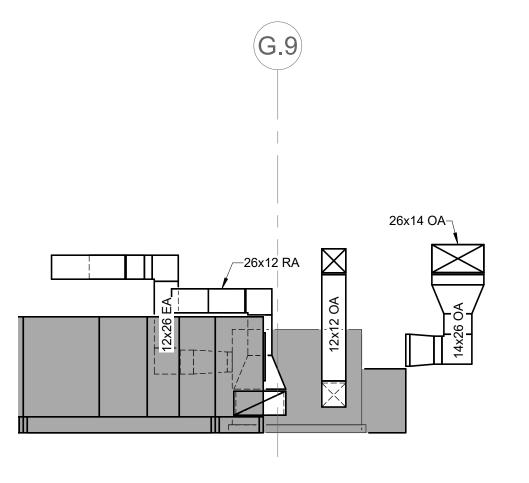


PACT MECHANICAL ROOM - AHU-01

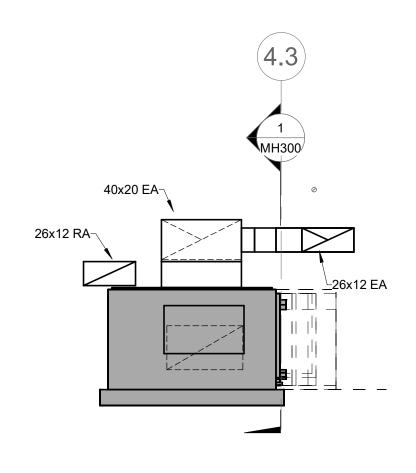


PACT MECHANICAL ROOM - LOOKING WEST

1/4" = 1'-0"



PACT MECHANICAL ROOM - ENERGY RECOVERY UNIT



PACT MECHANICAL ROOM - LOOKING WEST AT WEST SHAFT

ST. CLOUD, MN 56303 DWG. OF

10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

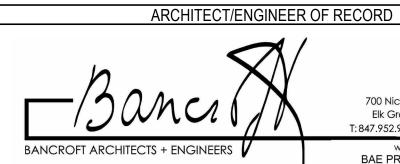
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 MINNEAPOLIS, MN 55413 DATE REVISION

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Signature: Typed or Printed Name: Robert Douglas Lowe

Date:10/28/2022 License Number: 24706



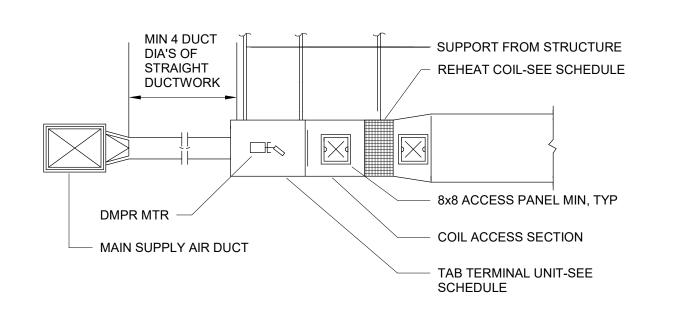
700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www. bancroft-ae.com BAE PROJECT NO. 18-116 DATE: APPROVED: SERVICE LINE DIRECTOR

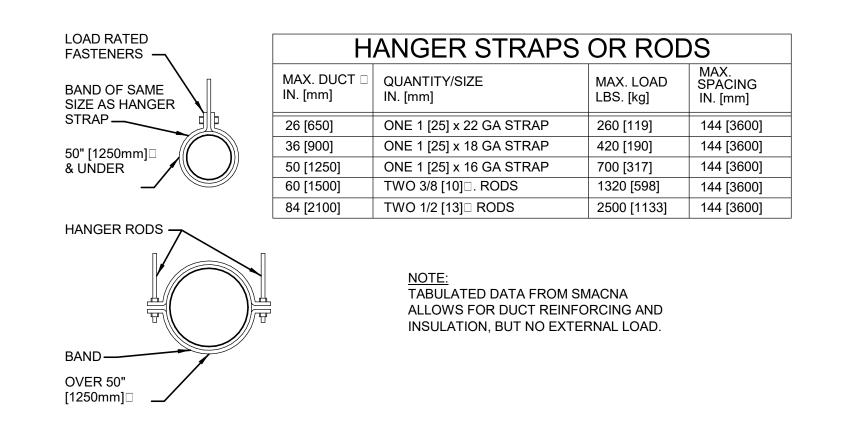
DRAWING TITLE
MECHANICAL - VENTILATION SECTIONS CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

DATE:
10/28/2022
PLOT SCALE E: BUILDING NO CHECKED BY DRAWN DRAWING NO.

WDM MH300

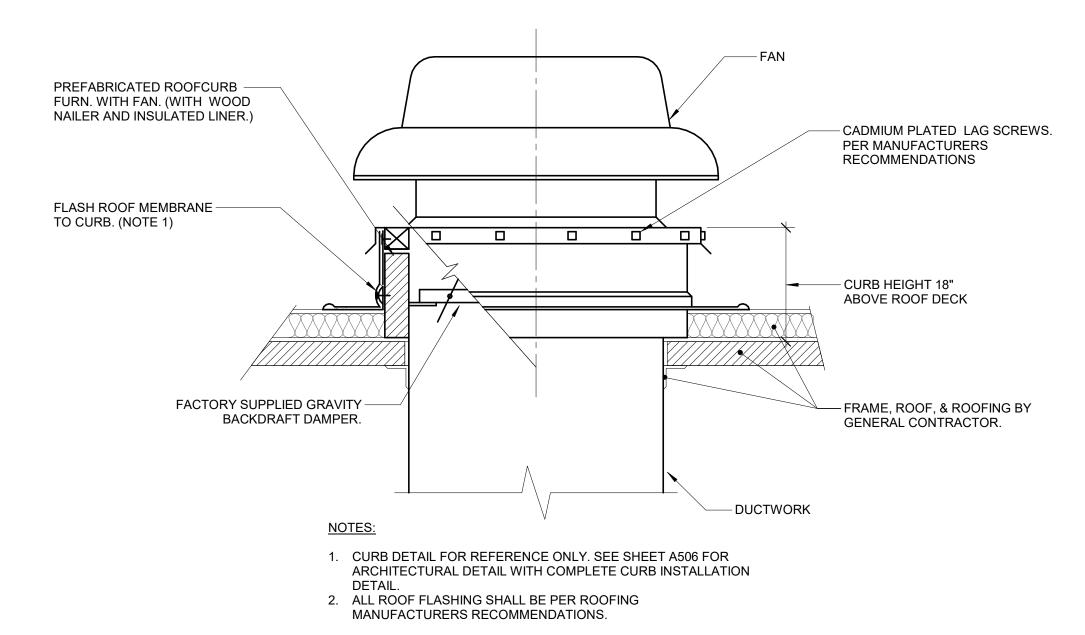




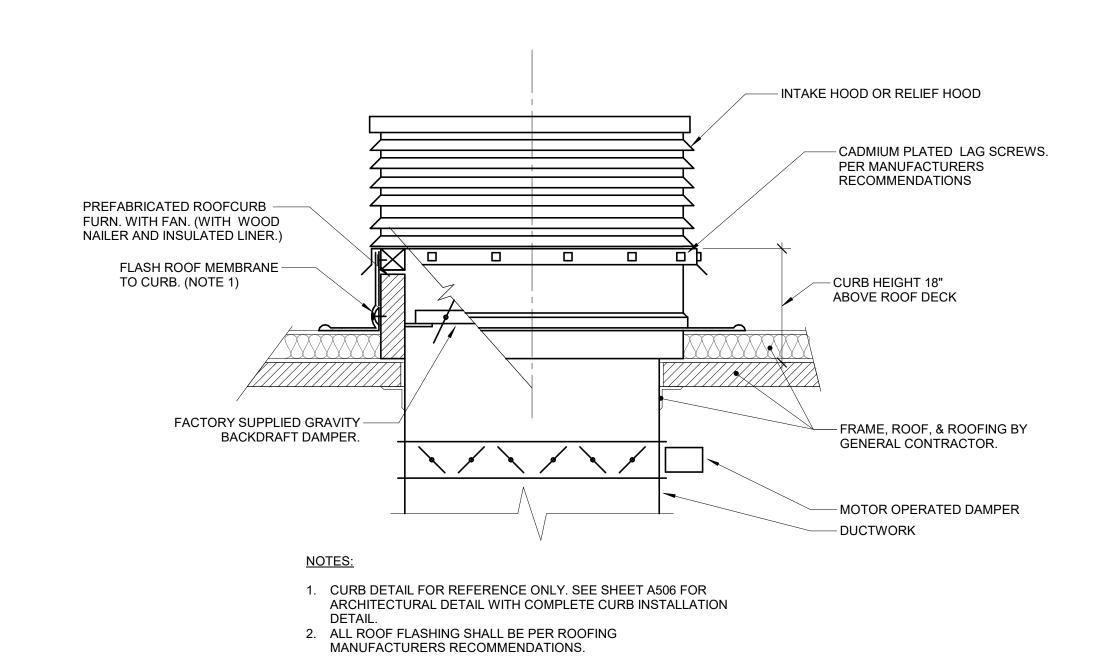


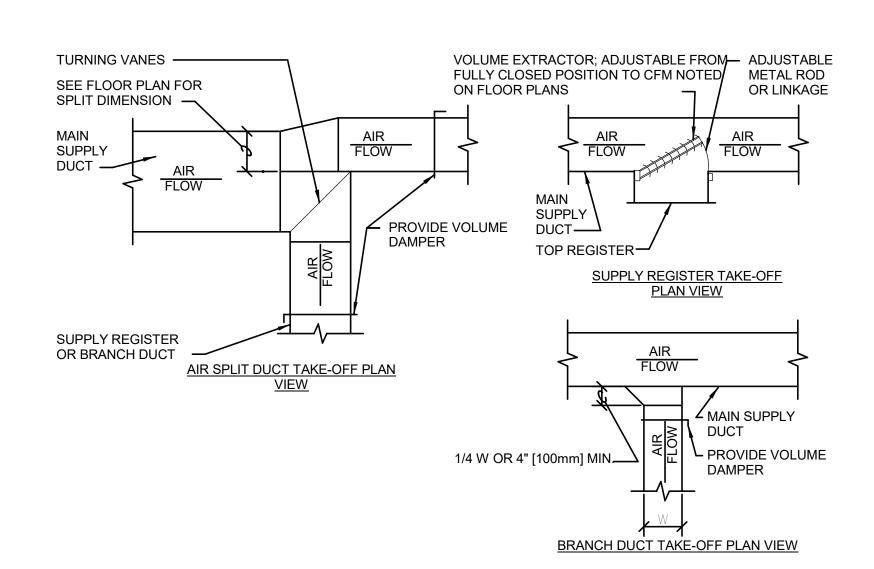




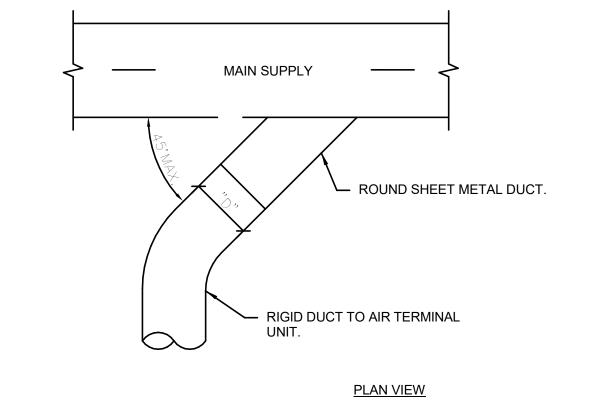


## 9 ROOF MOUNTED FAN

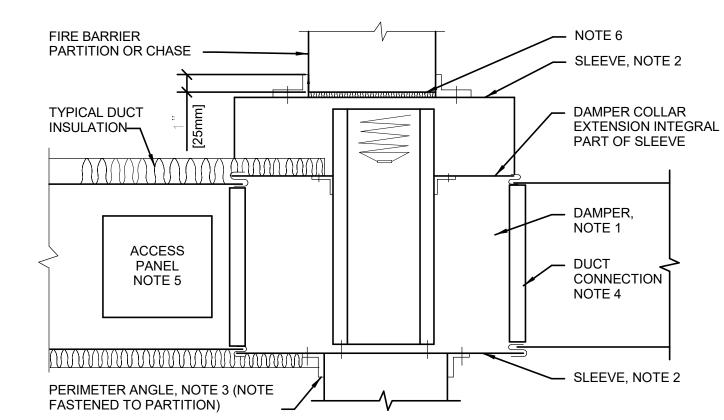








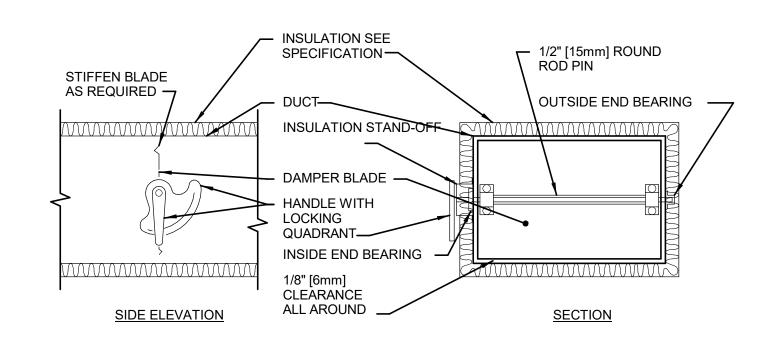
6 DUCT TAKEOFF - TERMINAL UNIT DETAIL
NO SCALE



#### NOTE:

- 1. A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION, 1S SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAGES FOR SLEEVE AND PERIMETER ANGLES. FIRE DAMPERS MUST BE INSTALLED IN THE PARTITION OR FLOOR AND NOT OUTSIDE THE PENETRATION.
- 2. GALVANIZED SLEEVE: GAGE NOT LESS THAN CONNECTING DUCT. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
- 3. PERIMETER ANGELS: GALVANIZED STEEL, NOT LESS THAN 1 1/2"x1 1/2" [40x40mm], 14 GAGE, TO PROVIDE 1" [25mm] MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
- 4. BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA. ACCESS PANELS: SIZE AND LOCATION TO PERMIT SERVICING THE FUSIBLE LINK OR LINKS.
- 5. PROVIDE 1/4" TO 1/2" [6 TO 15mm] CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL FIRESTOP FIBER.
- ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND MECHANICAL ROOM FLOORS, SHALL BE PROVIDED WITH 3" [75mm] HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

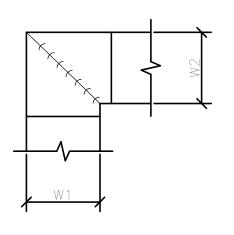
## 7 FIRE DAMPER INSTALLATION DETAIL NO SCALE



#### NOTE:

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

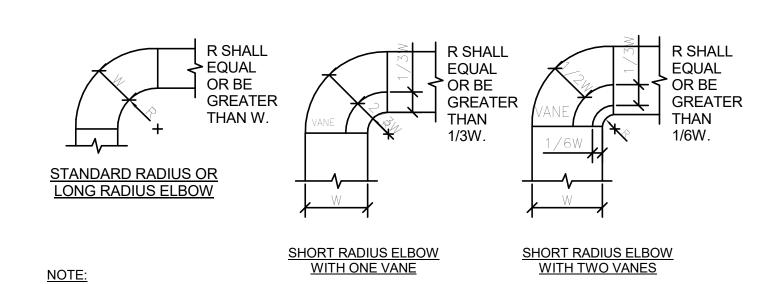
## 1 VOLUME DAMPER DETAIL NO SCALE



#### NOTE

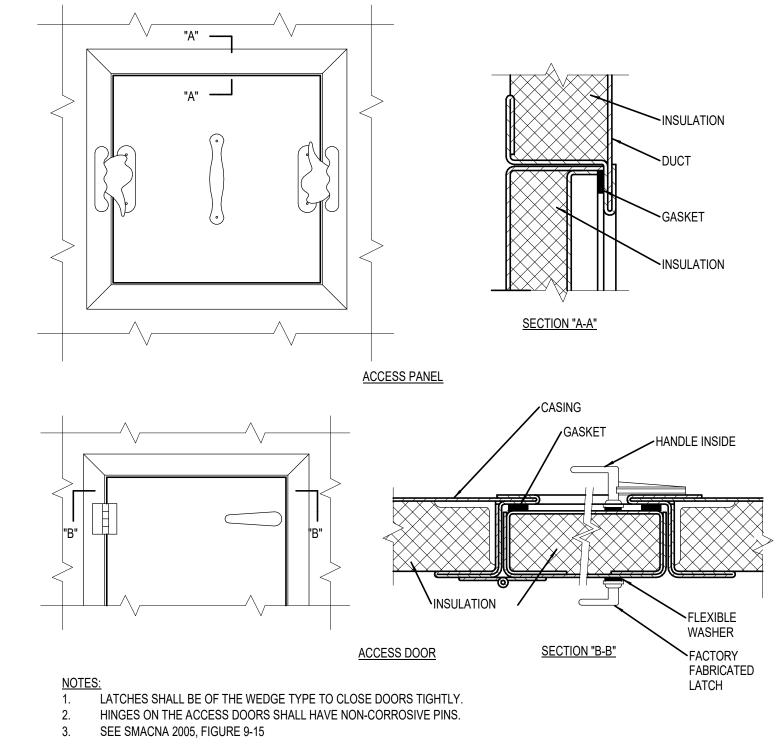
- 1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
- WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE 2. REGARDLESS OF W DIMENSION.
- ALL SINGLE THICKNESS VANES SHALL HAVE A 2" [50mm] RADIUS, 1 1/2" [40mm] MAXIMUM 3. SPACE BETWEEN VANES AND A 3/4" [20mm]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

## RECTANGULAR ELBOW DETAIL NO SCALE

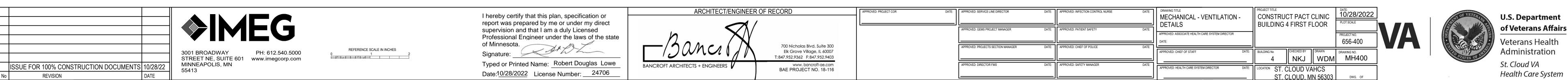


- 1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
- ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.





## 4 DUCT ACCESS PANEL NO SCALE



#### **ENERGY RECOVERY SCHEDULE** 1.SEMCO FV-3000 IS THE BASIS OF DESIGN. 2. UNIT SHALL HAVE AN EFFECTIVENESS OF 0.8. UNIT SHALL BE PROVIDED WITH MERV 8 FILTER BOX, AND SINGLE-POINT ELECTRICAL CONNECTION. 3. ENERGY RECOVERY WHEEL SHALL BE PROVIDED WITH VFD. OUTSIDE/SUPPLY AIR STREAM RETURN/EXHAUST AIR STREAM SUMMER EAT EAT LAT LAT CONTROLLER MINIMUM MAXIMUM TAG SYSTEM MINIMUM RECOVERED | RECOVERED | SUPPLY FAN | SUPPLY FAN | RETURN FAN | RETURN FAN | DISCONNECT DISCONNECT | CONTROLLER | STARTER CIRCUIT OVERCURRENT NAME SERVED TYPE EFFICIENCY MHP BHP MHP BY TYPE | STARTER BY | TYPE | VOLTAGE | PHASES | AMPACITY | PROTECTION ERV-1 AHU-1 WHEEL 0.65 2,620 CFM 92 °F 75 °F 80.8 °F 67.5 °F -3.2 °F -6.2 °F 44.7 °F 40.1 °F 0.5 in-wg 2,020 CFM 75 °F 63 °F 73.4 °F 70 °F 56 °F 7.2 °F 6.6 °F 0.35 in-wg 77 191 1.45 1.5 0.92 1.5 MFR NF MFR VFD 480 V 3 29.1 A 30 A FAN SCHEDULE 1. PROVIDE WITH FACTORY MOUNTED 18" CURB AND BIRDSCREEN. ISOLATION CONTROLLER/ STARTER S.P. IN. WHEEL DIA. FAN RPM DRIVE MAX. AMCA BACKDRAFT TYPE (NOTE B.O.D. CFM W.C. INCHES (NOTE F) TYPE SONES DAMPER TYPE (NOTE G) **BHP** 0.12 MODEL **AREA SERVED VOLTAGE** MANUFACTURER DIRECT 1707 GRAVITY 0.25 ECM TOILET ROOMS 9.7 MFR 120 MFR SEE SPEC Greenheck G-097-VG NOTE 1 EF-2 SOILED HOLDING 370 0.50 11.2 1287 DIRECT GRAVITY MFR G-100HP-VG NOTE 1

OU	<b>ND ATTEN</b>	UAT	OR SC	HEDULE																				
ATTEN	URE DROP VALUES L UATORS SA-1 AND SA LE WALL CONSTRUC	A-2 ARE R	RECTANGLUA	LR ELBOW SILEN	<b>CERS WITH</b>	LEG LEN	IGTHS O	F 12 INCH	HES.															
							ACOUST	TICAL PE	RFORMANO	CE AT +10	000 FPM (	(-1000 FPM	/I FOR RI	ETURN	APPLICA	TIONS)			DIME	ISIONS (INC	HES)			
				MAX. S.P.		NIMUM D	YNAMIC	INSERTIC	ON LOSS IN	DB		XIMUM AL	LOWAB	LE GEN	IERATED	NOISE IN		0-12 WATTS	DIMER CENTER LINE	ISIONS (INC	HES)			
TAG IAME	SYSTEM SERVED	CFM	VELOCITY	MAX. S.P. DROP IN. W.C. (NOTE 1)		NIMUM D OCTAVE	YNAMIC	INSERTIC ENTER F	ON LOSS IN REQUENCY	DB /	MAX	XIMUM AL	OCTAV	LE GEN	IERATED			0- <sup>12</sup> WATTS	CENTER	ISIONS (INC	HES)	B.O.D. MANUFACTURER	MODEL	NOTES
ΓAG	SYSTEM SERVED AHU-1 SUPPLY	<b>CFM</b> 7900	VELOCITY 1317	DROP IN. W.C.		OCTAVE	YNAMIC BAND C	INSERTIC ENTER F	ON LOSS IN REQUENCY	DB /	MAX	XIMUM AL	OCTAV	LE GEN	IERATED D CENTE	NOISE IN	ENCY		CENTER LINE LENGTH	,			MODEL ELB	NOTES

100	D & LOUVERE	ED PE	ENTHO	DUSE S	CHEDU	LE										
OTES: HOOD	TO BE PROVIDED WITH FA	CTORY M	OUNTED 18	" CURB AND	BIRDSCREEN.											
			THRO	AT SIZE		STATIC					MAX. DIMENSIO	NS				
TAG NAME	AREA SERVED	CFM	WIDTH	LENGTH	THROAT VELOCITY	PRESSURE DROP	FREE AREA (FT <sup>2</sup> )	CONFIGURATION	CURB TYPE	LENGTH	WIDTH	HEIGHT	WEIGHT	B.O.D. MANUFACTURER	MODEL	NOTES
IH-1	OUTDOOR AIR INTAKE	7100	48	48	445	0.10	16	LOUVERED PENTHOUSE	MFR	62	62	30	150	GREENHECK	WH	NOTES 1, 2
RH-1	RELIEF AIR	7100	48	48	445	0.10	16	LOUVERED PENTHOUSE	MFR	62	62	30	150	GREENHECK	WH	NOTES 1, 2

		ETERMINE PROPER MARC RK TO DIFFUSERS SHALL				_		
TAG NAME	MATERIAL	CONFIGURATION	MARGIN (NOTE 1)	FACE SIZE (IN.)	FINISH	B.O.D. MANUFACTURER	MODEL	NOTES
EG-1	STEEL	35 DEGREE DEFLECTION	LAY-IN		WHITE	TITUS	350RL	
RG-1	STEEL	35 DEGREE DEFLECTION	LAY-IN	24x12	WHITE	TITUS	355RL	
RG-2	STEEL	35 DEGREE DEFLECTION	1 1/4"	INLET +2	WHITE	TITUS	350R	
SD-1	STEEL	LOUVER FACE	LAY-IN	24x24	WHITE	TITUS	TMS	
SG-1	STEEL	SINGLE DEFLECTION	1 1/4"	INLET +2	WHITE	TITUS	301R	BLADES VERTICAL UNLESS NOTED OTHERWISE
SG-2	STEEL			12x8	WHITE	Titus-HVAC	DL	DUCT MOUNTED - DRUM LOUVER
TG-1	STEEL	35 DEGREE DEFLECTION	LAY-IN	24x12	WHITE	TITUS	355RL	

#### TERMINAL AIR BOX SCHEDULE - SINGLE DUCT 1.NEITHER RADIATED NOR DISCHARGE SOUND LEVELS SHALL EXCEED NC 35 AT 1.5" INLET STATIC PRESSURE WHEN TESTED PER AHRI STANDARD 885-2008 USING 5/8" 20-LB DENSITY MINERAL FIBER CEILING TILE. 2.TOTAL AIR PRESSURE DROP OF TAB AND REHEAT COIL SHALL NOT EXCEED 0.50" WC. 3.REFER TO CONTROL DRAWINGS FOR DESCRIPTION OF CONTROL TYPE. 4.SENSOR TYPES: 1 - SENSOR ONLY, 2 - SENSOR WITH ADJUSTMENT, 3 - SENSOR WITH OVERRIDE, 4 - SENSOR WITH ADJUSTMENT AND OVERRIDE. 5.HEATING COIL IS BASED ON HEATING AIR FLOW. WATER PRESSURE DROP OF REHEAT COILS SHALL NOT EXCEED 5'. PROVIDE REHEAT COILS SEPARATE FROM BOXES IF REQUIRED TO MEET WATER PRESSURE DROP REQUIREMENTS. WHEN LAT °F, EWT °F, AND GPM VALUES ARE BLANK, HEATING COIL IS NOT REQUIRED FOR TAB. ALL REHEATS SHALL BE 2-ROW COILS. 6.HEATING COIL SELECTION SHALL BE BASED ON A FIXED LEAVING AIR TEMPERATURE AND VARIABLE FLOW (GPM). PROVIDE FINAL MAXIMUM FLOW RATE (GPM) TO TEST & BALANCE TERMPERATURE CONTROLS CONTRACTORS. 7. FLUID MEDIA IS 35 % P.G. HEATING COIL (NOTES 5, 6, 7) HEATING MIN. INLET SENSOR TYPE (NOTE NAME **AREA SERVED** MIN. EAT °F LAT °F EWT °F MAX. GPM SIZE (IN.) DIA. MANUFACTURER (NOTES 1, 2) NOTES 345 55.0 85.0 180 **MECHANICAL 19** NOTES 1, 2, & 3 NOTES 1, 2, & 3 TEAM WORK AREA 158 415 140 55.0 85.0 70 55.0 85.0 TSS TAB-1.2 180 NOTES 1, 2, & 3 EXAM 13 150, EXAM 14 151, & CLEAN STORAGE 158A TAB-1.3 TSS CORRIDOR C3 & CLEAN STORAGE 153 95 55.0 95.0 180 NOTES 1, 2, & 3 TAB-1.4 SPS/LOGISTICS 152 50 55.0 85.0 180 0.5 TSS NOTES 1, 2, & 3 TSS TAB-1.5 EXAM 4 137 & EXAM 9 143 & CORRIDOR C3 360 95 55.0 85.0 180 0.9 NOTES 1, 2, & 3 SOILED HOLDING 157 50 55.0 95.0 180 0.8 NOTES 1, 2, & 3 CLEAN STORAGE 129 & 140 & EXAM 5 139 & EXAM 11 141 265 55.0 95.0 NOTES 1, 2, & 3 TAB-1.8 EXAM 5 142 & PCMHI 120I & CORRIDOR C2 130 55.0 85.0 NOTES 1, 2, & 3 430 TAB-1.9 60 55.0 85.0 EXAM 3 136 & EXAM 8 144 NOTES 1, 2, & 3 TAB-1.10 TEAM WORK AREA 132 225 55.0 85.0 180 NOTES 1, 2, & 3 1.8 TAB-1.11 EXAM 2 135 & EXAM 7 145 60 55.0 85.0 180 0.5 TSS NOTES 1, 2, & 3 TAB-1.12 PROCEDURE 154 365 110 55.0 95.0 180 1.2 TSS NOTES 1, 2, & 3 WAITING AREA 159 & CORRIDOR C1 430 55.0 85.0 180 3.0 TSS NOTES 1, 2, & 3 TAB-1.14 RECEPTION 159A 100 55.0 85.0 180 0.8 TSS NOTES 1, 2, & 3 135 55.0 85.0 180 1.1 95 55.0 85.0 180 0.5 TSS TAB-1.15 EXAM 1 133, EXAM 6 147, EXAM 12 148, & CORRIODR C3 430 NOTES 1, 2, & 3 450 0.5 95 55.0 85.0 TSS TAB-1.16 CORRIODR C2 NOTES 1, 2, & 3 50 55.0 85.0 180 0.5 TSS NOTES 1, 2, & 3 **MEDICATION 146**

_	SCHEDULE GENERAL NOTES:
	ECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANU	RICAL CONTRACTOR.
	SHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL
CONTRACTO	,
	JRNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL
CONTRACTO	
ATC = AUTO	MATIC TEMPERATURE CONTROL CONTRACTOR
B. DISCONNI	ECT TYPE:
F = FUSED	
NF = NON-FU	JSED
C. CONTROL	LER STARTER TYPE:
FV = FULL V	
WYE = WYE-	
	STATE (SOFT START)
MS = MANUA	AL STARTER ABLE FREQUENCY DRIVE
	RIABLE FREQUENCY DRIVE WITH BYPASS
V. 5/5 V/ II V	W.B.L. I N.L. QOLINO I BINIVE WITH BIT 7000
	SHALL NOT EXCEED 110% OF SCHEDULED VALUE, WITH THE
	WHEEL TYPE. SUBSTITUTION OF BI OR BIA FANS FOR FC IS
ACCEPTABL	E IF EFFICIENCY IS NOT LOWER.
	MENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE
RATING.	
F. MUST BE	WITHIN +/- 10% OF SCHEDULED RPM.
G. CURB TYP	<del></del> -
	DARD CURB BY MANUFACTURER
	NERAL CONTRACTOR ID ATTENUATOR CURB

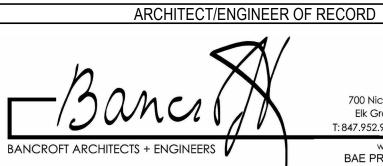
YMBOL		AHU-1
UPPLY FAN (SF-1) (NOTES 3 & 4)		PACT 4 CLINIC
	CFM	2 @ 3,950
	MINIMUM CFM	2 @ 1,310
	EXTERNAL STATIC PRESSURE	2.5" W.C.
	TYPE FAN RPM (NOTE D)	PLENUM 3,089
	BHP (NOTE E)	2 @ 6.2
	MHP (NOTE E)	2 @ 7.5
	DISCONNECT BY (NOTE A)	EC
	CONTROLLER/STARTER BY (NOTE A)	NF MFR
	CONTROLLER/STARTER TYPE (NOTE C)	VFD
	MCA	19.6
	МОСР	25
	SCCR	65 KA
ETURN FAN (RF-1) (NOTES 3 & 4)	СЕМ	2 @ 3,650
	MINIMUM CFM	2 @ 1,100
	EXTERNAL STATIC PRESSURE	1.5" W.C.
	ТҮРЕ	PLENUM
	FAN RPM (NOTE D)	2,237
	BHP (NOTE E)  MHP (NOTE E)	2 @ 2
	DISCONNECT BY (NOTE A)	2 @ 3 EC
	DISCONNECT TYPE (NOTE B)	NF
	CONTROLLER/STARTER BY (NOTE A)	MFR
	CONTROLLER/STARTER TYPE (NOTE C)	VFD
	MCA	9.4
	MOCP SCCR	15 65 KA
UTSIDE AIR CFM		2,620
OLT- PHASE		480/3
EATING COIL - HOT WATER (HC-1)		
	EAT °F	94.6
	EWT °F	180
	LWT °F	150
	GPM	33.1
	мвн	468.0
	MAX. A.P.D. IN. W.C.	0.20
OOLING COIL - CHILLED WATER (CC-1)	MAX. W.P.D. IN. W.C.	1.30
` ,	EAT °F DB	82
	EAT °F WB	68
	LAT °F DB	55
	LAT °F WB	54.8 44
	LWT °F	56
	GPM	59.6
	TOTAL MBH	325.0
	MAX. A.P.D. IN. W.C.	0.80
HUMIDIFIER	W.P.D. FEET HEAD	3.90
IOMIDII ILIX	ТҮРЕ	STEAM
	AIRFLOW (CFM)	7,900.00
	STEAM PSIG (NOTE 1)	5.00
	CAPACITY (LBS/HR)	80.00
LTER	ABSORPTION DISTANCE	2'-6"
<del></del>	PRE-FILTER 1 - TYPE	MERV 7
	PRE-FILTER 2 - TYPE	MERV 11
	AFTER-FILTER - TYPE	MERV 14
	VELOCITY PRE-1/PRE-2/FINAL	420
	MAX. A.P.D. IN. W.C. PRE-1/PRE-2/FINAL	0.6/ 0.6/ 0.8
BRATION ISOLATION	1	
	ТҮРЕ	SEE SPEC.
	DEFLECTION	SEE SPEC.
WEIGHT ASIS OF DESIGN - MANUFACTURER		4,800 LBS TRANE
ASIS OF DESIGN - MANUFACTURER ASIS OF DESIGN - MODEL NUMBER		CSAA 017
EMARKS		NOTES 3 & 4
NOTES:		

#### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

			<b>♦IMEG</b>
			3001 BROADWAY PH: 612.540 STREET NE, SUITE 601 www.imegcorp
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MINNEAPOLIS, MN 55413
No	REVISION	DATE	30410

REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state or winnesota.
Signature: Typed or Printed Name: Robert Douglas Lowe Date:10/28/2022 License Number: 24706



700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 DATE: APPROVED: SERVICE LINE DIRECTOR

DRAWING TITLE

MECHANICAL - VENTILATION -CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

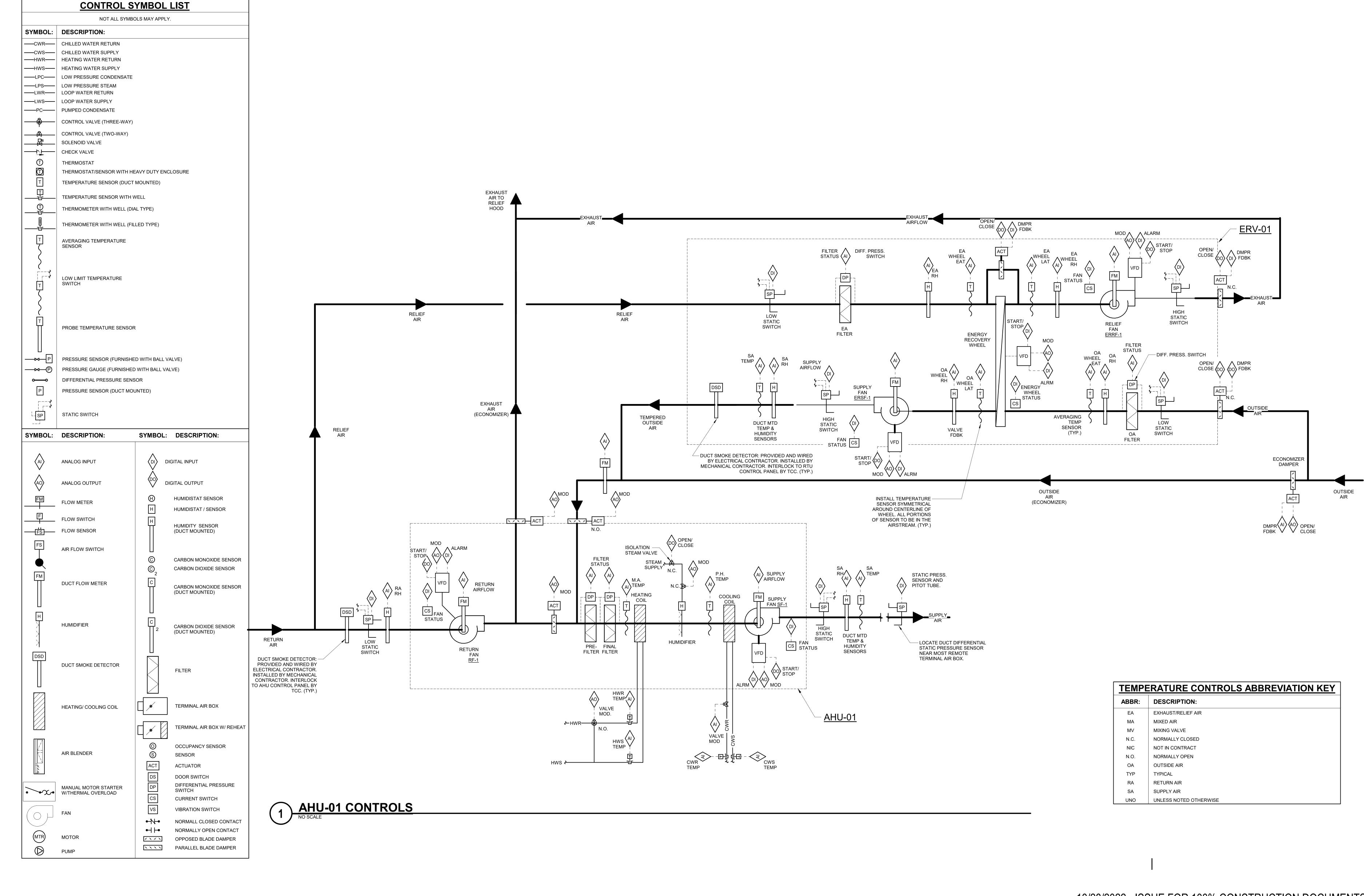
DATE: 10/28/2022
PLOT SCALE SCHEDULES APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR CHECKED BY DRAWN DRAWING NO.

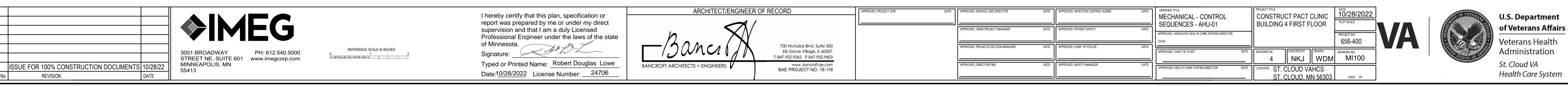
WDM MH500

ST. CLOUD, MN 56303 DWG. OF









**SEQUENCE OF OPERATION:** 

#### WHEN AHU IS INDEXED TO RUN, THE FOLLOWING SHALL OCCUR: COMBINATION FIRE/SMOKE DAMPERS SHALL OPEN.

AFTER A 30 SECOND DELAY (ADJ.) TO ALLOW FOR OPENING OF COMBINATION FIRE/SMOKE DAMPERS. SUPPLY FAN SHALL WHEN THE SUPPLY FAN HAS STARTED THE RETURN FAN AND INTERLOCKED EXHAUST FANS SHALL START AS SHOWN IN THE FAN INTERLOCK SCHEDULE.

FMCS SHALL MODULATE SIGNAL TO SUPPLY FAN VFD TO MAINTAIN DUCT STATIC PRESSURE AS MEASURED BY STATIC PRESSURE TRANSMITTER NEAR THE END OF THE CRITICAL DUCT BRANCH.

RETURN FAN OPERATION:
RETURN FAN SHALL BE INDEXED TO RUN WHENEVER THE SUPPLY FAN IS INDEXED TO RUN. FMCS SHALL MODULATE SIGNAL TO RETURN FAN VFD AS REQUIRED TO MAINTAIN THE AIRFLOW OFFSET AS INDICATED IN THE RETURN FAN AIRFLOW

FMCS SHALL RESET SUPPLY DUCT STATIC PRESSURE SETPOINT BELOW THE MAXIMUM SETPOINT AS REQUIRED TO MAINTAIN AT LEAST ONE SUPPLY TAB DAMPER 90% (ADJ.) OPEN. FMCS SHALL MONITOR ALL SUPPLY TERMINAL AIR BOX POSITIONS TO RESET THE SUPPLY DUCT DIFFERENTIAL STATIC PRESSURE.

**DISCHARGE AIR TEMPERATURE SET POIN** DISCHARGE AIR SET POINT SHALL BE 55°F (ADJ.).

DISCHARGE AIR TEMPERATURE RESET:
RESET DISCHARGE AIR TEMPERATURE BASED ON THE ZONE WITH THE GREATEST CALL FOR COOLING. RESET THE

TEMPERATURE AS FOLLOWS: WHEN WORST CASE TAB IS LESS THAN 90% (ADJ.) OPEN FOR TEN MINUTES (ADJ.) THEN THE DISCHARGE AIR

- TEMPERATURE SHALL INCREASE BY 1°F (ADJ.). THIS SHALL CONTINUE UNTIL AHU MAXIMUM DISCHARGE AIR TEMPERATURE OF 60°F (ADJ.) IS ACHIEVED. WHEN WORST CASE TAB IS MORE THAN 90% OPEN FOR TEN MINUTES (ADJ.) THEN THE DISCHARGE AIR TEMPERATURE
- SHALL DROP BY 1°F (ADJ.). THIS SHALL CONTINUE UNTIL AHU MINIMUM DISCHARGE AIR TEMPERATURE OF 55°F (ADJ.) IS THE MAXIMUM ALLOWABLE RETURN AIR HUMIDITY SETPOINT SHALL BE 60% (ADJ.). IF RETURN AIR HUMIDITY IS GREATER
- THAN SETPOINT, RESET DISCHARGE AIR TEMPERATURE TO 55°F UNTIL RETURN AIR HUMIDITY IS 5% LESS THAN MAXIMUM SETPOINT FOR 10 MINUTES (ADJ.).

STATIC PRESSURE AND DISCHARGE AIR TEMPERATURE RESET PRIORITY:
RESET THE DISCHARGE AIR TEMPERATURE PRIOR TO RESETTING THE DUCTWORK STATIC PRESSURE SETPOINT. ONCE THE MAXIMUM SUPPLY TEMPERATURE IS REACHED THEN THE SYSTEM SHALL ENABLE THE STATIC PRESSURE RESET.

WHENEVER THE AIR HANDLING UNIT IS IN OCCUPIED MODE, AND NOT IN ECONOMIZER MODE, THE HEAT RECOVERY UNIT (ERV-1) FANS <u>ERSF-1</u> AND <u>ERRF-1</u> SHALL BE ON. THE MINIMUM OUTSIDE AIR DAMPER AND MINIMUM RELIEF AIR DAMPER SHALL BE FULLY OPEN. WHEN THE UNIT IS IN ECONOMIZER MODE, THE HEAT RECOVERY UNIT FANS SHALL BE OFF AND THE MINIMUM DAMPERS SHALL BE CLOSED. THE RETURN DAMPER SHALL MODULATE TO MAINTAIN THE OUTSIDE AIRFLOW RATE OR TO SATISFY THE ECONOMIZER DISCHARGE AIR SEQUENCE. WHEN BUILDING IS OCCUPIED THE OUTSIDE AIRFLOW SHALL NOT BE LOWER THAN THE MINIMUM OUTSIDE AIRFLOW RATE (2200 CFM).

AT FULL HEATING THE ENERGY RECOVERY WHEEL SHALL BE ROTATING AT FULL SPEED WITH THE BYPASS DAMPERS CLOSED AND THE HEATING COIL CONTROL VALVE MODULATING TO MAINTAIN SETPOINT. WHENEVER THE DISCHARGE AIR TEMPERATURE IS ABOVE SETPOINT THE FOLLOWING SHALL OCCUR:

- THE HEATING COIL CONTROL VALVE SHALL MODULATE CLOSED. THE ENERGY RECOVERY WHEEL SHALL MODULATE TO MAINTAIN SETPOINT. UNIT SHALL ENTER ECONOMIZER OPERATION AND THE RELIEF AIR AND RETURN AIR DAMPERS SHALL MODULATE IN
- OPPOSITION TO MAINTAIN SETPOINT. IF THE ECONOMIZER SEQUENCE CANNOT MAINTAIN SETPOINT, THE COOLING COIL CONTROL VALVE SHALL MODULATE TO
- MAINTAIN SETPOINT AND THE UNIT SHALL REMAIN IN FULL ECONOMIZER. THE ECONOMIZER SEQUENCE SHALL BE DISABLED AT AN OUTSIDE AIR DRY BULB TEMPERATURE OF 70°F (ADJ.) OR
- THE ENERGY RECOVERY SYSTEM SHALL TURN ON TO FULL SPEED AND THE ENERGY RECOVERY WHEEL BYPASS DAMPERS SHALL CLOSE WHEN THE TEMPERATURE DIFFERENCE FROM THE RETURN AIR TO THE OUTSIDE AIR IS 5°F
- (ADJ.) OR GREATER FOR MORE THAN 20 MINUTES (ADJ.). THE COOLING COIL CONTROL VALVE SHALL CONTINUE TO MODULATE TO MAINTAIN SETPOINT.

AT FULL COOLING THE ENERGY RECOVERY WHEEL SHALL BE ROTATING AT FULL SPEED WITH THE BYPASS DAMPERS CLOSED AND THE COOLING COIL CONTROL VALVE MODULATING TO MAINTAIN SETPOINT. WHENEVER THE DISCHARGE AIR TEMPERATURE IS BELOW SETPOINT THE FOLLOWING SHALL OCCUR:

- THE COOLING COIL CONTROL VALVE SHALL CONTINUE TO MODULATE TO MAINTAIN SETPOINT THE ENERGY RECOVERY WHEEL SHALL BE DISABLED AND THE ENERGY RECOVERY WHEEL BYPASS DAMPERS SHALL OPEN WHEN THE TEMPERATURE DIFFERENCE FROM THE RETURN AIR AND OUTSIDE AIR IS 5°F (ADJ.) OR LESS. THE ECONOMIZER OPERATION SHALL BE ENABLED WHEN THE OUTSIDE AIR DRY BULB TEMPERATURE IS LESS THAN 68°F
- (ADJ.). IN ECONOMIZER MODE THE FMCS SHALL MODULATE THE RETURN AND RELIEF DAMPERS AS REQUIRED TO MAINTAIN DISCHARGE AIR TEMPERATURE SETPOINT. THE COOLING COIL CONTROL VALVE SHALL MODULATE CLOSED. THE ECONOMIZER OPERATION SHALL CONTINUE TO MAINTAIN SETPOINT. THE COOLING COIL CONTROL VALVE SHALL BE DISABLED BELOW 50°F (ADJ.)
- IF THE SETPOINT CANNOT BE MAINTAINED BY ECONOMIZER OPERATION THE ENERGY RECOVERY WHEEL SHALL BE ENABLED AND THE BYPASS DAMPERS SHALL CLOSE. THE BYPASS DAMPERS SHALL MODULATE TO MAINTAIN SETPOINT.
- ONCE THE ENERGY RECOVERY WHEEL IS AT FULL SPEED THE HEATING COIL CONTROL VALVE SHALL MODULATE OPEN.

DEFROST CONTROL: JOG THE HEATING WHEEL CONTROL TO LIMIT THE LEAVING EXHAUST AIR TEMPERATURE FROM THE WHEEL TO 15°F (ADJ.) AT A RETURN AIR RELATIVE HUMIDITY OF 30% RH AND RESET TO 5°F (ADJ.) AT 20% RH.

PURGE CONTROL: WHEN THE HEAT WHEEL IS DEACTIVATED, THE WHEEL SHALL RUN FOR 20 SECONDS EVERY 30 MINUTES TO KEEP THE ROTOR SURFACE CLEAN. BYPASS DAMPERS SHALL REMAIN OPEN DURING PURGE SEQUENCE.

Table based on 55F LAT, 70F RAT, -20F OAT Heating Coil On / Partial Recovery Only Off On / Bypass Closed Off Economizer Cooling Coi Modulating OA Temp -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95

AHU-01 CONTROLS (CONT.)

HUMIDIFIER CONTROLS:
HUMIDIFIER CONTROLS AND ALARMS SHALL BE ENABLED WHEN OUTSIDE AIR TEMPERATURE DROPS BELOW 45°F (ADJ.) AT WHICH POINT THE ISOLATION STEAM VALVE SHALL FULLY OPEN. HUMIDIFIER CONTROLS AND ALARMS SHALL BE DISABLED WHEN OUTSIDE AIR TEMPERATURE RISES ABOVE 50°F (ADJ.) AT WHICH POINT THE ISOLATION STEAM VALVE SHALL FULLY CLOSE.

WHEN HUMIDIFIER CONTROLS ARE ENABLED, FMCS CONTROLLER SHALL MODULATE STEAM VALVE AS REQUIRED TO MAINTAIN 43°F DEWPOINT (ADJ.) IN THE SUPPLY AIR DUCT. DUCT MOUNTED HUMIDITY TRANSMITTER AT FAN DISCHARGE SHALL PREVENT SUPPLY AIR RELATIVE HUMIDITY FROM EXCEEDING 70% (ADJ.).

ALARMS, INTERLOCKS, AND SAFETIES:
WHEN FIRE ALARM CONTROL PANEL INDICATES AN ALARM CONDITION, AHU SHALL BE SHUTDOWN.

SHOULD THE DISCHARGE AIR TEMPERATURE SENSOR SENSE AIR TEMPERATURE <34°F (ADJ.).

- THE FOLLOWING CONDITIONS SHALL SHUTDOWN THE AHU AND SHALL INDICATE AN ALARM CONDITION AT THE FMCS WORKSTATION: LOW STATIC PRESSURE SWITCH INDICATES RETURN DUCT PRESSURE LESS THAN THE SPECIFIED DUCT PRESSURE CLASS. HIGH STATIC PRESSURE SWITCH INDICATES EXHAUST DUCT STATIC PRESSURE GREATER THAN THE SPECIFIED DUCT PRESSURE
- LOW STATIC PRESSURE SWITCH INDICATES OUTSIDE AIR SECTION PRESSURE LESS THAN THE SPECIFIED DUCT PRESSURE CLASS OF THE OUTSIDE AIR DUCTWORK. HIGH STATIC PRESSURE SWITCH INDICATES SUPPLY DUCT STATIC PRESSURE GREATER THAN THE SPECIFIED DUCT PRESSURE
- THE FOLLOWING CONDITIONS SHALL INDICATE AN ALARM AT THE FMCS, HOWEVER AHU SHALL CONTINUE TO OPERATE: AN ALARM IS INDICATED AT ANY SUPPLY FAN VFD OR RETURN FAN VFD. DIFFERENTIAL PRESSURE SENSOR ACROSS ANY PRE-FILTER (30%) BANK MEASURES A PRESSURE EXCEEDING 0.6 INCHES W.G.
- DIFFÉRENTIAL PRESSURE SENOSR ACROSS FINAL FILTER BANK MEASURES A PRESSURE EXCEEDING 1.0 INCHES W.G. (ADJ.) RELATIVE HUMIDITY OF SUPPLY AIR EXCEEDS 85% RH (ADJ.) AS MEASURED BY DISCHARGE AIR HUMIDITY SENSOR. WHEN HUMIDITY SWITCH TRIPS, STEAM CONTROL VALVE SHALL FULLY CLOSE UNTIL ALARM IS MANUALLY RESET AT FMCS

DDC SYSTEM. IF THE WHEEL IS INDEXED TO RUN AND TWO SWITCH CLOSURES ARE NOT SENSED WITHIN 10 MINUTES, AN ALARM

WORKSTATION. SEND AN ALARM TO THE FMCS OPERATOR INTERFACE IF THE DISCHARGE AIR TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT FOR MORE THAN 10 MINUTES (ADJ.). THE HEAT WHEEL COMES FACTORY EQUIPPED WITH A PROXIMITY SWITCH THAT SHALL PROVIDE A DRY CONTACT IN PUT TO THE

IN THE EVENT SUPPLY FAN IS NOT RUNNING (AS INDICATED BY THE CURRENT SENSING RELAYS) RETURN AIR FAN SHALL BE DE-

### WHENEVER AHU IS SHUTDOWN THE FOLLOWING SHALL OCCUR: THE OUTSIDE AIR DAMPER AND RELIEF AIR DAMPER SHALL FULLY CLOSE.

RETURN AIR DAMPER SHALL FULLY OPEN.

WILL BE SENT THROUGH THE DDC SYSTEM SIGNALING A WHEEL ROTATION FAILURE.

- PREHEAT COIL CONTROL VALVE SHALL REMAIN UNDER CONTROL OF ITS INPUT SENSOR. ALL COMBINATION FIRE/SMOKE DAMPERS SHALL FULLY CLOSE.
- CHILLED WATER CONTROL VALVE SHALL FULLY CLOSE. HUMIDIFICATION ISOLATION STEAM VALVE SHALL FULLY CLOSE.
- SUPPLY FAN AND RETURN FAN VFDS SHALL BE DE-ENERGIZED. INTERLOCKED EXHAUST FANS SHALL BE DE-ENERGIZED.
- ENERGY RECOVERY WHEEL SHALL STOP AND BYPASS DAMPERS WILL CLOSE.

### UNOCCUPIED MODE: PROVIDE TIME OF DAY SCHEDULE TO ALLOW AHU TO ENTER UNOCCUPIED MODE PER SCHEDULE.

- THE SUPPLY AND RETURN FANS SHALL SHUTDOWN. WHEN USING CONSTANT VOLUME OFFSET FOR RETURN AIR FAN CONTROL, THE OFFSET SHALL GO TO ZERO AND THE SUPPLY FAN SHALL BE LIMITED TO THE MAXIMUM RETURN FAN AIRFLOW. THE OUTSIDE AIR AND RELIEF AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN. ECONOMIZER CYCLE SHALL TAKE PRECEDENCE OVER DAMPER POSITION. THE ENERGY RECOVERY WHEEL SHALL BE DISABLED.
- IF ANY OF THE SPACE TEMPERATURES FALL BELOW 55°F (ADJ.), THE SYSTEM SHALL RESTART THE SUPPLY AND RETURN FANS. THE FANS SHALL CONTINUE RUNNING UNTIL THE SPACE TEMPERATURE RISES 5°F (ADJ.)
- IF ANY OF THE SPACE TEMPERATURES RISE ABOVE 80°F (ADJ.), THE SYSTEM SHALL RESTART THE SUPPLY AND RETURN FANS AND CONTINUE RUNNING UNTIL THE SPACE TEMPERATURE FALLS 5°F (ADJ.)
- HEATING OPTIMUM START-UP:
- THIS CYCLE SHALL OVERRIDE THE UNOCCUPIED CYCLE. IF THE SYSTEM WAS OPERATING AS A RESULT OF THE UNOCCUPIED CYCLE, THE SYSTEM SHALL CONTINUE TO OPERATE. THE DDC SYSTEM SHALL DETERMINE THE MINIMUM RUNTIME TO WARM THE SPACES TO THEIR SETPOINT WHEN THE COMPUTED START TIME IS REACHED. THE AIR HANDLING UNIT DISCHARGE AIR TEMPERATURE SHALL BE MAINTAINED AT A SETPOINT OF 85°F (ADJ.). THE SYSTEM SHALL CONTINUE TO OPERATE IN THIS MODE UNTIL ALL TEMPERATURES EXCEED A SETPOINT OF 68°F (ADJ.). AT THAT TIME, THE DDC SYSTEM SHALL SWITCH TO OCCUPIED
- COOLING OPTIMUM START-UP: THIS CYCLE SHALL OVERRIDE THE UNOCCUPIED CYCLE. IF THE SYSTEM WAS OPERATING AS A RESULT OF THE UNOCCUPIED CYCLE, THE SYSTEM SHALL CONTINUE TO OPERATE. THE DDC SYSTEM SHALL DETERMINE THE MINIMUM RUNTIME TO COOL THE SPACES TO THEIR SETPOINT WHEN THE COMPUTED START TIME IS REACHED. THE AIR HANDLING UNIT DISCHARGE AIR TEMPERATURE SHALL BE MAINTAINED AT A SETPOINT OF 55°F (ADJ.). THE SYSTEM SHALL CONTINUE TO OPERATE IN THIS MODE UNTIL ALL TEMPERATURES ARE LESS THAN A SETPOINT OF 75°F (ADJ.). AT THAT TIME, THE DDC SYSTEM SHALL SWITCH TO

DISPLAY THE GLOBAL OA TEMPERATURE AND HUMIDITY ON AHU GRAPHIC PAGE.

DDC FMCS SHALL MONITOR THE FOLLOWING POINTS ON 10 MINUTE (ADJ.) INTERVALS WITHIN A SINGLE TREND. THE TREND SHALL RUN FOR A 100-DAY (ADJ.) DURATION AT WHICH POINT THE NEWEST VALUES SHALL AUTOMATICALLY OVERWRITE THE OLDEST GLOBAL OUTSIDE AIR TEMP [°F] GLOBAL OUTSIDE AIR HUMIDITY [%RH] SUPPLY AIRFLOW [CFM] SUPPLY AIR TEMP (SAT) [°F] SUPPLY AIR TEMP SETPOINT [°F] SUPPLY AIR RELATIVE HUMIDITY [%] SUPPLY AIR DEWPOINT [°F] SUPPLY AIR DEWPOINT SETPOINT [°F] RETURN AIRFLOW [CFM] RETURN AIR TEMP (RAT) [°F] RETURN AIR RELATIVE HUMIDITY [%] OUTSIDE AIRFLOW [CFM] MIXED AIR TEMP [°F] PRE-FILTER LOADING [STATUS] FINAL FILTER LOADING [STATUS] HEATING WATER VALVE POSITION [% OPEN] PREHEAT COIL DISCHARGE AIR TEMPERATURE [°F] CHILLED WATER VALVE POSITION [% OPEN] HUMIDIFIER VALVE POSITION [% OPEN] WINTER HUMIDIFIER ISOLATION VALVE [OPEN/CLOSED] SUPPLY DUCT STATIC PRESSURE SETPOINT [INCHES W.G.] SUPPLY DUCT STATIC PRESSURE [INCHES W.G.] SUPPLY FAN VFD OUTPUT [% FULL SPEED] RETURN FAN VFD OUTPUT [% FULL SPEED] OUTSIDE AIR DAMPER POSITION [% OPEN] RETURN AIR DAMPER POSITION [% OPEN] RELIEF AIR DAMPER POSITION [% OPEN] ENERGY RECOVERY WHEEL VFD OUTPUT [% FULL SPEED] ENERGY RECOVERY WHEEL OUTSIDE AIR LEAVING AIR TEMPERATURE [°F] ENERGY RECOVERY WHEEL OUTSIDE AIR LEAVING RELATIVE HUMIDITY [°F] ENERGY RECOVERY WHEEL EXHAUST AIR LEAVING AIR TEMPERATURE [°F] ENERGY RECOVERY WHEEL EXHAUST AIR LEAVING RELATIVE HUMIDITY [°F] BYPASS DAMPER POSITION [OPEN/CLOSED] THIS INFORMATION SHALL BE ACCESSIBLE TO VIEW IN GRAPHICAL FORM ON THE FMCS OPERATOR WORKSTATION.

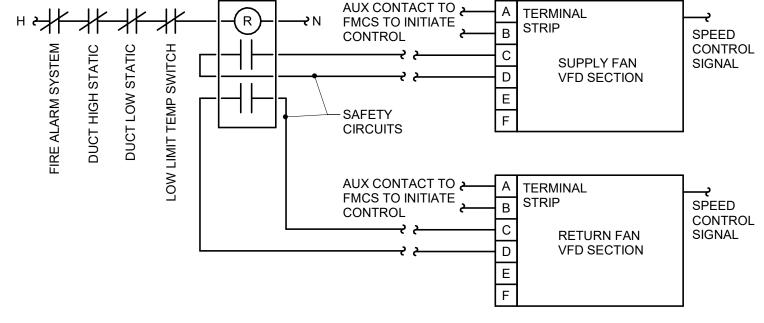
#### AIR HANDLER REPORT GENERATION TYPICAL FOR AHU-1

RETURN FAN AIRFLOW SCHEDULE				
SYSTEM	SUPPLY CFM	EXHAUST FANS	PRESSURIZATION CFM	REMARKS
AHU-1	7900	EF-1, EF-2	45	NOTES 1,2,3

- 1. RETURN FAN AIRFLOW SETPOINT SHALL BE THE SUPPLY FAN AIRFLOW (AS MEASURED BY THE AFMS) MINUS THE SUM OF THE EXHAUST FAN AIRFLOWS MINUS THE PRESSURIZATION CFM.
- 2. FMCS SHALL DETERMINE THE OPERATIONAL STATUS OF EACH EXHAUST FAN VIA THE CURRENT SENSING RELAY TO DETERMINE WHETHER THE CFM ASSOCIATED WITH THAT FAN
- SHOULD BE INCLUDED IN THE RETURN FAN AIRFLOW CALCULATION. 3. EXHAUST FAN AIRFLOWS SHALL NOT BE THE CFM INDICATED ON THE FAN SCHEDULE, BUT SHALL BE THE AIRFLOW INDICATED IN THE FINAL TAB REPORT.

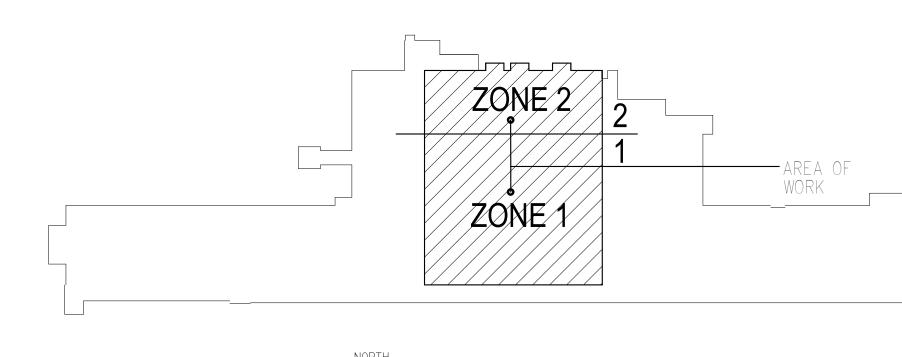
FAN INTERLOCK SCHEDULE					
SYSTEM	INTERLOCKED EXHAUST FANS	REMARKS			
AHU-1	EF-1, EF-2	NOTE 1			

1. INTERLOCK EXHAUST FAN OPERATION THROUGH THE FMCS WITH RESPECTIVE AHU IN ACCORDANCE WITH AHU SEQUENCE OF OPERATION



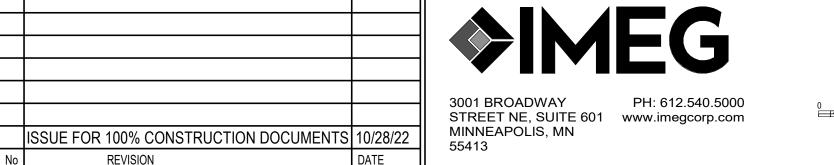
**SUPPLY & RETURN FAN VFD CONTROL** 







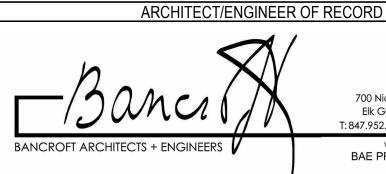
### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS



REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state Typed or Printed Name: Robert Douglas Lowe

Date:10/28/2022 License Number: 24706

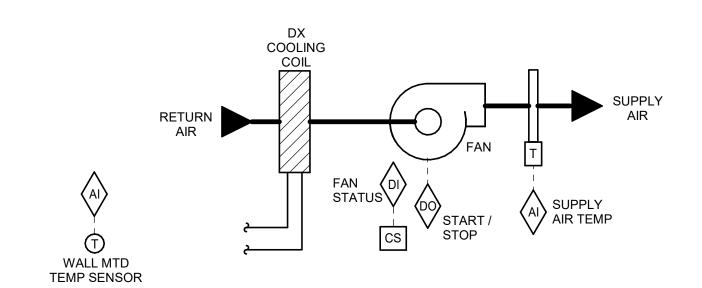


700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 E: APPROVED: SERVICE LINE DIRECTO

CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR MECHANICAL - CONTROL SEQUENCES - AHU-01 (CONT.) APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR NKJ WDM MI101 ST. CLOUD, MN 56303







SEQUENCE OF OPERATION: SPLIT SYSTEM SHALL BE CONTROLLED BY A STAND-ALONE CONTROLLER. THE UNIT SHALL MAINTAIN A ROOM AIR TEMPERATURE SETPOINT. ROOM TEMPERATURE TO BE MONITORED BY THE FMCS.

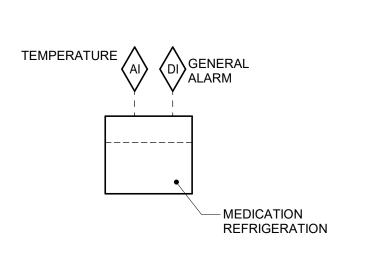
THE CONTROLLER SHALL MODULATE THE DX COOLING COIL TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF 75°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW +/- 3°F (ADJ.) OFFSET FROM THE DDC SETPOINT.

IF ROOM AIR TEMPERATURE IS MAINTAINED AND THE DX COOLING COIL IS DE-ENERGIZED, THE SUPPLY FAN SHALL BE DE-ENERGIZED. IF THE DX COOLING COIL ENERGIZES THEN THE SUPPLY FAN SHALL BE ENERGIZED.

ALARMS, INTERLOCKS & SAFETIES: IF SPLIT SYSTEM GENERATES AN ALARM, AN ALARM SHALL BE GENERATED AT THE FMCS OPERATOR WORKSTATION.

WHENEVER SPLIT SYSTEM IS SHUTDOWN THE FOLLOWING SHALL OCCUR: DX COOLING COIL AND ASSOCIATED CONDENSING UNIT SHALL BE DE-SUPPLY FAN SHALL BE DE-ENERGIZED.

# 6 SPLIT SYSTEM CONTROL NO SCALE

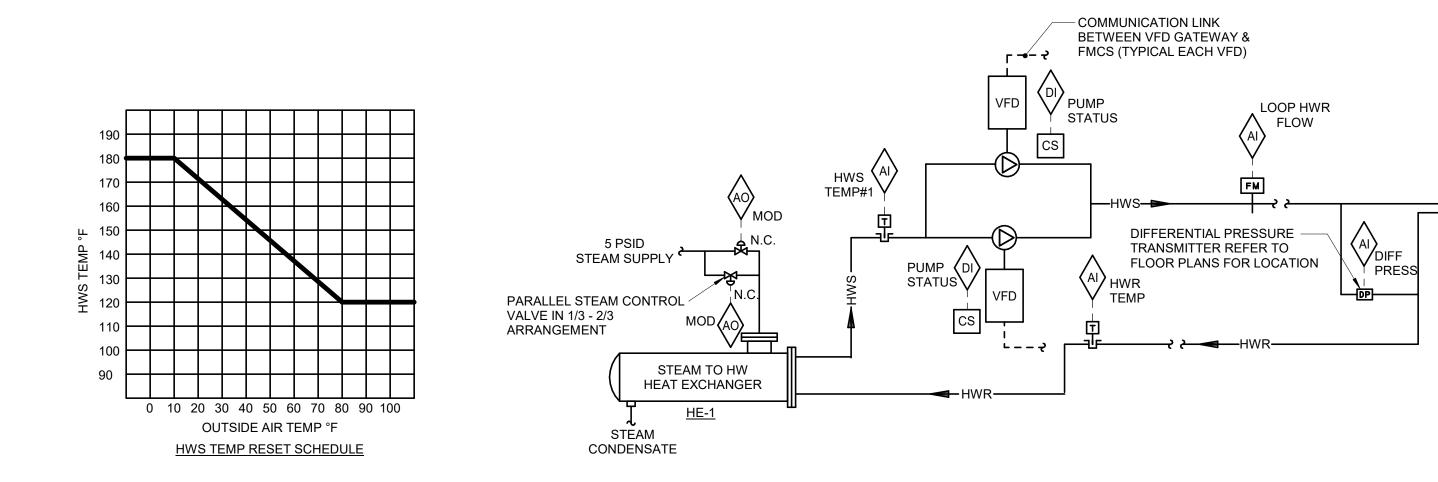


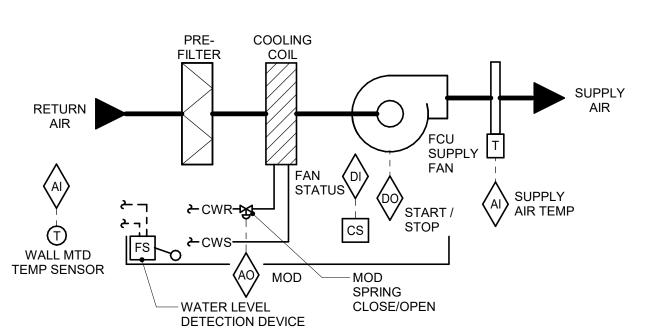
FMCS SHALL MONITOR TEMPERATURE OF MEDICATION REFRIGERATOR.

ALARMS, INTERLOCKS, AND SAFETIES:

AN ALARM SHALL BE GENERATED AT THE FMCS OPERATOR INTERFACE IF THE TEMPERATURE OF THE REFRIGERATOR RISES ABOVE 45°F (ADJ.) FOR MORE THAN 10 MINUTES (ADJ.) OR THE REFRIGERATOR INDICATES AN ALARM.

# MEDICATION REFRIGERATION MONITORING





<u>SEQUENCE OF OPERATION:</u> SUPPLY FAN OPERATION SHALL BE CONTROLLED BY THE FMCS THROUGH A CONTACTOR. THE UNIT SHALL MAINTAIN A ROOM AIR TEMPERATURE SETPOINT FHE FMCS SHALL MODULATE THE COOLING COIL CONTROL VALVE TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF 75°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW +/- 3°F (ADJ.) OFFSET FROM THE IF ROOM AIR TEMPERATURE IS MAINTAINED AND THE VALVE IS CLOSED, THE SUPPLY FAN SHALL BE DE-ENERGIZED. IF THE COIL CONTROL VALVE OPENS THEN THE SUPPLY FAN SHALL BE ENERGIZED.

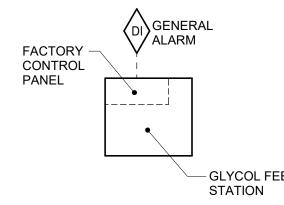
**ALARMS, INTERLOCKS & SAFETIES**  $\mid$  WHEN THE FIRE ALARM CONTROL PANEL INDICATES AN ALARM CONDITION, FC $\mid$ 

A WATER LEVEL DETECTION DEVICE SHALL CLOSE THE CHILLED WATER VALVE AND PREVENT SUPPLY FAN OPERATION UPON DETECTION OF HIGH WATER LEVEL AND SHALL INDICATE AN ALARM TO THE OPERATOR WORKSTATION. FMCS SHALL INDICATE AN ALARM TO THE FMCS OPERATOR WORKSTATION IF THE FMCS COMMANDS ANY SUPPLY FAN TO OPERATE AND THE FAN CURRENT RELAY DETECTS INSUFFICIENT CURRENT FLOW.

WHENEVER FCU IS SHUTDOWN THE FOLLOWING SHALL OCCUR: CHILLED WATER CONTROL VALVE SHALL CLOSE. SUPPLY FAN SHALL BE DE-ENERGIZED.

SHALL SHUTDOWN.

# FAN COIL UNIT CONTROL - COOLING ONLY - FCU-X NO SCALE



THE GLYCOL FEED SYSTEM CONTROLLER SHALL OPERATE THE SYSTEM TO MAINTAIN THE SPECIFIED PRESSURE IN THE WATER SYSTEM.

ALARMS, INTERLOCKS, AND SAFETIES: AN ALARM SHALL BE GENERATED AT THE FMCS OPERATOR INTERFACE IF THE GLYCOL CONTROLLER INDICATES AN ALARM.

# GLYCOL FEED STATION CONTROL DIAGRAM

GENERAL:
TWO 100% CAPACITY HEATING WATER PUMPS ARE PROVIDED IN THE SYSTEM. (ONE PUMP IS REDUNDANT)

FMCS SHALL OPEN THE HEATING WATER ISOLATION CONTROL VALVE TO ASSOCIATED HEAT EXCHANGER. THE STEAM CONTROL VALVES SHALL MODULATE TO THE HEAT EXCHANGER AS REQUIRED TO MAINTAIN SYSTEM SUPPLY TEMP HWS#1 AS FOLLOWS:

THE 1/3 CAPACITY STEAM CONTROL VALVE SHALL BE MODULATED IN ORDER TO MAINTAIN THE HEATING WATER SUPPLY TEMPERATURE. IF THE 1/3 CAPACITY CONTROL VALVE IS 100% OPEN AND THE HEAT EXCHANGER IS UNABLE TO MAINTAIN SETPOINT, THE 1/3 CAPACITY CONTROL VALVE

SHALL CLOSE AND THE 2/3 CAPACITY STEAM CONTROL VALVE SHALL MODULATE TO MAINTAIN SETPOINT. IF THE 2/3 CAPACITY CONTROL VALVE IS 100% OPEN AND IS UNABLE TO MAINTAIN SETPOINT, THE 2/3 CAPACITY CONTROL VALVE SHALL REMAIN OPEN AND

THE 1/3 CAPACITY CONTROL VALVE SHALL ALSO MODULATE OPEN TO MAINTAIN SETPOINT. ON A DECREASE IN LOAD, THE 2/3 CAPACITY STEAM CONTROL VALVE SHALL REMAIN OPEN AND THE 1/3 CAPACITY STEAM CONTROL VALVE SHALL MODULATE CLOSED UNTIL SETPOINT IS ACHIEVED. ON A FURTHER DECREASE IN LOAD, THE 1/3 CAPACITY STEAM CONTROL VALVE SHALL REMAIN SHUT AND THE 2/3 CAPACITY STEAM CONTROL VALVE SHALL

MODULATE CLOSED UNTIL SETPOINT IS ACHIEVED OR UNTIL IT REACHES 40% (ADJ.) OPEN. IF THE 2/3 CAPACITY STEAM CONTROL VALVE REACHES 40% (ADJ.) OPEN AND SETPOINT IS STILL NOT ACHIEVED, THE 2/3 CAPACITY STEAM CONTROL VALVE SHALL CLOSE AND THE 1/3 CAPACITY STEAM CONTROL VALVE SHALL MODULATE OPEN UNTIL SETPOINT IS ACHIEVED. FMCS SHALL LIMIT THE HWS TEMP#1 TO MAX. 190°F (ADJ.).

STEAM CONTROL VALVE OPERATION SHALL NOT BE ENABLED UNLESS ONE PUMP IS RUNNING AS PROVEN BY VFD STATUS.

FMCS SHALL RESET THE HWS TEMP IN ACCORDANCE WITH HWS RESET SCHEDULE. HEATING WATER PUMP CONTROL:

START/STOP: THE FMCS SHALL START THE LEAD PUMP VIA THE VFD AND SHALL RUN CONTINUOUSLY. HEATING WATER PUMPS SHALL BE STARTED AND STOPPED THROUGH A HAND-OFF-AUTO SWITCH ON THE FACE OF THE VFD. WHEN PLACED IN THE HAND POSITION, PUMP MOTOR SHALL RUN CONTINUOUSLY. WHEN PLACED IN THE AUTO POSITION, THE FMCS SHALL CONTROL PUMP OPERATION. WHEN PLACED IN THE OFF POSITION, THE PUMP MOTOR SHALL BE DE-

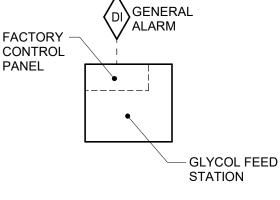
THE FMCS SHALL MODULATE OUTPUT TO THE VFD AS REQUIRED TO MAINTAIN DP SETPOINT AT THE LOCATION OF THE DP TRANSMITTER. DP TRANSMITTER SIGNAL SHALL BE WIRED DIRECTLY TO THE CONTROLLER SERVING PUMP VFD (SIGNAL SHALL NOT BE TRANSMITTED ACROSS THE FMCS NETWORK.) FMCS SHALL RESET THE DP SETPOINT UNTIL ONE SYSTEM COIL MODULATING CONTROL VALVE IS 95% OPEN. IN NO CASE SHALL DP SETPOINT EXCEED 10 PSID (ADJ) OR DROP

THE FMCS SHALL LEAD/LAG THE PUMPS ON A WEEKLY BASIS. INCLUDE GRAPHIC TOGGLE ON OPERATOR WORKSTATION GRAPHICAL SCREEN TO ALLOW OPERATOR TO MANUALLY SELECT WHICH PUMP IS LEAD AND WHICH IS LAG.

ALARM<u>S, INTERLOCKS & SAFETIES:</u> FMCS SHALL INDICATE AN ALARM TO THE FMCS OPERATOR WORKSTATION IN THE EVENT THE FOLLOWING OCCUR: SHOULD THE FMCS COMMAND THE LEAD HW PUMP TO OPERATE AND THE PUMP FAILS TO DO SO AS DETERMINED BY THE VFD STATUS, AN ALARM SHALL BE INDICATED AT THE FMCS OPERATOR WORKSTATION AND THE LAG HW PUMP SHALL AUTOMATICALLY START.

AN ALARM CONDITION OCCURS AT ANY VFD.

IF HEATING WATER SUPPLY TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT FOR MORE THAN 10 MINUTES (ADJ.). IF SYSTEM DIFFERENTIAL PRESSURE IS NOT MAINTAINED FOR MORE THAN 15 MINUTES (ADJ.).



<u>SEQUENCE OF OPERATION:</u>
1. ALL TERMINAL AIR BOXES SHALL INCORPORATE A NIGHT SETBACK SEQUENCE. TAB NIGHT SETBACK SHALL BE INITIATED VIA THE FMCS BASED ON THE FOLLOWING TIME SCHEDULE: OCCUPIED MODE START: 6:00 AM (ADJ.) UNOCCUPIED MODE START. AT THE START OF OCCUPIED MODE, FMCS SHALL ESTABLISH THE MIN. CFM

SETPOINTS OF ALL TAB TO BE EQUAL TO THE MIN. CFM VALUE SCHEDULED IN THE

MOD.

SPRING

CLOSE/OPEN

<u>SEQUENCE OF OPERATION</u>:FMCS TAB CONTROLLER SHALL MODULATE THE TAB DAMPER TO MAINTAIN

FMCS TAB CONTROLLER SHALL MODULATE TAB HW REHEAT COIL CONTROL

VALVE TO MAINTAIN SPACE TEMPERATURE OF 72°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SEE

THE FMCS SHALL UTILIZE OUTPUT FROM ALL TERMINAL AIR BOX POSITIONS TO

SEND AN ALARM TO THE FMCS OPERATOR INTERFACE IF THE SPACE TEMPERATURE

TAB CONTROL W/ HOT WATER REHEAT - TAB-X

-HWR----**½**----

HWS—

DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS.

RESET THE SUPPLY DUCT DIFFERENTIAL STATIC PRESSURE.

CONSTANT SUPPLY AIRFLOW TO THE ROOM.

IS MORE THAN 10°F (ADJ.) ABOVE OR BELOW SETPOINT.

ALARMS, INTERLOCKS & SAFETIES:

VELOCITY AND -STATIC SENSOR

PRESSURE INDEPENDENT TERMINAL AIR BOX (TAB)

PRIMARY AIR FROM ZONI

CONDITIONING AHU

SUPPLY AIR TEMP

- 2-WAY CONTROL VALVE

PLANS FOR WHERE 3-

WAY VALVES ARE REQ'D)

(REFER TO FLOOR

CENTER OF DUCT

LOCATE TEMPERATURE SENSOR 4'-0"

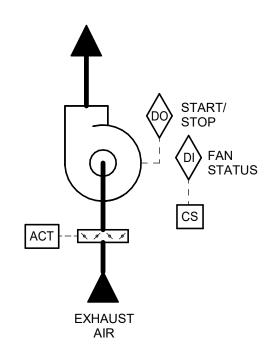
WALL MTD

T TEMP SENSOR

DOWNSTREAM OF COIL IN THE

TAB SCHEDULE AND SHALL ESTABLISH THE ROOM TEMP SETPOINT IN ACCORDANCE WITH THE TAB SEQUENCES OF OPERATION (THIS SHEET) AT THE START OF UNOCCUPIED MODE, FMCS SHALL ESTABLISH THE MIN. CFM SETPOINT OF ALL TAB TO BE EQUAL TO ZERO (0) CFM AND SHALL ESTABLISH THE ROOM TEMP SETPOINTS OF: COOLING SETPOINT = 85°F (ADJ.) HEATING SETPOINT = 55°F (ADJ.)

# TAB NIGHT SETBACK CONTROL

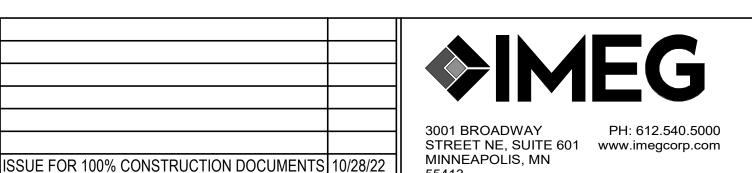


SEQUENCE OF OPERATION: EXHAUST FAN SHALL BE OPERATED INTERLOCKED WITH AHU-01. 2-POSITION DAMPER SHALL FULLY OPEN WHEN FAN IS ENERGIZED. WHEN FAN IS DE-ENERGIZED, 2-POSITION DAMPER SHALL FULLY CLOSE

ALARMS, INTERLOCKS AND SAFETIES:
AN ALARM SHALL BE GENERATED AT THE FMCS OPERATOR WORKSTATION IN THE EVENT THE FMCS COMMANDS THE EXHAUST FAN TO OPERATE AND THE CURRENT SENSING RELAY DETECTS INSUFFICIENT CURRENT DRAW.

3 EXHAUST FAN CONTROL
NO SCALE

# HX HEATING HOT WATER CONTROL

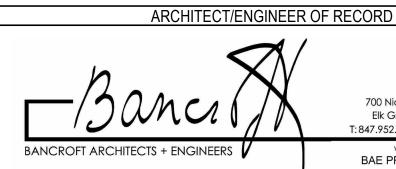


DATE

REVISION

REFERENCE SCALE IN INCHES  I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state Typed or Printed Name: Robert Douglas Lowe

Date:10/28/2022 License Number: 24706



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DRAWING TITLE

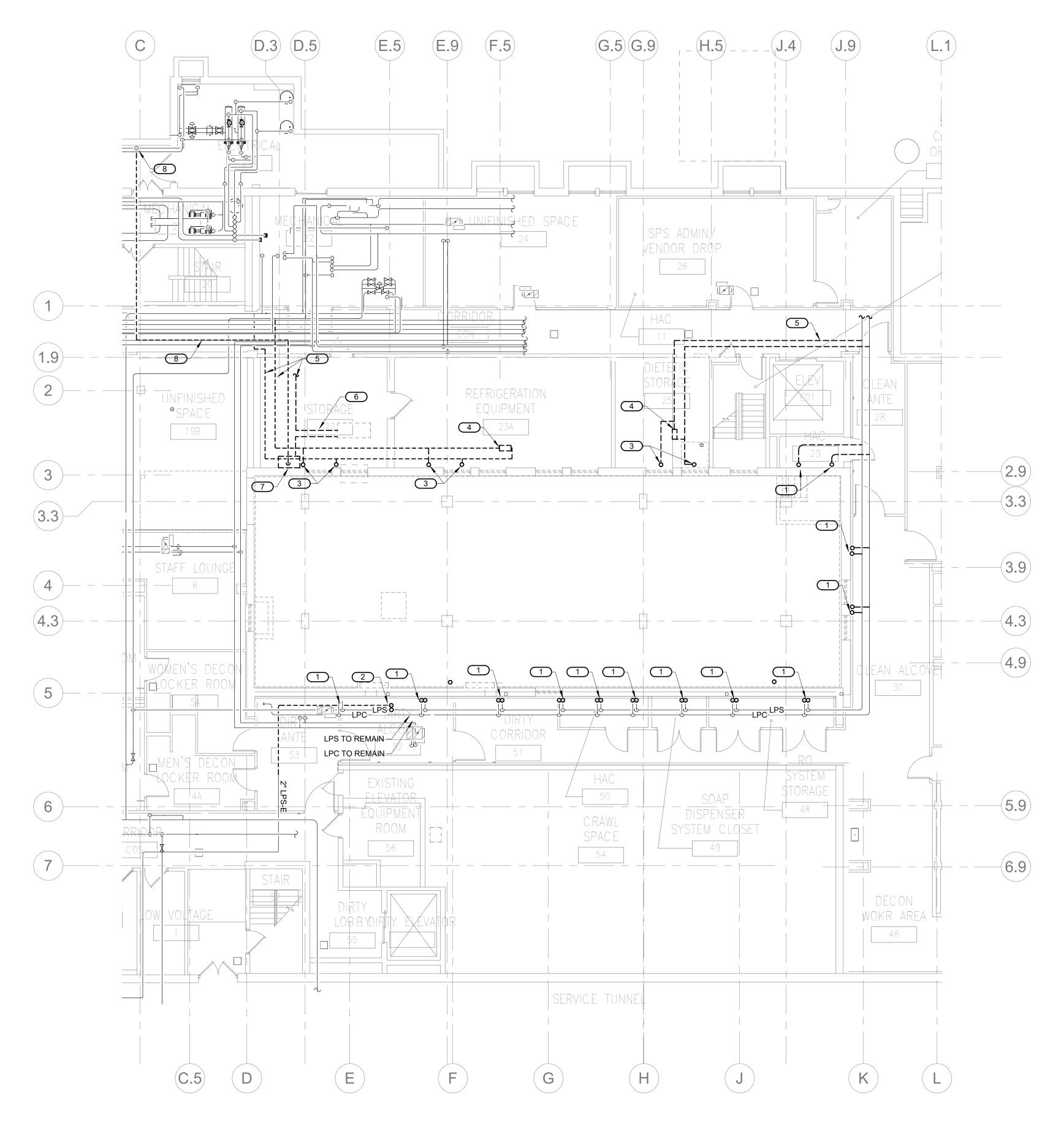
MECHANICAL - CONTROL TE: APPROVED: SERVICE LINE DIRECTO SEQUENCES

CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR NKJ N WDM MI102

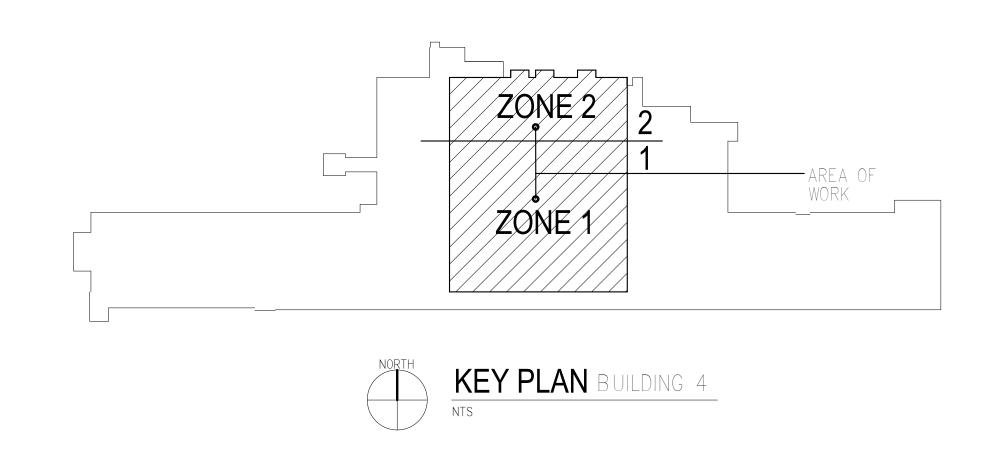
ST. CLOUD, MN 56303



10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS **U.S. Department** of Veterans Affairs Veterans Health Administration St. Cloud VA Health Care System



# MECHANICAL - PIPING - DEMOLITION PLAN - BASEMENT 1/8" = 1'-0"



# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

	I hereby certify that this plan, specification or report was prepared by me or under my direct	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR DATE:	APPROVED: SERVICE LINE DIRECTOR DATI	E: APPROVED: INFECTION CONTROL NURSE DATE	MECHANICAL - PIPING -	CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR  DATE: 10/28/2022  PLOT SCALE	U.S. Department
	supervision and that I am a duly Licensed Professional Engineer under the laws of the state	$h \sim N$		APPROVED: GEMS PROJECT MANAGER DATI	E: APPROVED: PATIENT SAFETY DATE	APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR	PROJECT NO.	of Veterans Affairs
3001 BROADWAY PH: 612.540.5000 0 REFERENCE SCALE IN INCHES 1 2	of Minnesota. Signature:	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T:847 952 9362 F:847 952 9403		APPROVED: PROJECTS SECTION MANAGER DATE	E: APPROVED: CHIEF OF POLICE DATE	APPROVED: CHIEF OF STAFF DATE	E: BUILDING No CHECKED BY DRAWN DRAWING NO.	Veterans Health Administration
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 STREET NE, SUITE 601 www.imegcorp.com  MINNEAPOLIS, MN 55413	Typed or Printed Name: Robert Douglas Lowe	T: 847.952.9362 F: 847.952.9403  Www. bancroft-ae.com BAE PROJECT NO. 18-116		APPROVED: DIRECTOR FMS DATI	E: APPROVED: SAFETY MANAGER DATE	APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE	4 NJK JCL MPD100  E: LOCATION ST. CLOUD VAHCS	St. Cloud VA
No REVISION DATE	Date:10/28/2022 License Number: 24706					.	ST. CLOUD, MN 56303 DWG. OF	Health Care System

1. ALL DEMOLISHED STEAM & CONDENSATE PIPING BRANCHES & MAINS SHALL BE PROPERLY CAPPED AT MAINS. THERE SHALL BE NO ABANDONED DEAD LEGS IN THE STEAM SYSTEM.

DEMOLISH LPS AND LPC SERVING CONVECTORS ON LEVEL ABOVE. CAP PIPING AT MAIN IN BASEMENT.

DEMOLISH LPS & LPC PIPING AND RISERS UP TO FIRST FLOOR LEVEL ABOVE AS

INDICATED.
 DEMOLISH EXISTING LPS & LPC PIPING UP TO FIRST FLOOR RADIATORS.
 DEMOLISH EXISITNG END OF MAIN DRIP LEG AND STEAM TRAP.
 DEMOLISH EXISTING LPS & LPC PIPING BACK TO MAIN(S). CAP AT MAIN(S).
 DEMOLISH EXISTING MPS STEAM LINE AND CONTROL VALVE ASSOCIATED WITH FCU BEING DEMOLISHED.

BEING DEMOLISHED.

DEMOLISH EXISTING CONDENSATE PUMP

AND ALL ASSOCIATED PIPING AND

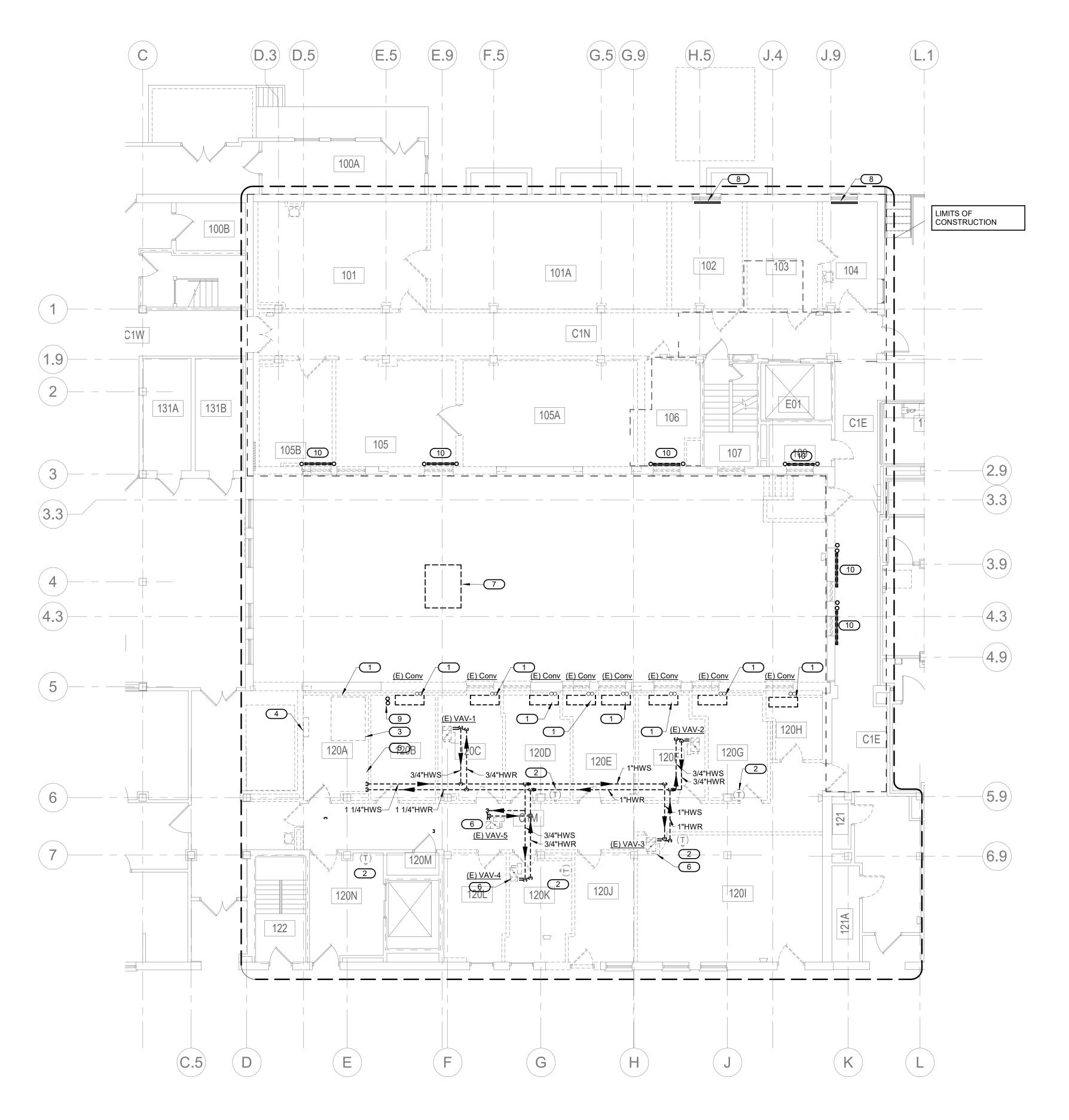
CONTROLS.

DEMOLISH EXISTING PUMPED STEAM CONDENSATE LINE BACK TO MAIN AS INDICATED. CAP AT MAIN.

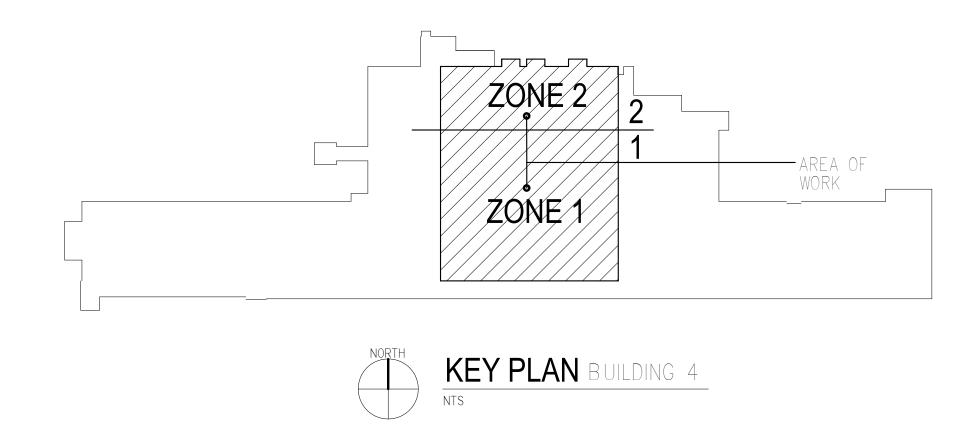
KEY NOTES

INDICATED.

SHEET NOTES:



MECHANICAL - PIPING - DEMOLITION PLAN - FIRST FLOOR



# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

**CONSTRUCTION NOTES:** 

AND SUPPORTS.

ARCHITECT.

SUPPORTS

SHEET NOTES:

PIPING & CONTROLS.

HANGERS AND SUPPORTS.

PIPING BACK TO MAIN.

KEY NOTES:

A. PIPING AND EQUIPMENT SHOWN DASHED IS TO REMOVED. REMOVAL TO INCLUDES BUT IS NOT LIMITED TO ALL

ASSOCIATED PIPING, VALVES, WIRING, CONTROLS, HANGERS

REMOVE CONVECTOR SHOWN DASHED. REMOVE LPS & LPC SERVING CONVECTOR AND CAP PIPING IN FLOOR BELOW - REMOVAL OF CONVECTOR INCLUDES BUT IS NOT LIMITED TO ALL ASSOCIATED PIPING, VALVES, WIRING, CONTROLS,

REMOVE THERMOSTAT AND REPLACE WITH COVERPLATE PAINTED TO MATCH WALL. COORDINATE COLOR WITH

REMOVE HEAT EXCHANGER - REMOVAL INCLUDES BUT IS NOT LIMITED TO ALL ASSOCIATED LOW PRESSURE STEAM

HANGERS, SUPPORTS, WIRING & CONTROLS. CAP LPS & LPC

REMOVE TEMPERATURE CONTROL PANEL AND ASSOCIATED AIR COMPRESSOR. REMOVAL TO INCLUDE BUT IS NOT LIMITED TO PIPING, VALVES, HANGERS AND SUPPORTS. REMOVE HYDRONIC HEATING PUMP. REMOVAL TO INCLUDE BUT IS NOT LIMITED TO ASSOCIATED PIPING, VALVES, SUPPORTS, WIRING, CONTROLS, GLYCOL FEED SYSTEM.

(LPS), LOW PRESSURE STEAM CONDENSATE (LPC), HYDRONIC HEATING (HWS & HWR) PIPING, VALVES,

REMOVE VAV BOX INCLUDING BUT NOT LIMITED TO ASSOCIATED PIPING, VALVES, WIRING, CONTROLS &

REMOVE CONDENSING UNIT ON GRADE. REMOVAL TO INCLUDE BUT IS NOT LIMITED TO ASSOCIATED PIPING,

TO BE RECLAIMED/RECYCLED PER EPA STANDARDS.

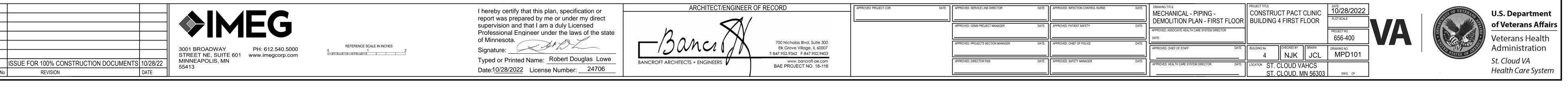
EXISTING STEAM RADIATORS TO REMAIN.

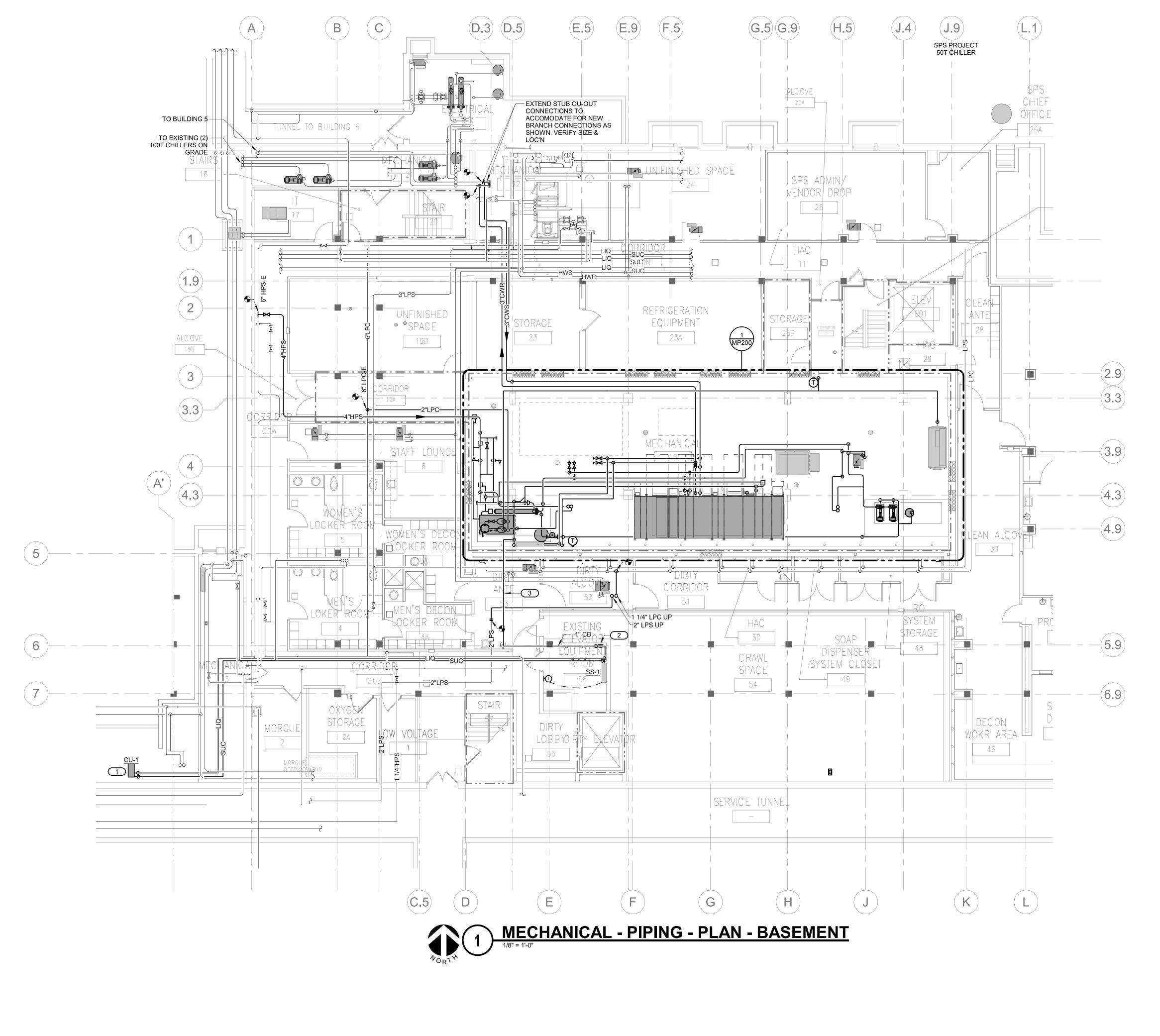
VALVES, SUPPORTS, WIRING, & CONTROLS. REFRIGERANT

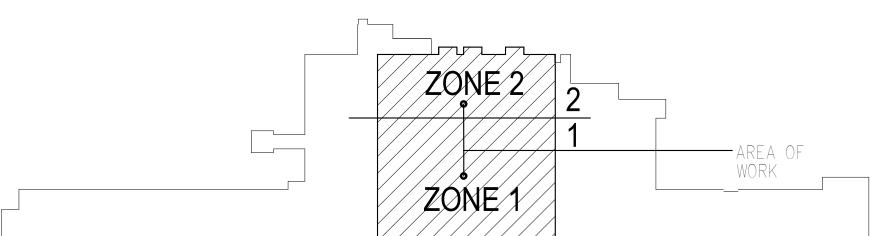
REMOVE LPS/LPC RISERS AND CAP IN FIRST FLOOR CEILING

ALL DEMOLISHED STEAM & CONDENSATE PIPING BRANCHES & MAINS SHALL BE PROPERLY CAPPED AT MAINS. THERE SHALL BE NO ABANDONED DEAD LEGS IN THE STEAM

D. DEMOLISH EXISTING STEAM RADIATOR AND ASSOCIATED









KEYNOTES: #

LOCATE NEW CONDENSING UNIT IN INTERSTITIAL PLATFORM SPACE ADJACENT TO MECHANICAL ROOM

CONDENSATE PUMP FOR SS-1 CONDENSATE RETURN

ROUTE SS-1 CONDENSATE TO NEW MECHANICAL ROOM

LINE. LITTLE GIANT EC-1-DV IS THE BASIS OF DESIGN.

AND CONNECT TO FCU-1 CONDENSATE LINE TO NEW FLOOR DRAIN.

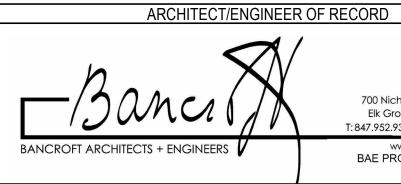
PROVIDE LITTLE GIANT OR VA APPROVED EQUAL

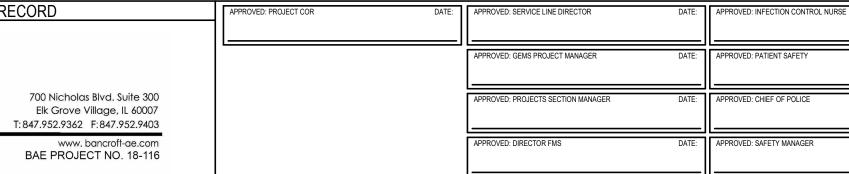
			REFERENCE SCALE IN INCHES
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	3001 BROADWAY PH: 612.540.5000 0 1 2 STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN
No		DATE	55413

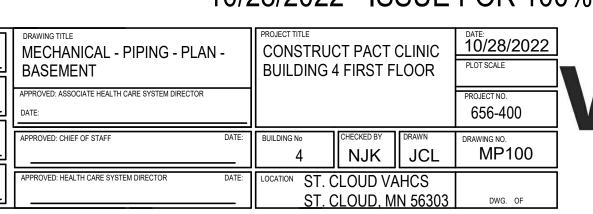
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

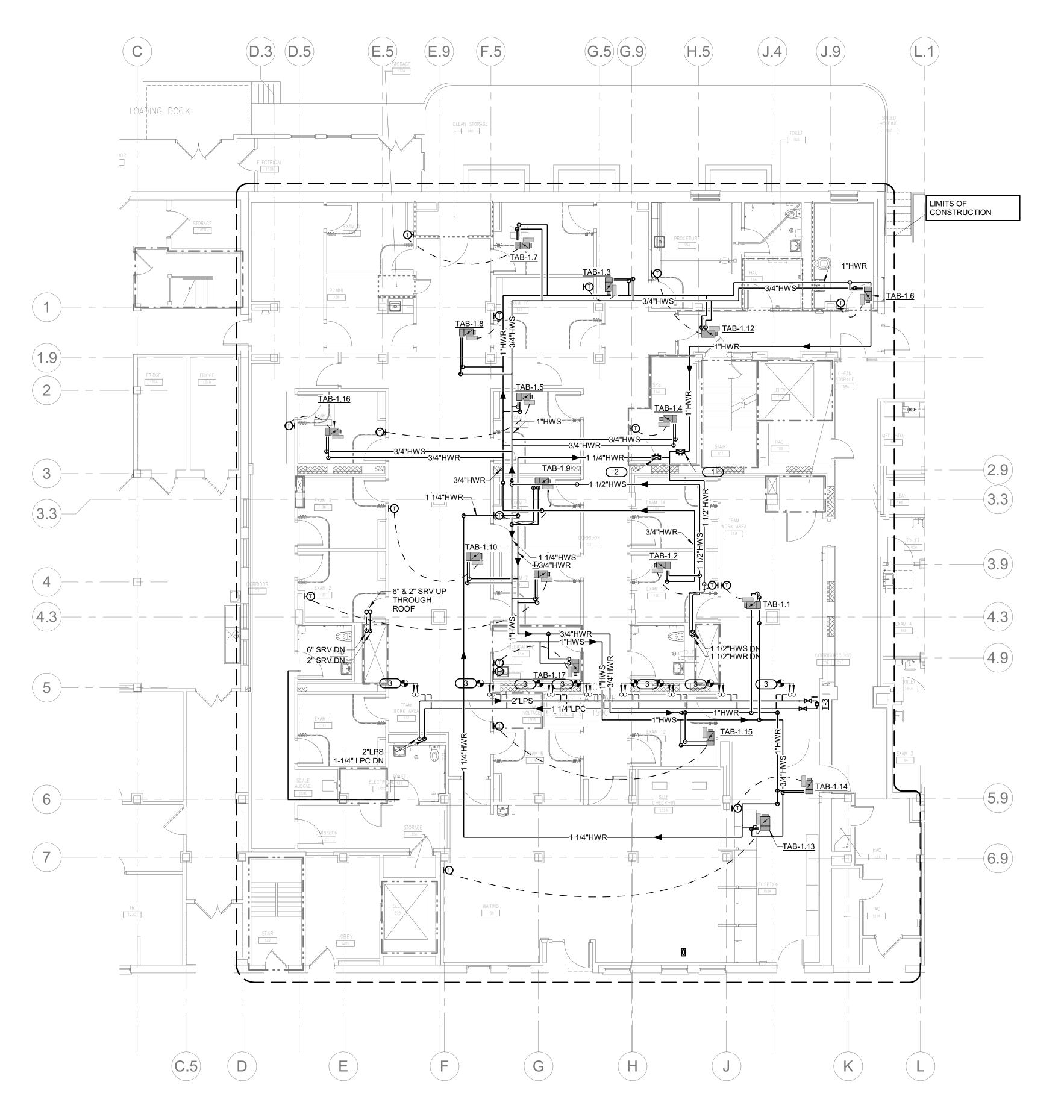
Typed or Printed Name: Robert Douglas Lowe Date: 10/28/2022 License Number: 24706





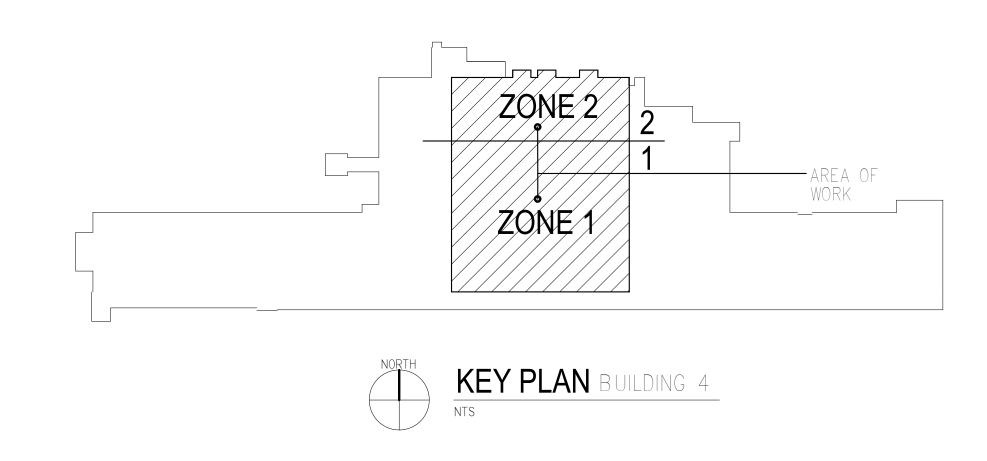






MECHANICAL - PIPING - PLAN - FIRST FLOOR

1/8" = 1'-0"



# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

**CONSTRUCTIONS NOTES** 

SWINGS

KEYNOTES: #

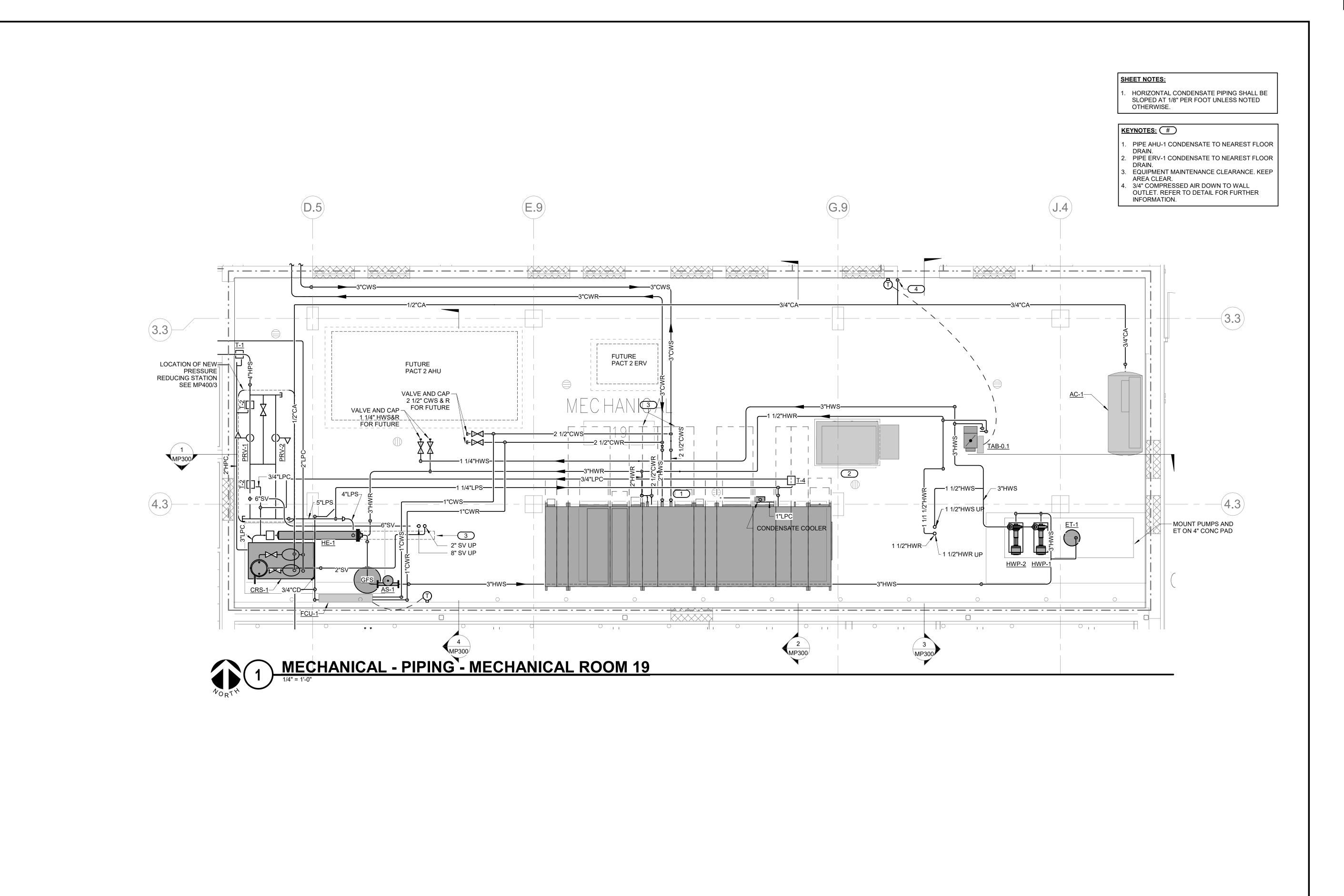
A. CONTRACTOR TO EXTEND BRANCH PIPING TO PIPING TO VAV BOXES

B. LOCATE ALL VAV BOXES AWAY FROM DOORS AND DOOR

SWINGS
C. LOCATE VAV BOXES WITHIN THE ROOM THEY SERVE WHERE POSSIBLE.
D. LOCATE VAV REHEAT COIL VALVING IN SUCH A MANNER THAT BOTH THE VAV CONTROLLER AND VALVING CAN BE ACCESSED BY A SINGLE LADDER POSITION.
E. PROVIDE 24" CLEARANCE AROUND VAV CONTROLLER.
F. RUNOUTS TO TERMINAL UNITS ARE 3/4" UNLESS NOTED OTHERWISE.

BALANCE TO 6.9 GPM.
 BALANCE TO 9.2 GPM.
 RE-CONNECT STEAM AND CONDENSATE BRANCH PIPING TO EXISTING TERMINAL UNIT PIPE RISERS SERVING FLOOR

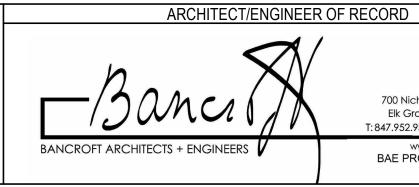
I here	eby certify that this plan, specification or ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR DATE: APPROVED: SERVICE LINE DIRECTOR DATE: APPROVED: INFECTION CONTROL NURSE DATE:	DRAWING TITLE  MECHANICAL - PIPING - PLAN -  CONSTRUCT PACT CLINIC  DATE: 10/28/2022  U.S. Department	
	rt was prepared by me or under my direct			
	ervision and that I am a duly Licensed	APPROVED: GEMS PROJECT MANAGER DATE: APPROVED: PATIENT SAFETY DATE: DATE:	FIRST FLOOR  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR  DATE:  BUILDING 4 FIRST FLOOR  PROJECT NO. 656-400  Of Veterans Affairs  Veterans Health  A direction in the street in the second	S
Profes	essional Engineer under the laws of the state		DATE: PROJECT NO. 656-400 Veterans Health	_
Of Mir	innesota. 700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007	APPROVED: PROJECTS SECTION MANAGER DATE: APPROVED: CHIEF OF POLICE DATE:	Administration	
3001 BROADWAY PH: 612.540.5000 0 1 2 Signal STREET NE, SUITE 601 www.imegcorp.com	ature:		APPROVED: CHIEF OF STAFF  DATE: BUILDING No CHECKED BY DRAWN DRAWING NO.  NJK JCL MP101	
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22   MINNEAPOLIS, MN	ed or Printed Name: Robert Douglas Lowe  BANCROFT ARCHITECTS + ENGINEERS  Www.bancroff-ae.com BAE PROJECT NO. 18-116	APPROVED: DIRECTOR FMS DATE: APPROVED: SAFETY MANAGER DATE:	APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE: LOCATION CT. CLOUD VALICE	
No REVISION DATE Date:	:1 <u>0/28/2022</u> License Number:24706		ST. CLOUD, MN 56303 DWG. OF Health Care System	į.
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			<b>SIMEG</b>
			3001 BROADWAY PH: 612.540 STREET NE, SUITE 601 www.imegcor
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No	REVISION	DATE	30410

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Signature: Typed or Printed Name: Robert Douglas Lowe Date:10/28/2022 License Number: 24706



700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T:847.952.9362 F:847.952.9403 www. bancroft-ae.com BAE PROJECT NO. 18-116

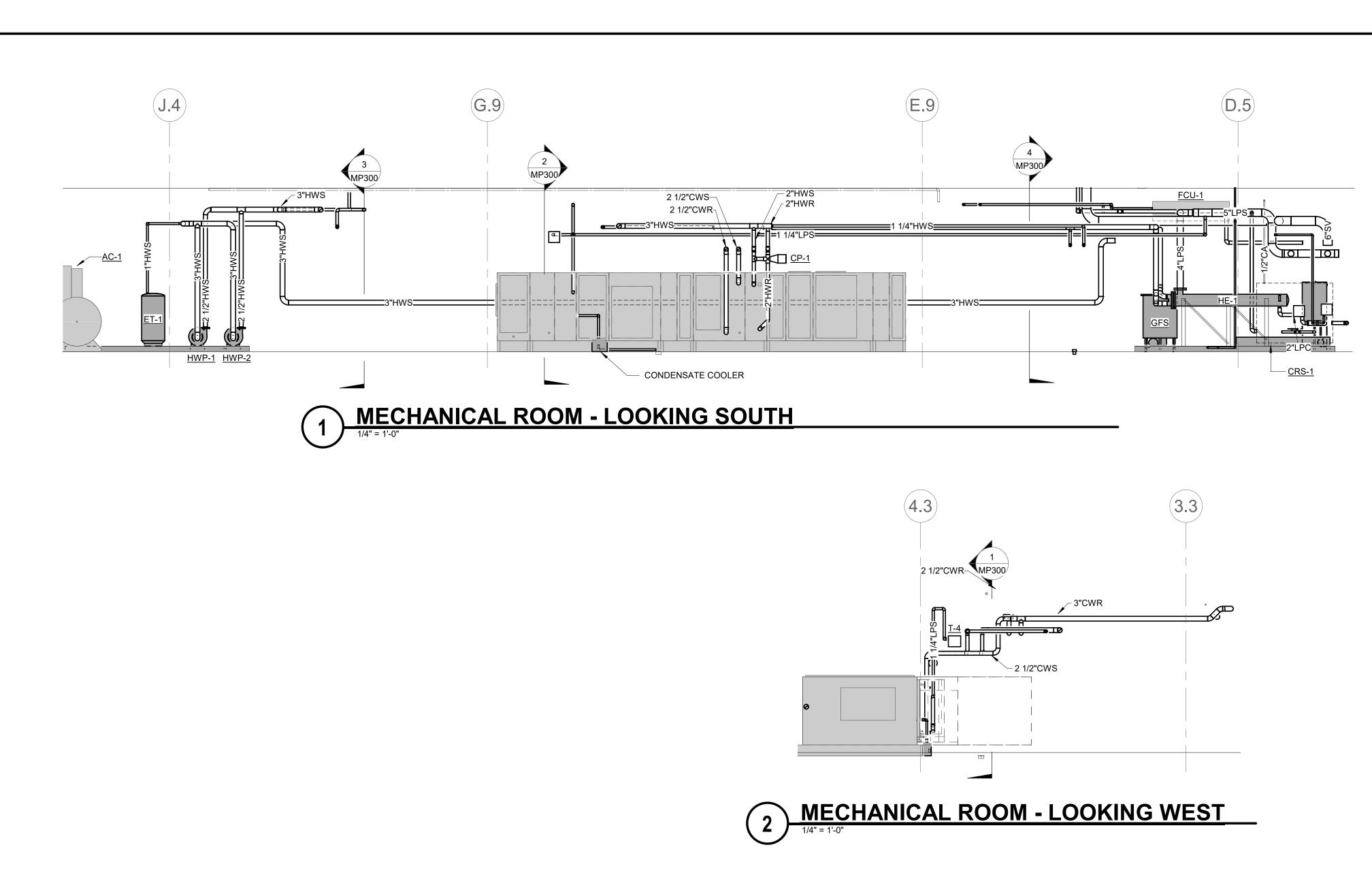
DATE: APPROVED: SERVICE LINE DIRECTOR

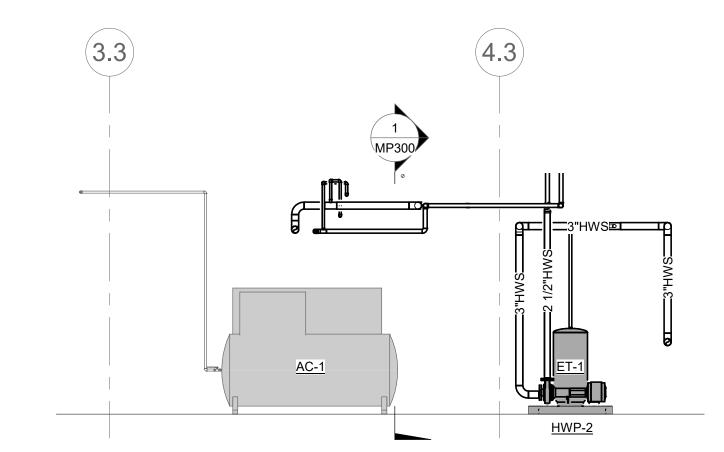
DRAWING TITLE
MECHANICAL - PIPING ENLARGED PLANS CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

DATE:
10/28/2022
PLOT SCALE APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR BUILDING NO A NJK DRAWN DRAWING NO. MP200 ST. CLOUD, MN 56303 DWG. OF



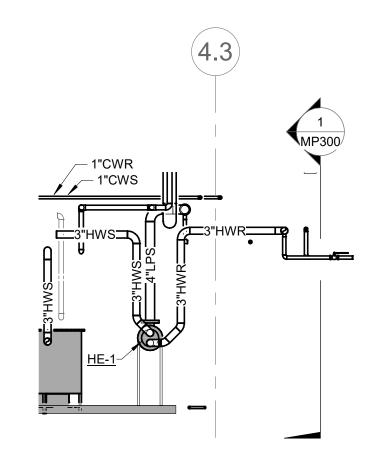
**U.S. Department** of Veterans Affairs Veterans Health Administration St. Cloud VA Health Care System





MECHANICAL ROOM - LOOKING EAST

1/4" = 1'-0"



MECHANICAL ROOM - NEW HEAT EXCHANGER

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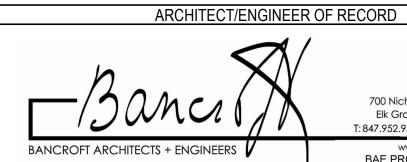
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NE, SUITE 601
POUS MN

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Signature:

Typed or Printed Name: Robert Douglas Lowe
Date: 10/28/2022 License Number: 24706



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Elk Grove Village, IL 60007
T:847.952.9362 F:847.952.9403

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BAE PROJECT NO. 18-116

DATE:

APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECTS SECTION MANAGER

DATE:

APPROVED: CHIEF OF POLICE

APPROVED: CHIEF OF STA

APPROVED: SAFETY MANAGER

DATE:

APPROVED: HEALTH CARE

DATE:

MECHANICAL - PIPING SECTIONS

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

APPROVED: CHIEF OF STAFF

DATE:

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

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APPROVED: HEALTH CARE SYSTEM DIRECTOR
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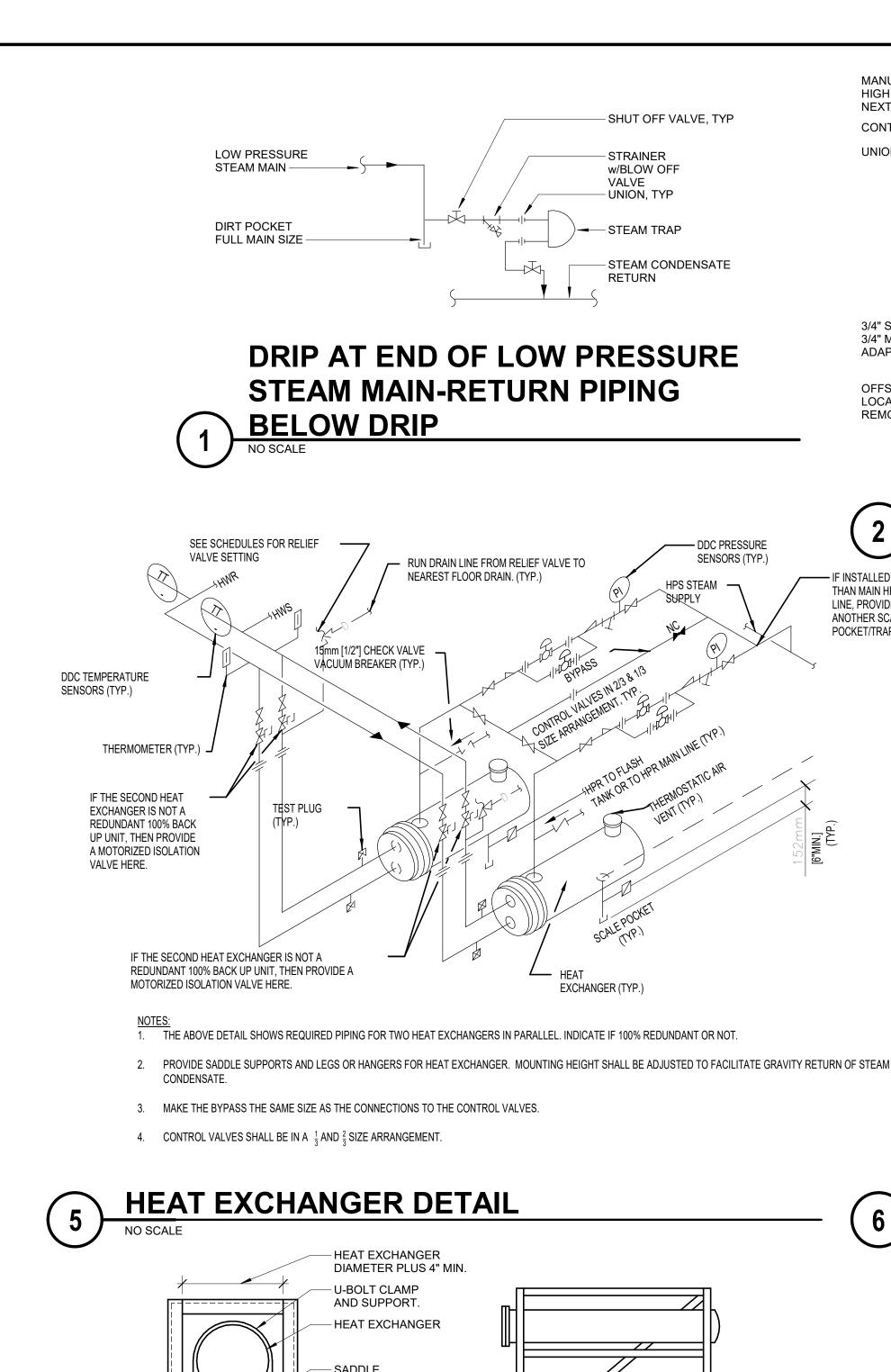
DATE:

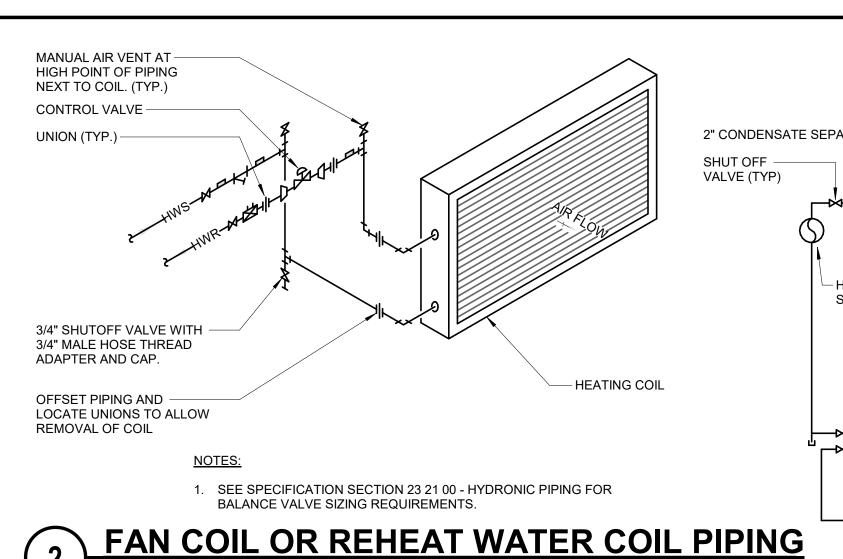
DATE:

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

DWG. OF







INDICATION TO ECC SEE

SINGLE COIL

CONTROL DIAGRAM

WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST 2 HANGERS FOR EACH PIPE

SHALL BE SPRING & NEOPRENE TYPE. TYPE "H" FOR 100mm [4"]□ PIPE & SMALLER. TYPE "H-P" FOR 125mm [5"]□ PIPE

PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS

3. THE FLOW ELEMENT MAY BE INSTALLED IN THE SUPPLY PIPING IF THE REQUIRED MINIMUM UPSTREAM AND

DOWNSTREAM DIMENSIONS CANNOT BE OBTAINED IN THE RETURN PIPING.

WATER COIL PIPING CONNECTION

PIPE HANGER SHALL SUPPORT

WATER COIL

PIPING INDEPENDENT OF COIL

DRAIN WHEN COIL

NOT SELF-DRAINING

— IF INSTALLED LOWER THAN MAIN HPS LINE, PROVIDE

ANOTHER SCALE

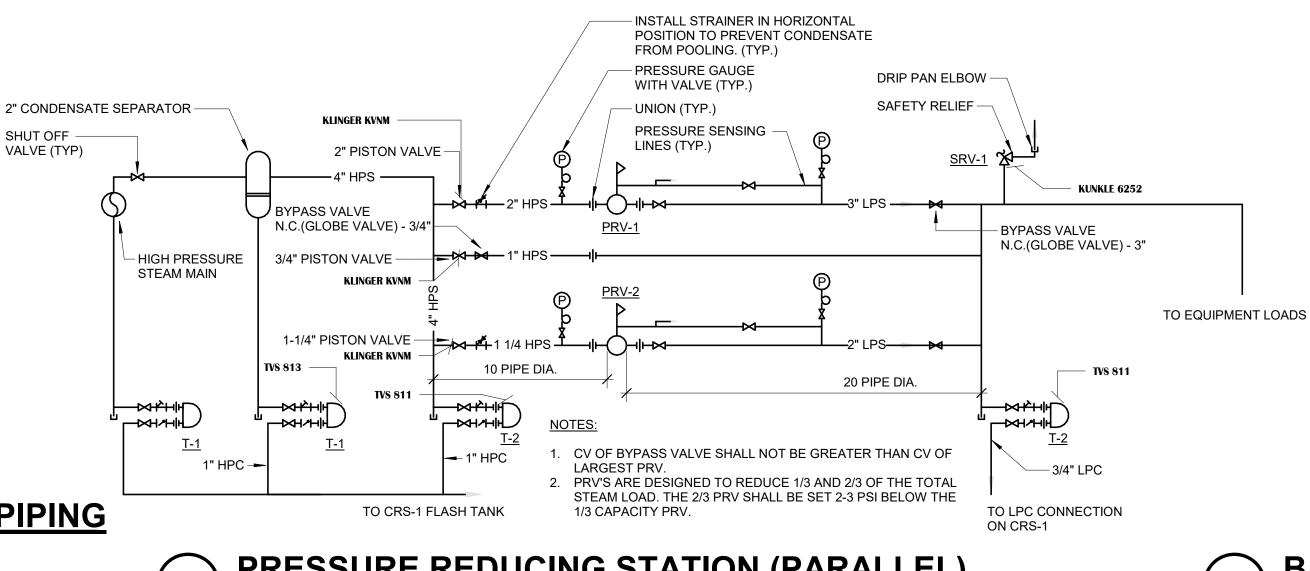
POCKET/TRAP HERE.

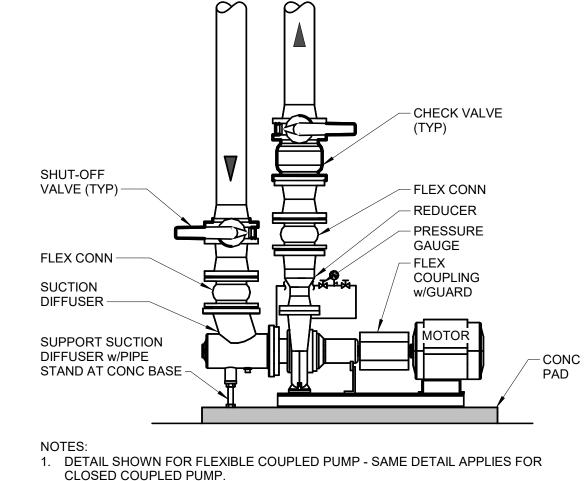
AIR VENT

WHEN COIL IS

SELF-VENTING

& LARGER.

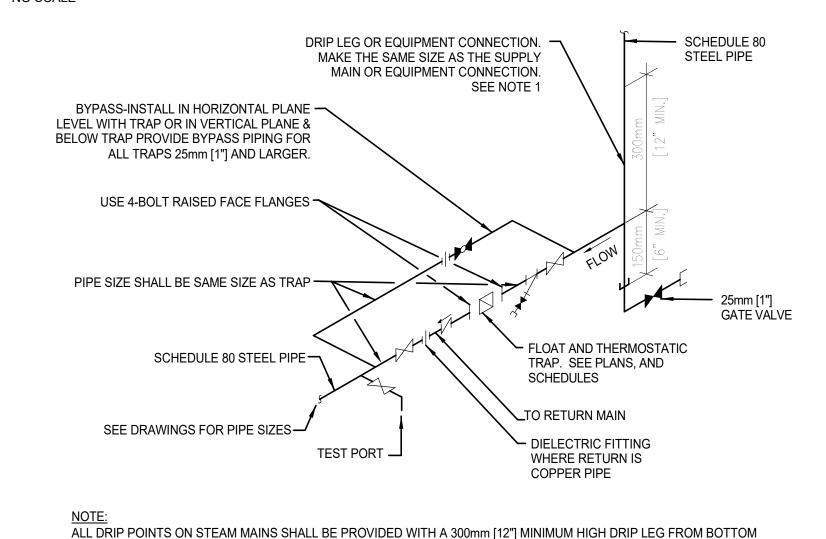




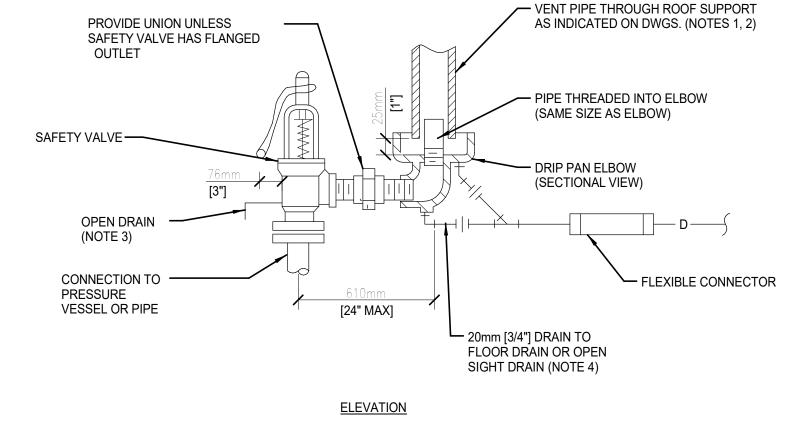
- CLOSED COUPLED PUMP. 2. DO NOT USE FLEXIBLE CONNECTION FOR PUMP/PIPING ALIGNMENT. CONNECTORS
- MUST BE INSTALLED WITHOUT LATERAL DISTORTION. 3. FILL BASE OF PUMP w/CONCRETE OR GROUT AFTER MOUNTING ON CONCRETE

**BASE MOUNTED PUMP DETAIL** 





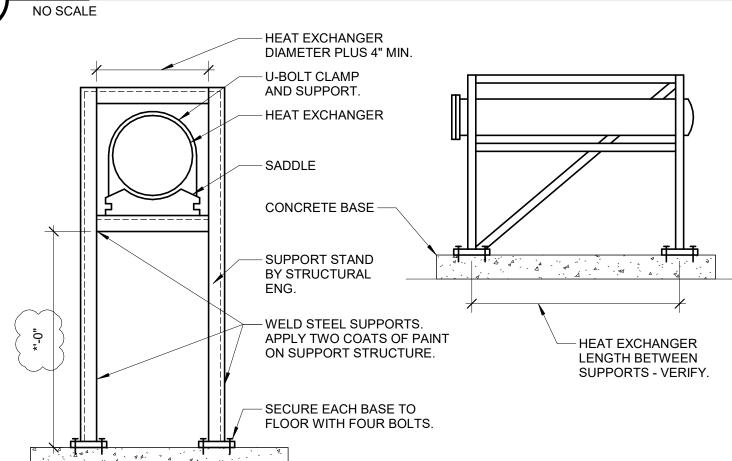
OF STEAM MAIN TO TRAP INLET. DRIP LEG SHALL HAVE 150mm [6"] SCALE POCKET BELOW TRAP INLET

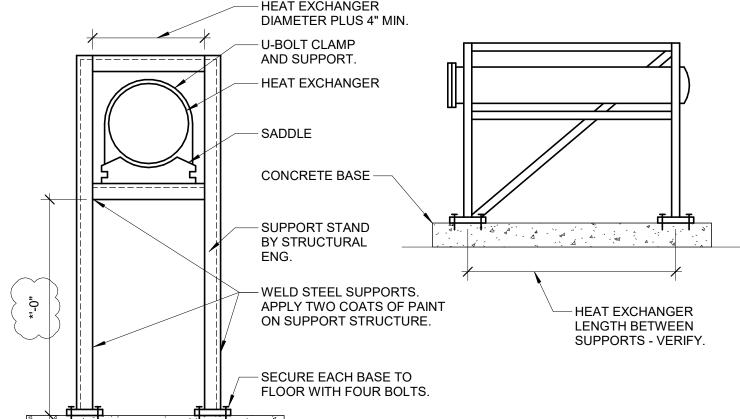


- 1. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, SIZE THE VENT PIPE SO THAT STEAM IS NOT BLOWN OUT AT THE VENT PIPE ENTRANCE. UTILIZE THE CALCULATION METHOD CONTAINED IN ANSI B31.1. POWER PIPING CODE, APPENDIX II.
- 2. VENT PIPE SHALL TERMINATE 1829mm [6'] MIN. ABOVE FINISHED ROOF.
- 3. DISCHARGE OF DRAIN SHALL BE DIRECTED AWAY FROM PLATFORMS OR OTHER AREAS WHICH PERSONNEL MAY OCCUPY.
- 4. NO OTHER DRAIN SHALL BE CONNECTED TO THE DRIP PAN ELBOW DRAIN PIPE.

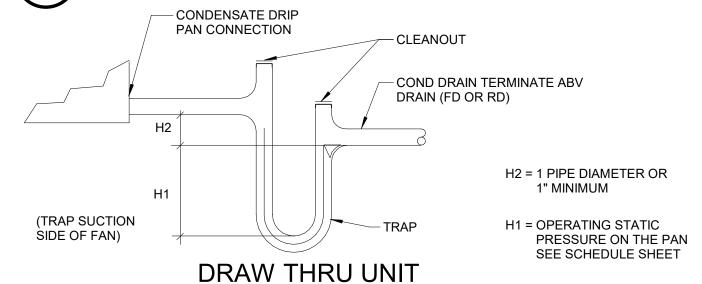
# FLOAT AND THERMOSTATIC STEAM TRAP ASSEMBLY



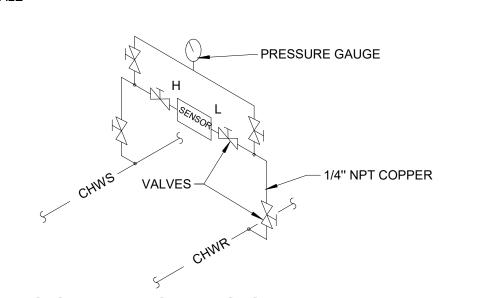


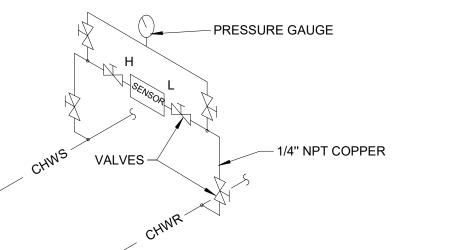




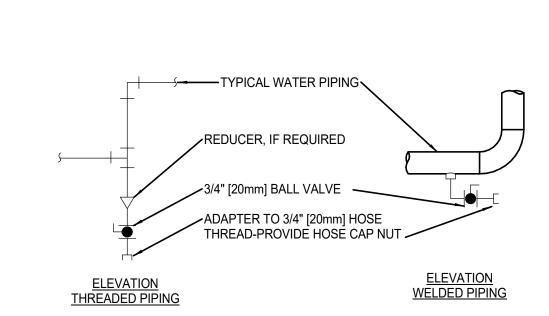


**COOLING COIL TRAP DETAIL** 





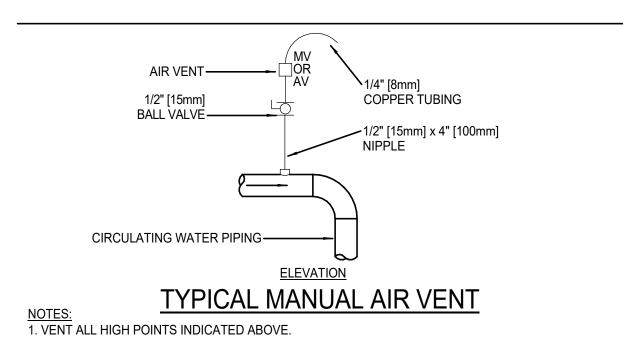
PRESSURE SENSOR **INSTALLATION DETAIL** 



### TYPICAL AND HOT WATER PIPING DRAIN **VALVE CONNECTIONS**

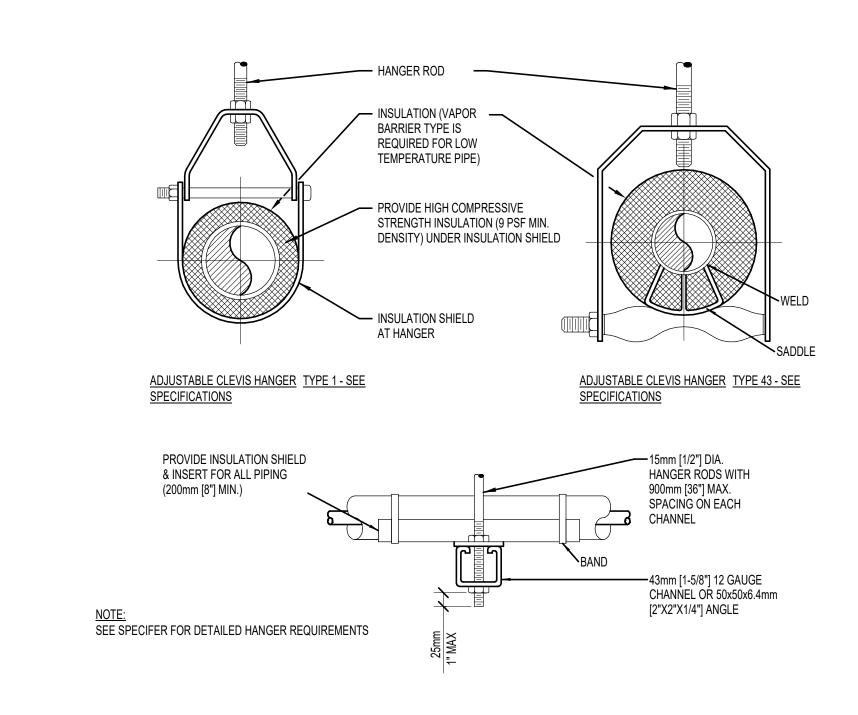
NOTES:
1. DRAIN ALL LOW POINTS AS INDICATED ABOVE.

2. WHERE SCALE POCKETS ARE SHOWN ON PIPE RISER DIAGRAMS AND/OR PLANS LOCATE DRAIN AT BOTTOM OF SCALE POCKET.



**HW DRAIN VALVE** 

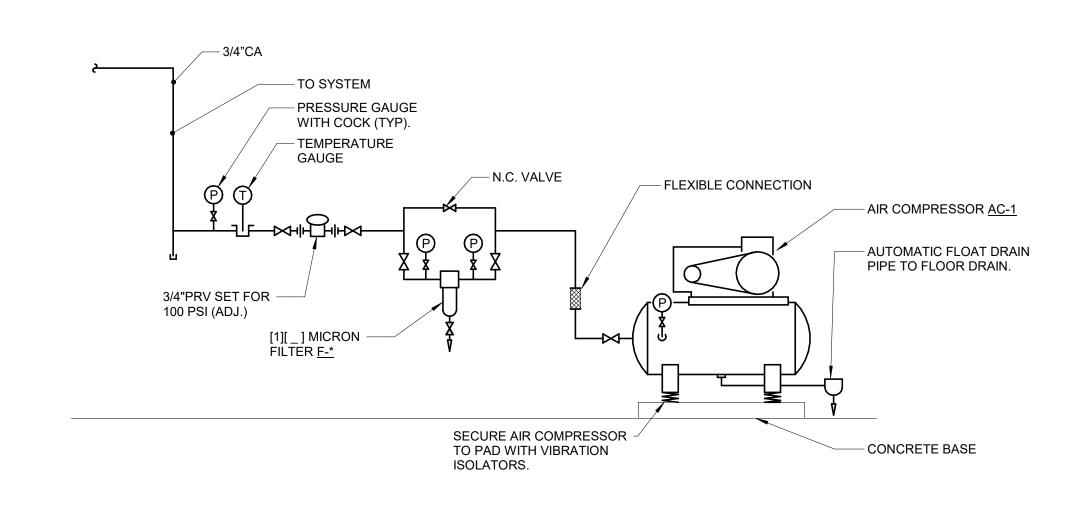
2. IF AUTOMATIC AIR VENTS ARE USED, PIPE DISCHARGE TO DRAIN.



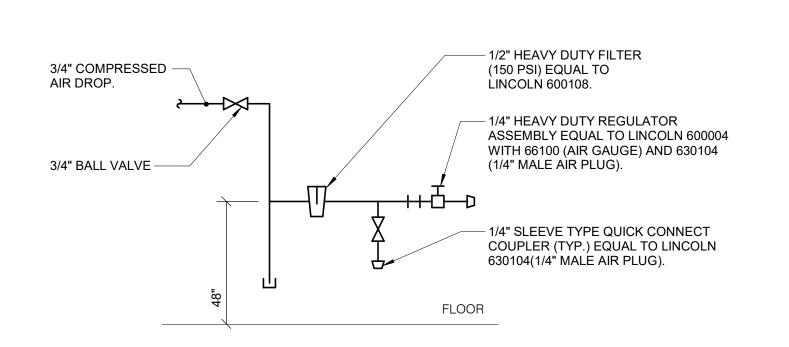
					MAX	IMUM PIP	E/TUBING	SUPPOF	RT SPACIN	NG									
NOM. SIZE	mm [IN]	THRU 20 [THRU 3 <sub>4</sub> ]	25 [1]	32 [1½]	40 [1½]	50 [2]	65 [2½]	75 [3]	100 [4]	125 [5]	150 [6]	200 [8]	250 [10]	300 [12]	350 [14]	400 [16]	450 [18]	500 [20]	6 [2
PIPE	mm [FT]	2100 [7]	2100 [7]	2100 [7]	2700 [9]	3000 [10]	3400 [11]	3700 [12]	4100 [14]	4900 [16]	5200 [17]	5800 [19]	6700 [22]	7000 [23]	7600 [25]	8200 [27]	8500 [28]	9100 [30]	96 [3
TUBING	mm [FT]	1500 [5]	1800 [6]	2100 [7]	2400 [8]	2400 [8]	2700 [9]	3000 [10]	3700 [12]	4000 [13]	4100 [14]	4900 [16]	-	-	-	-	-	-	

PIPE HANGER DETAIL

NO SCALE



**COMPRESSED AIR FLOW DIAGRAM** 



**COMPRESSED AIR TERMINAL DETAIL** 

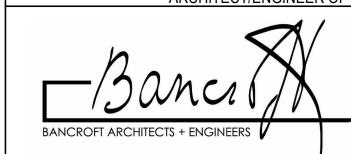
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Date:10/28/2022 License Number: 24706

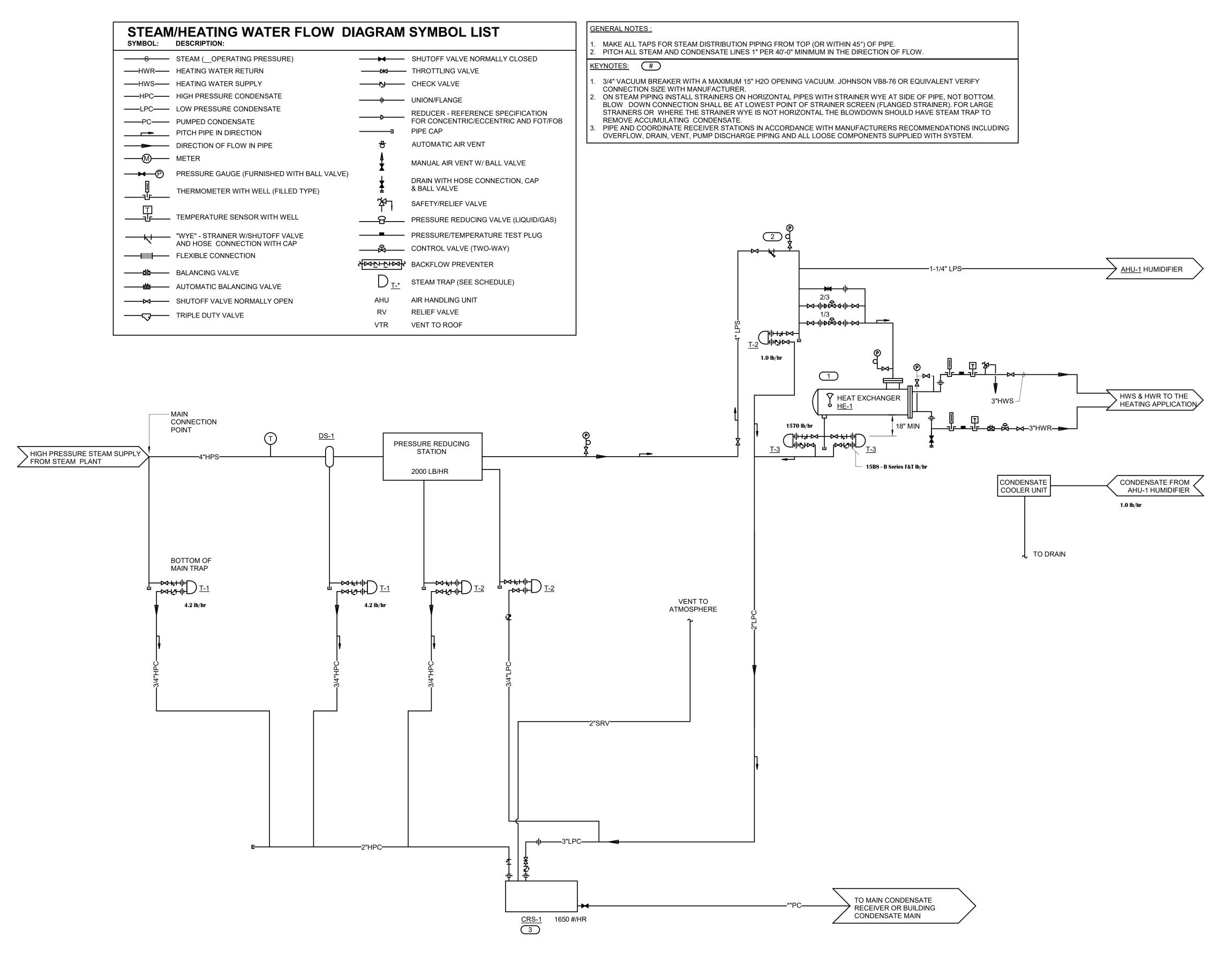


ARCHITECT/ENGINEER OF RECORD 700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 ATE: APPROVED: SERVICE LINE DIRECTOR

MECHANICAL - PIPING - DETAILS | CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR 656-400 NJK JCL MP400 DATE: LOCATION ST. CLOUD VAHCS

ST. CLOUD, MN 56303





1 STEAM-HEATING WATER FLOW DIAGRAM
NO SCALE

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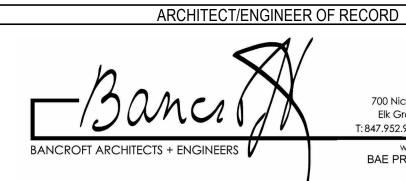
				<b>EG</b>
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Signature:

Typed or Printed Name: Robert Douglas Lowe Date:10/28/2022 License Number: 24706



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Elk Grove Village, IL 60007
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APPROVED: SERVICE LINE DIRECTOR

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APPROVED: INFECTION CONTROL NURSE

DATE:

MECHANICA
DIAGRAMS

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECTS SECTION MANAGER

DATE:

APPROVED: CHIEF OF POLICE

APPROVED: CHIEF OF POLICE

APPROVED: DATE:

APPROVED: CHIEF OF STA

APPROVED: DATE:

APPROVED: HEALTH CARE

DRAWING TITLE

MECHANICAL - PIPING - FLOW
DIAGRAMS

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

APPROVED: CHIEF OF STAFF

DATE:

BUILDING A FIRST FLOOR

BUILDING No
4 CHECKED BY
NJK JCL

DATE:
10/28/2022

PLOT SCALE

PROJECT NO.
656-400

DRAWN
JCL

MP401

APPROVED: HEALTH CARE SYSTEM DIRECTOR

DATE:
LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

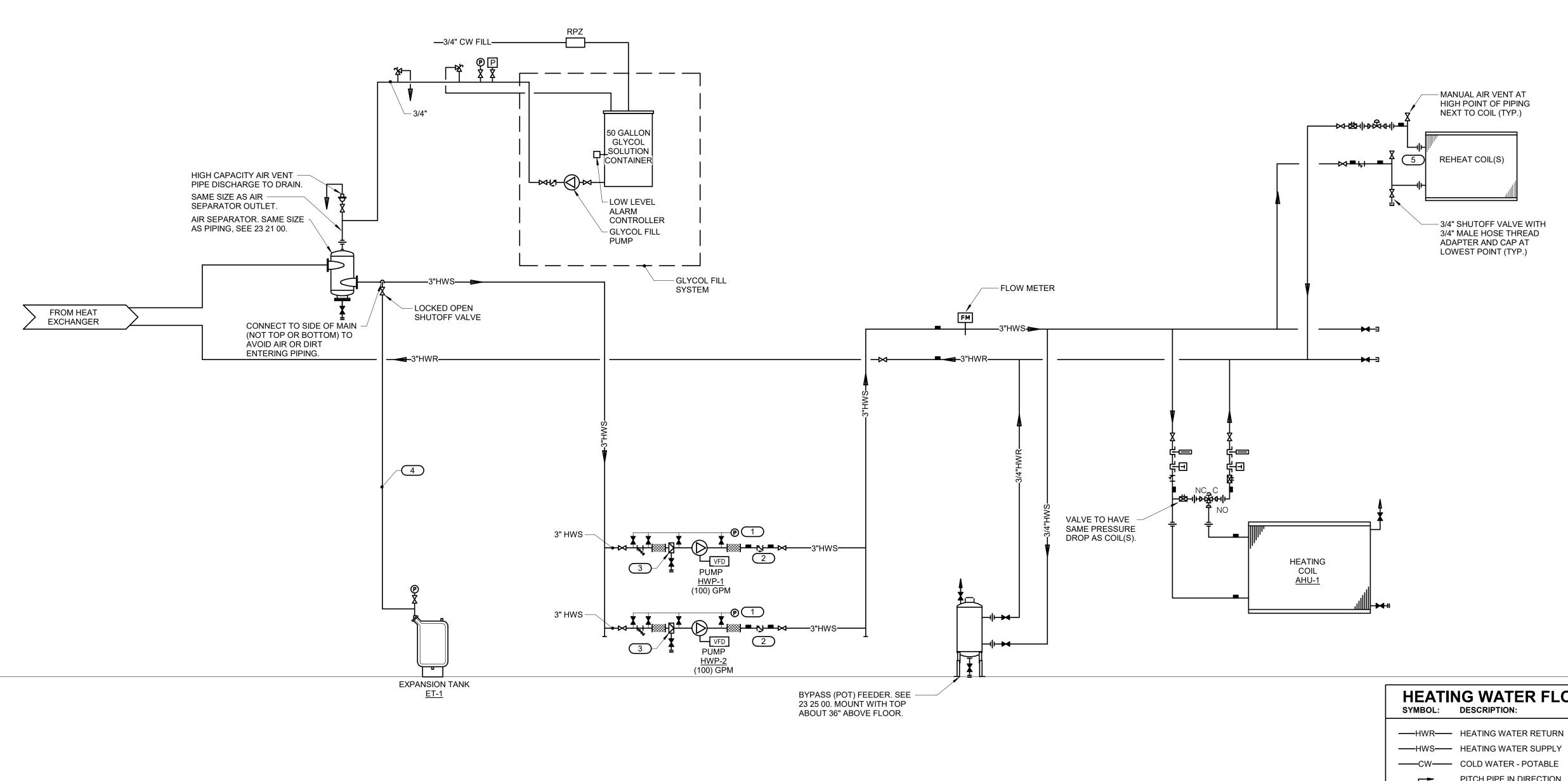
DWG. OF



U.S. Department
of Veterans Affairs

Veterans Health
Administration

St. Cloud VA
Health Care System



**HEATING WATER FLOW DIAGRAM SYMBOL LIST** TEMPERATURE SENSOR WITH WELL THERMOMETER WITH WELL (FILLED TYPE) PITCH PIPE IN DIRECTION ——**I**⊢—— UNION/FLANGE DIRECTION OF FLOW IN PIPE → SHUTOFF VALVE NORMALLY OPEN FLEXIBLE CONNECTION → SHUTOFF VALVE NORMALLY CLOSED PRESSURE/TEMPERATURE TEST PLUG THROTTLING VALVE REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB ───**☆**── BALANCING VALVE ──M── METER CONTROL VALVE (TWO-WAY) PRESSURE GAUGE (FURNISHED WITH BALL VALVE) CONTROL VALVE (THREE-WAY) SUCTION DIFFUSER WITH SUPPORT FOOT ———— CHECK VALVE AUTOMATIC AIR VENT

MANUAL AIR VENT W/ BALL VALVE

& BALL VALVE

FLOW SWITCH

FLOW METER

DRAIN WITH HOSE CONNECTION, CAP

SAFETY/RELIEF VALVE

PRESSURE REDUCING VALVE (LIQUID/GAS)

"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP

REMOVE & RETAIN TEMPORARY STRAINER FROM SUCTION DIFFUSER AT END OF CONSTRUCTION. PROVIDE SUPPORT LEG AS REQUIRED BY MANUFACTURER. SIZE PER DIAPHRAGM TANK MANUFACTURER'S RECOMMENDATIONS BUT NOT SMALLER THAN CONNECTION TO TANK.

KEYNOTES

ARRANGE PIPING SO COILS CAN BE REMOVED WITHOUT REMOVING PIPING ABOVE THE UNIONS OR FLANGES. PIPE LOCATION MUST NOT RESTRICT OPENING OF ACCESS

PRESSURE GAUGE WITH SNUBBER PER SECTION 23 09 13.

PIPING CONNECTIONS TO AVOID VIBRATION DAMAGE TO

THE GAUGE. PREFERRED CONNECTION LOCATIONS ARE: (a) JUST UPSTREAM OF STRAINER, (b) GAUGE PORT ON

SUCTION DIFFUSER OR BETWEEN STRAINER AND PUMP

INLET (c) GAUGE TAPPING ON PUMP INLET FLANGE. (d)

INSTALL WITH MOUNTING ON WALL, STAND, OR

CONNECTOR. INSTALL FLEXIBLE COPPER TUBING TO

VIBRATION-FREE PIPE ABOVE PUMP FLEXIBLE

GAUGE TAPPING ON PUMP OUTLET FLANGE.

TRIPLE DUTY OR BALANCING VALVES ARE NOT

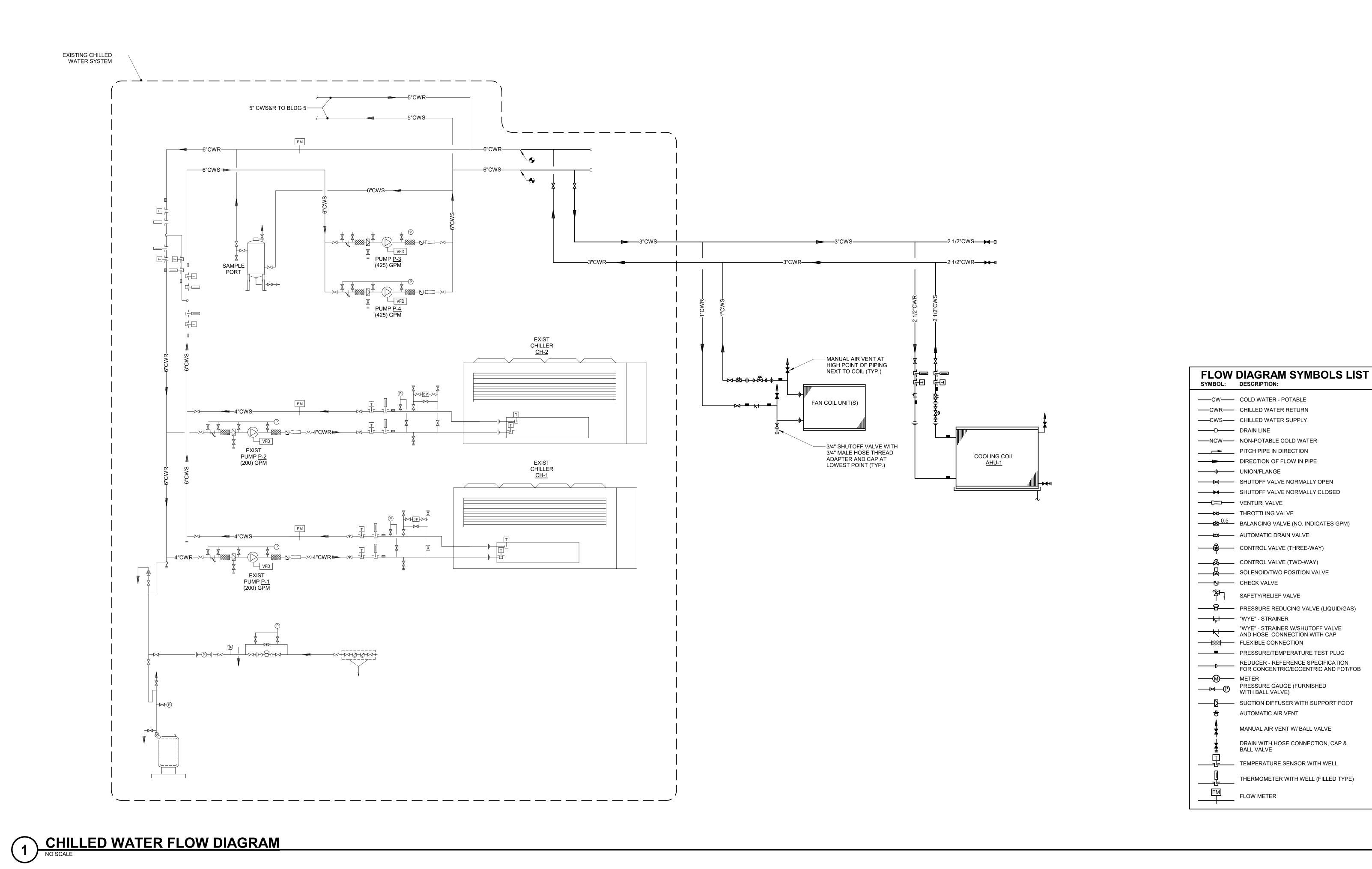
PERMITTED ON VARIABLE VOLUME SYSTEMS.

1 HEATING WATER FLOW DIAGRAM
NO SCALE

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	supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.	700 Nicholas Blvd. Suite 300		APPROVED: GEMS PROJECT MANAGER	DATE: APPROVED: PATIENT SAFETY	DATE: APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR DATE: DATE:	- BOILDING 41 INOT 1 LOOK	PROJECT NO. 656-400
3001 BROADWAY PH: 612.540.5000 STRUCTION DOCUMENTS 10/28/22  3001 BROADWAY PH: 612.540.5000 www.imegcorp.com MINNEAPOLIS, MN	Signature:  Typed or Printed Name: Robert Douglas Lowe	TOO Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T:847.952.9362 F:847.952.9403  Www. bancroft-ae.com BAE PROJECT NO. 18-116		APPROVED: PROJECTS SECTION MANAGER  APPROVED: DIRECTOR FMS	DATE: APPROVED: CHIEF OF POLICE  DATE: APPROVED: SAFETY MANAGER	DATE:  APPROVED: CHIEF OF STAFF  DATE:  DATE:  APPROVED: HEALTH CARE SYSTEM DIRECTOR  DATE:	BUILDING No CHECKED BY DRAWN JCL  E: LOCATION ST. CLOUD VAHCS	_ MP402





U.S. Department

of Veterans Affairs

St. Cloud VA Health Care System

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		report was prepared by me or under my direct					MECHANICAL - PIPI DIAGRAMS	NG - FLOW CONSTRUCT PACT CLINI BUILDING 4 FIRST FLOOR		
		supervision and that I am a duly Licensed Professional Engineer under the laws of the state	$\sim$		APPROVED: GEMS PROJECT MANAGER	DATE: APPROVED: PATIENT SAFETY	DATE: APPROVED: ASSOCIATE HEALTH CARE SY		PROJECT NO.	
	REFERENCE SCALE IN INCHES	of Minnesota.	700 Nicholas Blvd. Suite 300		APPROVED: PROJECTS SECTION MANAGER	DATE: APPROVED: CHIEF OF POLICE	DATE:	TOTAL TOTAL STATE OF THE STATE	656-400	V
	3001 BROADWAY PH: 612.540.5000 0 1 2 STREET NE, SUITE 601 www.imegcorp.com	Signature:	Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403				APPROVED: CHIEF OF STAFF	DATE:   BUILDING No   CHECKED BY   DRAWN   4   NJK   JC	CL DRAWING NO. MP403	
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22	MINNEAPOLIS, MN 55413	Typed or Printed Name: Robert Douglas Lowe	BANCROFT ARCHITECTS + ENGINEERS   www. bancroft-ae.com BAE PROJECT NO. 18-116		APPROVED: DIRECTOR FMS	DATE: APPROVED: SAFETY MANAGER	DATE: APPROVED: HEALTH CARE SYSTEM DIRE	CTOR DATE: LOCATION ST. CLOUD VAHCS	š	
No REVISION DATE		Date:10/28/2022 License Number: 24706						ST. CLOUD, MN 563	0303 DWG. OF	

**SCHEDULE GENERAL NOTES:** A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY: MFR = MANUFACTURER EC = ELECTRICAL CONTRACTOR. MC = FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR. MFR/EC = FURNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL CONTRACTOR. ATC = AUTOMATIC TEMPERATURE CONTROL CONTRACTOR B. DISCONNECT TYPE: F = FUSED NF = NON-FUSED C. CONTROLLER STARTER TYPE: FV = FULL VOLTAGE WYE = WYE-DELTA SS = SOLID STATE (SOFT START) VFD = VARIABLE FREQUENCY DRIVE VFD/B = VARIABLE FREQUENCY DRIVE WITH BYPASS D. FAN RPM SHALL NOT EXCEED 110% OF SCHEDULED VALUE, WITH THE

SCHEDULED WHEEL TYPE. SUBSTITUTION OF BI OR BIA FANS FOR FC IS ACCEPTABLE IF EFFICIENCY IS NOT LOWER. E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM. G. CURB TYPE: MFR = STANDARD CURB BY MANUFACTURER GC = BY GENERAL CONTRACTOR

SAC = SOUND ATTENUATOR CURB

MS = MANUAL STARTER

SPLIT SYSTEM UNIT SCHEDULE

CFM

400

MCA AMPS

NAME

**AREA SERVED** 

HEATING WATER PACT 4 CLINIC

HEATING WATER PACT 4 CLINIC

1.0

2. POWER IS FED TO INDOOR UNIT FROM OUTDOOR UNIT.

1.PROVIDE WITH WIRED THERMOSTAT.

ELEVATOR

EQUIP ROOM

TAG NAME AREA SERVED

ARCHITECT/ENGINEER OF RECORD

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 ATE: APPROVED: SERVICE LINE DIRECTOR

DRAWING TITLE

MECHANICAL - PIPING -CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

DATE: 10/28/2022
PLOT SCALE SCHEDULES NJK | JCL MP500 ST. CLOUD, MN 56303





**INDOOR UNIT (SS-1) ELECTRICAL OUTDOOR UNIT (CU-1)** DISCONNECT CONTROLLER/ STARTER COOLING MBH WEIGHT MOCP B.O.D. MODEL BY (NOTE A) TYPE (NOTE B) BY (NOTE A) SCCR **NOTES** PHASE B.O.D. MODEL **VOLTAGE** PHASES B.O.D. MANUFACTURER 12000 NTYWST12 NTYSST12 MITSUBISHI NOTES 1 & 2 PUMP SCHEDULE 1.PROVIDE SHAFT GROUNDING AS REQUIRED IN THE MOTOR SPECIFICATION ----23 05 13. 2. VFD SHALL BE PROVIDE WITH INTEGRAL DISCONNECT. 3. VFD SHALL BE PROVIDED BY MC AND INSTALLED BY EC. 4. FLUID MEDIA IS 35% PG. **ELECTRICAL (NOTE 1)** CONTROLLER/ STARTER DISCONNECT

RPM VOLTAGE

1691

IMPELLER HP (NOTE

SIZE

7.375

2 1/2" 7.375

2 1/2"

PUMP FT.

50.00

100.0 50.00

100.0

HEAD AT MINIMUM PUMP INLET DESIGN EFFICIENCY SIZE

FAN COIL UNIT SCHEDULE - HYDRONIC 1.UNIT SHALL BE PROVIDED WITH 3-SPEED MOTOR AND WASHABLE FILTER **ELECTRICAL COOLING COIL** CONTROLLER/ DISCONNECT STARTER AREA SERVED CFM W.C. DB °F °F MBH GPM EWT °F LWT °F FT. HD HP VOLTAGE NAME **NOTES** PHASES BY (NOTE A) TYPE (NOTE A) MANUFACTURER MECHANICAL 850 0.1 80.0 67.0 36 6.5 44 56 15.00 0.1 MFGR MULTIAQUA MHWW-36-H-3 NOTE 1 ROOM

PHASES

(NOTE A)

NOTE 2

(NOTE B)

(NOTE A)

NOTE 3

(NOTE C)

VFD

**MANUFACTURER** 

AIR-DRIVEN CONDENSATE RETURN STATION SCHEDULE 1.LB/HR IS ACTUAL MAXIMUM LOAD OF SYSTEM. 2.GPM HAS A SAFETY FACTOR OF TWO. RECEIVER CAPACITY (NOTE 1) GPM (NOTE 2) **NOTES** CONFIGURATION **GALLONS MANUFACTURER** CRS-1 DUPLEX - COMPRESSED AIR 1600 0 GPM

HEAT EXCHANGER SCHEDULE - STEAM TO WATER 1.STEAM PRESSURE INDICATED IS THE PRESSURE AVAILABLE DOWNSTREAM OF THE CONTROL VALVE. MAX. DIMENSIONS 35% P.G. - 65% Water HEATING MAX W.P.D. FT. SURFACE FOULING FT<sup>2</sup> FACTOR LENGTH DIAMETER MANUFACTURER MODEL HEAD | EWT °F | LWT °F TAG NAME **AREA SERVED PSIG** LB/HR NOTES HE-1 PACT 4 CLINIC HEATING WATER 100.0 15.0 150 180 5 1570 59.2 0.0005 89.75 10" B&G

EXPANSION TANK SCHEDULE										
TAG NAME	SERVICE	TOTAL SYSTEM VOLUME (GAL)	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	MAKE	MODEL	NOTES			
ET-1	HEATING WATER	205 gal	23 gal	11.3	AMTROL	AX-40V-DD				

	AIR SEPAR	ATOR S		
TAG NAME	SERVICE	CAPACITY (GPM)	CONNECTION SIZE (IN)	DIAMETER
AS-1	HEATING WATER	100 GPM	3.000	10

ARMSTRONG

15B5VB 1,2

NOTES

MODEL

1510 2BD NOTE 4

1510 2BD NOTE 4

AIR COMPRESSOR SCHEDULE REFER TO SECTION 22 15 00 GENERAL SERVICE COMPRESSED AIR SYSTEMS FOR PRODUCT SPECIFCATIONS. **ELECTRICAL** MAX. DIMENSIONS DISCONNECT CONTROLLER/ STARTER RECEIVER CAP. SCFM CAPACITY NAME SERVED CONFIGURATION AT 90 PSI (GAL.) VOLTAGE PHASES A) TYPE (NOTE B) BY (NOTE A) TYPE (NOTE C) SCCR LENGTH MANUFACTURER AC-1 MECH 19 HORIZONTAL EC NF MFR SS INGERSOLL RAND 2-2475E5 NOTE 1

T-4 HUMIDIFIER F&T 2

TRAP SCHEDULE 1.CAPACITY LISTED IS FOR EACH TRAP AND INCLUDES SAFETY FACTOR. 2.SUITABLE TO 125 PSIG, SIDE INLET & OUTLET, SS FLOAT MECHANISM AND VALVE, CAST IRON BODY, BALANCED PRESSURE THERMOSTATIC AIR VENT, ALL INTERNALS REPLACEABLE IN-LINE. 3.CAPACITY AT OTHER DIFFERENTIAL PRESSURES SHALL BE AT LEAST 525#/HR AT 10 PSID, AND 1080#/HR AT 75 PSID. 1/8" ORIFICE. 4.WITH INTEGRAL VACUUM BREAKER. 5.SIDE INLET AND OUTLET INVERTED BUCKET TRAP. 250 PSIG RATED. CAST IRON BODY, ALL INTERNAL COMPONENTS OF STAINLESS STEEL AND REPLACEABLE IN-LINE. 6.CAPACITY AT OTHER DIFFERENTIAL PRESSURES SHALL BE AT LEAST 150#/HR AT 10 PSID, 310#/HR AT 40 PSID, & 420#/HR AT 75 PSID. #38 ORIFICE. CAPACITY LB HR PRESSURE FACTOR SIZE (NOTE 1) NAME AREA SERVED TYPE DIFFERENTIAL **MANUFACTURER** MODEL NOTES T-1 SEE PLANS INV. BUCKET ARMSTRONG TVS-813 1,5 SEE PLANS | INV. BUCKET ARMSTRONG TVS-811 1,5 ARMSTRONG T-3 SEE PLANS F&T 4100 15B8VB 1,2

1 1/4"

PRESSURE REDUCING VALVE SCHEDULE TAG NAME AREA SERVED LB/HR PRESSURE PSI PRESSURE PSI VALVE SIZE MANUFACTURER MODEL NOTES PRV-1 HE-1 1332 PRV-2 HE-1 667 115 SPENCE

10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28
No	REVISION	DATE

3001 BROADWAY STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN

REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state Signature: Typed or Printed Name: Robert Douglas Lowe

Date:10/28/2022 License Number: 24706

BANCROFT ARCHITECTS + ENGINEERS

www. bancroft-ae.com BAE PROJECT NO. 18-116

<u>EL</u>	<b>ECTRIC</b>	AL SYMBOL LIST				
SYMBOL:	SPEC SECTION:	DESCRIPTION:				
GB	26 05 26	GROUND BUS				
IBT	26 05 26	INTERSYSTEM BONDING TERMINATION				
E	26 05 33	ELECTRICAL CONNECTION				
$\bigcirc$	26 05 33	JUNCTION BOX				
0	26 27 26	FLOOR BOX - DUPLEX RECEPTACLE				
	26 27 26	FLOOR BOX - DUAL COMPARTMENT				
	26 27 26	FLOOR BOX - MULTI SERVICE				
<b>Ø</b> S∨	26 27 26	FLOOR - SERVICE FITTING				
RI <b>W</b>	26 05 33	TECHNOLOGY OUTLET ROUGH-IN				
<b>⊘</b> RI	26 05 33	TECHNOLOGY ROUGH-IN, CEILING				
W/RI	26 05 33	TECHNOLOGY ROUGH-IN, WALL PHONE				
TV	26 05 33	TV ANTENNA OUTLET ROUGH-IN				
	26 05 35	MULTI OUTLET SYSTEM				
₩ 🗆	26 05 35	ELECTRICAL WIREWAY w/ DEVICES SHOWN				
DEM	26 09 13	ENERGY METER				
ES	26 09 16	EMERGENCY STOP, N.C. CONTACT				
EPO	26 09 16 26 32 13	EMERGENCY STOP, N.O. CONTACT				
	26 24 16	PANELBOARD - RECESS MOUNT				
	26 24 16	PANELBOARD - SURFACE MOUNT				
	26 24 19	MANUAL SWITCH / STARTER / COMBINATION STARTER/ CIRCUIT BREAKER. REFER TO DISC/STA SCHEDULE				
	26 24 21	ISOLATED POWER PANEL				
$\boxtimes$	26 22 00	TRANSFORMER. REFER TO TRANSFORMER SCHEDULE				
	26 28 16	CIRCUIT BREAKER - SURFACE MOUNTED. REFER TO DISC/STA SCHEDULE				
П	26 28 16	CIRCUIT BREAKER - FLUSH MOUNTED. REFER TO DISC/STA SCHEDULE				
	26 28 16	DISCONNECT. REFER TO DISC/STA SCHEDULE				
	26 28 16	MOBILE DIAGNOSTICS SERVICE DISCONNECT. REFER TO DISC/STA SCHEDULE				

EL	ECTRIC	AL SYMBOL LIST					
SYMBOL:	SPEC SECTION:	DESCRIPTION:					
S	26 09 33	SWITCH - SINGLE POLE					
$S_{T}$	26 09 33	SWITCH - LOCAL TIMER - USER ADJUSTABLE					
s <sub>K</sub>	26 09 33	SWITCH - SINGLE POLE - KEY LOCK					
$s_L$	26 09 33	SWITCH - LIGHTED HANDLE					
S <sub>M</sub>	26 09 33	SWITCH - MOMENTARY CONTACT					
S <sub>P</sub>	26 09 33	SWITCH - PILOT LIGHT					
$s_w$	26 09 33	SWITCH - WEATHERPROOF					
<b>S</b> <sub>2</sub>	26 09 33	SWITCH - TWO POLE					
$s_3$	26 09 33	SWITCH - THREE WAY					
<b>S</b> <sub>4</sub>	26 09 33	SWITCH - FOUR WAY					
D	26 09 33	DIMMER - LED					
$D^3$	26 09 33	DIMMER - LED - 3-WAY					
D <sub>O</sub>	26 09 33	DIMMER - WALL DIMMER OCCUPANCY SENSOR					
LS	26 09 33	DAYLIGHT LEVEL SENSOR					
(LS) <sub>D</sub>	26 09 33	DAYLIGHT LEVEL SENSOR - 1 ZONE DIMMING					
PC	26 09 33	PHOTOCELL					
⊚ <sub>D</sub>	26 09 33	OCCUPANCY SENSOR - DUAL TECHNOLOGY					
s <sub>o</sub>	26 09 33	SWITCH - OCCUPANCY SENSOR WALL SWITCH					
\$ <sub>02</sub>	26 09 33	SWITCH - OCCUPANCY SENSOR AND DUAL SWITCH					
© P	26 09 33	OCCUPANCY SENSOR - PASSIVE INFRARED 360 DEGREE COVERAGE					
⊚ <sub>u</sub>	26 09 33	OCCUPANCY SENSOR - ULTRASONIC 360 DEGREE COVERAGE					
© <sub>U2</sub>	26 09 33	OCCUPANCY SENSOR - ULTRASONIC 35'X30' HAND MOTION COVERAGE					
© <sub>A</sub>	26 09 33	OCCUPANCY SENSOR - ULTRASONIC TWO SIDED CORRIDOR COVERAGE					
SW	26 09 33	WALL CONTROL STATION					
TC	26 09 33	TIME SWITCH					
#B	26 09 33	DIMMER CONTROL STATION					
#B#F	26 09 33	DIMMER CONTROL STATION WITH FADERS					
$S_LV$	26 09 33	CENTRAL CONTROL - STATION					
	26 09 33	LIGHTING CONTROL STATION					
LCD	26 09 33	LIGHTING CONTROL LCD STATION					
NLC	26 09 33	NURSE CALL LIGHTING CONTOLLER					
BCELTS	26 09 33	BRANCH CIRCUIT EMERGENCY LIGHTING					

BCELIS	26 09 33	TRANSFER SWITCH 20A	
El	ECTRIC	CAL SYMBOL LIST	
SYMBOL:	SPEC SECTION:	DESCRIPTION:	
ο <del>=</del>	26 27 26	DUPLEX RECEPTACLE CONTROLLED BY OCCUPANCY	
O=#	26 27 26	QUAD RECEPTACLE CONTROLLED BY OCCUPANCY	
₩	26 27 26	DUPLEX RECEPTACLE, 125V	
₩	26 27 26	DUPLEX GFI RECEPTACLE, 125V	
G	26 27 26	GROUND FAULT DEVICE	
W₩	26 27 26	DUPLEX GFI WEATHERPROOF RECEPTACLE 125V	
_ × <b>⇒</b>	26 27 26	DUPLEX RECEPTACLE, EXPLOSION PROOF, 125V	
■	26 27 26	ISOLATED GROUND RECEPTACLE, 125V	
s■	26 27 26	ISOLATED GROUND RECEPTACLE WITH SURGE SUPPRESSION, 125V	
s =	26 27 26	ISOLATED GROUND QUAD RECEPTACLE WITH SURGE SUPPRESSION, 125V	
∪ <del>=</del>	26 27 26	DUPLEX RECEPTACLE, USB CHARGING	
⇒	26 27 26	ARC FAULT CIRCUIT INTERRUPTER RECEPT 125V	
х <del>-</del> Ө	26 27 26	RECEPTACLE, EXPLOSION PROOF, 125V	
	26 27 26	DUPLEX RECEPTACLE, TAMPERPROOF, 125V	l L
<del>*●</del> >	26 27 26	GFI DUPLEX RECEPTACLE, TAMPERPROOF, 125V	
<del>=</del> ₩>	26 27 26	QUAD RECEPTACLE, TAMPERPROOF, 125V	_
=₩	26 27 26	QUAD RECEPTACLE, 125V	
<del>×</del> ₩	26 27 26	QUAD GFI RECEPTACLE, 125V	
<del>=</del> <b>⊕</b>	26 27 26	QUAD RECEPTACLE, USB 125V	
₩ <b>*</b>	26 27 26	QUAD GFI WEATHERPROOF RECEPTACLE, 125V	
0	26 05 33	RECEPTACLE - PEDESTAL STYLE	
	26 05 33	RECEPTACLE - PEDESTAL STYLE	
<b>©</b> #	26 27 26	FLOOR BOX - POKE THRU, 125V	
#	26 27 26	IEC PIN AND SLEEVE RECEPTACLE, 600V	
	26 27 23	POWER POLE	

	IVIIVI	200100	TINE TE WWW ABBILLOGABLE WORTH ON WOBGLE
	AR P	28 31 00	FIRE ALARM RELAY
	⊗D <sub>B</sub>	28 31 00	SMOKE DETECTOR - STAND ALONE
	SD <sub>V</sub>	28 31 00	SMOKE DETECTOR - STAND ALONE 177 CANDELA
	V1 V3 V7 VH	28 31 00	FIRE ALARM VISUAL NOTIFICATION DEVICE - WALL MOUNTED
	(V1)(V3) (V7)(VH)(VS)	28 31 00	FIRE ALARM VISUAL NOTIFICATION DEVICE - CEILING MOUNTED
	A	28 31 00	FIRE ALARM AUDIO NOTIFICATION DEVICE - WALL MOUNTED
	A1 A3 A7 AH AS	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - WALL MOUNTED
	A <sub>W</sub>	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - WALL MOUNTED - WEATHERPROOF
	A	28 31 00	FIRE ALARM AUDIO NOTIFICATION DEVICE - CEILING MOUNTED
	(A1)(A3) (A7)(AH)	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - CEILING MOUNTED
	$\bigcirc$	28 31 00	FIRE ALARM CM LOUD SPEAKER
	MH	28 31 00	FIRE ALARM AUDIO NOTIFICATION DEVICE - WALL MOUNTED - MINI-HORN
	RTS/I	28 31 00	FIRE ALARM REMOTE INDICATOR AND TEST SWITCH
	RI	28 31 00	FIRE ALARM REMOTE INDICATOR
	SD	28 31 00	FIRE ALARM SMOKE DAMPER
,	ARD	28 31 00	SMOKE OR FIRE DAMPER CONTROLLER
	HD	28 31 00	FIRE ALARM HOISTWAY DAMPER
	HDS <sub>#</sub>	28 31 00	FIRE ALARM HOISTWAY DAMPER SWITCH
	(SD)	28 31 00	FIRE ALARM SMOKE DAMPER WITH DUCT DETECTOR AND ADDRESSABLE RELAY
	FS	28 31 00	FIRE ALARM FLOW SWITCH TO MONITOR FIRE PROTECTION SYSTEM
	MS	28 31 00	FIRE ALARM MONITOR SWITCH TO MONITOR FIRE PROTECTION SYSTEM
	PIV	28 31 00	FIRE ALARM POST INDICATOR VALVE CONNECTION
	ЕВ	28 31 00	FIRE ALARM ELECTRONIC BELL FOR SPRINKLER SYSTEM
	DH	28 31 00	FIRE ALARM ELECTROMAGNETIC DOOR HOLD DEVICE
	DH <sub>PD</sub>	28 31 00	FIRE ALARM HOLD OPEN OVERRIDE CONNECTION
	IM	28 31 00	ISOLATION MODULE
	DB	ARCH	DOOR BELL
	HD	ARCH	HAND DRYER
	PP	ARCH	PUSH PAD
1			

**ELECTRICAL SYMBOL LIST** 

SECTION:

28 31 00

28 31 00

28 31 00

28 31 00

SPEC DESCRIPTION:

28 31 00 FIRE FIGHTERS PHONE

MOUNTED

DETECTOR

28 31 00 FIRE ALARM HEAT DETECTOR

28 31 00 HEAT DETECTOR - 200 DEGREE

FIRE ALARM CARBON

FIRE ALARM CONTROL PANEL

28 31 00 FIRE ALARM SMOKE DETECTOR - CEILING

28 31 00 FIRE ALARM DUCT SMOKE DETECTOR

FIRE ALARM PROJECTED BEAM SMOKE

FIRE ALARM IN DUCT SMOKE DETECTOR

FIRE ALARM MANUAL PULL STATION W/ COVER

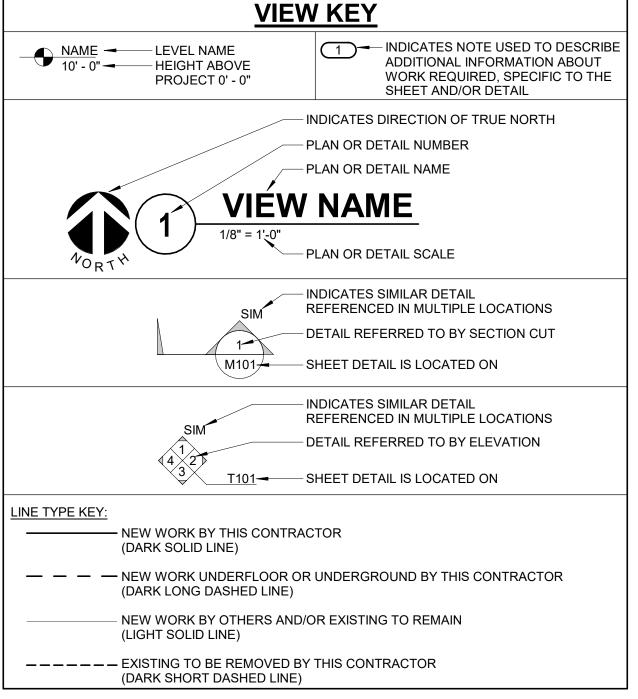
FIRE ALARM MANUAL PULL STATION

HEAT DETECTOR - EXPLOSION PROOF

MONOXIDE/HEAT/SMOKE DETECTOR

FIRE ALARM ADDRESSABLE MONITOR MODULE

FIRE ALARM FLAME DETECTOR



THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND

REPORT ANY CONFLICTS BEFORE PROCEEDING. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK.

3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR CABLE TRAY, BUSWAY AND CONDUITS BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS.

4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF HIS/HER WORK AND SHALL NOTIFY THE COR PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO HIS/HER AREA OF WORK.

5. THE CONTRACTOR IS RESPONSIBLE FOR CUTTING. REMOVAL AND PATCHING OF ROOFS. WALLS. AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS.

THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE COR OF AFFECTED AREAS PRIOR TO BIDDING.

WHERE EXISTING ELECTRICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, CONDUIT, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING ELECTRICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK. 8. CONTRACTOR SHALL PROVIDE A DETAILED SCHEDULE OF POWER OUTAGES. EACH OUTAGE SHALL HAVE DURATION AND EQUIPMENT AFFECTED. ALL OUTAGES SHALL BE APPROVED BY

REFER TO DIVISION 01 SPECIFICATIONS FOR PERFORMANCE OF WORK REQUIREMENTS FOR BUILDING OPERATION DURING CONSTRUCTION.

#### **ELECTRICAL SEQUENCING NOTES:**

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF CONSTRUCTION

SEQUENCING. REFER TO ARCHITECT'S INSTRUCTIONS FOR MORE DETAILS AND SEQUENCING SCHEDULES AND FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF THE SEQUENCING CRITERIA. REVIEW PROJECT SEQUENCING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES,

ETC. WITH AFFECTED ADJACENT AREAS. PROVIDE TEMPORARY LIGHTING, POWER, SYSTEMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS DURING ALL SEQUENCES OF PROJECT. INSTALL TEMPORARY LIGHTING, CIRCUITS, ETC. AS NECESSARY TO KEEP ALL OCCUPIED

SPACES OPERATIONAL THROUGHOUT ALL SEQUENCES OF THE PROJECT SEQUENCE DEMOLITION WORK TO MINIMIZE DOWNTIME.

FIRE / SMOKE BARRIER DESIGNATIONS

THE LINE TYPES SHOWN ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR

SHALL VERIFY RATINGS WITH THE LATEST SET OF ARCHITECTURAL PLANS AND FURNISH ALL

ALL [FLOOR, FLOOR CEILING, AND ROOF CEILING] ASSEMBLIES SHALL BE DESIGNATED AS [1], [2]

[3], [4] HOUR FIRE [/SMOKE], BARRIER(S), UNLESS NOTED OTHERWISE ON THE PLANS. RATINGS

**ELECTRICAL SYMBOL LIST** 

DESCRIPTION:

TROFFER

LINEAR LUMINAIRES

WALL SCONCE LUMINAIRE

AIMABLE OR WALL WASH LUMINAIRE

WALL/CEILING EMERGENCY EXIT SIGN

DOWNLIGHT LUMINAIRE

INDUSTRIAL LUMINAIRE

WALL BRACKET LUMINAIRE

POLE MOUNTED LUMINAIRE

SINGLE FACE EXIT SIGN

DOUBLE FACE EXIT SIGN

EMERGENCY UNIT

**ELECTRICAL ABBREVIATION KEY** 

**LUMINAIRE SYMBOL KEY** 

UNSWITCHED FOR NIGHT LIGHT, UNLESS NOTED 'SE'

**ELECTRICAL - DEMOLITION PLAN - BASEMENT** 

ELECTRICAL - LIGHTING - PLAN - BASEMENT ELECTRICAL - LIGHTING - PLAN - FIRST FLOOR

ELECTRICAL - POWER - PLAN - LOWER ROOF ELECTRICAL - FIRE ALARM RISER DIAGRAM

ELECTRICAL - ENLARGED PLANS

**ELECTRICAL - ONE-LINE DIAGRAMS** ELECTRICAL - ONE-LINE DIAGRAMS

ELECTRICAL - DETAILS

ELECTRICAL - SCHEDULES

**ELECTRICAL SHEET INDEX** 

ELECTRICAL - LIGHTING - DEMOLITION PLAN - FIRST FLOOR

ELECTRICAL - POWER & SYSTEMS - DEMO - FIRST FLOOR

ELECTRICAL - POWER & SYSTEMS - PLAN - BASEMENT ELECTRICAL - POWER & SYSTEMS - PLAN - FIRST FLOOR

.......

\_.\_.\_.

\_..\_.

MATERIALS REQUIRED TO COMPLY WITH THOSE RATINGS WHETHER SHOWN OR NOT.

WERE ACQUIRED FROM THE ARCHITECTURAL PLANS DATED [\*\*/\*\*/\*\*].

SMOKE RESISTIVE HAZARDOUS ROOM ENCLOSURE

TAG:

REFER TO LUMINAIRE

SCHEDULE

DESCRIPTION:

CONDUIT

TYPICAL

ABOVE FINISHED FLOOR

NORMALLY CLOSED

NOT IN CONTRACT

NORMALLY OPEN

SOLENOID VALVE

ABOVE COUNTER

**GROUND FAULT INTERRUPTER** 

UNLESS NOTED OTHERWISE

DESCRIPTION:

NORMAL BRANCH LUMINAIRE

CRITICAL BRANCH LUMINAIRE

ELECTRICAL - COVERSHEET

LIFE SAFETY BRANCH LUMINAIRE

1-HOUR FIRE/SMOKE BARRIER

2-HOUR FIRE/SMOKE BARRIER

SYMBOL:

1 \*\*\*\* 1

ABBR:

N.C.

N.O.

TYP

SYMBOL:

GRAND TOTAL: 15

#### **ELECTRICAL RENOVATION NOTES: ELECTRICAL GENERAL NOTES:**

{L###} INDICATES THE LIGHTING SEQUENCE OF OPERATION FOR THE SPACE. REFER TO THE LIGHTING SEQUENCE OF OPERATION MATRIX ON SHEET #/###.

"NL" INDICATES LUMINAIRE IS UNSWITCHED FOR NIGHT LIGHT. "SE" INDICATES LUMINAIRE IS SWITCHED/CONTROLLED DURING NORMAL OPERATION AND

OPERATES FROM EMERGENCY CIRCUIT UPON LOSS OF POWER. SHADED LUMINAIRE OR DEVICE INDICATES LUMINAIRE OR DEVICE IS CONNECTED TO AN EMERGENCY CIRCUIT.

<u>LUMINAIRE KEY:</u>

F1 = FIXTURE TAG 1 = CIRCUIT NUMBER a = SWITCH DESIGNATION NL = SUBSCRIPT (IF APPLICABLE)

DEVICE KEY:

\*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: F1/1/a/NL

**D** A = MOUNTING (IF APPLICABLE) DEVICE 1 = CIRCUIT NUMBER

\*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS

INFORMATION. EX: A / 1 ELECTRICAL MOUNTING SUBSCRIPT KEY:

MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH MOUNT AT CEILING

MOUNT ORIENTED HORIZONTALLY

MOUNT IN CASEWORK

MOUNT IN MODULAR FURNITURE

MOUNT IN SURFACE RACEWAY EWC ELECTRIC WATER COOLER

#### **ELECTRICAL INSTALLATION NOTES:**

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS

ON THIS PAGE FOR ADDITIONAL INFORMATION. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN

EACH PHASE. PROVIDE GROUND CONDUCTOR IN EACH BRANCH CIRCUIT AND FEEEDER. 3. LIFE SAFETY, CRITICAL, EQUIPMENT BRANCH WIRING FOR FEEDERS AND BRANCH CIRCUITS SHALL BE ROUTED IN SEPARATE RACEWAY, JUNCTION BOXES, PULL BOXES, AND CABINETS. WIRING FOR EACH BRANCH SHALL BE INDEPENDENT FROM OTHER BRANCHES, INCLUDING

THE NORMAL BRANCH. 4. FLUSH MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. DEVICES MAY BE SURFACE MOUNTED

WHEN CONDUIT IS SPECIFIED EXPOSED. 5. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND

OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED. 6. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO [27 05 03 AND 28 05 03] [DIVISION 7] [26 05 03]

FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING. 7. CONNECTION FOR ELECTRIC WATER COOLERS (EWC) SHALL BE A JUNCTION BOX CONCEALED BEHIND WATER COOLER ACCESS PLATE OR BE A GFI RECEPTACLE LOCATED DIRECTLY BELOW AND CENTERED ON EWC. CONTRACTOR SHALL VERIFY TYPE OF EWC TO

BE INSTALLED. 8. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.

9. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE. 10. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. CENTER ALL DEVICES

IN CEILING TILE PATTERN. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN 11. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS.

PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT. 12. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT

SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER 13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE

EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS. 14. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE ARCHITECT/ENGINEER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE ARCHITECT/ENGINEER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF

ANY WELDERS ASSIGNED TO THE JOB. 15. CONTRACTOR SHALL REMOVE AND REINSTALL ALL CEILING TILES AS REQUIRED FOR THE EXECUTION OF ELECTRICAL WORK. CONTRACTOR SHALL REPLACE CEILING TILES WITH

IDENTICAL MATERIAL WHERE DAMAGED BY THIS CONTRACTOR. 16. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING

MOUNTED DEVICES, OTHER THAN SPRINKLERS. 17. ELECTRICAL IDENTIFICATION. REFER TO SPECIFICATION SECTION FOR COLOR/LABEL REQUIREMENTS FOR CONDUIT, BOX, CABLE/WIRE, AND EQUIPMENT. 18. REFER TO MOTOR AND EQUIPMENT SCHEDULES ON MECHANICAL DRAWINGS FOR

ADDITIONAL INFORMATION. 19. REFER TO ARCHITECTS ELEVATIONS FOR ADDITIONAL INFORMATION ON LOCATION MOUNTING HEIGHTS FOR DEVICES.

# **ELECTRICAL DISCIPLINE NOTES**

GENERAL NOTES FOR CONTRACTORS: SEE ALL PROJECT GENERAL NOTES AND OTHER REQUIREMENTS INCLUDING THE LIFE SAFETY AND INFECTION CONTROL WORK LOCATED WITHIN THE GENERAL DRAWINGS SECTION. COMPLY WITH ALL REQUIREMENTS AS THEY ARE A DIRECT PART OF THIS SECTION AS IF THEY WERE DIRECTLY INCLUDED AND PROVIDED HEREIN.

**EQUIVALENCY SUBSTITUTIONS:** THE "BASIS OF DESIGN (BOD) COMPLIANCE PROTOCOLS" ARE TO BE FOLLOWED FOR ALL MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SPECIFIED AND DETAILED THROUGHOUT ALL DRAWINGS AND SPECIFICATION SECTIONS, WHETHER THE BOD DESIGNATE IS SPECIFICALLY REFERENCED THEREIN OR NOT. SEE THE GENERAL DRAWINGS SECTION FOR THE SPECIFIC BOD COMPLIANCE REQUIREMENTS AND PROTOCOLS

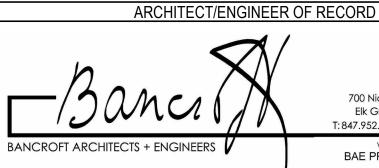
# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

3001 BROADWAY MINNEAPOLIS, MN ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 REVISION DATE

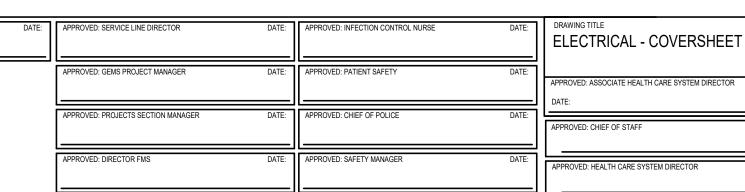
STREET NE, SUITE 601 www.imegcorp.com

REFERENCE SCALE IN INCHES  I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota. Signature: Typed or Printed Name: Alexander S. Quast

Date:10/28/2022 License Number: 53095



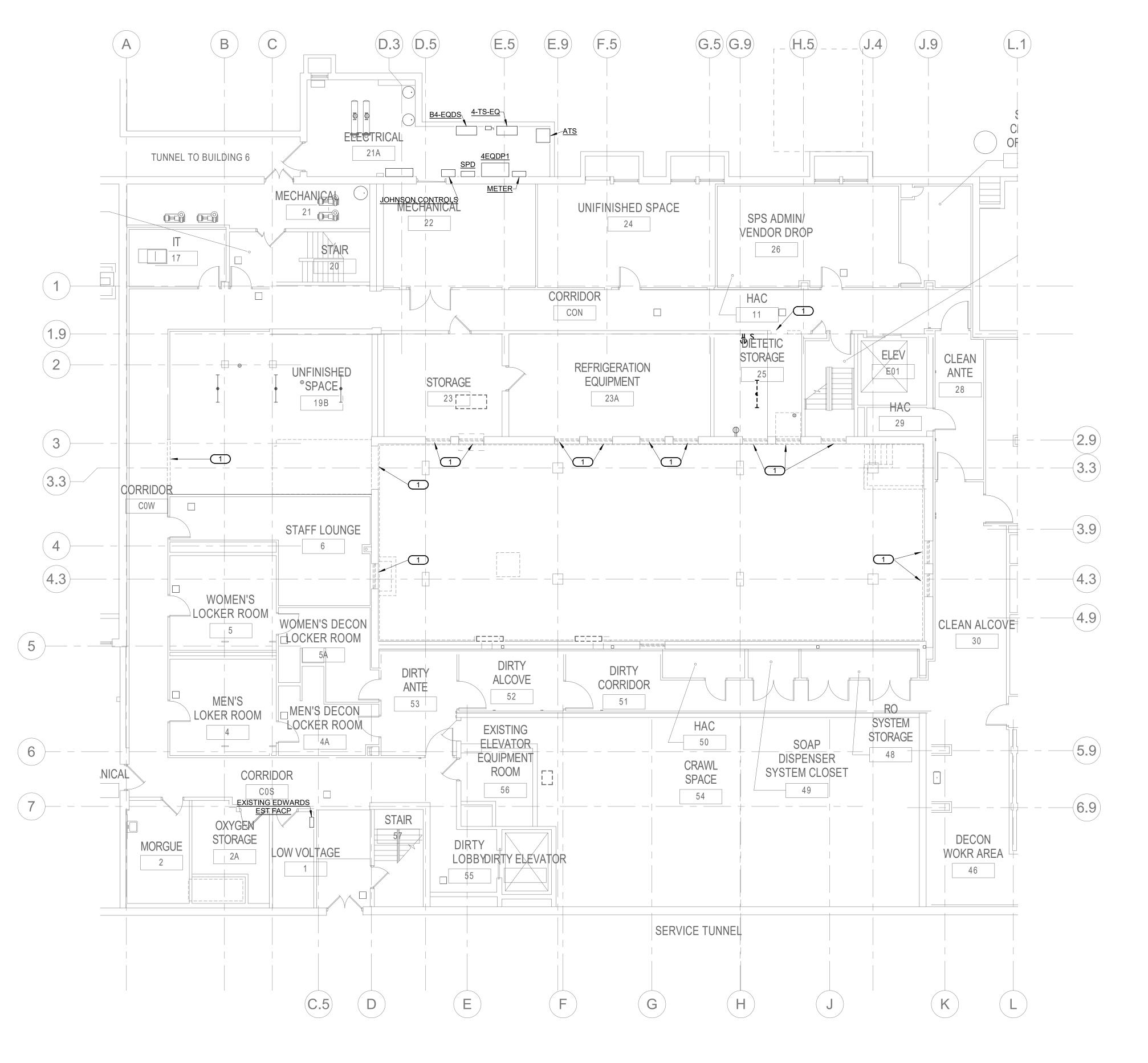
700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116











**GENERAL NOTES:** 

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION OF THE EXISTING ELECTRICAL INSTALLATION AS INDICATED ON THE DRAWINGS AS SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE FUNCTIONING PROJECT.

  B. THE EXISTING ELECTRICAL INSTALLATION AS SHOWN ON THE EXISTING ELECTRICAL INSTALLATION AS SHOWN ON
- THE DRAWINGS MAY NOT BE COMPLETELY ACCURATE IN ALL RESPECTS WITH REGARD TO QUANTITIES, LOCATIONS, ETC., AND IS SHOWN PRIMARILY TO GENERALLY ILLUSTRATE THE DEGREE OF DEMOLITION WORK INVOLVED. DEMOLITION WORK SHALL BE ALL INCLUSIVE IN AREAS SHOWN.

  C. STAGING AND PHASING OF ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE OTHER CONTRACTORS AND
- COORDINATED WITH THE OTHER CONTRACTORS AND COR TO FACILITATE REMOVAL OF EXISTING MATERIAL AND EQUIPMENT. IN AREAS WHERE WORK INTERFERES WITH EXISTING BUILDING OPERATIONS. PROVIDE TEMPORARY OR PERMANENT CESSATION OR RELOCATION OF BUILDING FACILITIES, ACCEPTABLE TO ALL CONCERNED.

  D. EXISTING OUTLETS:
- 1. WHERE EXISTING CONDUITS TERMINATE AT AN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR TO BE REMOVED, CONTRACTOR SHALL DISCONNECT AND REMOVE DEVICE AND WIRE FROM CONDUIT AND CAP ABANDONED CONDUIT.
- FROM CONDUIT AND CAP ABANDONED CONDUIT.

  2. WHERE EXISTING CIRCUITS EXTEND BEYOND THE OUTLET IN THE EXISTING WALL, CEILING OR FLOOR TO BE REMOVED, CONTRACTOR SHALL FURNISH AND INSTALL NEW CONDUITS AND WIRE TO EITHER REROUTE THE CIRCUIT OR FEED THE REMAINING OUTLET(S) FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH A MANNER
- AS NOT TO REVISE THE CIRCUIT FUNCTION.

  3. WHERE EXISTING OUTLETS IN A WALL, CEILING OR FLOOR TO BE REMOVED ARE ESSENTIAL TO MAINTAIN OPERATION OF OTHER REMAINING OUTLETS, CONTRACTOR SHALL RELOCATE THE OUTLET TO A NEW CONVENIENT LOCATION.
- 4. LIGHTING FIXTURES LOCATED IN AREAS WHERE CEILINGS OR WALLS ARE TO BE REPLACED SHALL BE TAKEN DOWN, CLEANED AND REINSTALLED ON NEW CEILING OR WALL UNLESS OTHERWISE NOTED. IF CONDUIT AND WIRING SERVING THESE FIXTURES MUST BE REMOVED TO PERMIT DEMOLITION WORK, NEW CONDUIT AND WIRE SHALL BE INSTALLED TO PROVIDE SAME CIRCUITING ARRANGEMENT AS ORIGINALLY PREVAILED.
- E. EXISTING CONDUITS:

  1. WHERE EXISTING CONDUIT AND WIRE RUNS ARE LOCATED IN OR ATTACHED TO AN EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, THEY SHALL BE REROUTED IN EITHER NEW CONSTRUCTION OR EXPOSED TO MAINTAIN CONTINUITY OF CIRCUITS UNLESS OTHERWISE APPROVED BY ENGINEER. EXPOSED CONDUITS SHALL BE SPECIFICALLY NOTED ON THE DRAWINGS OR APPROVED BY ENGINEER.

2. CONDUIT SHALL BE CONCEALED WITHIN THE EXISTING

- BUILDING CONSTRUCTION, EXCEPT WHERE OTHERWISE INDICATED ON THE DRAWINGS. IN ALL EXISTING AND REMODELED AREAS HAVING SUSPENDED CEILINGS, CONDUIT SHALL BE CONCEALED ABOVE CEILINGS.

  3. EXISTING ABANDONED CONDUITS SHALL BE REMOVED WHERE EXPOSED, ABOVE CEILINGS OR IN WALLS SHOWN TO BE DEMOLISHED. CONDUITS IN CONRETE SHALL BE REMOVE WHERE EXPOSED ABOVE CEILING OR IN WALLS SHOWN TO OR IN WALLS SHOWN TO BE DEMOLISHED. CONDUITS IN CONCRETE SHALL BE CUT FLUSH WITH FLOOR AND SEALED WITH AN APPROVED SEALANT TO
- PREVENT MOISTURE ACCESS.

  F. EXISTING WIRING:

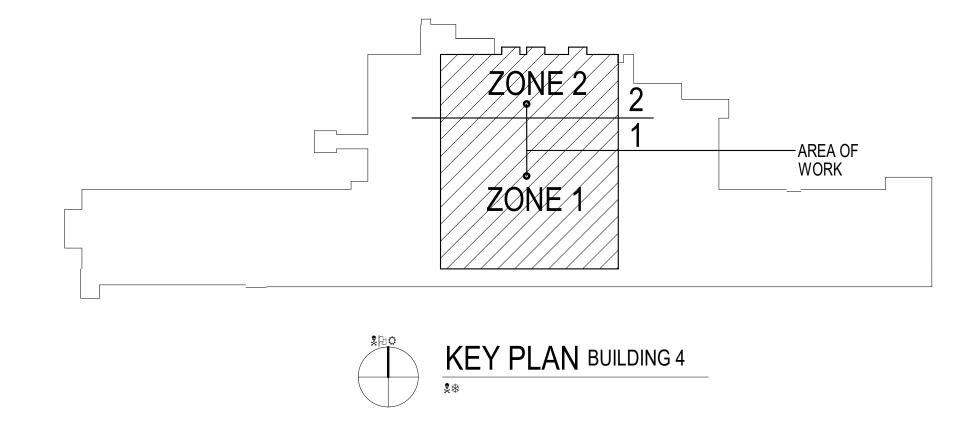
  1. EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE ABANDONED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE. CONTRACTOR SHALL PROVIDE NEW CONDUCTORS WHEN CONNECTING TO OR EXTENDING CIRCUITING TO EXISTING EQUIPMENT.
- ABANDONED OUTLET BOXES SHALL BE REMOVED UNLESS
   CONCEALED BEHIND NEW CONSTRUCTION OR LOCATED
   WITHIN UNFINISHED SPACES. PROVIDE BLANK COVERS ON
   OUTLET BOXES IN WALLS.
   G. EXISTING EQUIPMENT:
- EXISTING EQUIPMENT, E.G., PANELBOARDS, SWITCHES, STARTERS, LIGHTING FIXTURES, CONDUIT, WIRE OUTLETS, ETC., SHOWN TO BE DEMOLISHED, SHALL BE DISCONNECTED AND REMOVED IN THEIR ENTIRETY INCLUDING ALL APPURTENANCES WHERE INDICATED ON THE DRAWINGS.
- UNLESS OTHERWISE REQUESTED, OR HEREIN INDICATED TO BE SALVAGED BY THE COR, ALL EXISTING REMOVED EQUIPMENT SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM THE SITE.
- H. ALL NECESSARY EXISTING BUILDING SERVICE OR POWER INTERRUPTIONS REQUIRED FOR THE ELECTRICAL INSTALLATIONS SHALL BE SCHEDULED IN ADVANCE AS REQUIRED BY COR. NO INTERRUPTIONS WILL BE PERMITTED WITHOUT THE COR'S EXPLICIT PERMISSION. ALL REQUIRED INTERRUPTIONS SHALL BE ARRANGED DURING HOURS AND DAYS WHICH LEAST INCONVENIENCE THE OPERATION OF THE EXISTING FACILITY AND EACH OUTAGE SHALL BE AS SHORT AS POSSIBLE.

  TEMPORARY CONNECTIONS SHALL BE MADE AS
- REQUIRED TO PROVIDE CONTINUITY OF SERVICE.
  EXISTING FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL
  DURING CONSTRUCTION. ALL EXISTING DEVICES, ALARM AND
  NOTIFICATION CIRCUITS SHALL BE MAINTAINED, PROVIDE
  TEMPORARY CABLING AS REQUIRED. EXISTING SMOKE
  DETECTORS AND NOTIFICATION DEVICES IN AREA OF
  CONSTRUCTION SHALL REMAIN UNTIL NEW DEVICES ARE
  TESTED AND OPERATIONAL. EXISTING SMOKE DETECTORS
  SHALL BE COVERED/BAGGED DURING CONSTRUCTION HOURS
  AND BAGS REMOVED DURING NON-CONSTRUCTION HOURS.

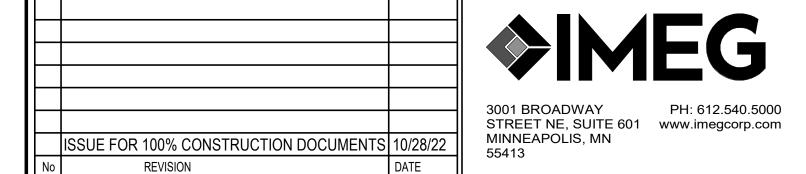
KEYNOTES: #

CONTRACTOR SHALL RELOCATE ANY BRANCH CIRCUITING IN CONFLICT WITH PORTIONS OF WALL BEING REMOVED.



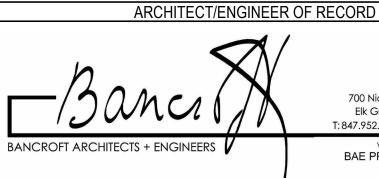


### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS



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0 1 2



700 Nicholas Blvd. Suite 300
Elk Grove Village, IL 60007
T:847.952.9362 F:847.952.9403

www.bancroft-ae.com
BAE PROJECT NO. 18-116

APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: GEMS PROJECT MANAGER

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECTS SECTION MANAGER

DATE:

APPROVED: DIRECTOR FMS

DATE:

APPROVED: SAFETY MANAGER

DATE:

APPROVED: SAFETY MANAGER

DATE:

APPROVED: APPROVED: DATE:

APPROVED: DATE:

APPROVED: DIRECTOR FMS

DATE:

APPROVED: APPROVED: SAFETY MANAGER

DATE:

APPROVED: APPROVED: SAFETY MANAGER

DATE:

APPROVED: DIRECTOR FMS

DRAWING TITLE
ELECTRICAL - DEMOLITION PLAN
- BASEMENT

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

PROJECT TITLE

CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

PROJECT NO.
656-400

PROJECT NO.
656-400

DRAWN
GJL

DRAWN
ED100

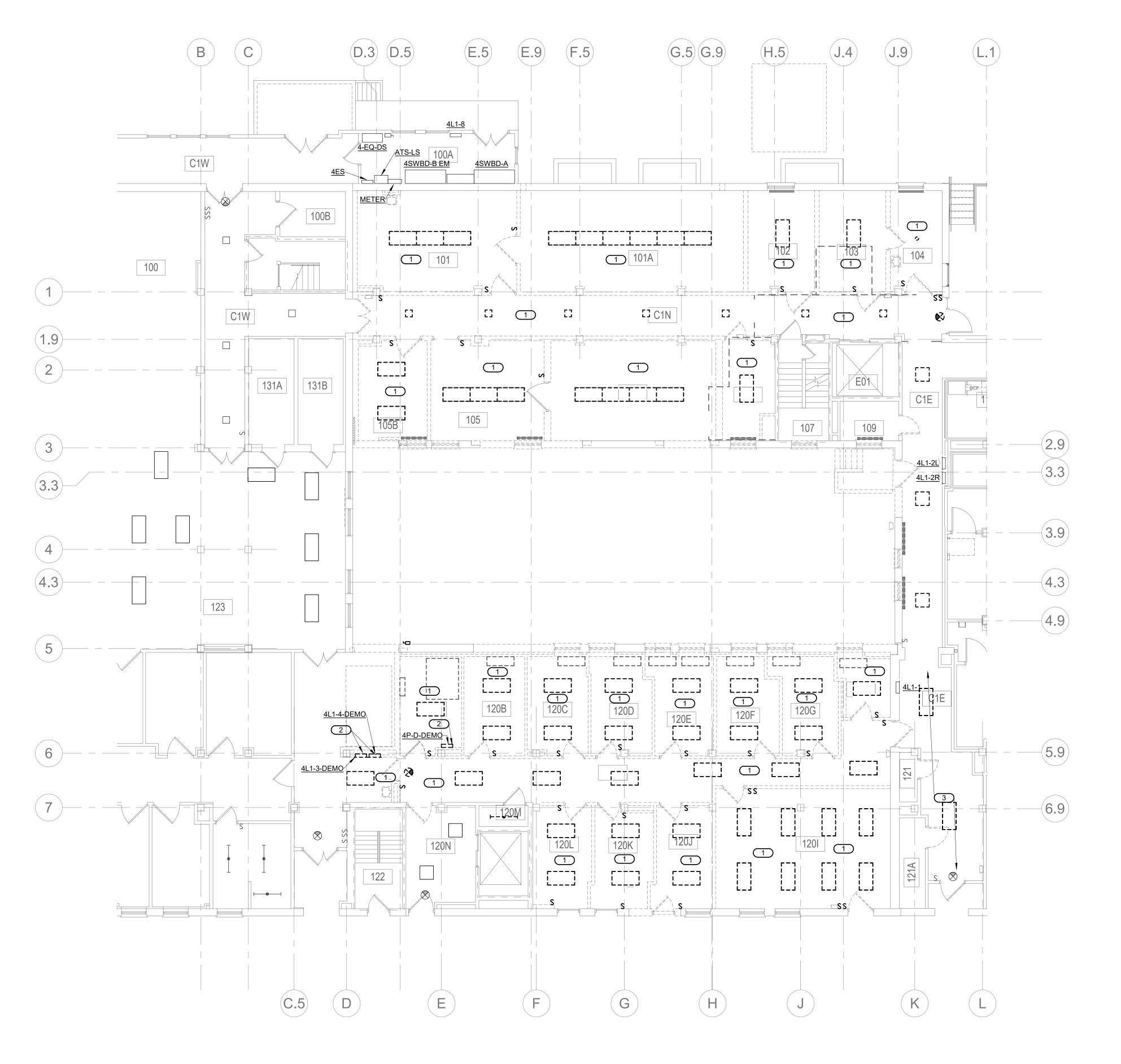
APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

DWG. OF



U.S. Department
of Veterans Affairs
Veterans Health
Administration
St. Cloud VA
Health Care System



#### **GENERAL NOTES:**

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- WORK SHALL BE ALL INCLUSIVE IN AREAS SHOWN. C. STAGING AND PHASING OF ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE OTHER CONTRACTORS AND COR TO FACILITATE REMOVAL OF EXISTING MATERIAL AND EQUIPMENT. IN AREAS WHERE WORK INTERFERES WITH EXISTING BUILDING OPERATIONS. PROVIDE TEMPORARY OR PERMANENT CESSATION OR RELOCATION OF BUILDING
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ANOTHER ELECTRICAL SOURCE, BUT IN SUCH A MANNER

- 4. LIGHTING FIXTURES LOCATED IN AREAS WHERE CEILINGS OR WALLS ARE TO BE REPLACED SHALL BE TAKEN DOWN, CLEANED AND REINSTALLED ON NEW CEILING OR WALL UNLESS OTHERWISE NOTED. IF CONDUIT AND WIRING SERVING THESE FIXTURES MUST BE REMOVED TO PERMIT DEMOLITION WORK, NEW CONDUIT AND WIRE SHALL BE INSTALLED TO PROVIDE SAME CIRCUITING ARRANGEMENT AS ORIGINALLY PREVAILED.
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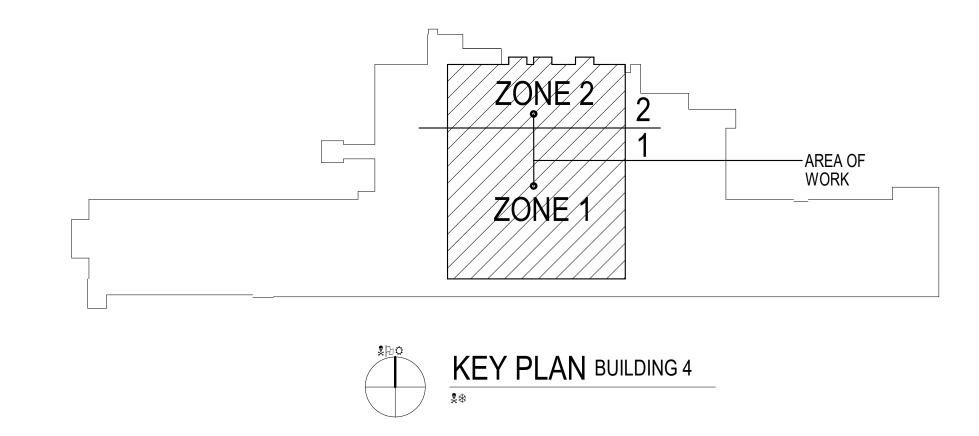
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AND BAGS REMOVED DURING NON-CONSTRUCTION HOURS.

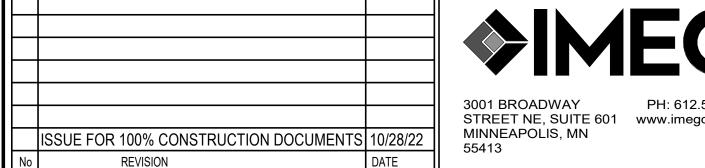
### KEYNOTES: #

- DISCONNECT AND REMOVE ALL LIGHTING & CONTROLS. CONTRACTOR SHALL EXTEND ALL BRANCH CIRCUITS FROM EXISTING PANELS FOR LOADS REQUIRED TO REMAIN. REFER TO
- NEW PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES IN THIS SECTION OF CORRIDOR.





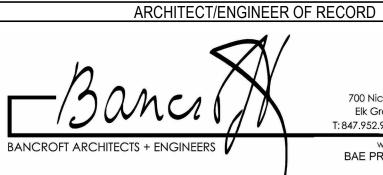
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**IMEG** STREET NE, SUITE 601 www.imegcorp.com

REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota. Signature: \_ Typed or Printed Name: Alexander S. Quast Date:10/28/2022 License Number: 53095



700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116

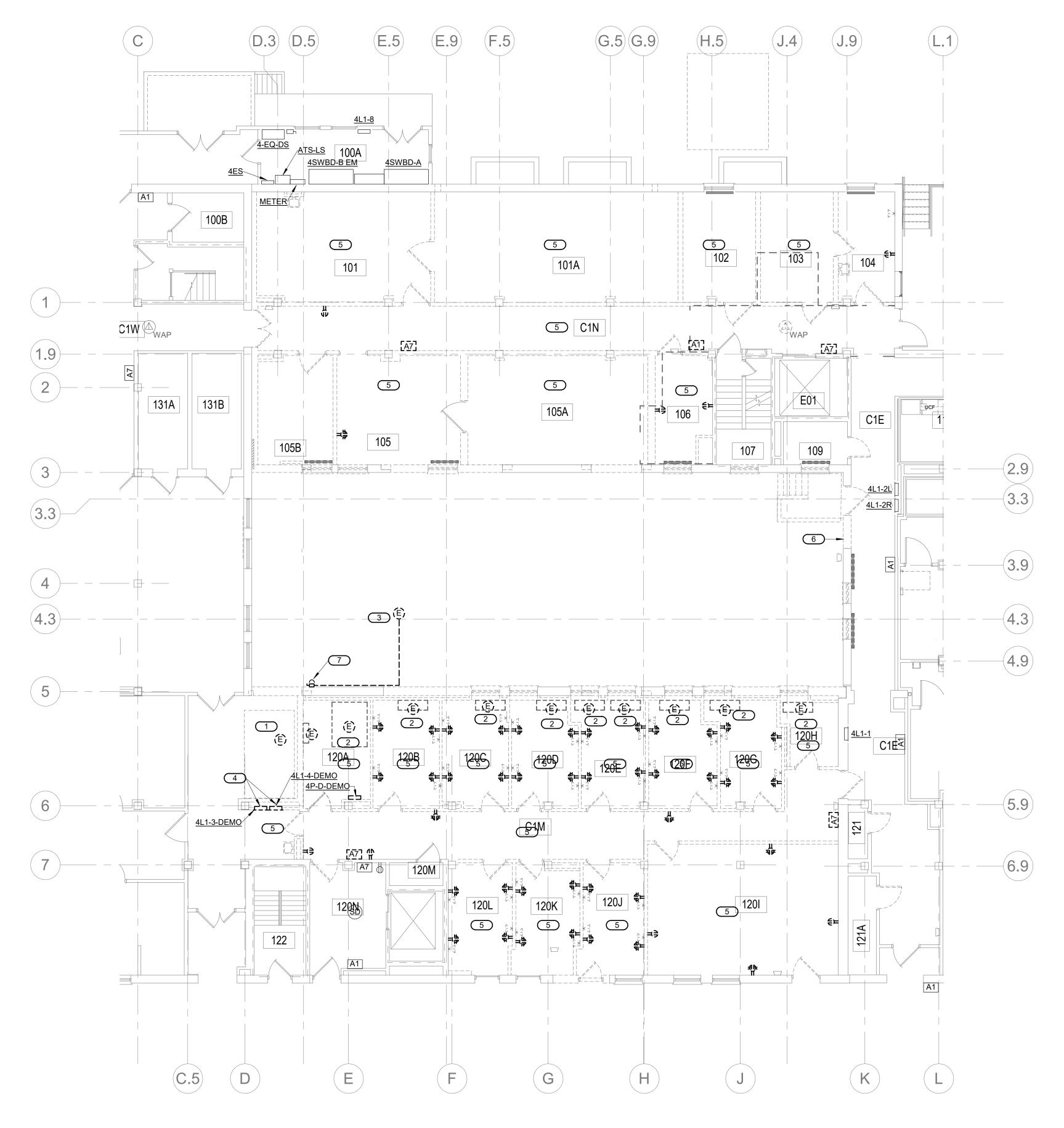
ATE: APPROVED: SERVICE LINE DIRECTOR

ELECTRICAL - LIGHTING - CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR ELECTRICAL - LIGHTING -APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR 656-400 JILDING NO CHÉCKED BY DRAWN DRAWING NO.

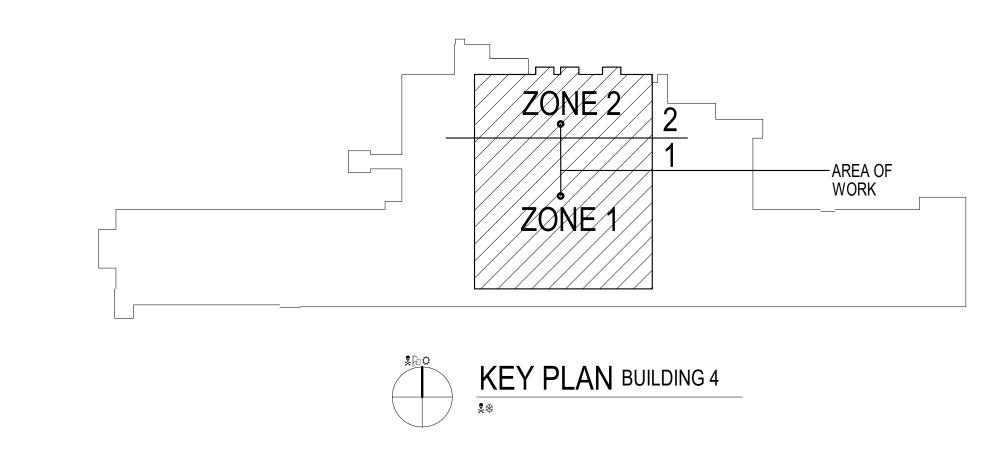
4 GJL DRM EDL101 ST. CLOUD, MN 56303



U.S. Department of Veterans Affairs Veterans Health Administration St. Cloud VA Health Care System



ELECTRICAL - POWER & SYSTEMS - DEMOLTION PLAN - FIRST FLOOR



**GENERAL NOTES:** 

D. EXISTING OUTLETS:

LOCATION.

E. EXISTING CONDUITS:

F. EXISTING WIRING:

AS ORIGINALLY PREVAILED.

PREVENT MOISTURE ACCESS.

OUTLET BOXES IN WALLS.

G. EXISTING EQUIPMENT:

THE DRAWINGS.

FROM THE SITE.

KEYNOTES: #

CONDENSING UNIT.

SERVING OTHER AREAS.

WHERE NEW DOOR OPENING IS SHOWN.

PANELBOARDS.

SHALL BE AS SHORT AS POSSIBLE.

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL

WORK SHALL BE ALL INCLUSIVE IN AREAS SHOWN.

FACILITIES, ACCEPTABLE TO ALL CONCERNED.

 WHERE EXISTING CONDUITS TERMINATE AT AN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR TO BE REMOVED, CONTRACTOR

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RELOCATE THE OUTLET TO A NEW CONVENIENT

1. WHERE EXISTING CONDUIT AND WIRE RUNS ARE LOCATED IN OR ATTACHED TO AN EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, THEY SHALL BE REROUTED IN EITHER NEW CONSTRUCTION OR EXPOSED

TO MAINTAIN CONTINUITY OF CIRCUITS UNLESS OTHERWISE APPROVED BY ENGINEER. EXPOSED CONDUITS SHALL BE SPECIFICALLY NOTED ON THE

 CONDUIT SHALL BE CONCEALED WITHIN THE EXISTING BUILDING CONSTRUCTION, EXCEPT WHERE OTHERWISE INDICATED ON THE DRAWINGS. IN ALL EXISTING AND REMODELED AREAS HAVING SUSPENDED CEILINGS, CONDUIT SHALL BE CONCEALED ABOVE CEILINGS.
 EXISTING ABANDONED CONDUITS SHALL BE REMOVED

WHERE EXPOSED, ABOVE CEILINGS OR IN WALLS SHOWN TO BE DEMOLISHED. CONDUITS IN CONRETE SHALL BE REMOVE WHERE EXPOSED ABOVE CEILING OR IN WALLS SHOWN TO OR IN WALLS SHOWN TO BE DEMOLISHED. CONDUITS IN CONCRETE SHALL BE CUT FLUSH WITH FLOOR AND SEALED WITH AN APPROVED SEALANT TO

1. EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE ABANDONED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE. CONTRACTOR SHALL PROVIDE

NEW CONDUCTORS WHEN CONNECTING TO OR EXTENDING CIRCUITING TO EXISTING EQUIPMENT.

2. ABANDONED OUTLET BOXES SHALL BE REMOVED UNLESS CONCEALED BEHIND NEW CONSTRUCTION OR LOCATED WITHIN UNFINISHED SPACES. PROVIDE BLANK COVERS ON

1. EXISTING EQUIPMENT, E.G., PANELBOARDS, SWITCHES,

2. UNLESS OTHERWISE REQUESTED, OR HEREIN INDICATED

CONTRACTOR'S PROPERTY AND SHALL BE REMOVED

ETC., SHOWN TO BE DEMOLISHED, SHALL BE DISCONNECTED AND REMOVED IN THEIR ENTIRETY INCLUDING ALL APPURTENANCES WHERE INDICATED ON

TO BE SALVAGED BY THE COR, ALL EXISTING REMOVED EQUIPMENT SHALL BECOME THE

H. ALL NECESSARY EXISTING BUILDING SERVICE OR POWER INTERRUPTIONS REQUIRED FOR THE ELECTRICAL INSTALLATIONS SHALL BE SCHEDULED IN ADVANCE AS REQUIRED BY COR. NO INTERRUPTIONS WILL BE PERMITTED WITHOUT THE COR'S EXPLICIT PERMISSION. ALL REQUIRED INTERRUPTIONS SHALL BE ARRANGED DURING

HOURS AND DAYS WHICH LEAST INCONVENIENCE THE OPERATION OF THE EXISTING FACILITY AND EACH OUTAGE

EXISTING FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. ALL EXISTING DEVICES, ALARM AND NOTIFICATION CIRCUITS SHALL BE MAINTAINED, PROVIDE TEMPORARY CABLING AS REQUIRED. EXISTING SMOKE DETECTORS AND NOTIFICATION DEVICES IN AREA OF CONSTRUCTION SHALL REMAIN UNTIL NEW DEVICES ARE TESTED AND OPERATIONAL. EXISTING SMOKE DETECTORS SHALL BE COVERED/BAGGED DURING CONSTRUCTION HOURS AND BAGS REMOVED DURING NON-CONSTRUCTION HOURS.

TEMPORARY CONNECTIONS SHALL BE MADE AS REQUIRED TO PROVIDE CONTINUITY OF SERVICE.

DISCONNECT AND REMOVE KITCHEN COOKING RANGE. DISCONNECT AND REMOVE MECHANICAL EQUIPMENT.

DISCONNECT AND REMOVE ALL CIRCUITING ASSOCIATED WITH

DISCONNECT AND REMOVE PANELBOARD. MAINTAIN EXISTING CIRCUITS REQUIRED TO REMAIN AND EXTEND TO NEW

CONTRACTOR SHALL RELOCATE ALL CIRCUITING WITHIN WALL

DISCONNECT AND REMOVE EXISTING FEEDER AND DISCONNECT

DISCONNECT AND REMOVE ALL ELECTRICAL DEVICES AND CIRCUITING IN THIS ROOM/AREA. MAINTAIN ALL CIRCUITING

STARTERS, LIGHTING FIXTURES, CONDUIT, WIRE OUTLETS,

DRAWINGS OR APPROVED BY ENGINEER.

AS NOT TO REVISE THE CIRCUIT FUNCTION.

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ı				STREET NE, SUITE 601 www.imegcorp.com
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ı	No	REVISION	DATE	00110

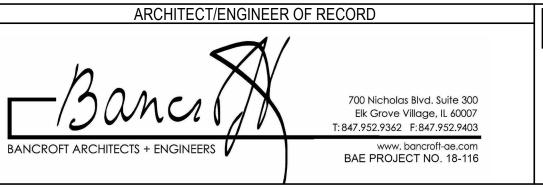
REFERENCE SCALE IN INCHES

0 1 2

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

Typed or Printed Name: Alexander S. Quast Date: 10/28/2022 License Number: 53095



DATE: APPROVED: SERVICE LINE DIRECTOR DATE: APPROVED: INFECTION CONTROL NURSE DATE: ELECTORY SYSTEMAN APPROVED: GEMS PROJECT MANAGER DATE: APPROVED: PATIENT SAFETY DATE: APPROVED: APPROVED: APPROVED: APPROVED: CHIEF OF POLICE DATE: APPROVED: APPR

DRAWING TITLE

ELECTRICAL - POWER &
SYSTEMS - DEMO - FIRST FLOOR

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

DATE:

CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

PLOT SCALE

PROJECT NO.
656-400

PROJECT NO.
656-400

DRAWING NO.
EDP101

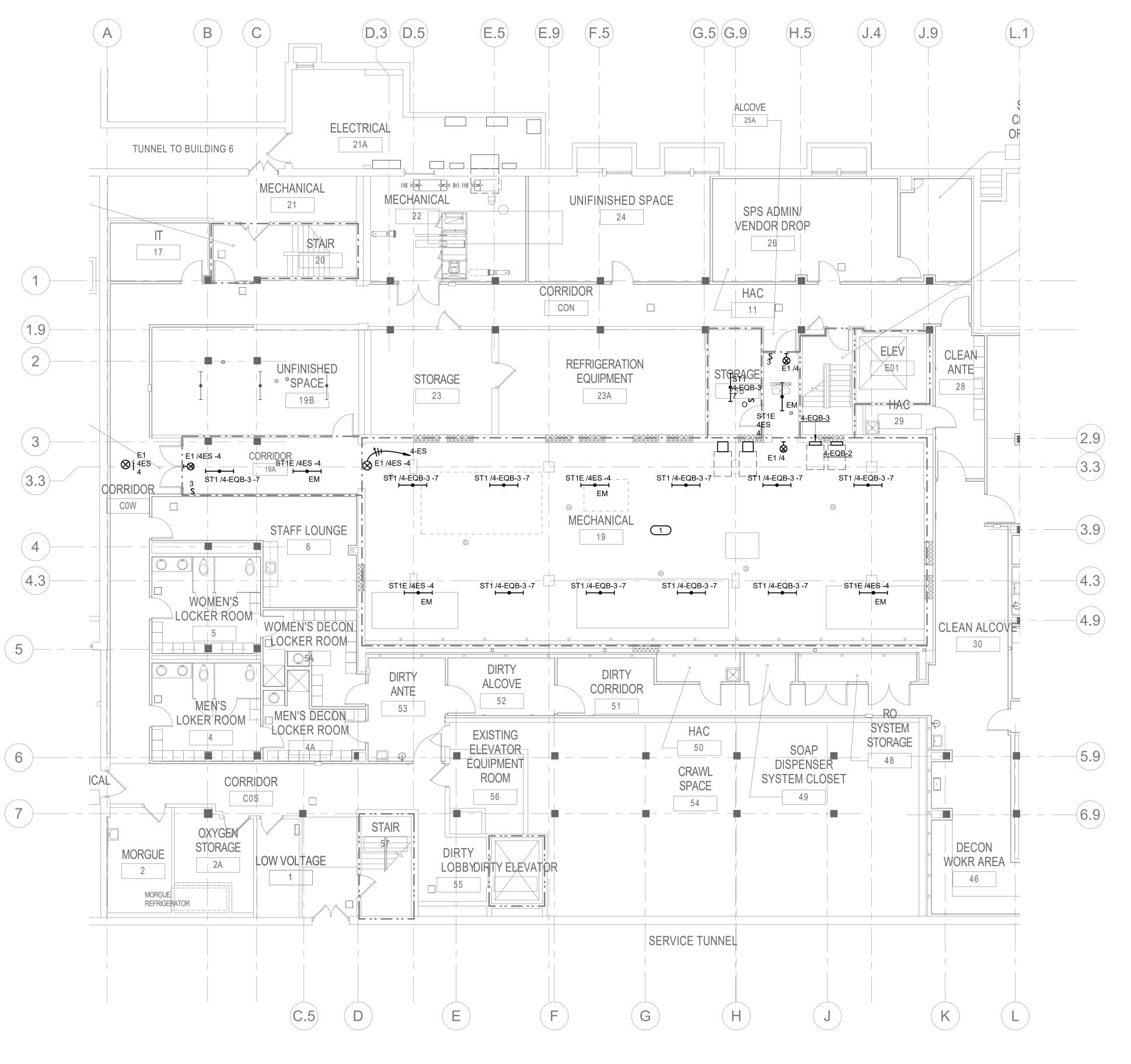
APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

DWG. OF

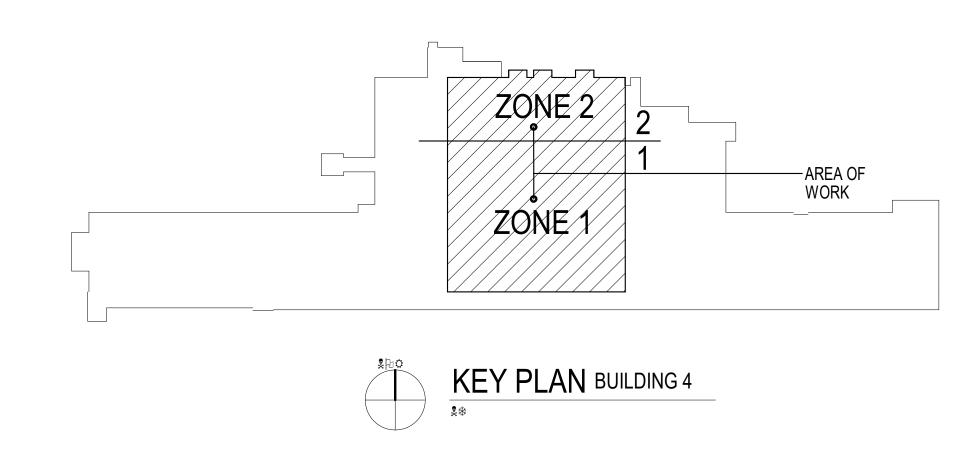






ELECTRICAL - LIGHTING - PLAN - BASEMENT

1/8" = 1'-0"



**GENERAL NOTES:** 

KEYNOTES: #

A. PROVIDE A MINIMUM #10 AWG FOR HOMERUNS OVER 100FT FOR 120VOLT AND 250FT FOR

COORDINATE LOCATION OF LUMINAIRES WITH ALL OTHER TRADES PRIOR TO INSTALLATION. MAINTAIN THE FIRE RATING WHEREVER FIRE RATED STRUCTURES ARE PENETRATED BY

CONDUIT, LUMINAIRES, ETC. SEE
ARCHITECTURAL DOCUMENTS FOR THE FIRE
RATINGS OF ALL STRUCTURES.

PROVIDE UL1008 SWITCHING RELAY FOR CONTROL OF EMERGENCY LIGHTS IN ROOM. SEE DETAIL ON SHEET E300.

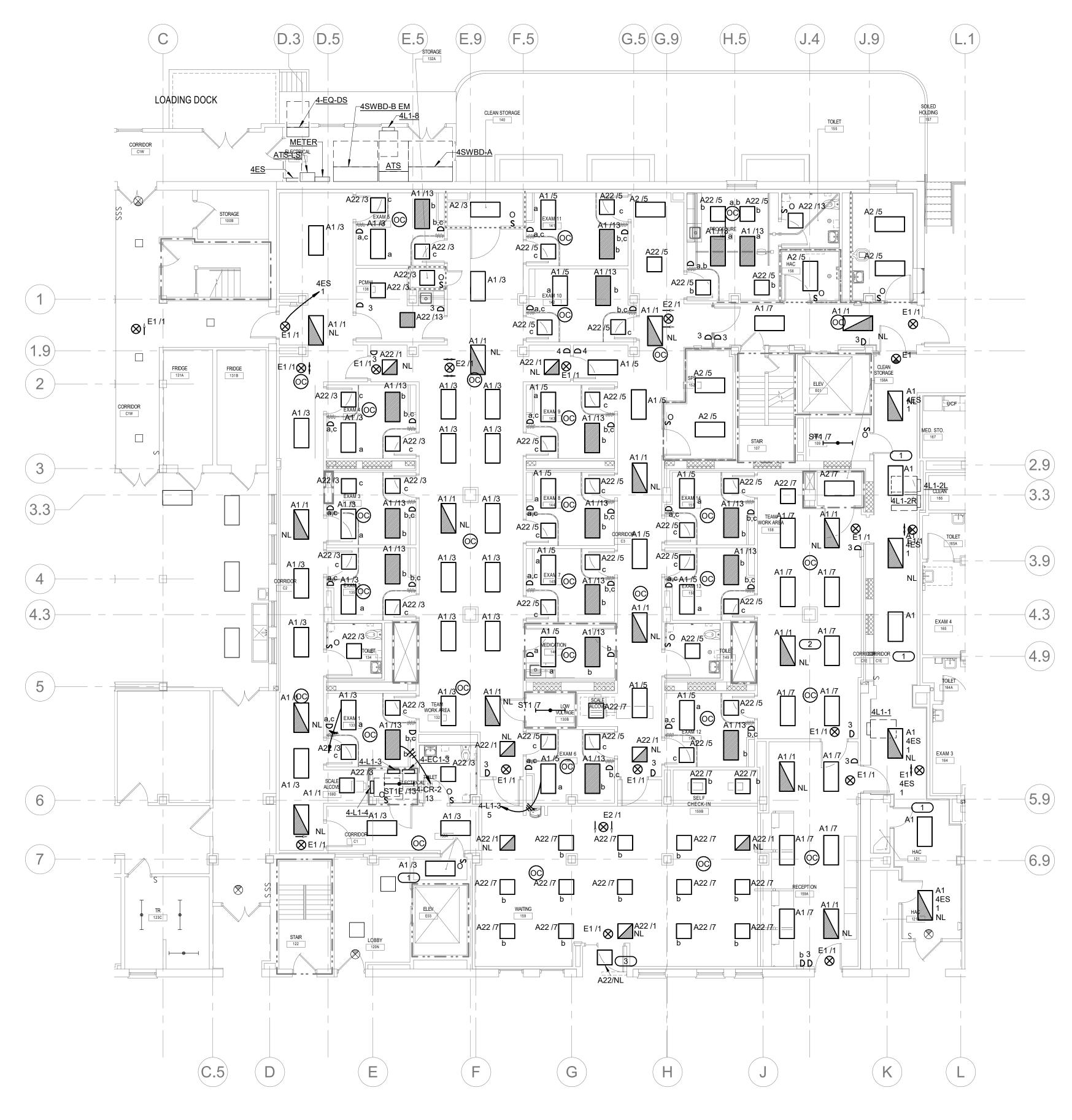
EMERGENCY LUMINAIRES SHALL BE CIRCUITED TO PANEL 4ES BLDG4.

REFER TO AND COORDINATE LIGHTING LAYOUTS WITH THE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT

LOCATION OF LUMINAIRES.

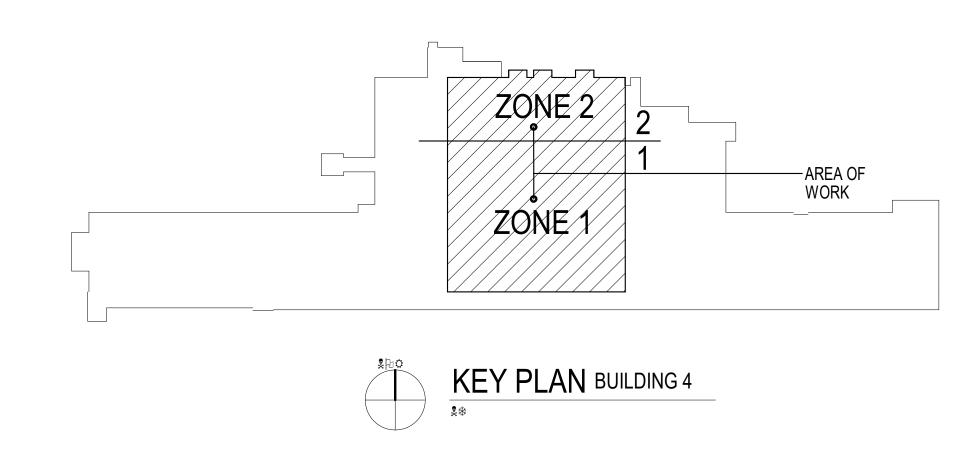
# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

report was prepared supervision and that Professional Engine of Minnesota.	ARCHITECT/ENGINEER OF RECORD  700 Nicholas Blvd. Suite 300	APPROVED: GEMS PROJECT MANAGER  DATE: APPROVED: PATIENT SAFETY  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR DATE: DA	S. Department Veterans Affairs terans Health
1199ALE EAR 100% CANATROLUTION TOCANICENTATION 2017 T	Name: Alexander S. Quast License Number: 53095  Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403  Www. bancroft-ae.com BAE PROJECT NO. 18-116	APPROVED: CHIEF OF STAFF  DATE: BUILDING No CHECKED BY GJL DRAWN DRAWING NO.  APPROVED: DIRECTOR FMS  DATE: APPROVED: SAFETY MANAGER  DATE: DATE: BUILDING No CHECKED BY GJL DRAWN DRAWING NO.  APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE: LOCATION ST. CLOUD VALUES  APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE: LOCATION ST. CLOUD VALUES  St. CO.	ministration Cloud VA alth Care System



ELECTRICAL - PLAN - FIRST FLOOR - LIGHTING

1/8" = 1'-0"



**GENERAL NOTES:** 

KEYNOTES: #

. PROVIDE A MINIMUM #10 AWG FOR HOMERUNS OVER 100FT FOR 120VOLT AND 250FT FOR

REFLECTED CEILING PLANS FOR EXACT LOCATION OF LUMINAIRES.

C. COORDINATE LOCATION OF LUMINAIRES WITH ALL OTHER TRADES PRIOR TO INSTALLATION.

D. MAINTAIN THE FIRE RATING WHEREVER FIRE RATED STRUCTURES ARE PENETRATED BY CONDUIT, LUMINAIRES, ETC. SEE ARCHITECTURAL DOCUMENTS FOR THE FIRE RATINGS OF ALL STRUCTURES.

E. EMERGENCY LUMINAIRES SHALL BE CIRCUITED TO PANEL 4ES BLDG4.

F. NORMAL LUMINAIRES SHALL BE CIRCUITED TO PANELBOARD 4L1-3.

G. CRITICAL LUMINAIRES SHALL BE CIRCUITED TO PANELBOARD 4-EC1-3.

H. CONTRACTOR SHALL VERIFY DIMMER SWITCHES ARE NOT IN CONFLICT WITH CURTAIN.

CONNECT TO EXISTING LIGHTING CONTROL IN ROOM/AREA.
 PROVIDE UL1008 SWITCHING RELAY FOR CONTROLS OF EMERGENCY LIGHTS IN ROOM. SEE DETAIL ON SHEET E300.
 PROVIDE CONNECTION TO CORRIDOR EMERGENCY LIGHTING CIRCUIT.

B. REFER TO AND COORDINATE LIGHTING
LAYOUTS WITH THE ARCHITECTURAL
REFLECTED CEILING PLANS FOR EXACT

# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

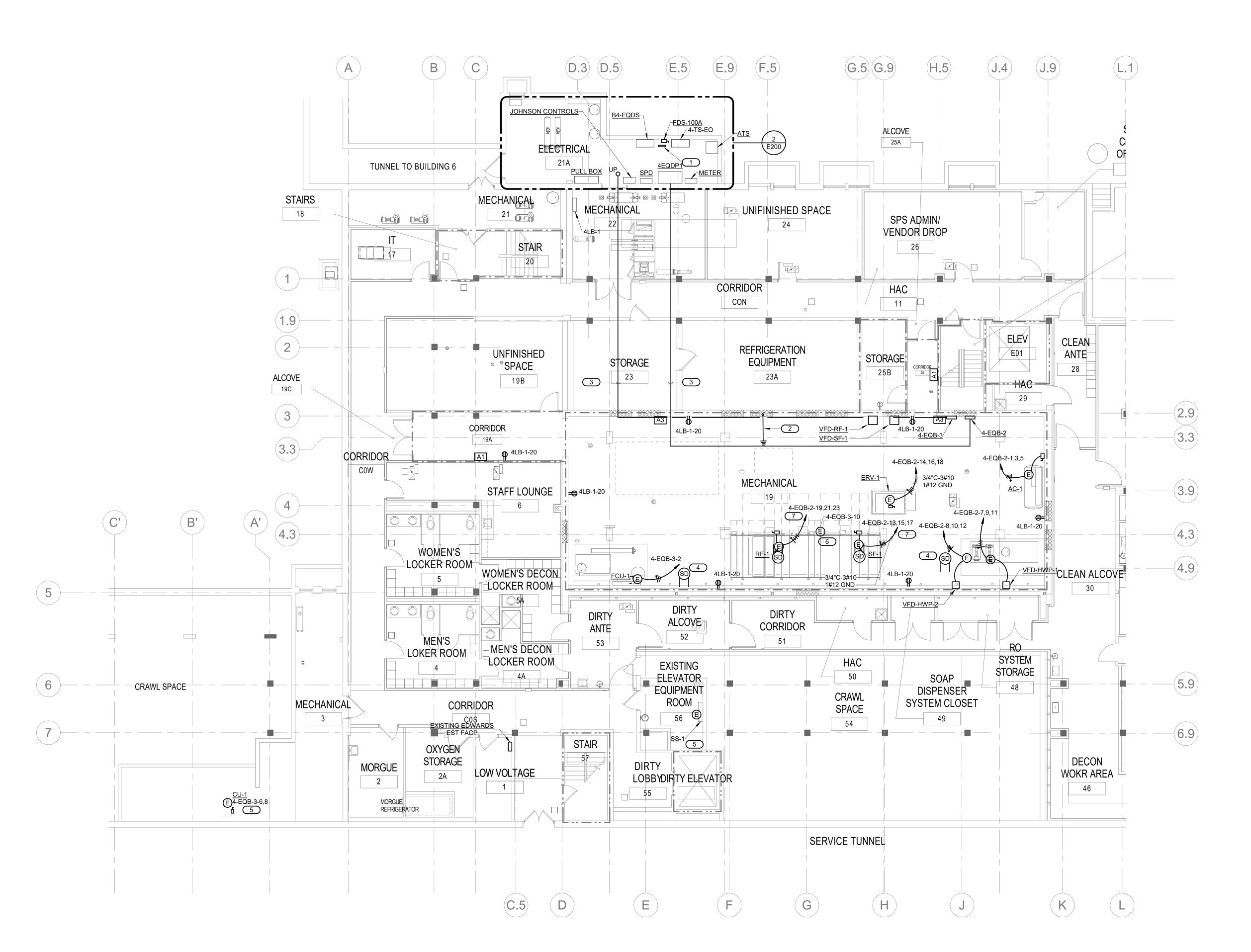
U.S. Department of Veterans Affairs

Veterans Health

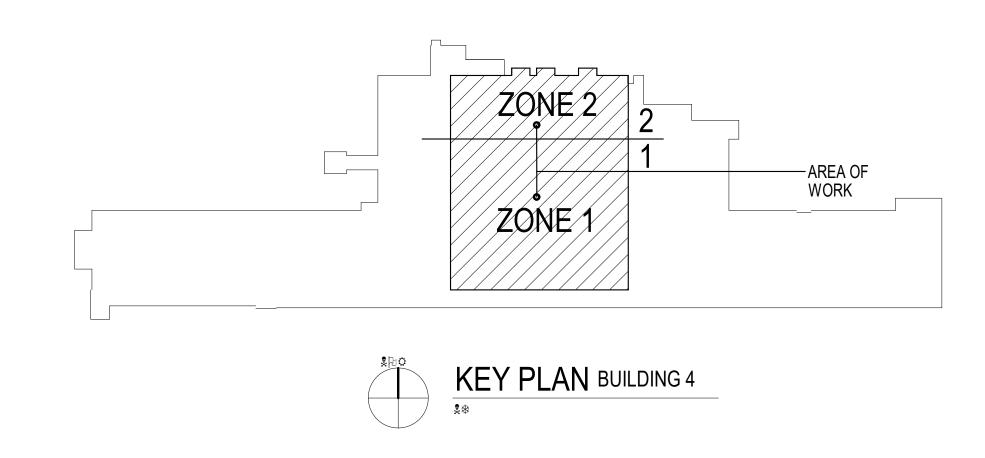
Health Care System

St. Cloud VA

	I hereby certify that this plan, specification or report was prepared by me or under my direct	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR	DATE: APPROVED: SERVICE LINE DIRECTOR	DATE: APPROVED: INFECTION CONTROL NURSE DATE:	DRAWING TITLE  ELECTRICAL - LIGHTING - PLAN - CONSTRUCT PA  FIRST FLOOR  BUILDING 4 FIRS		CONTRACTOR OF THE PARTY OF THE
	supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.	$\sim$		APPROVED: GEMS PROJECT MANAGER	DATE: APPROVED: PATIENT SAFETY DA	ATE: APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR DATE: DOTED TING 4 1 TROS	PROJECT NO. 656-400	
3001 BROADWAY PH: 612.540.5000 STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN	Signature:	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403  Www. bancroft-ae.com		APPROVED: PROJECTS SECTION MANAGER  APPROVED: DIRECTOR FMS	DATE: APPROVED: CHIEF OF POLICE DATE:  DATE: APPROVED: SAFETY MANAGER DATE:	APPROVED: CHIEF OF STAFF  DATE:  BUILDING No  CHECKED  GJI	DRAWN DRAWING NO.  DRM EL101	STATES
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 MINNEAPOLIS, MN 55413	Date:1 <u>0/28/2022</u> License Number: <u>53095</u>	BANCROFT ARCHITECTS + ENGINEERS   Www. bancroff-ae.com BAE PROJECT NO. 18-116		APPROVED. DIRECTORY MIS	DATE. APPROVED. SALETI WARAGEN	APPROVED: HEALTH CARE SYSTEM DIRECTOR DATE: LOCATION ST. CLOUE ST. CLOUE	VAHCS 0, MN 56303 DWG. OF	



ELECTRICAL - POWER & SYSTEMS - PLAN - BASEMENT



**GENERAL NOTES:** 

DEVICES.

KEYNOTES: #

GROUND BAR.

DOWN OF AHU.

CIRCUIT AT UNIT.

ROOM 21A. SEE KEYNOTE #1.

A. PROVIDE #10 AWG CONDUCTORS FOR ALL 120

VERIFY THE EXACT CIRCUITING
REQUIREMENTS OF ELECTRIFIED FURNITURE
WITH OWNER AND THE FURNITURE SUPPLIER.
GFI RECEPTACLES SHALL NOT BE FED DOWN

COORDINATE WITH MECHANICAL
CONTRACTOR THE EXACT LOCATION OF ALL
MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN.
PROVIDE UPDATED DIRECTORIES FOR ALL

MAINTAIN CIRCUIT CONTINUITY FOR EXISTING

ELECTRICAL DEVICES AND EQUIPMENT THAT ARE TO REMAIN, INCLUDING SPACES

PROVIDE 4" X 12" GROUND BAR LOCATE ABOVE

PROVIDE NEW UFER GROUND. CONNECT UFER GROUND TO TO GROUND BAR IN ELECTRICAL

DISCONNECT SWITCH. CONNECT/ SPLICE 3

EXISTING GROUND CONDUCTORS TO NEW

FEEDER ROUTING, REFER TO POWER RISER

MOUNT DUCT SMOKE DETECTOR AT VERTICAL

CONTRACTOR SHALL PROVIDE ALL CIRCUITING

DUCT, ACCESSIBLE FROM BASEMENT. DUCT SMOKE DETECTOR SHALL CONTROL CLOSING

OF ASSOCIATED DAMPER AND SHUTTING

BETWEEN INDOOR & OUTDOOR UNITS.
PROVIDE CONNECTION TO AHU LIGHTING

ROUTE HOME RUNS VIA VFD ON WALL.

NEW AND EXISTING PANELBOARDS.

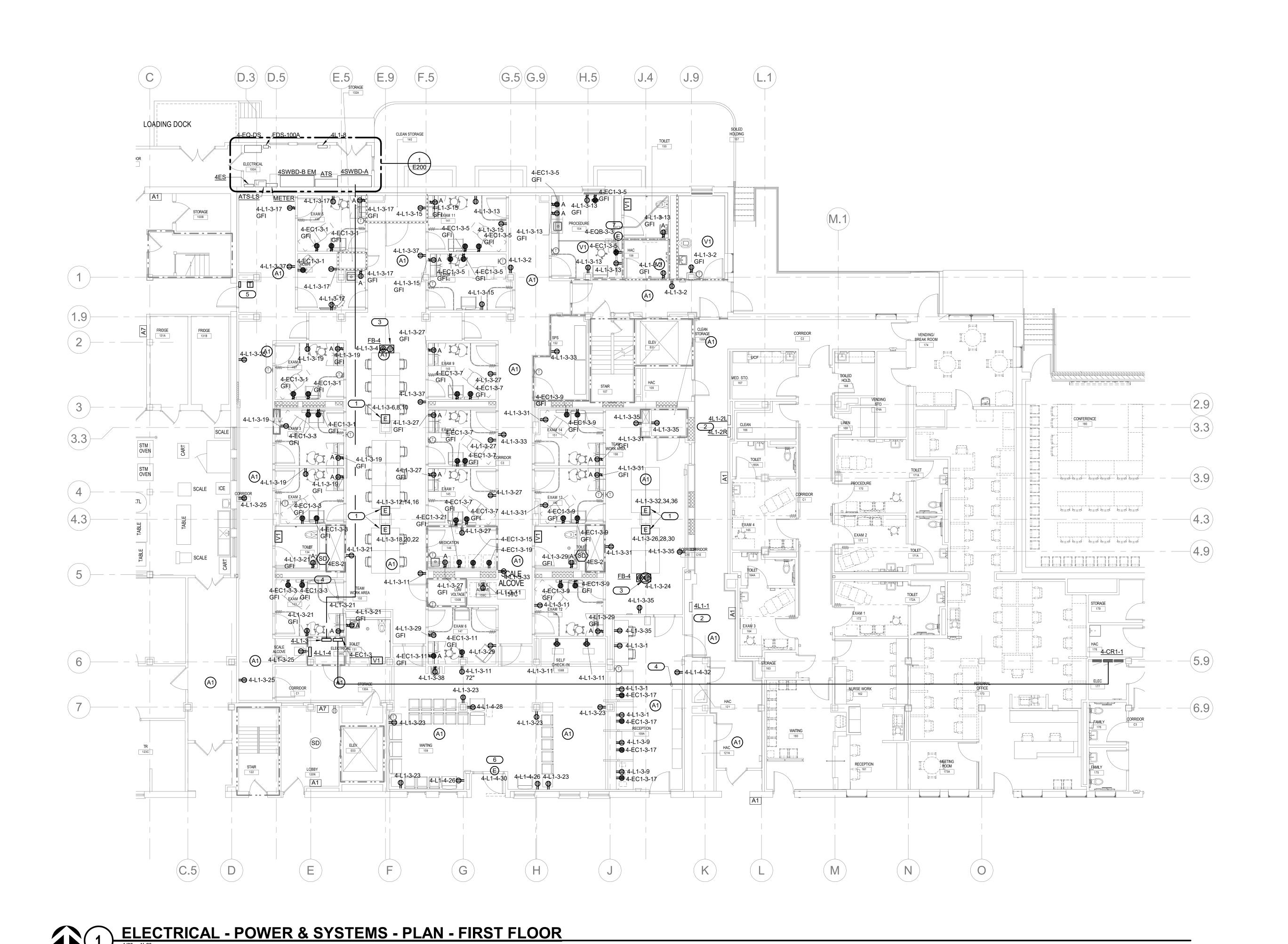
ADJACENT TO THE REMODELED AREA.

3. REFER TO ARCHITECTURAL DETAILS AND ELEVATION DRAWINGS FOR EXACT MOUNTING HEIGHTS AND LOCATION OF ALL ELECTRICAL

VOLT HOMERUNS OVER 100FT.

# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

I hereby certify that this plan, specification or	ARCHITECT/ENGINEER OF RECORD	APPROVED: PROJECT COR  DATE: APPROVED: SERVICE LINE DIRECTOR	DATE: APPROVED: INFECTION CONTROL NURSE	DATE: DRAWING TITLE FLECTRICAL - POWER &	PROJECT TITLE  CONSTRUCT PACT CLINIC  DATE: 10/28/2022	U.S. Department
supervision and that I am a duly Licensed	$\sim$	APPROVED: GEMS PROJECT MANAGER	DATE: APPROVED: PATIENT SAFETY	SYSTEMS - PLAN - BASEMENT  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR		of Veterans Affairs
REFERENCE SCALE IN INCHES	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007	APPROVED: PROJECTS SECTION MANAGER	DATE: APPROVED: CHIEF OF POLICE	DATE:  APPROVED: CHIEF OF STAFF  D	ATE: BUILDING No CHECKED BY DRAWN DRAWING NO	Veterans Health Administration
ISSUF FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 STREET NE, SUITE 601 www.imegcorp.com  MINNEAPOLIS, MN  Typed or Printed Name: Alexander S. Quast	BANCROFT ARCHITECTS + ENGINEERS  BANCROFT NO. 18-116	APPROVED: DIRECTOR FMS	DATE: APPROVED: SAFETY MANAGER	DATE: APPROVED: HEALTH CARE SYSTEM DIRECTOR D	4 GJL DRM EP100  ATE: LOCATION ST. CLOUD VAHCS	St. Cloud VA
No         REVISION         DATE         55413	5,211,00201,10110				ST. CLOUD, MN 56303 DWG. OF	Health Care System



GENERAL NOTES:

- A. PROVIDE #10 AWG CONDUCTORS FOR ALL 120
   VOLT HOMERUNS OVER 100FT.

   B. REFER TO ARCHITECTURAL DETAILS AND
   ELEVATION DRAWINGS FOR EXACT MOUNTING
   HEIGHTS AND LOCATION OF ALL ELECTRICAL
   DEVICES.
- DEVICES.

  C. VERIFY THE EXACT CIRCUITING
  REQUIREMENTS OF ELECTRIFIED FURNITURE
  WITH OWNER AND THE FURNITURE SUPPLIER.

  D. GFI RECEPTACLES SHALL NOT BE FED DOWN
- E. COORDINATE WITH MECHANICAL
  CONTRACTOR THE EXACT LOCATION OF ALL
  MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN.
  F. PROVIDE UPDATED DIRECTORIES FOR ALL
  NEW AND EXISTING PANELBOARDS.
  G. MAINTAIN CIRCUIT CONTINUITY FOR EXISTING
  ELECTRICAL DEVICES AND EQUIPMENT THAT
  ARE TO REMAIN, INCLUDING SPACES
  ADJACENT TO THE REMODELED AREA.
  H. ALL NEW FIRE ALARM AND NOTIFICATION
  DEVICES SHALL BE ON A NEW NOTIFICATION
  LOOP AND NEW ALARM LOOP FROM A NEW
  FIRE ALARM SUB-PANEL LOCATED IN
  BASEMENT FACP ROOM. PROVIDE ALL
  CABLING AND ACCESSORIES TO INTERFACE
  WITH EXISTING FACP. PROVIDE ADDITIONAL

BATTERIES AS REQUIRED IN SPECIFICATION.

#### KEYNOTES: #

 PROVIDE CONNECTION TO POWERED WORK STATIONS. ROUTE FEEDER RECESSED IN COLUMN.
 EXISTING PANELBOARD TO REMAIN.
 PROVIDE WIREMOLD SERIES FB4. COORDINATE TRIM REQUIREMENTS WITH

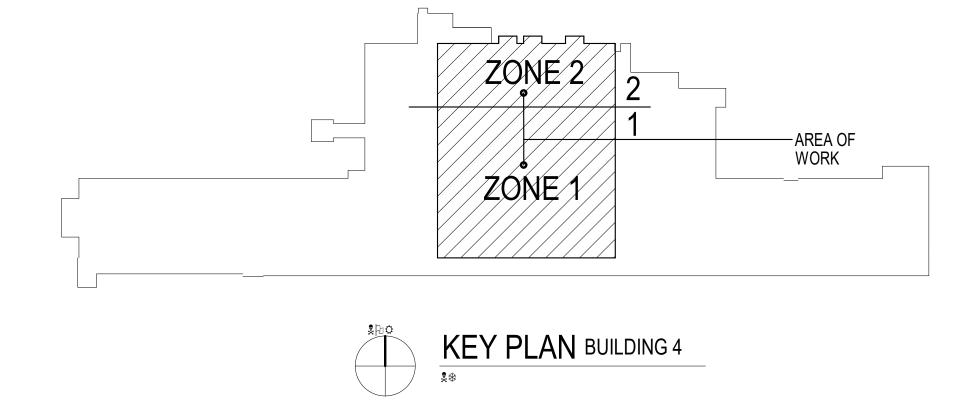
- FLOOR COVERING AND ARCHITECT.

  4. FEEDER ROUTING, REFER TO POWER RISER SHEETS.

  5. DETEX ALARM ACTIVATED DURING EXITING. REFER TO DETAIL 8 ON E300.

  6. PROVIDE CONNECTION TO POWERED DOOR OPERATOR AND PUSH PLATE CONTROLS PER MANUFACTURER'S REQUIREMENTS.
- OPERATOR AND PUSH PLATE CONTROLS PER MANUFACTURER'S REQUIREMENTS.

  7. PROVIDE CONNECTION TO LIFT AS REQUIRED BY MANUFACTURER. PROVIDE DISCONNECT AT UNIT.

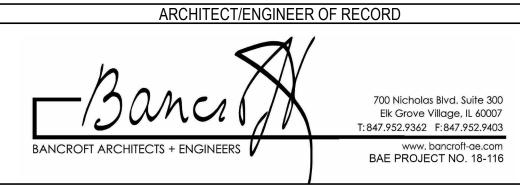


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		ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MINN 5541
lΓ	Nο	REVISION	DATE	

3001 BROADWAY STREET NE, SUITE 601 MINNEAPOLIS, MN

REFERENCE SCALE IN INCHES



APPROVED: PROJECT COR

DATE:

APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

SY

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECT MANAGER

DATE:

APPROVED: PROJECT MANAGER

DATE:

APPROVED: PROJECT MANAGER

DATE:

APPROVED: OF POLICE

DATE:

APPROVED: SAFETY MANAGER

DATE:

APPROVED: S

DRAWING TITLE
ELECTRICAL - POWER &
SYSTEMS - PLAN - FIRST FLOOR

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

APPROVED: CHIEF OF STAFF

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR

APPROVED: HEALTH CARE SYSTEM DIRECTOR

DATE:

DATE:

CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

PROJECT NO.
656-400

DRAWING NO.
EP101

APPROVED: HEALTH CARE SYSTEM DIRECTOR

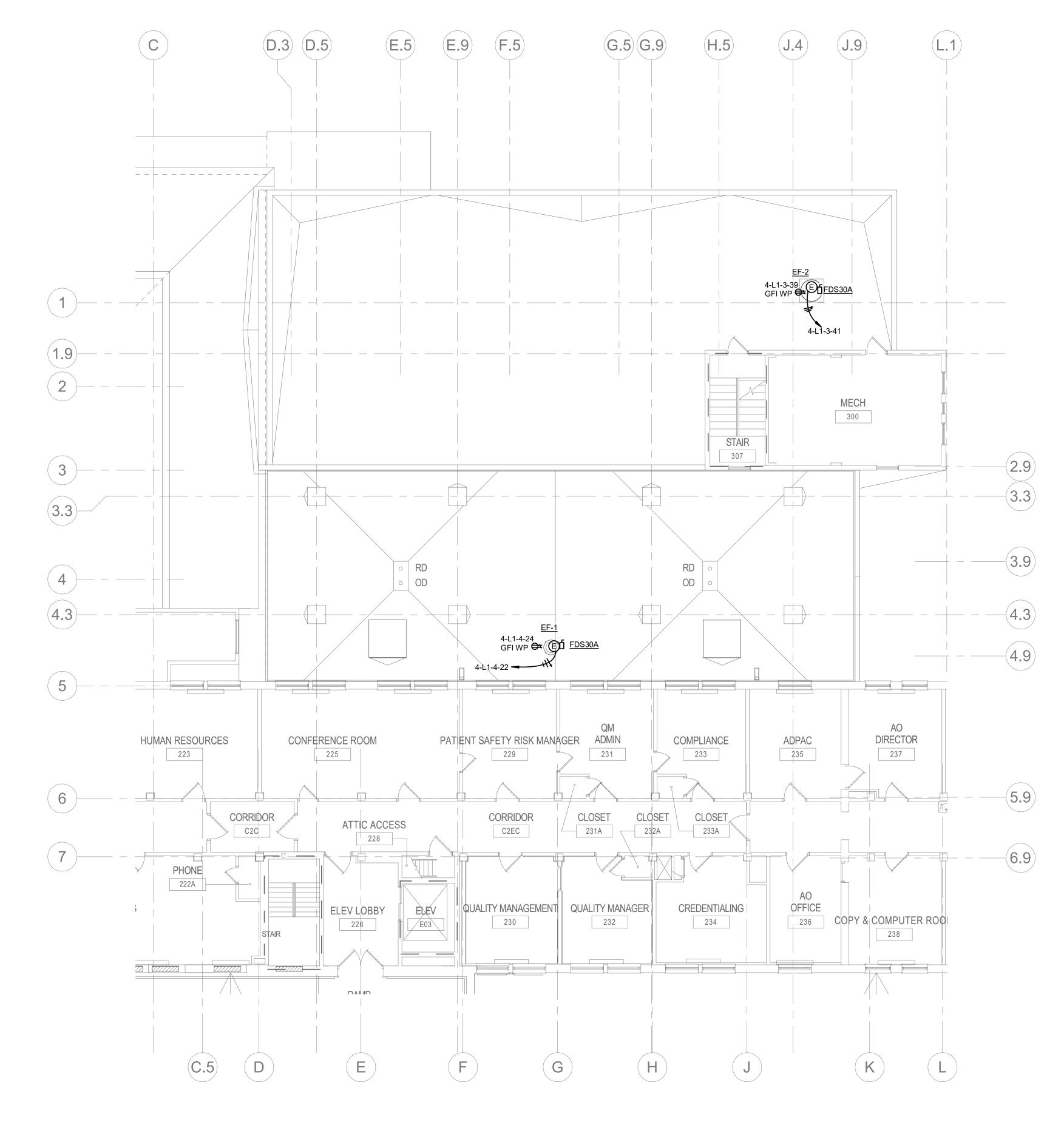
DATE:

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

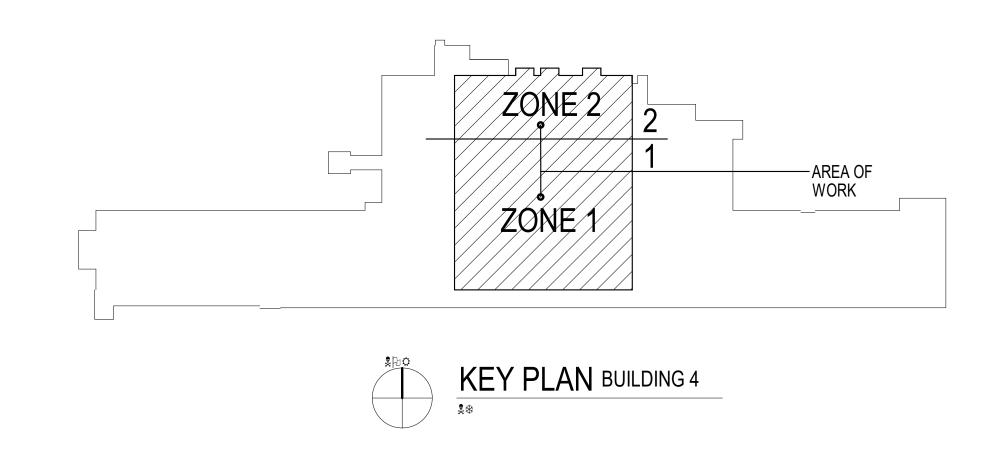
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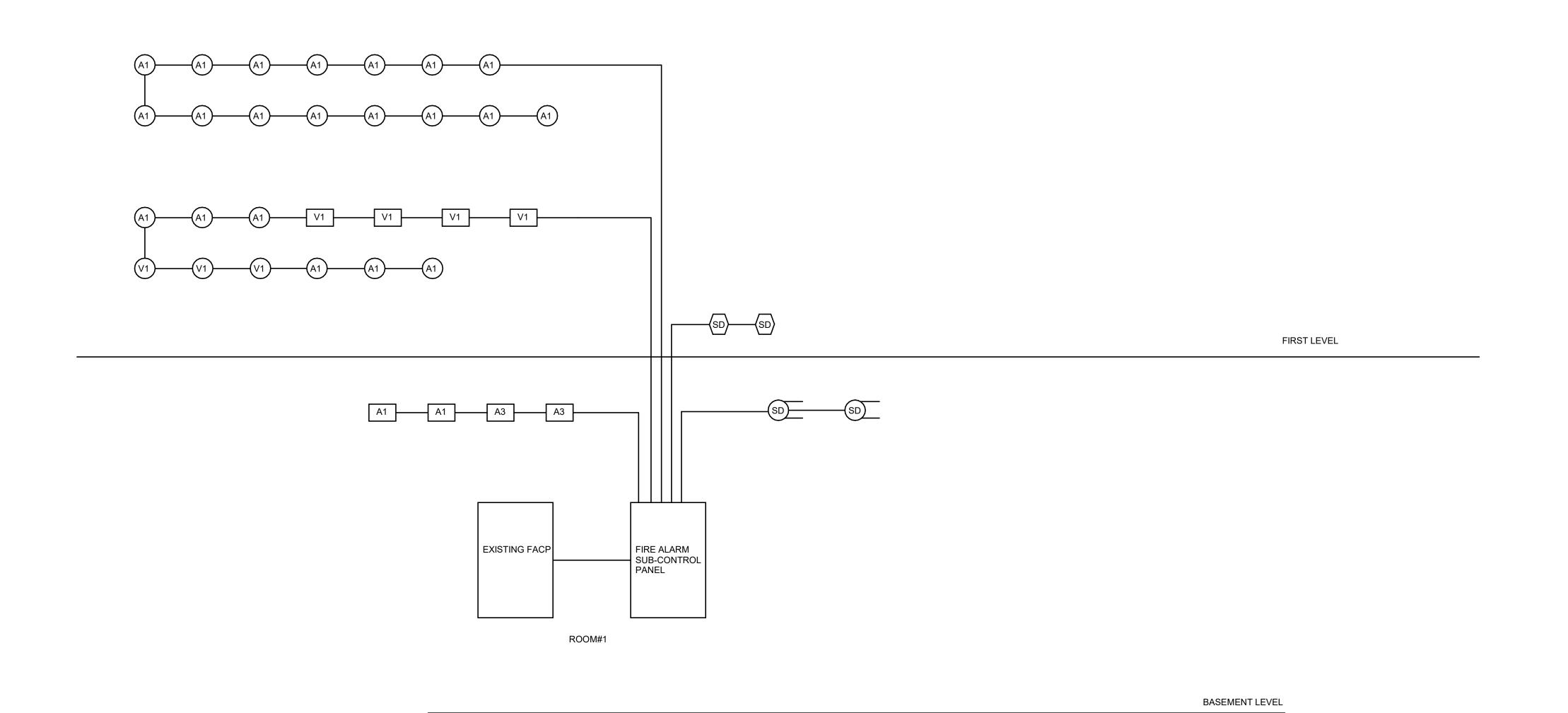
U.S. Department
of Veterans Affairs
Veterans Health
Administration
St. Cloud VA
Health Care System



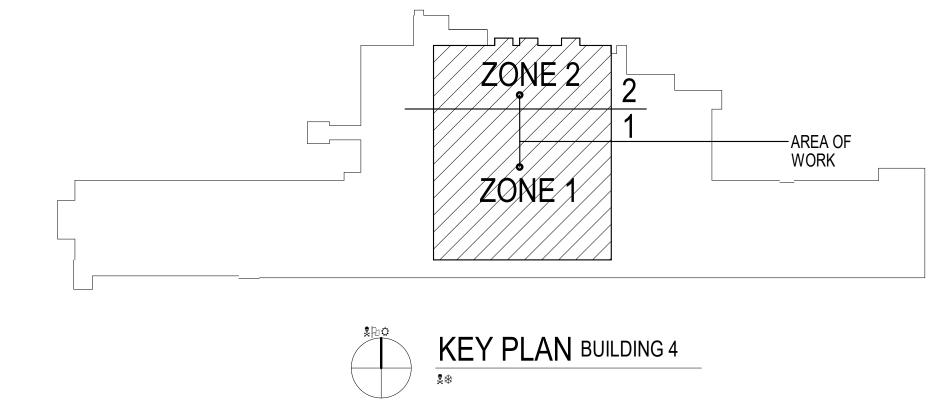




I hereby certify that this plan, specificate report was prepared by me or under my	direct	APPROVED: SERVICE LINE DIRECTOR  DATE: APPROVED: INFECTION CONTROL NURSE  DATE: DATE
supervision and that I am a duly Licens Professional Engineer under the laws of	$\sim$	APPROVED: GEMS PROJECT MANAGER  DATE: APPROVED: PATIENT SAFETY  DATE: APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR  APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
3001 BROADWAY PH: 612.540.5000 0 REFERENCE SCALE IN INCHES Signature:	700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847 952 9362 F: 847 952 9403	APPROVED: PROJECTS SECTION MANAGER DATE: APPROVED: CHIEF OF POLICE DATE: APPROVED: CHIEF OF POLICE DATE: BUILDING No. CHECKED BY DRAWN DRAWING NO.
ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22 STREET NE, SUITE 601 www.imegcorp.com  MINNEAPOLIS, MN  Typed or Printed Name: Alexander S.		APPROVED: DIRECTOR FMS  DATE: APPROVED: SAFETY MANAGER  DATE: APPROVED: HEALTH CARE SYSTEM DIRECTOR  DATE: LOCATION ST. CLOUD VAHCS  STATES OF STA
No         REVISION         DATE         55413	095	ST. CLOUD VAHCS ST. CLOUD, MN 56303 DWG. OF  Health Care System



ELECTRICAL - FIRE ALARM RISER DIAGRAM
NO SCALE



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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota. Signature: \_ Typed or Printed Name: Alexander S. Quast Date:10/28/2022 License Number: 53095

ARCHITECT/ENGINEER OF RECORD BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116

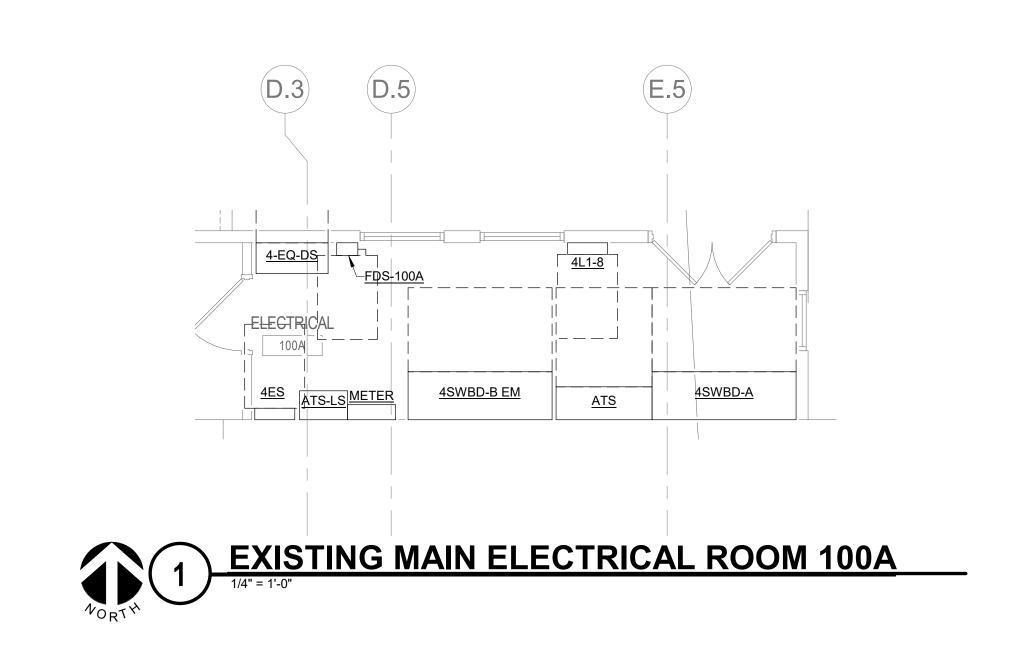
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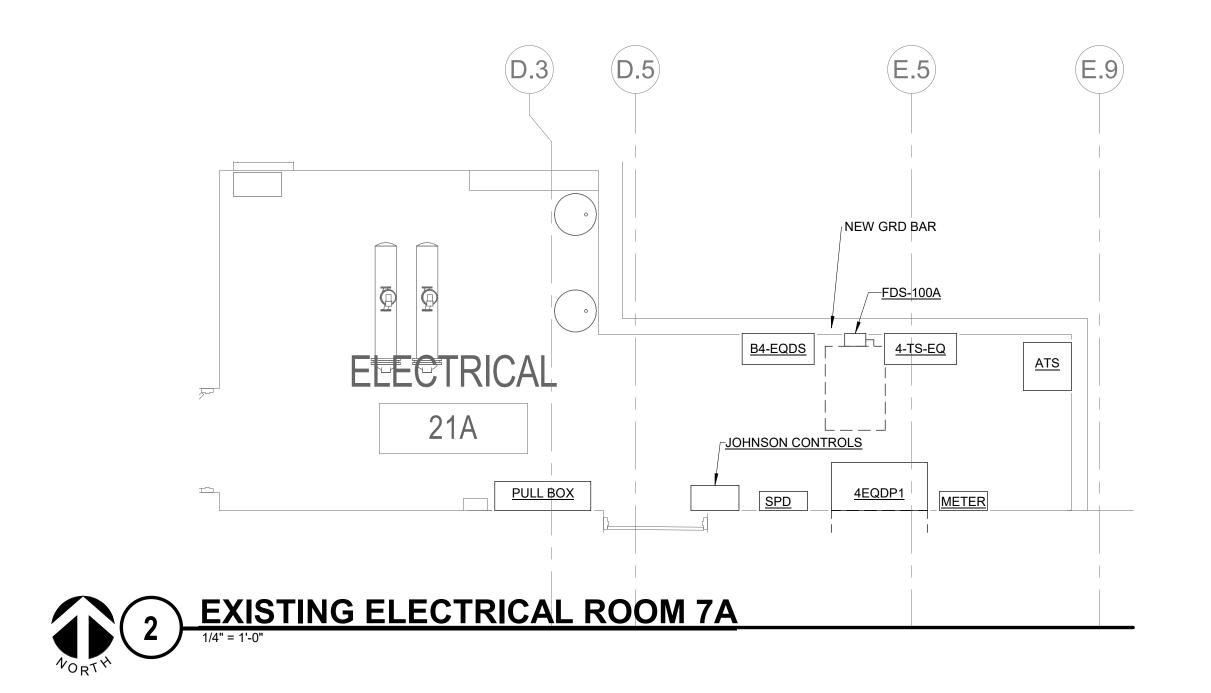
DATE:	APPROVED: SERVICE LINE DIRECTOR	DATE:	APPROVED: INFECTION CONTROL NURSE	DATE:	DRAWING TITLE ELECTRIC DIAGRAM
	APPROVED: GEMS PROJECT MANAGER	DATE:	APPROVED: PATIENT SAFETY	DATE:	APPROVED: ASSOCIA
	APPROVED: PROJECTS SECTION MANAGER	DATE:	APPROVED: CHIEF OF POLICE	DATE:	APPROVED: CHIEF OF
	APPROVED: DIRECTOR FMS	DATE:	APPROVED: SAFETY MANAGER	DATE:	APPROVED: HEALTH

RICAL - FIRE ALARM RISER CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR CIATE HEALTH CARE SYSTEM DIRECTOR JILDING No.

4 GJL DRM DRAWING NO.
ES400 DATE: LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303 DWG. OF



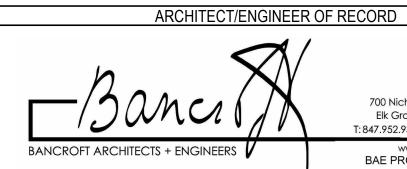




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			STREET NE, SUITE 601	www
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PH: 612.540.5000 ww.imegcorp.com

REFERENCE SCALE IN INCHES 0 1 2 I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Signature: Typed or Printed Name: Alexander S. Quast Date:10/28/2022 License Number: 53095



700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 DATE: APPROVED: SERVICE LINE DIRECTOR

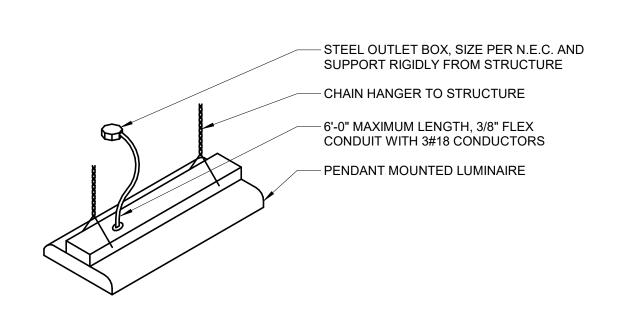
TE: DRAWING TITLE CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR

DATE: 10/28/2022

PLOT SCALE APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR 4 GJL DRM DRAWING NO. E200 DATE: LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303 DWG. OF





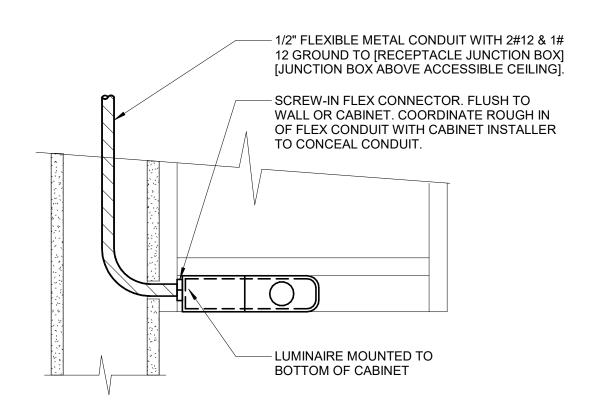


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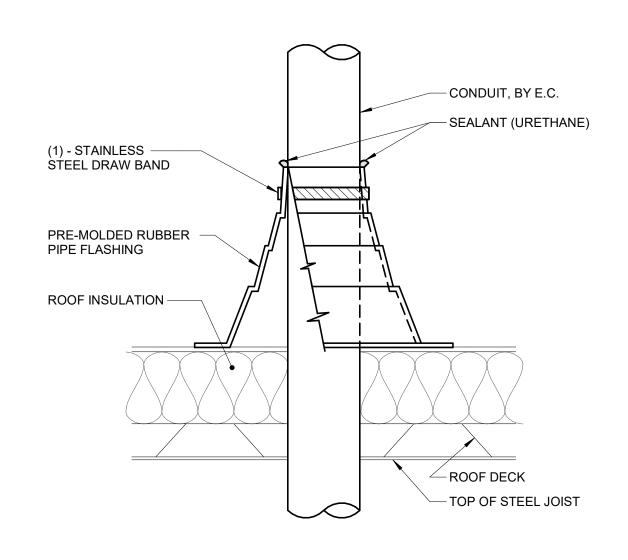
1. SELECT CHAIN LENGTH TO PROVIDE MOUNTING HEIGHT AS REQUIRED ON DRAWINGS. 2. PROVIDE TWO CHAIN HANGERS FOR EACH LUMINAIRE. ADJUST TO HANG LUMINAIRE LEVEL.

CHAIN SUSPENDED MOUNTING DETAIL

NO SCALE



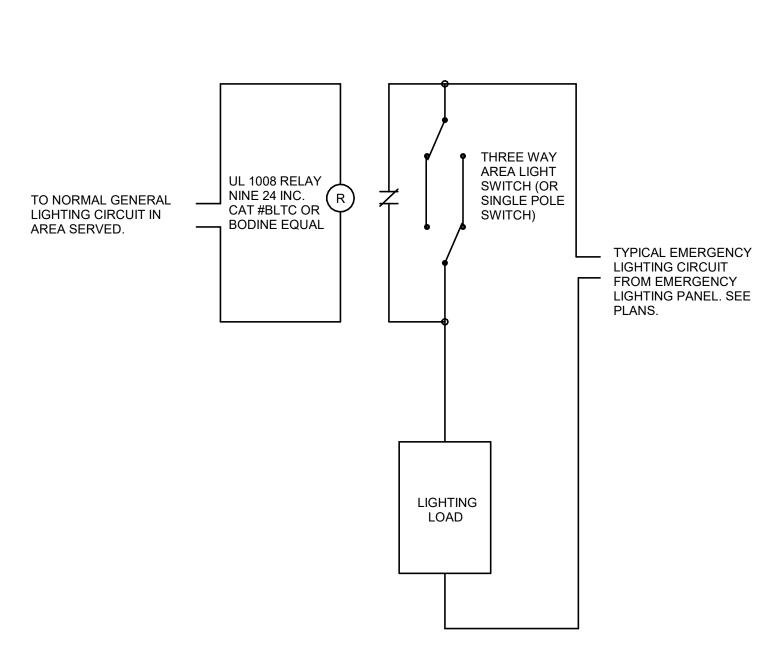
# 4 UNDERCABINET MOUNTING DETAIL NO SCALE



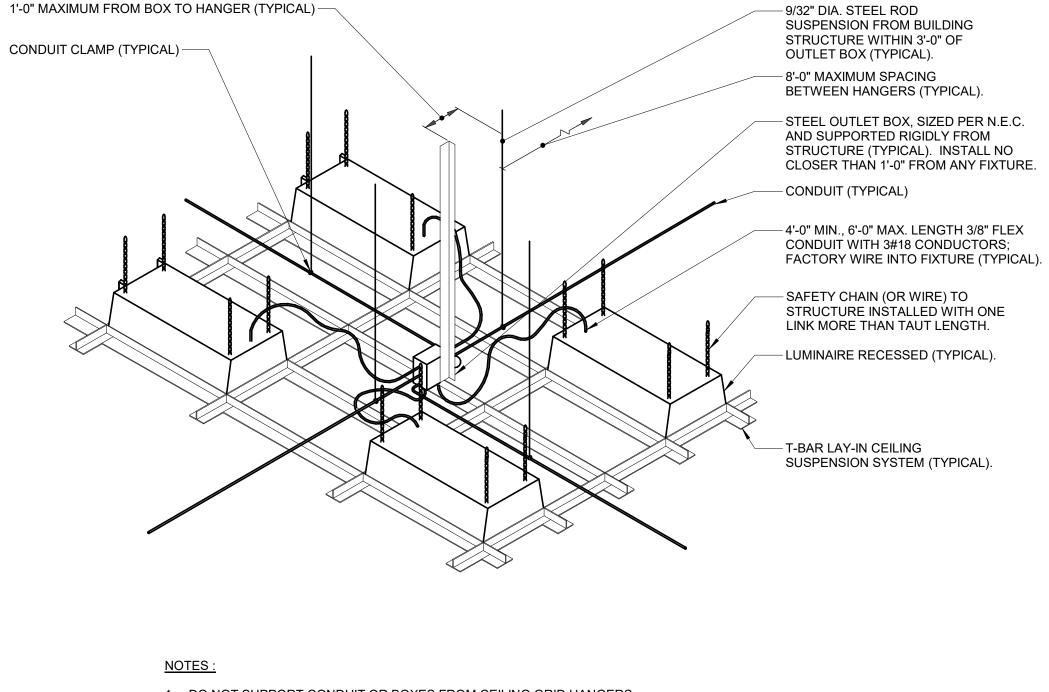
1. CONDUIT SHALL BE SUPPORTED WITHIN 24 INCHES ABOVE AND BELOW ROOF. 2. VERIFY FINAL REQUIREMENTS WITH GENERAL CONTRACTOR (G.C.) AND ROOFING INSTALLER PRIOR TO INSTALLATION.

CONDUIT ROOF PENETRATION

NO SCALE

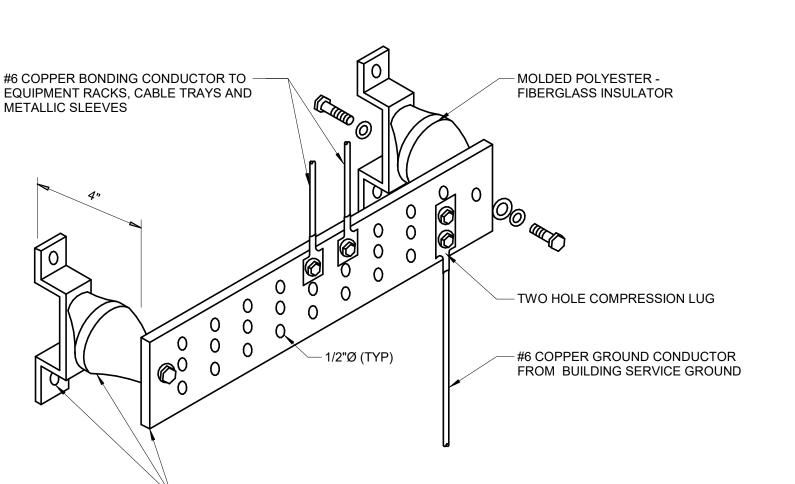


EMERGENCY LIGHTING CONTROL DIAGRAM



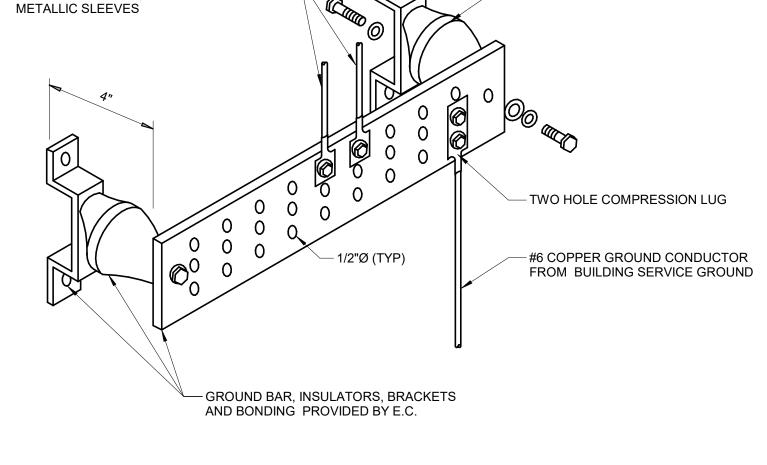
1. DO NOT SUPPORT CONDUIT OR BOXES FROM CEILING GRID HANGERS.

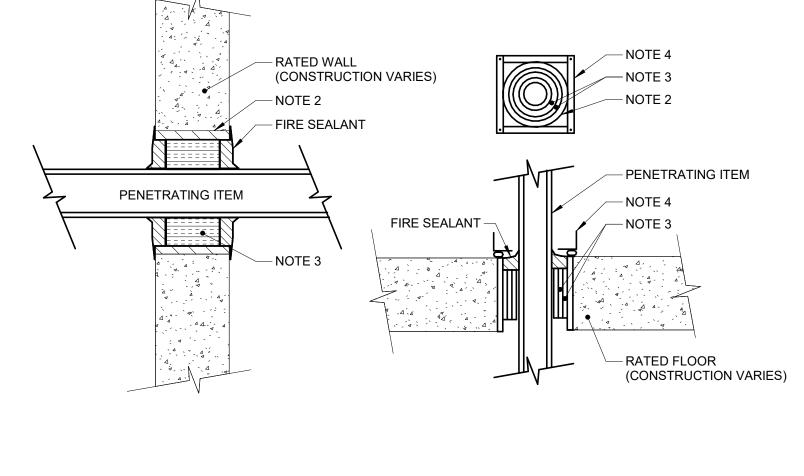
# RECESSED LUMINAIRE DETAIL (SAFETY CHAIN) NO SCALE



GROUND BAR (GB) DETAIL
NO SCALE

1. MOUNT BAR AT +6'-6" A.F.F. 2. STANDOFF INSULATORS MUST BE PROVIDED WHEN ZONING THE BAR.





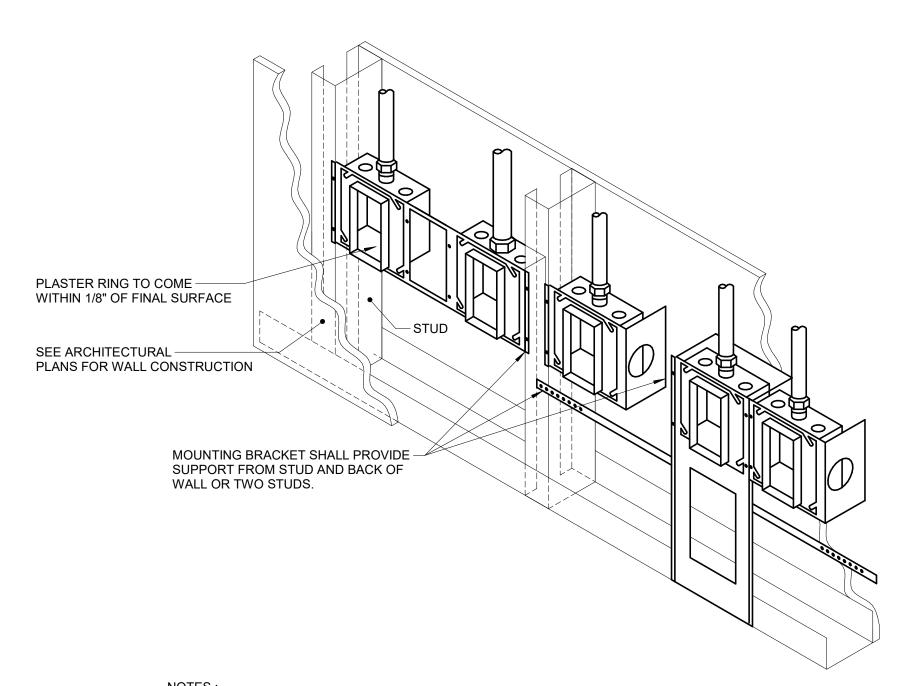
- 1. THIS GENERAL DETAIL APPLIES TO ALL ITEMS PENETRATING FIRE RATED WALLS OR FLOORS. THE INTENT IS TO MAINTAIN THE FIRE RATING AND TO ALLOW LONGITUDINAL MOVEMENT. REFER TO SPECIFICATION SECTION 07840 FOR SELECTION OF THROUGH
- 2. SCHEDULE 5 PIPE SLEEVE EMBEDDED IN WALL OR FLOOR, OR SMOOTH CORE DRILL. EACH CONTRACTOR FURNISHES SLEEVE TO G.C., COORDINATES SLEEVE LOCATIONS AND DEBURS SLEEVE. G.C. BUILDS SLEEVE INTO WALL OR FLOOR ALLOWING NO GAP AROUND SLEEVE. IF SLEEVE IS NOT PROVIDED WHEN WALL OR FLOOR IS BUILT, CONTRACTOR SHALL INSTALL SLEEVE. SLEEVE SIZE SHALL ALLOW ANNULAR SPACE REQUIRED BY THE SELECTED FIRE STOP SYSTEM.

3. INSTALL BACKING MATERIAL, SUCH AS MINERAL WOOL SAFING, AS REQUIRED FOR FIRE

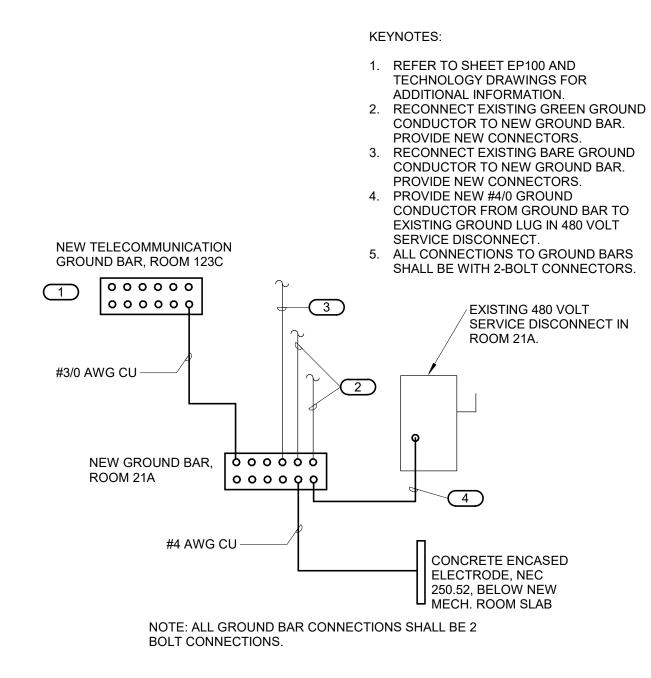
STOP SYSTEM. INSTALL IN ACCORDANCE WITH FIRE STOP SYSTEM APPLICATION LISTING SECURE TO WALL OR FLOOR TO ALLOW LONGITUDINAL MOVEMENT OF PENETRATING ITEM WITHOUT MOVEMENT OF FIRE BARRIER. 4. WATER-TIGHT WELDED 1"x1" 20 GAUGE MINIMUM GALVANIZED SHEET METAL ANGLE FRAME BY CONTRACTOR IN EQUIPMENT ROOMS FOR WATER STOP. PLACE A BEAD OF WATERPROOF SEALANT BETWEEN FLOOR AND BOTTOM OF ANGLE FRAME. SECURE TO FLOOR WITH MASONRY ANCHORS IN CORNERS AND ON 12" MAXIMUM CENTERS. MULTIPLE



PENETRATING ITEMS MAY BE ENCLOSED IN ONE FRAME.



- 1. THE INTENT OF THE DETAIL IS TO ENSURE DEVICE ROUGH-INS ARE ALIGNED, SOLIDLY MOUNTED AND THE SURFACE OF THE TRIM IS EITHER FLUSH WITH THE WALL SURFACE OR WITHIN 1/8" OF THE WALL SURFACE. JUNCTION BOXES LARGER THAN 4" SQUARE SHALL BE MOUNTED IN A MANNER THAT IS SIMILAR TO THE SYSTEM NOTED ABOVE OR ACHIEVES THE SAME RESULTS.
- 2. PLASTER RINGS DEPTH SHALL BE 1/8" DEEPER THAN THE GYP BOARD APPLIED TO THE WALL. PLASTER RING SHALL BE 3/4" FOR USE WITH 5/8" GYP BOARD. 3. MOUNTING BRACKET FOR 2 1/2" OR 3 1/2" STUDS SHALL BE CADDY #H23, OR B-LINE BB4-23. MOUNTING BRACKET FOR FOR 4" OR 6" STUDS SHALL BE CADDY #H46TC OR B-LINE BB4-#. FOR MULTIPLE BOXES BETWEEN STUDS, BRACKET SHALL BE CADDY #RBS16/#RBS24 OR B-
- LINE BB6-# OR BBF# FLOOR MOUNT SUPPORT WITH BBFC 4. WHERE RECEPTACLE AND TECHNOLOGY DEVICES ARE SHOWN SERVING A COMMON COMPUTER OR EQUIPMENT, OR SHOWN IN SIMILAR LOCATIONS ON THE DRAWINGS THE DEVICES SHALL BE INSTALLED ON OPPOSITE SIDES OF A COMMON STUD OR IN ADJACENT OPENINGS WITH MOUNTING BRACKETS.



**GROUNDING SYSTEM DETAIL FOR** (10) EXISTING 480V SERVICE
NO SCALE

**FLUSH MOUTING** 8 GROUND BAR (GB) DETAIL

NO SCALE

24V AC TRANSFORMER

**DETEX ALARM EAX 2500SX**-

TO MATCH OTHER DETEX

SYSTEM ON CAMPUS.

SERIES. PROVIDE KEY ALIKE

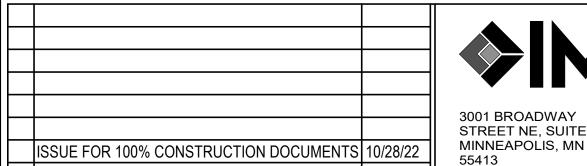
PER MANUFACTURER

REQUIREMENTS.

LOCATED ABOVE

CEILING.

### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS



DATE

REVISION

**MEG** STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN

REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota. Typed or Printed Name: Alexander S. Quast

Date:10/28/2022 License Number: 53095

ARCHITECT/ENGINEER OF RECORD

│ CORRIDOR

 $^{\sqcup}$  RECEPTACLE

-PROVIDE DOOR CONTACT.

COORDINATE WITH ARCHITECT.

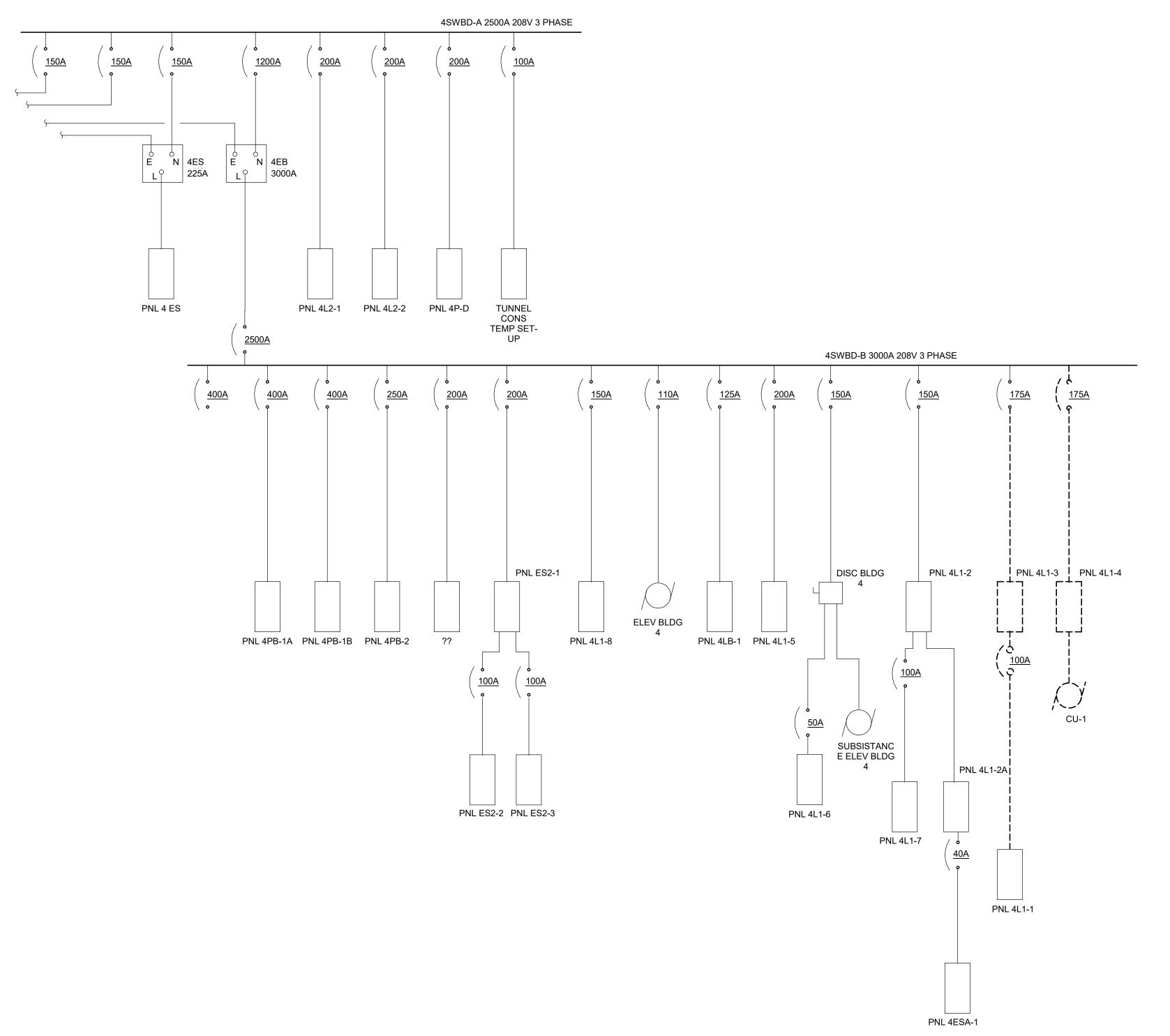
700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 ELECTRICAL - DETAILS

CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR 4 GJL DRM

ST. CLOUD, MN 56303

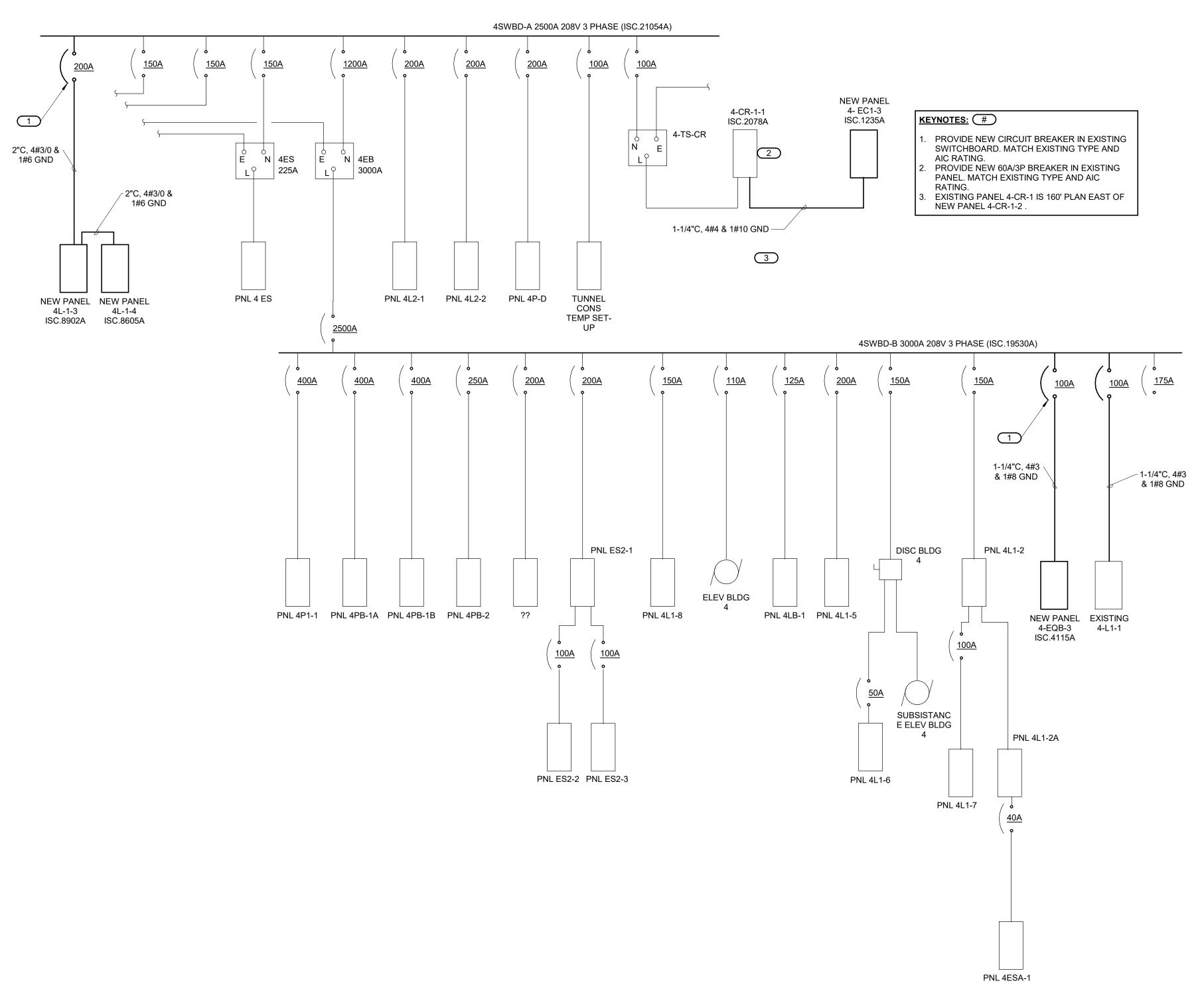






ONE-LINE DIAGRAM - EXISTING & DEMOLITION

NO SCALE



ONE-LINE DIAGRAM EXISTING & NEW
NO SCALE

# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

SSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22

No REVISION DATE

| Construction |

H: 612.540.5000 v.imegcorp.com

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

Typed or Printed Name: Alexander S. Quast Date: 10/28/2022 License Number: 53095

ARCHITECT/ENGINEER OF RECORD

700 Nic Elk Gro
T: 847.952.9

BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300
Elk Grove Village, IL 60007
T:847.952.9362 F:847.952.9403

www. bancroft-ae.com
BAE PROJECT NO. 18-116

APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: APPROVED: APPROVED: APPROVED: APPROVED: CHIEF OF POLICE

APPROVED: DATE:

APPROVED: CHIEF OF POLICE

APPROVED: CHIEF OF STA

APPROVED: CHIEF OF STA

APPROVED: HEALTH CARE

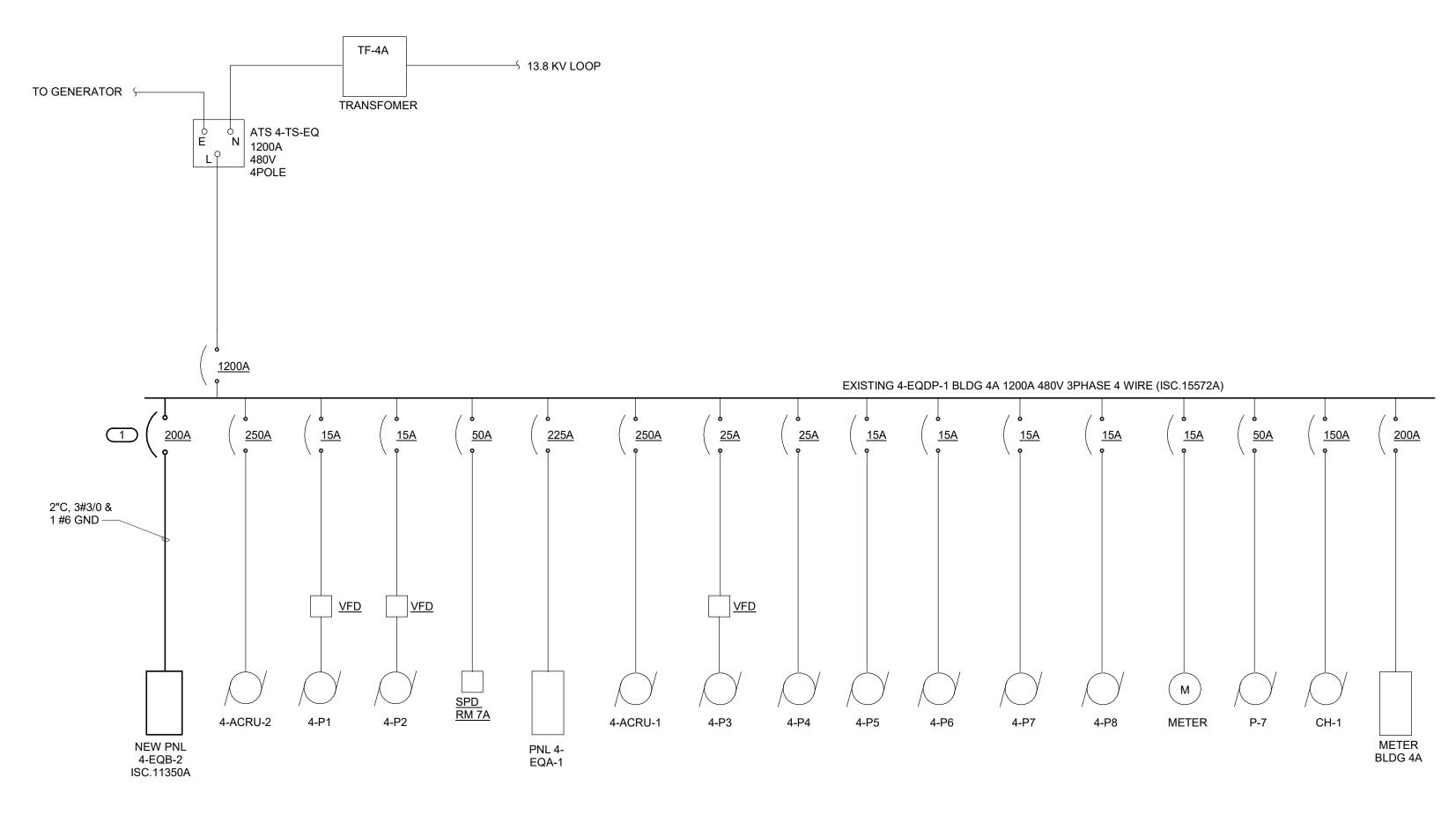
DRAWING TITLE
ELECTRICAL - ONE-LINE
DIAGRAMS

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

ST. CLOUD, MN 56303 DWG. OF



1. PROVIDE NEW CIRCUIT BREAKER IN EXISTING SWITCHBOARD.



ONE-LINE DIAGRAM EXISTING & NEW 4-EQDP-1

NO SCALE

# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

			`
			300
			300 STI
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MIN 554
No	REVISION	DATE	

3001 BROADWAY
STREET NE, SUITE 601
MINNEAPOLIS, MN
55413

REFERENCE SCALE IN INCHES
0 1 2

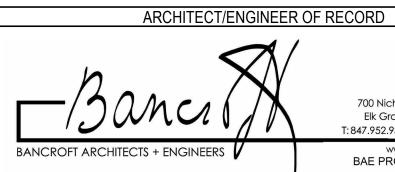
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

Typed or Printed Name:

Alexander S. Quast

Date:10/28/2022 License Number: 53095



700 Nicholas Blvd. Suite 300
Elk Grove Village, IL 60007
T: 847.952.9362 F: 847.952.9403

www. bancroft-ae.com
BAE PROJECT NO. 18-116

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DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECTS SECTION MANAGER

DATE:

APPROVED: CHIEF OF POLICE

DATE:

APPROVED: APPROVED: DIRECTOR FMS

DATE:

APPROVED: SAFETY MANAGER

DATE:

APPROVED: APPROVED: SAFETY MANAGER

DATE:

APPROVED: APPROVED: SAFETY MANAGER

DATE:

APPROVED: APPROVED: APPROVED: SAFETY MANAGER

DATE:

APPROVED: DIRECTOR FMS

DATE:

ELECTRICAL - ONE-LINE
DIAGRAMS

DATE:

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR

DATE:

APPROVED: CHIEF OF STAFF

DATE:

APPROVED: HEALTH CARE SYSTEM DIRECTOR

DATE:

LOCATION ST. CLOUD VAHCS

ST. CLOUD, MN 56303

DATE:

DATE:

10/28/2022

PLOT SCALE

PROJECT TITLE

CONSTRUCT PACT CLINIC

10/28/2022

PLOT SCALE

PROJECT NO.
656-400

PROJECT NO.
656-400

DRAWN

DRAWN

DRAWN

E401



U.S. Department
of Veterans Affairs

Veterans Health
Administration

St. Cloud VA
Health Care System

#### LED LUMINAIRE SCHEDULE (DESC) DOOR: DISTRIBUTION: **BEAMWIDTH:** (L/L) LENS/LOUVER: K19 - KSH19 .156" ACRYLIC M - MATTE DIFFUSE CLEAR FA - FLAT ALUMINUM II - ANSI/IES TYPE 2 DISTRIBUTION NSP - VERY NARROW SPOT A - .125" ACRYLIC B - BAFFLE/LOUVER III - ANSI/IES TYPE 3 DISTRIBUTION SP - SPOT FS - FLAT STEEL IV - ANSI/IES TYPE 4 DISTRIBUTION MD - MEDIUM C - CLEAR ALZAK P - POLYCARBONATE RA - REGRESSED ALUMINUM F - FROSTED ACRYLIC R - HIGH IMPACT DR ACRYLIC RS - REGRESSED STEEL V - ANSI/IES TYPE 5 DISTRIBUTION WD - WIDE FINISH: VWD - VERY WIDE G - TEMPERED GLASS SS - SEMI-SPECULAR CLEAR PAF - PAINT AFTER FABRICATION K - KSH12 .125" ACRYLIC WW - WALL WASH O - OTHER (SEE DESCRIPTION) CFSA - COLOR-FINISH SELECTION BY ARCHITECT [DESIGN SPECIFIC BLANKS] (MTG) MOUNTING: RE - RECESSED (WATT) PER: FIX - FIXTURE, FT - FOOT, LAMP CL - CEILING SURFACE SP - SUSPENDED RGB - COLOR CHANGING LED CV - COVE SU - SURFACE LED - LIGHT EMITTING DIODE RGBW - COLOR CHANGING + WHITE TLED - TUBULAR LED LAMP RGBA - COLOR CHANGING + AMBER FR - FLANGED RECESSED UC - UNDER CABINET P - PERIMETER OLED - ORGANIC LED RLED - RETROFIT LED PL - POLE O - OTHER (SEE DESCRIPTION) DLED - DYNAMIC TUNABLE LED WLED - WARM DIM LED (TYPE) DRIVER: 0-10V - 0-10V DIMMING EB - ELECTRONIC HL - HIGH/LOW (100%/50%) STEP DIM MV - MULTI-VOLTAGE ELECTRONIC DALI - DIGITAL ADDRESSABLE ELV - ELECTRONIC LOW VOLTAGE LINE - LINE VOLTAGE DIMMING **REM - REMOTE** DMX - DIGITAL MULTIPLEX **EM - EMERGENCY BATTERY** ML - MULTI-LEVEL SWITCHING O - OTHER (SEE DESCRIPTION) CATALOG NUMBER SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. THE COMPLETE DESCRIPTION AND THE SPECIFICATION SHALL BE COORDINATED WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE FIRST MANUFACTURER LISTED IS THE BASIS OF VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE MOUNTING AND TRIM REQUIREMENTS PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER. CONFIRM ALL COLORS AND FINISHES OF ALL LUMINAIRE COMPONENTS WITH ARCHITECT AND INTERIOR DESIGNER PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.

VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE MOUNTING AND TRIM REQUIREMENTS PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.
CONFIRM ALL COLORS AND FINISHES OF ALL LUMINAIRE COMPONENTS WITH ARCHITECT AND INTERIOR DESIGNER PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.
UNLESS INDICATED ON LIGHTING PLANS OR BELOW, REFER TO ARCHITECTURAL AND INTERIOR DESIGN ELEVATIONS, SECTIONS AND DETAILS FOR ALL SUSPENDED AND WALL MOUNTED LUMINAIRE MOUNTING HEIGHTS.

REFER TO SPECIFICATION SECTIONS LIGHTING 26 51 00 AND LIGHTING CONTROLS 260923 INTERIOR CORRELATED COLOR TEMPERATURE 4000K, COLOR RENDERING INDEX (CRI) AT OR ABOVE 80, UNLESS NOTED OTHERWISE.

					DIME	NSIONS		W	ATT		L	ED	DRIVE	R	
ITEM	DESCRIPTION	L/L	MTG	L	w	н	DIA.	ANSI WATT S	PER	TYPE	QTY	ABSOLUTE LUMENS (MIN)	VOLTS	TYPE	APPROVED MANUFACTURER
A1	2'X4' VOLUMETRIC LED TROFFER 4000K	R	RE	4'-0"	2'-0"	5 19/64"		34 W	FIX	LED	1	4000	MVOLT	0-10V	LITHOINA 2VTL4 SERIES
A2	2'X4' LENSED LED TROFFER 4000K	А	RE	4'-0"	2'-0"	5 19/64"		34 W	FIX	LED	1	4000	MVOLT	0-10V	LITHONIA 2GTL SERIES
A22	2'X2' VOLUMETRIC LED TROFFER 4000K	R	RE	2'-0"	2'-0"	5 19/64"		34 W	FIX	LED	1	4000	MVOLT	0-10V	LITHONIA 2VTL2 SERIES
E1	SINGLE FACE EXIT SIGN	0		1'-1"	2"	9"				LED	1		MVOLT		LITHONIA EDG EDGR SERIES MCPHILBEN CXXL
E2	UNIVERSAL EDGE LIT EXIT SIGN, NO BATTERY]	0	0	1'-1"	2"	9"				LED	1	L.E.D.	MVOLT	EB	LITHONIA EDG EDGR SERIES MCPHILBEN CXXL
ST1	4' LED STRIP LIGHT 4000K	A	CL	4'-0"	7"	5"		0 W	FIX	LED	1	4500	MVOLT	0-10V	LITHONIA MNSL SERIES DC4 LITHONIA DMW232 H.E. WILLIAMS 92-4-232OC-A-WET PRUDENTIAL P-5362 METALUX VT2232
ST1E	4' LED STRIP LIGHT 4000K	A	CL	4'-0"	7"	5"		0 W	FIX	LED	1	4500	MVOLT	0-10V	LITHONIA MNSL SERIES DC4 LITHONIA DMW232 H.E. WILLIAMS 92-4-232OC-A-WET PRUDENTIAL P-5362 METALUX VT2232

			NE	W P	<b>ANE</b>		IAI	ИE:	4-E	<b>QE</b>	3-2			CO	NNECTED 67.4 kVA	
		TYPE: BOLT-O	N												MAIN: 200A MCB	
		MOUNTING: SURFAC							ID NEU						<b>VOLTS:</b> 480/277 Wye	
		FED FROM: 4-EQDP						GR	OUND	BUS					PHASE: 3	
		SCCR: 11,350A	ı												WIRE: 4	
		LOCATION:													DEMAND: 67.4 kVA	
Ī	Panel N	otes:														
	CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS	JRRENT CTION P	WIRE ID	,	4	E	3	(	<b>C</b>	WIRE ID	OVERO PROT P	CURRENT ECTION AMPS	LOAD DESCRIPTION	CKT NO.
	1	AC-1	20 A	3		2	0						1	20 A	SPARE	2
	3							2	0				1	20 A	SPARE	4
	5									2	0		1	20 A	SPARE	6
	7	HWP-1	20 A	3		2.9	2.9						3	20 A	HWP-2	8
	9							2.9	2.9							10
	11									2.9	2.9					12
	13	AHU-1 (SF-1)	40 A	3		5.57	6.2						3	30 A	ERV-1	14
	15							5.57	6.2							16
	17									5.57	6.2					18
	19	RF-1	25 A	3		2.9	0								SPACE	20
	21							2.9	0						SPACE	22
	23									2.9	0				SPACE	24
	25	SPACE				0	0								SPACE	26
	27	SPACE						0	0						SPACE	28
	29	SPACE								0	0		-		SPACE	30
	31	SPACE				0	0								SPACE	32
	33	SPACE						0	0				-		SPACE	34
	35	SPACE								0	0				SPACE	36
	37	SPACE				0	0						-		SPACE	38
	39	SPACE						0	0						SPACE	40
	41	SPACE								0	0		-		SPACE	42
			Tota	al Load:		22.47	7 kVA	22.47	′ kVA	22.47	′ kVA					<u> </u>
			Tota	I Amps:		01	.11	81	4.4	81	4.4					

nel N	MOUNTING: SURFACI FED FROM: 4SWBD-A SCCR: 8902A LOCATION:	<b>A</b>	SOLID NEUTRAL GROUND BUS  PHASE: 3 WIRE: 4 DEMAND: 17.95 kVA  N - SEE SPECIFICATIONS												
CKT NO.	LOAD DESCRIPTION	OVERCI PROTE AMPS	JRRENT CTION P	WIRE ID	,	Α.	E	3	(	<b>:</b>	WIRE ID	OVERC PROTE	URRENT ECTION AMPS	LOAD DESCRIPTION	CKT NO.
1	RECEPTION 120A RECEPTS	20 A	1		0.54	0.72						1	20 A	CORRIBOR CIN REC.	2
3	LIGHTING	20 A	1				1.51	1				1	20 A	Receptacles	4
5	EXAM LIGHTING	20 A	1						1.66	0		3	20 A	POWERED OFFFICE FURNITURE	6
7	LIGHTING	20 A	1		1.06	0									8
9	RECEPTION 120A RECEPTS	20 A	1				0.36	0							10
11	SELF-CHECK IN, ALCOVE REC.	20 A	1						1.08	0		3	20 A	POWERED OFFFICE FURNITURE	12
13	HAC 120NN,PROCEDURE REC.	20 A	1		1.08	0									14
15	EXAM 10 & 11 REC.	20 A	1				0.9	0							16
17	EXAM #5, & PCMHI REC.	20 A	1						1.08	0		3	20 A	POWERED OFFFICE FURNITURE	18
19	EXAM #2, 3 & 4 REC.	20 A	1		1.08	0									20
21	EXAM RM #1, TOILET RM REC.	20 A	1				0.9	0							22
23	WAITING AREA REC.	20 A	1						1.08	0.3		1	20 A	Receptacles	24
25	CORRIDOR REC.	20 A	1		0.72	0						3	20 A	POWERED OFFFICE FURNITURE	26
27	EXAM RM #7, 8, 9 RECEPTACLES	20 A	1				1.44	0							28
29	EXAM RM #6 & 12	20 A	1						0.72	0					30
31	EXAM RM #13 & 14 REC.	20 A	1		0.9	0						3	20 A	POWERED OFFFICE FURNITURE	32
33	CORRIDOR REC.	20 A	1				0.54	0							34
35	RECEPTION 120A RECEPTS	20 A	1						0.9	0					36
37	CORRIDOR REC.	20 A	1		0.54	0.18						1	20 A	Receptacles	38
39	ROOF REC. PACT 4	20 A	1				0.18	0				1	20 A	SPARE	40
41	EF-2	20 A	1						0.6	0		1	20 A	SPARE	42
		Tot	al Load:		6.82	kVA	6.83	kVA	7.42	kVA					
		Tota	I Amps:		56	.81	56	.94	61.	.87					

SOLID NEUTRAL

Panel N	Notes:														
CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS	JRRENT CTION P	WIRE ID		A		В		С	WIRE ID	OVERO PROT P	CURRENT ECTION AMPS	LOAD DESCRIPTION	CK'
1	(EXISTING) REC N WALL, FAN RE	20 A	1		0	0						1	20 A	(EXISTING) REC. MAIN KITCHEN	2
3	(EXISTING) DIETETICS LTGS	20 A	1				0	0				1	20 A	(EXISTING) FREEZER & FROST	4
5	(EXISTING) REC ON COLUMN 123	20 A	1						0	0		1	20 A	(EXISTING) REFRIGE COLD PLAT	6
7	(EXISTING) N CORRIDOR LTGS,	20 A	1		0	0						1	20 A	(EXISTING) REC. CORRIDOR S	8
9	(EXISTING) COOLER 131 A/B LTG	20 A	1				0	0				1	20 A	(EXISTING) RM 120 & ELEV LOBBY	10
11	(EXISTING) DATA RM 123C	20 A	1						0	0		1	20 A		12
13	(EXISTING) LTGS OVER OVEN	20 A	1		0	0						1	20 A	(EXISTING) OXYGEN STORAGE R	14
15	(EXISTING) LTGS DISH RM 123D	20 A	1				0	0				1	20 A		16
17	(EXISTING) CORRIDOR LTGS 124	20 A	1						0	0		1	20 A	(EXISTING) REC. RM 124 S WALL	18
19	(EXISTING) AC REC. RM 125A	20 A	1		0	0						1	20 A	(EXISTING) AUTOMATIC DOOR	20
21	(EXISTING) PENTHOUSE LTGS &	20 A	1				0	0.7				1	20 A	EF-1	22
23	(EXISTING) DATA RM 123C	20 A	1						0	0.18		1	20 A	ROOF TOP REC DIETIC	24
25	(EXISTING) REC. BY BLENDER	20 A	1		0	0.36						1	20 A	Receptacles	26
27	(EXISTING) REFRIGE COLD PLAT	20 A	1				0	0.18				1	20 A	Receptacles	28
29	(EXISTING) REC. CORRIDOR S	20 A	1						0	0		1	20 A	Powered Door	30
31	(EXISTING) IT CLOSET RM 123C	20 A	1		0	0.18						1	20 A	Receptacles	32
33	(EXISTING) EAST SERVING	20 A	1				0	0				1	20 A	SPARE	34
35	(EXISTING) AC REC. RM 124	20 A	1						0	0		1	20 A	SPARE	36
37	EXISTING LOAD	20 A	1		0	0						1	20 A	SPARE	38
39	EXISTING LOAD	20 A	1				0	0				1	20 A	SPARE	40
41	EXISTING LOAD	20 A	1						0	0		1	20 A	SPARE	42
		Tot	al Load:		0.54	kVA	0.88	kVA	0.18	kVA					
		Tota	l Amps:		4	.96	7.	.79	1	.5					

**NEW PANEL NAME: 4-L1-4** 

TYPE: BOLT-ON

MOUNTING: SURFACE

Down Made	TYPE: BOLT-ON MOUNTING: SURFACE FED FROM: 4-CR-1 SCCR: 1235A													BEAUL O	OA MOD	
Danal Nata	LOCATION:							ID NEU OUND						MAIN: 6 VOLTS: 1 PHASE: 3 WIRE: 4 DEMAND: 8	20/208 Wye	
Panel Notes	es: PROVIDE SURGE PROTECTION	ON DEVIC	Œ													
CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS	ECTION	WIRE ID	A	<b>A</b>	E	3	(	;	WIRE ID	OVERO PROT P	CURRENT ECTION AMPS		AD DESCRIPTION	CI
1 RM	M 120R,120O, 120K RECEPTS	20 A	1		1.08	0						1	20 A	SPARE		2
3 RM	M 120J, 120I, 120G RECEPTS	20 A	1				0.9	0				1	20 A	SPARE		4
5 PR	ROCEDURE, EXAM 11 & 12 REC.	20 A	1						1.62	0		1	20 A	SPARE		- (
7 EX	XAM RM #7, 8, 9 RECEPTACLES	20 A	1		1.08	0						1	20 A	SPARE		8
9 EX	XAM RM #12,13,14 REC.	20 A	1				1.08	0				1	20 A	SPARE		1
11 ME	EDICATION, EXAM RM#6 REC.	20 A	1						0.36	0		1	20 A	SPARE		1
13 EX	KAM CRITICAL LTG	20 A	1		0.72	0						1	20 A	SPARE		1
15 OM	MNICELL REC.	20 A	1				0.18	0				1	20 A	SPARE		1
17 RE	ECEPTION 159A REC.	20 A	1						0.72	0		1	20 A	SPARE		1
19 ME	EDICATION 146 REC.	20 A	1		0.18	0						1	20 A	SPARE		2
21 ME	EDICATION 146 REC.	20 A	1				0.18	0				1	20 A	SPARE		2
23 SP	PARE	20 A	1						0	0		1	20 A	SPARE		2
25 SP	PARE	20 A	1		0	0						1	20 A	SPARE		2
27 SP	PARE	20 A	1				0	0				1	20 A	SPARE		2
29 SP	PARE	20 A	1						0	0		1	20 A	SPARE		3
			al Load:		3.06	kVA	2.34	kVA	2.7	kVA						
		Tota	al Amps:		25.	.94	19	9.5	22	.96						
[Key*:]																

	FED FROM: 4SWB SCCR: 4115A LOCATION:						GR	ROUND	BUS					PHASE: 3 WIRE: 4 DEMAND: 0.9 kVA	
Panel I	Notes:														
CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS	JRRENT CTION P	WIRE ID		A		В	(		WIRE ID	OVEROT PROT	CURRENT ECTION AMPS	LOAD DESCRIPTION	CKT NO.
1						0.8						1	20 A	FCU-1	2
3	Power	20 A	1				0	0				1	20 A	SPARE	4
5	SPARE	20 A	1						0	0		2	15 A	CU-1	6
7	Lighting	20 A	1		0	0									8
9	SPARE	20 A	1				0	0.1				1	15 A	AHU LTS	10
11	SPARE	20 A	1						0	0		1	20 A	SPARE	12
13	SPARE	20 A	1		0	0						1	20 A	SPARE	14
15	SPARE	20 A	1				0	0						SPACE	16
17	SPARE	20 A	1						0	0				SPACE	18
19	SPARE	20 A	1		0	0								SPACE	20
21	SPARE	20 A	1				0	0						SPACE	22
23	SPARE	20 A	1						0	0				SPACE	24
25	SPARE	20 A	1		0	0								SPACE	26
27	SPARE	20 A	1				0	0						SPACE	28
29	SPARE	20 A	1						0	0				SPACE	30
31	SPARE	20 A	1		0	0								SPACE	32
33	SPARE	20 A	1				0	0						SPACE	34
35	SPARE	20 A	1						0	0				SPACE	36
37	SPARE	20 A	1		0	0								SPACE	38
39	SPARE	20 A	1				0	0						SPACE	40
41	SPARE	20 A	1						0	0				SPACE	42
			al Load:			kVA		kVA		VA .					
		Tota	I Amps:		6.	.79	0.	.96	(	)					
Key*:]															

**CONNECTED** 0.9 kVA

**CONNECTED** 1.5 kVA

PHASE: 3 WIRE: 4

**DEMAND:** 1.5 kVA

**VOLTS:** 120/208 Wye

MAIN: 100A MCB

**NEW PANEL NAME: 4-EQB-3** 

**EXISTING PANEL NAME: 4ES** 

TYPE: BOLT-ON

TYPE: BOLT-ON

Panel Notes: ALL NEW BREAKERS SHALL MATCH EXISTING TYPE AND AIC RATING.

**MOUNTING:** EXISTING

FED FROM: 4ES-ATS

SCCR: LOCATION:

	CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS	CTION	WIRE ID	,	4	E	3	(		WIRE ID	OVERO PROT P	CURRENT ECTION AMPS	LOAD DESCRIPTION	CKT NO.	
	1	Lighting	20 A	1		0.98	0.4						1	20 A	Other	2	7
	3	SPARE	30 A	1				0	0				1	20 A	Lighting	4	7
	5	SPARE	20 A	1						0	0		1	20 A	EXISTING LOAD	6	7
	7	EXISTING FIRE ALARM	20 A	1		0	0						1	20 A	EXISTING LOAD	8	7
	9	EXISTING FIRE ALARM	20 A	1				0	0				1	20 A	EXISTING LOAD	10	7
	11	SPARE	20 A	1						0.11	0		1	20 A	EXISTING LOAD	12	7
	13	SPARE	20 A	1		0	0						1	20 A	EXISTING LOAD	14	1
	15	SPARE	20 A	1				0	0				1	20 A	SPARE	16	7
	17	SPARE	20 A	1						0	0		1	20 A	SPARE	18	1
	19	SPARE	20 A	1		0	0						1	20 A	SPARE	20	7
	21	SPARE	20 A	1				0	0				1	20 A	SPARE	22	1
🗀	23	SPACE								0	0		1	20 A	SPARE	24	7
	25	SPACE				0	0								SPACE	26	
- 🗆	27	SPACE						0	0						SPACE	28	<b></b>
	29	SPACE								0	0				SPACE	30	
- 🗆	31	SPACE				0	0								SPACE	32	<b></b>
	33	SPACE						0	0						SPACE	34	
- 🗆	35	SPACE								0	0				SPACE	36	<b></b>
-	37	SPACE				0	0								SPACE	38	T
	39	SPACE						0	0						SPACE	40	<b></b>
-	41	SPACE								0	0				SPACE	42	7
			Tot	al Load:		1.38	kVA	0 k	VA	0.11	kVA			•			_
			Tota	al Amps:		11	.67	(	)	1.0	09						

SOLID NEUTRAL

GROUND BUS

### 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

			3001 BROADWAY PH: 612.540.5
			STREET NE, SUITE 601 www.imegcorp.
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MINNEAPOLIS, MN 55413
No	REVISION	DATE	

REFERENCE SCALE IN INCHES

0 1 2

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

Typed or Printed Name: Alexander S. Quast

Date:10/28/2022 License Number: 53095

ARCHITECT/ENGINEER OF RECORD

700 Nic Elk Gro
T:847.952.9

BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www. bancroft-ae.com BAE PROJECT NO. 18-116 DATE: APPROVED: SERVICE LINE DIRECTOR DATE: APPROVED: INFECTION CONTROL NURSE DATE: ELE

APPROVED: GEMS PROJECT MANAGER DATE: APPROVED: PATIENT SAFETY DATE: APPROVED

APPROVED: PROJECTS SECTION MANAGER DATE: APPROVED: CHIEF OF POLICE DATE: APPROVED

APPROVED: DIRECTOR FMS DATE: APPROVED: SAFETY MANAGER DATE: APPROVED

APPROVED: APPROVED: SAFETY MANAGER DATE: APPROVED: SAFETY MANAGER DATE: APPROVED

**CONNECTED** 1.6 kVA

MAIN: 200A MLO

VOLTS: 120/208 Wye

DRAWING TITLE
ELECTRICAL - SCHEDULES

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

APPROVED: CHIEF OF STAFF

DATE:

BUILDING A FIRST FLOOR

PROJECT TITLE

CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

PROJECT NO.
656-400

CHECKED BY
GJL
DRAWING NO.
E500

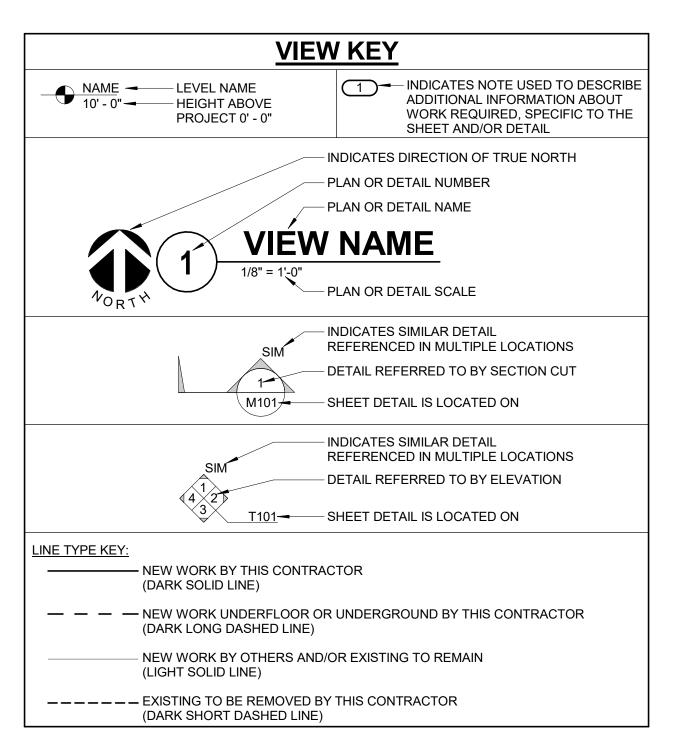
APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303

DWG. OF







	CONTRACTOR ABBREVIATION KEY
ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.T.C.	AUTOMATIC TEMPERATURE CONTROL CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

SYMBOL:	EQUIPMENT LIST ABBREV.:	DESCRIPTION:	NOTE
CSS	<u>N/A</u>	CONTROLLED SECURITY SCHEME SCHEDULE	
<b>—</b> М	A.C. O.D.4	CARD ACCESS READER; LETTER INDICATES AS FOLLOWS;	
Ы т	AC-CR1	M = MOUNT C - CEILING D - DESK F- FLUSH H - HIDDEN M -	
		MULLION P-PEDESTAL R-RACK S-SURFACE W-WALL	
		T = TECHNOLOGY/TYPE B - BARCODE F - ELEVATOR FLOOR CALL H - ELEVATOR HALL CALL M - MAG STRIP P = PROXIMITY S - SMART CARD T - TOKEN	
₩AP	<u>SC-IO-C</u>	CEILING INFORMATION OUTLET, DATA COMMUNICATION ONLY, WIRELESS ACCESS POINT	1.
#V #D <b>▼</b>	SC-IO-W	WALL INFORMATION OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION	1., 2.
₩ <b>▼</b>	SC-IO-W	WALL INFORMATION OUTLET, WALL TELEPHONE COMMUNICATION	2.
T∨ <b>Ψ</b>	SC-IO-W	WALL INFORMATION OUTLET, TELEVISION, MOUNTED AT +84" UNLESS OTHERWISE NOTED	2.
#\\	NC-D-C	NURSE CALL STATION D=CORRIDOR DOME LIGHT, MOUNTED AT FINISHED	3.
	NC-DI-C	CEILING DI=AUXILIARY INTERSECTIONAL DOME LIGHT, MOUNTED AT FINISHED CEILING	
N	NC-DTY-W NC-NT-W NC-NS-W NC-NA-W NC-NC-W NC-NR-W	NURSE CALL STATION D = DUTY STATION, MOUNTED +60" E = EMERGENCY STATION, MOUNTED +36" FOR TOILETS E = EMERGENCY STATION, MOUNTED +72" FOR SHOWER A = STAFF ASSIST STATION, MOUNTED AT +48" C = CODE BLUE STATION, MOUNTED AT +48" V = TELEVISION AUDIO AND CONTROL INTERFACE JACK, MOUNTED AT +84" R = AUXILIARY INPUT JACK, MOUNTED AT +18"	3.
	NC-N-W NC-N2-W	1 = SINGLE PATIENT STATION 2 = DUAL PATIENT STATION	
NCS	NC-NCS	NURSE CALL - MASTER STATION	
S	PA-S-C	FACILITY PAGING SPEAKER (CEILING)	
SM <sub>#</sub>	PA-SM-C	SOUND MASKING SPEAKER (CEILING)	4.
WIDTH >	(HEIGHT	CABLE TRAY, CHANNEL TRAY, BASKET TRAY	
WIDTH >	( НЁІБНТ <u></u>	LADDER RACK	
——DIAME	TERø C	CONDUIT	
	<del></del> ə	CONDUIT DOWN	
	<b></b> 0	CONDUIT UP OR UP/DOWN	
<u> </u>	<del></del> 3	CONDUIT SLEEVE	
		CONTINUATION	

### **GENERAL NOTES:**

- ALL SYMBOLS AND ABBREVIATIONS LISTED MAY NOT BE APPLICABLE TO THIS PROJECT. REFER TO THE GENERAL TECHNOLOGY EQUIPMENT SCHEDULE FOR MORE COMPLETE DESCRIPTION AND ITEMS.
- ALL SYMBOLS AND ABBREVIATIONS REFER TO TECHNOLOGY SHEETS ONLY AS DEFINED ON THE SHEET INDEX. REFER TO THE GENERAL TECHNOLOGY NOTES FOR ADDITIONAL INFORMATION.
- ALL SYMBOLS LISTED ABOVE ARE FOR REFERENCE ONLY. REFER TO PLANS AND LINE TYPE KEY FOR NEW, EXISTING TO REMAIN AND TO BE REMOVED ITEMS FOR ADDITIONAL INFORMATION.

### **TECHNOLOGY SYMBOL NOTES:**

- "#V #D" INDICATES COMBINATION TELEPHONE/DATA INFORMATION OUTLET FACEPLATE CONFIGURATION. REFER TO INFORMATION OUTLET SCHEDULE ON T500 FOR ADDITIONAL INFORMATION.
- REFER TO INFORMATION OUTLET SCHEDULE ON T500 FOR ADDITIONAL INFORMATION. SYMBOL SUBSCRIPT INDICATES DEVICE TYPE. REFER TO GENERAL TECHNOLOGY
- EQUIPMENT SCHEDULE ON T500 FOR ADDITIONAL INFORMATION. "#" SUBSCRIPT INDICATES SOUND MASKING ZONE, REFER TO GENERAL TECHNOLOGY EQUIPMENT SCHEDULE ON T500 FOR ADDITIONAL INFORMATION.

	7							
TECHNOLOGY ABBREVIATION KEY								
ABBR:	DESCRIPTION:							
AFF	ABOVE FINISHED FLOOR							
BFC	BELOW FINISHED CEILING							
С	CONDUIT							
J-BOX	JUNCTION BOX							
SIM	SIMILAR							
TYP	TYPICAL							
UNO	UNLESS NOTED OTHERWISE							

MOUNTING HEIGHT ABOVE FINISHED FLOOR

ENTRANCE FACILITY

MAIN CROSS-CONNECT

TELECOMMUNICATIONS ROOM

ITEM:	SHOWN ON:	FURNISHED BY:	INSTALLED BY:	NOTES:
TECHNOLOGY ROUGH-IN, REFER TO GENERAL TECHNOLOGY EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR DEFINITION	T-SERIES	E.C.	E.C.	3. 4.
INFORMATION OUTLET FACEPLATES, JACKS, AND TERMINATIONS	T-SERIES	T.C.	T.C.	
CONDUIT SLEEVES (WHEN SHOWN ON DRAWINGS)	T-SERIES	E.C.	E.C.	
CONDUIT SLEEVES (NOT SHOWN BUT REQUIRED FOR PROPER INSTALLATION OF SYSTEM)	N/A	T.C.	T.C.	2. 4.
TELECOMMUNICATION SYSTEMS ROUGH-IN	T-SERIES	E.C.	E.C.	1.
TELECOMMUNICATION EQUIPMENT, CABLING, AND TERMINATIONS	T-SERIES	T.C.	T.C.	
NURSE CALL/PATIENT WANDER ROUGH-IN	T-SERIES	E.C.	E.C.	
NURSE CALL/PATIENT WANDER EQUIPMENT, CABLING, AND TERMINATIONS	T-SERIES	T.C.	T.C.	
GROUNDING LUGS ON TECHNOLOGY EQUIPMENT	T-SERIES	T.C.	E.C.	6.
LINE VOLTAGE POWER (+120V OR GREATER)	E-SERIES	E.C.	E.C.	
LINE VOLTAGE POWER (NOT SHOWN BUT REQUIRED FOR PROPER INSTALLATION OF SYSTEM)	N/A	T.C.	E.C.	2. 4.
LINE VOLTAGE POWER FOR DOOR HARDWARE POWER SUPPLIES	ARCH SPEC	E.C.	E.C.	
LOW VOLTAGE CABLING FOR TECHNOLOGY SYSTEMS	T-SERIES	T.C.	T.C.	
CABLE HANGERS AND SUPPORTS OR OTHER CABLE ROUTING METHODS (OTHER THAN CONDUIT)	T-SERIES	T.C.	T.C.	5.
FLOOR BOX (ROUGH-IN)	T & E SERIES	E.C.	E.C.	

#### SUGGESTED MATRIX OF RESPONSIBILITY NOTES

- LOCATIONS OF TELECOMMUNICATIONS ROUGH-INS SHALL BE INDICATED BY THE INFORMATION OUTLET SYMBOLS ON THE DRAWINGS. REFER TO THE TECHNOLOGY SYMBOL LIST FOR ADDITIONAL
- BASED ON THE INHERENT DIFFERENCES IN PRODUCTS FROM VARIOUS MANUFACTURERS, ALL REQUIRED EQUIPMENT MAY NOT BE SHOWN ON THE DRAWINGS FOR ALL ACCEPTABLE

T.C.'S SELECTION OF AN ALTERNATE ACCEPTABLE MANUFACTURER OR FROM SYSTEM

- MANUFACTURERS. INCLUDES BACKBOXES AND CONDUIT REQUIRED FOR THE TECHNOLOGY SYSTEMS INSTALLATION. THE E.C. SHALL BASE THE BID ON THE BASIS OF DESIGN SHOWN ON THE CONTRACT DOCUMENTS. ALL CHANGES TO THE SLEEVES, BACKBOXES, CONDUITS, AND POWER REQUIRED BECAUSE OF THE
- CONFIGURATIONS THAT ARE LEFT TO THE CHOICE OF THE CONTRACTOR SHALL BE INCLUDED IN THE T.C.'S BID. THIS BID SHALL INCLUDE INSTALLATION BY A LICENSED ELECTRICIAN. UNLESS TRADE RULES DICTATE OTHERWISE.
- FURNISHED AS PART OF THE EQUIPMENT WHEN POSSIBLE, OR FURNISHED TO THE E.C. FOR INSTALLATION IN THE FIELD. INCLUDES ALL CONDUCTORS, GROUND BARS, AND TERMINATIONS FOR THE COMPLETE BONDING
- SYSTEM REQUIRED BY THE SPECIFICATIONS. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF PANELS AND SWITCHBOARDS SHOWN IN THE TECHNOLOGY BONDING RISER DIAGRAM AND TYPICAL TELECOM ROOM BONDING FLOW DIAGRAM.

<u>T</u>	ELECOM ROC	OM REFEREN	ICES
ECOM ROOM	DETAIL / SHEET REFERENCE	FLOOR PLAN REFERENCE	ARCH ROOM NUMBER
STING	_	T1 1	123C

#### **TECHNOLOGY GENERAL NOTES:**

1. ###-### INDICATES GENERAL TECHNOLOGY EQUIPMENT SCHEDULE ITEM LABELED AS "EQUIPMENT LIST ABBREVIATION" 2. REFER TO GENERAL TECHNOLOGY EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR FULL

TECHNOLOGY MOUNTING SUBSCRIPT KEY:

DESCRIPTIONS AND MANUFACTURERS OF ALL DEVICES.

- MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH MOUNT ORIENTED HORIZONTALLY
- MOUNT IN CASEWORK
- MOUNT IN MODULAR FURNITURE MOUNT IN SURFACE RACEWAY
- A SLASH IS USED BETWEEN TWO SUBSCRIPTS, E.G., A/H.

#### **TECHNOLOGY INSTALLATION NOTES:**

- 1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. 2. CONCEAL ALL CONDUIT IN WALLS, PARTITIONS, ABOVE CEILING, IN FLOOR SLAB, ETC. UNLESS OTHERWISE INDICATED ON THE PLANS OR IN THE SPECIFICATIONS. CONDUIT IN
- MECHANICAL ROOMS AND STORAGE ROOMS WITHOUT CEILINGS MAY BE EXPOSED ON BUILDING STRUCTURE. 3. BOXES LOCATED ON OPPOSITE SIDES OF NON-RATED WALLS SHALL BE OFFSET A MINIMUM
- OF 6" HORIZONTALLY. BOXES ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 24" HORIZONTALLY. "THRU-THE-WALL" BOXES SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER. 4. VERIFY ALL FURNITURE. MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH
- ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL TELECOMMUNICATIONS INSTALLATION, ADJUST OUTLETS OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
- 5. TELECOMMUNICATIONS EQUIPMENT SHALL BE MOUNTED TO ALLOW ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF TELECOMMUNICATION DEVICES ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR SHALL BE APPROVED IN
- ADVANCE BY THE OTHER CONTRACTOR. 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE
- EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS. 7. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL
- BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO DIVISION 7 FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.

#### **TECHNOLOGY SEQUENCING NOTES**

- 1. THE EXISTING SYSTEMS TO REMAIN OPERATIONAL DURING THE INSTALLATION OF THE NEW SYSTEMS. THE SYSTEM SHALL NOT BE DISRUPTED UNLESS COORDINATED IN ADVANCE WITH THE COR AND ENGINEER AND AT THEIR DISCRETION ON DATE AND TIME.
- 2. REFER TO THE DRAWINGS FOR THE LOCATIONS OF THE NEW HEADEND EQUIPMENT AND THE EXISTING EQUIPMENT LOCATIONS. 3. REFER TO CONCURRENT EHRM PROJECT DOCUMENTATION FOR ADDITIONAL INFORMATION ABOUT NEW TR 123B AND NEW PATHWAYS THROUGHOUT THE RENOVATED AREA.

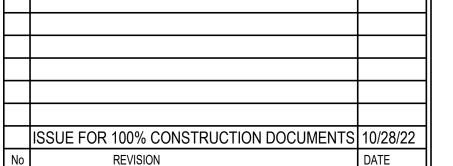
#### **ENGINEERING DISCIPLINE REFERENCE NOTES**

GENERAL NOTES FOR CONTRACTORS: SEE ALL PROJECT GENERAL NOTES AND OTHER REQUIREMENTS INCLUDING THE LIFE SAFETY AND INFECTION CONTROL WORK LOCATED WITHIN THE GENERAL DRAWINGS SECTION. COMPLY WITH ALL REQUIREMENTS AS THEY ARE A DIRECT PART OF THIS SECTION AS IF THEY WERE DIRECTLY INCLUDED AND PROVIDED HEREIN.

**EQUIVALENCY SUBSTITUTIONS:** THE "BASIS OF DESIGN (BOD) COMPLIANCE PROTOCOLS" ARE TO BE FOLLOWED FOR ALL MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SPECIFIED AND DETAILED THROUGHOUT ALL DRAWINGS AND SPECIFICATION SECTIONS, WHETHER THE BOD DESIGNATE IS SPECIFICALLY REFERENCED THEREIN OR NOT. SEE THE GENERAL DRAWINGS SECTION FOR THE SPECIFIC BOD COMPLIANCE REQUIREMENTS AND PROTOCOLS TO BE FOLLOWED.

	TECHNOLOGY SHEET INDEX
T000	TECHNOLOGY - COVERSHEET
TD101	TECHNOLOGY - DEMOLITION PLAN - FIRST FLOOR
T100	TECHNOLOGY - PLAN - BASEMENT
T101	TECHNOLOGY - PLAN - FIRST FLOOR
T200	TECHNOLOGY - ENLARGED PLANS
T300	TECHNOLOGY - DETAILS
T400	TECHNOLOGY - RISER DIAGRAMS
T500	TECHNOLOGY - SCHEDULES
GRAND TOTAL	.: 8

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REFERENCE SCALE IN INCHES 

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota. Signature: Typed or Printed Name: Alexander S. Quast

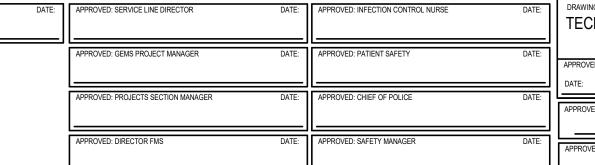
Date:10/28/2022 License Number: 53095

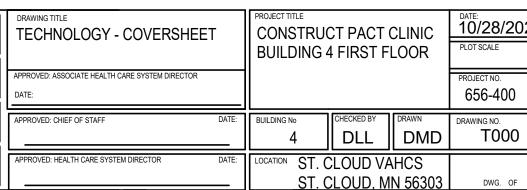
ARCHITECT/ENGINEER OF RECORD BANCROFT ARCHITECTS + ENGINEERS

EF-#

MC-#

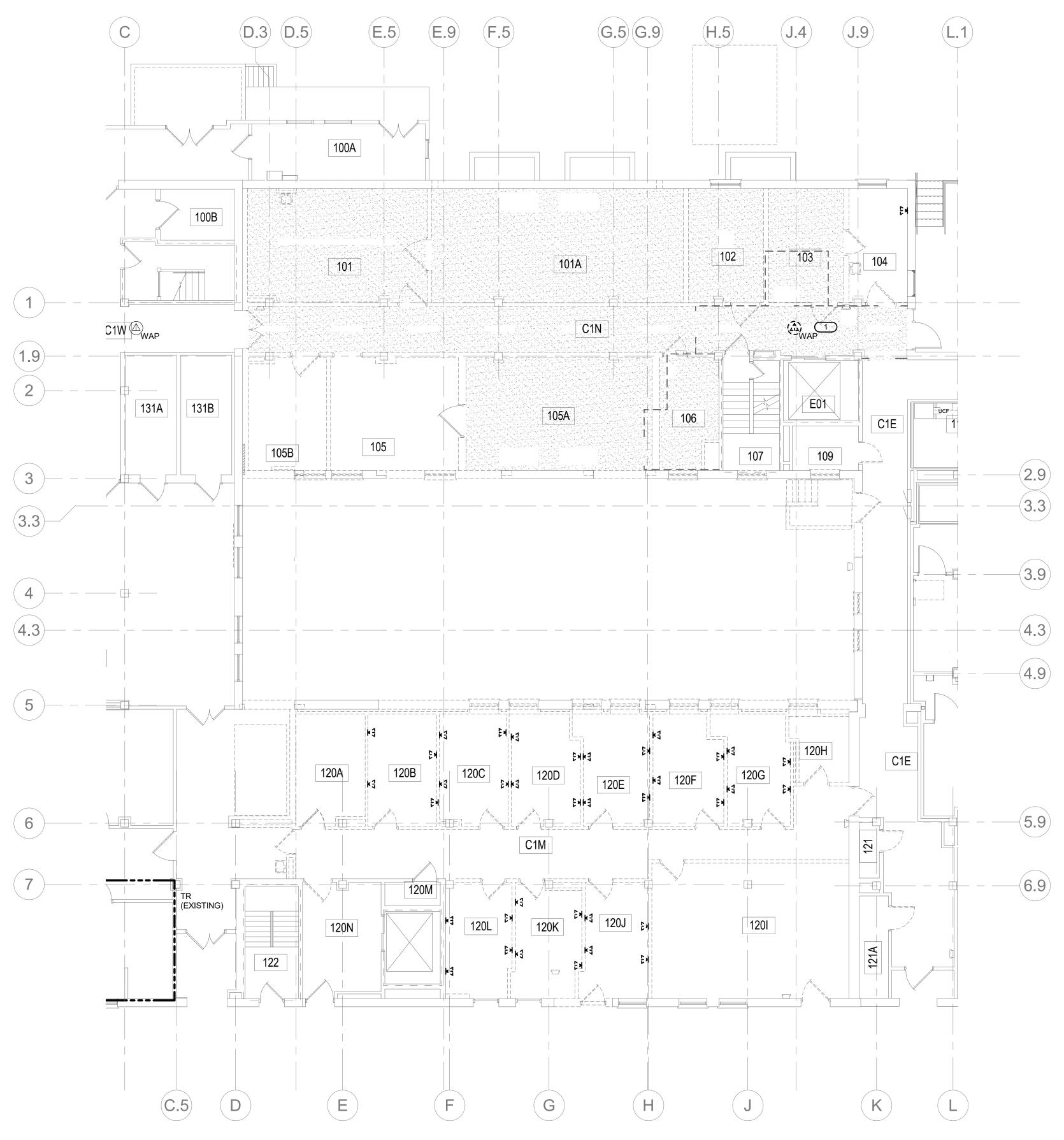
700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www. bancroft-ae.com BAE PROJECT NO. 18-116



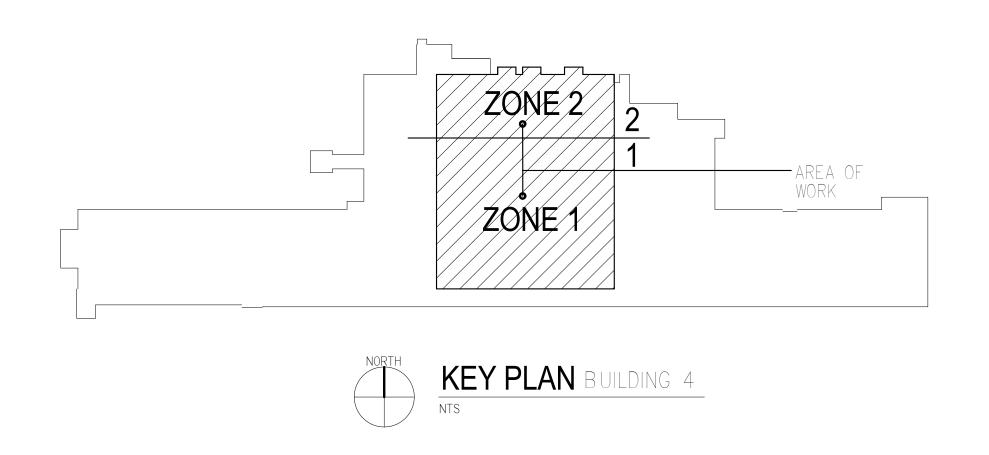








TECHNOLOGY - DEMOLITION PLAN - FIRST FLOOR



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**GENERAL NOTES:** 

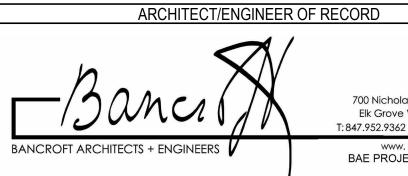
KEYNOTES: #

. DEMO STRUCTURED CABLING BACK TO TR 123C EXISTING EQUIPMENT RACK.

I. RETURN ACCESS POINTS AND OTHER CONNECTED ELECTRONIC EQUIPMENT BACK TO VA COR/ENGINEER.

			3001 BROADWAY PH: 612.540.50
			STREET NE, SUITE 601 www.imegcorp.co
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Nο	REVISION	DATE	

REFERENCE SCALE IN INCHES 0 1 2 I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Signature: Typed or Printed Name: Alexander S. Quast Date:10/28/2022 License Number: 53095



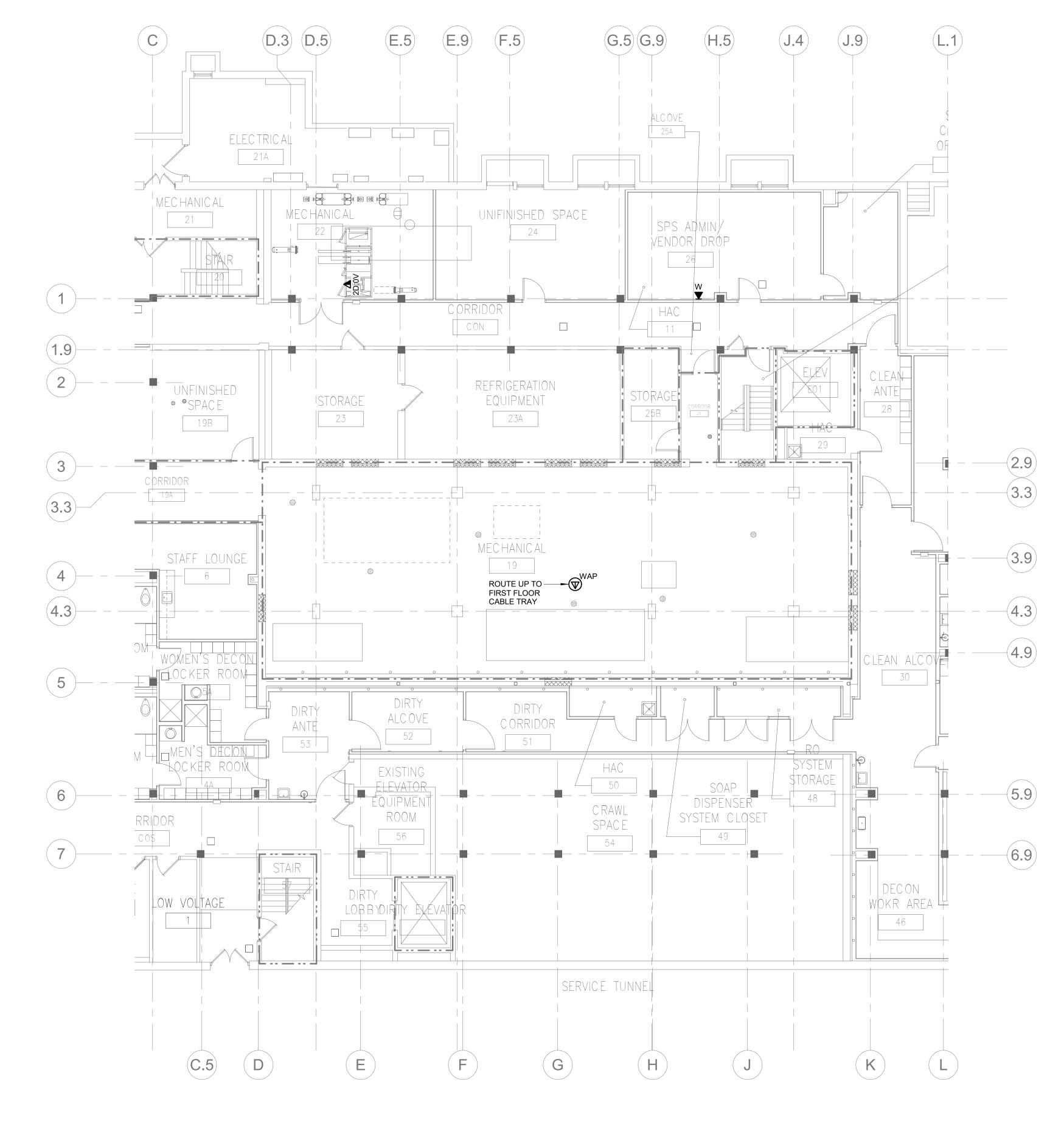
700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T:847.952.9362 F:847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 DATE: APPROVED: SERVICE LINE DIRECTOR

TECHNOLOGY - DEMOLITION
PLAN - FIRST FLOOR CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

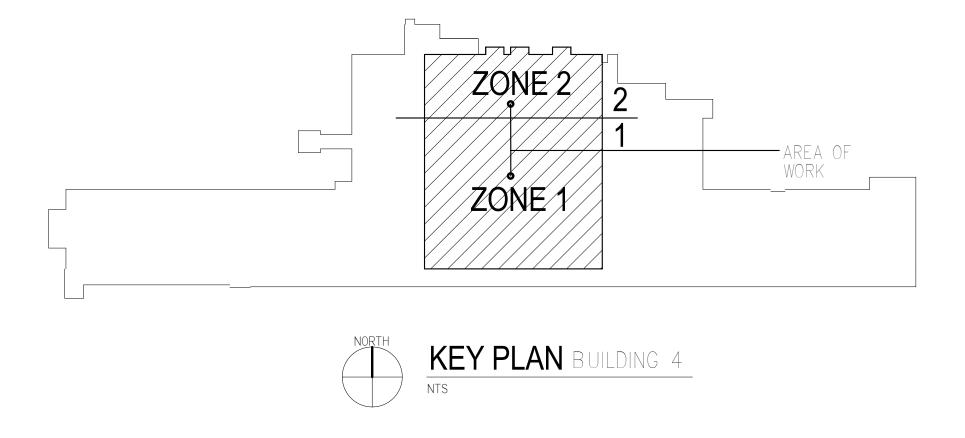
DATE:
10/28/2022
PLOT SCALE APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR BUILDING No CHECKED BY DRAWN DRAWING NO.

DLL DMD TD101 ST. CLOUD, MN 56303 DWG. OF









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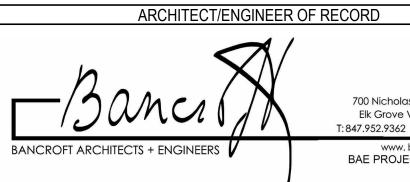
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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

Typed or Printed Name: Alexander S. Quast Date:10/28/2022 License Number: 53095



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BAE PROJECT NO. 18-116

DATE:	APPROVED: SERVICE LINE DIRECTOR	DATE:	APPROVED: INFECTION CONTROL NURSE	DATE:	TECHNOLOGY - PLAN - BASEMENT
	APPROVED: GEMS PROJECT MANAGER	DATE:	APPROVED: PATIENT SAFETY	DATE:	APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR DATE:
	APPROVED: PROJECTS SECTION MANAGER	DATE:	APPROVED: CHIEF OF POLICE	DATE:	APPROVED: CHIEF OF STAFF
	APPROVED: DIRECTOR FMS	DATE:	APPROVED: SAFETY MANAGER	DATE:	APPROVED: HEALTH CARE SYSTEM DIRECTOR

PROJECT TITLE
CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

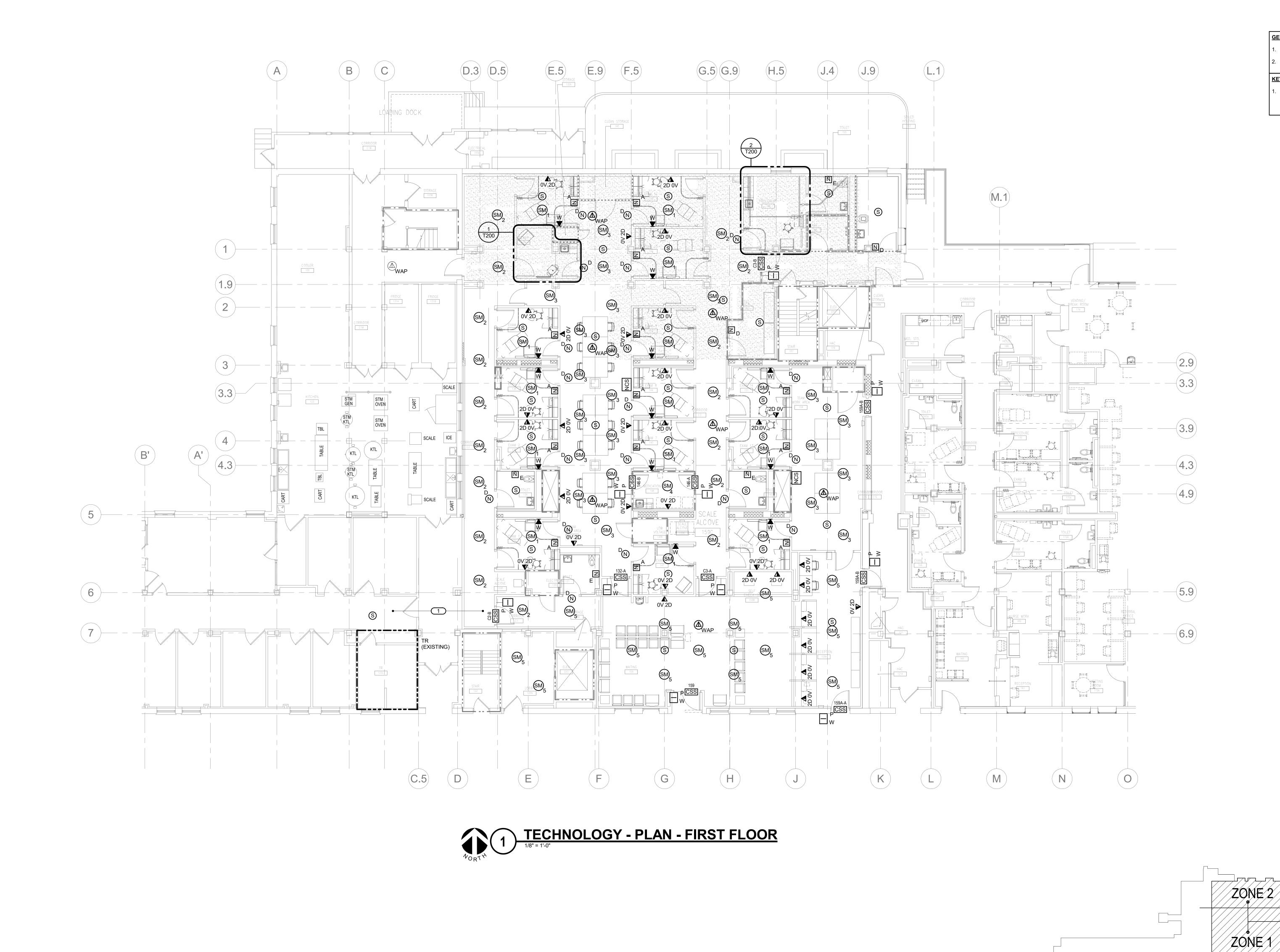
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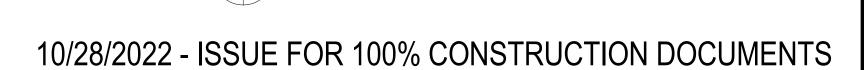
PROJECT NO.
656-400

BUILDING NO
4 DLL DMD DRAWING NO.
DMD T100

LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303 DWG. OF





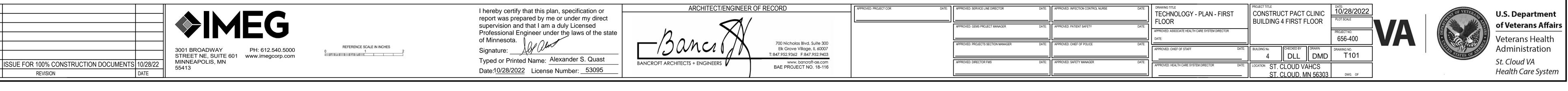


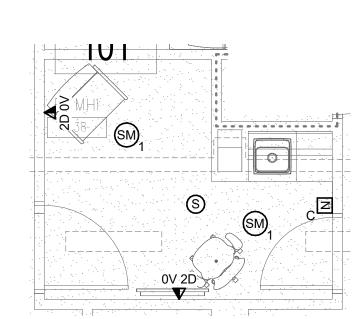
**GENERAL NOTES:** 

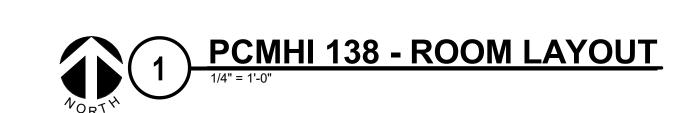
KEYNOTES: #

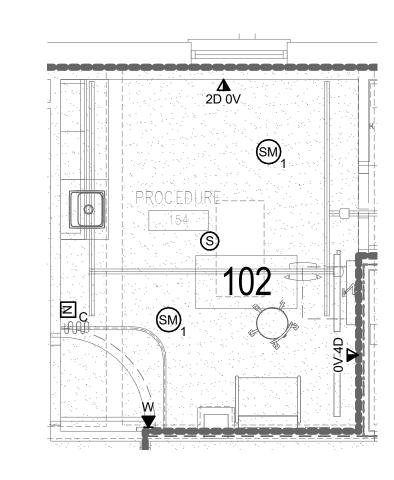
 ALL CABLING ROUTES TO EXISTING TR 123C FITTED DURING SEPARATE EHRM PROJECT.
 REFER TO ARCHITECTURAL FOR EXACT DEVICE PLACEMENTS AND ELEVATIONS.

I. REFER TO SEPARATE EHRM PROJECT DOCUMENTATION FOR PROPOSED CABLE TRAY ROUTES THROUGHOUT RENOVATED AREA.









PROCEDURE 154 - ROOM LAYOUT

1/4" = 1'-0"

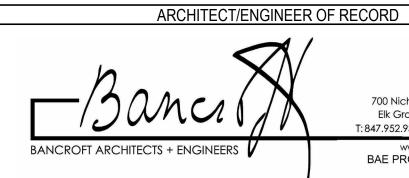
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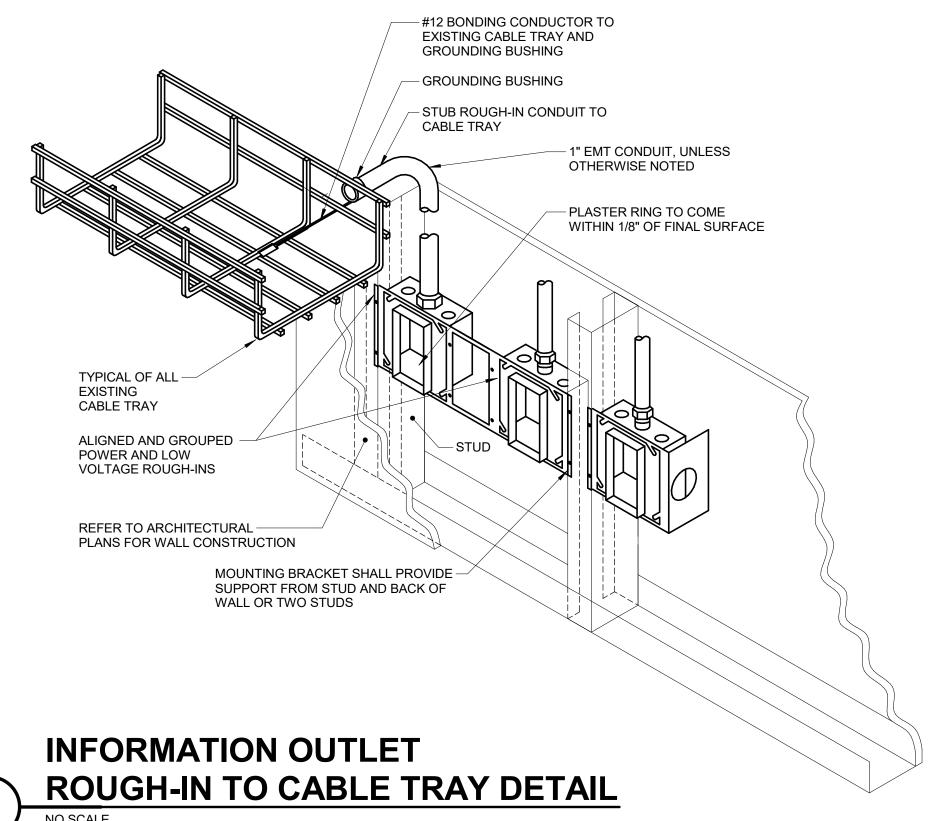
DATE: APPROVED: SERVICE LINE DIRECTOR

DATE: DRAWING TITLE
TECHNOLOGY - ENLARGED
PLANS PROJECT TITLE
CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

DATE:
10/28/2022
PLOT SCALE APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR E: BUILDING No CHECKED BY DRAWN DRAWING NO. T200 DATE: LOCATION ST. CLOUD VAHCS
ST. CLOUD, MN 56303 DWG. OF







NO SCA

1. THE INTENT OF THE DETAIL IS TO ALIGN AND GROUP DEVICE ROUGH-INS FOR POWER AND LOW VOLTAGE TECHNOLOGY SYSTEMS. SOLIDLY MOUNTED AND THE SURFACE OF THE TRIM IS EITHER FLUSH WITH THE WALL SURFACE OR WITHIN 1/8" OF THE WALL SURFACE. JUNCTION BOXES LARGER THAN 4" SQUARE SHALL BE MOUNTED IN A MANNER THAT IS SIMILAR TO THE SYSTEM

- NOTED ABOVE OR ACHIEVES THE SAME RESULTS.

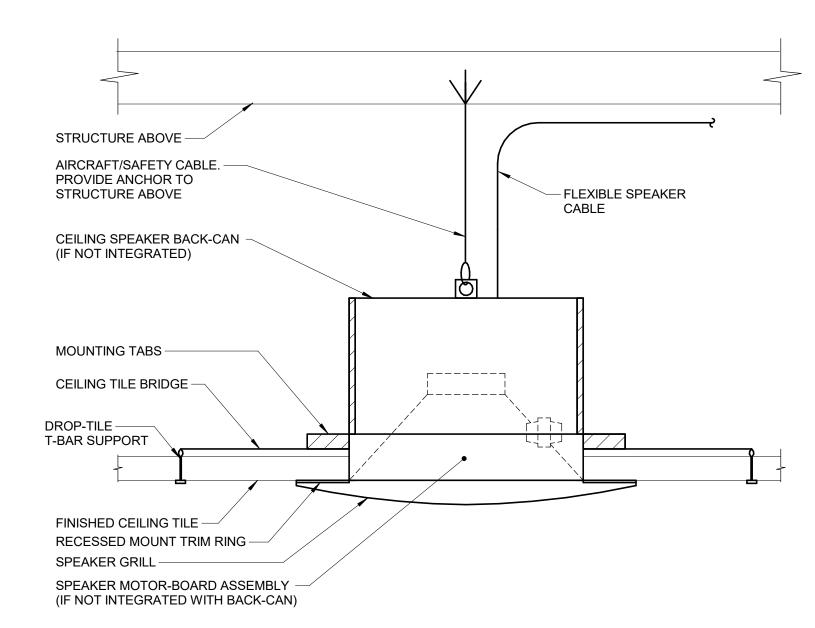
  2. PLASTER RINGS DEPTH SHALL BE 1/8" DEEPER THAN THE GYP BOARD APPLIED TO THE WALL. PLASTER RING SHALL BE 3/4" FOR USE WITH 5/8" GYP BOARD.
- 3. METAL STUD-TO-STUD MOUNTING BRACKETS FOR MULTIPLE BOXES BETWEEN STUD. ERICO CADDY RBS## SERIES. EATON B-LINE BB SERIES. OR EQUAL.

  3. CADDY RBS## SERIES. EATON B-LINE BB SERIES. OR EQUAL.
- 4. MOUNTING SUPPORT BRACKETS SIZES FOR SINGLE BOXES IN A STUD CAVITY SHALL MATCH THE STUD DEPTH. ERICO CADDY H## SERIES, EATON B-LINE BB## SERIES, OR EQUAL.
- 5. WHERE RECEPTACLE AND TECHNOLOGY DEVICES ARE SHOWN SERVING A COMMON COMPUTER OR EQUIPMENT, OR SHOWN IN SIMILAR LOCATIONS ON THE DRAWINGS THE DEVICES SHALL BE INSTALLED IN THE SAME STUD CAVITY WITH MOUNTING BRACKETS OR ALIGNED ON OPPOSITE
- SIDES OF A COMMON STUD WITH SEPARATE SUPPORT.

  6. TERMINATE CONDUIT STUB ORIENTED HORIZONTALLY AT THE HEIGHT OF THE ASSOCIATED CABLE TRAY. CONDUIT RUN SHALL NOT CONTAIN MORE THAN 180 DEGREES OF BEND BETWEEN
- ACCESSIBLE JUNCTION BOXES OR BETWEEN JUNCTION BOX AND END OF CONDUIT.

  7. WHERE CONDUIT STUB IS LOCATED IN A ROOM WITH AN ACCESSIBLE CEILING AND IS NOT REQUIRED TO RUN TO CABLE ROUTE LOCATED OUTSIDE THE ROOM, STUB MUST TERMINATE ABOVE THE ACCESSIBLE CEILING WITH A 90-DEGREE BEND AT THE TOP ORIENTED IN TO THE ROOM AT THE HEIGHT OF THE ASSOCIATED CABLE TRAY IN THE ROOM.
- 8. ALL STUBS MUST BE FITTED WITH A NYLON BUSHING ON EACH END OF THE CONDUIT.9. FURNISH AND INSTALL FIRESTOP MATERIALS FOR TECHNOLOGY ROUGH-INS PER PROJECT

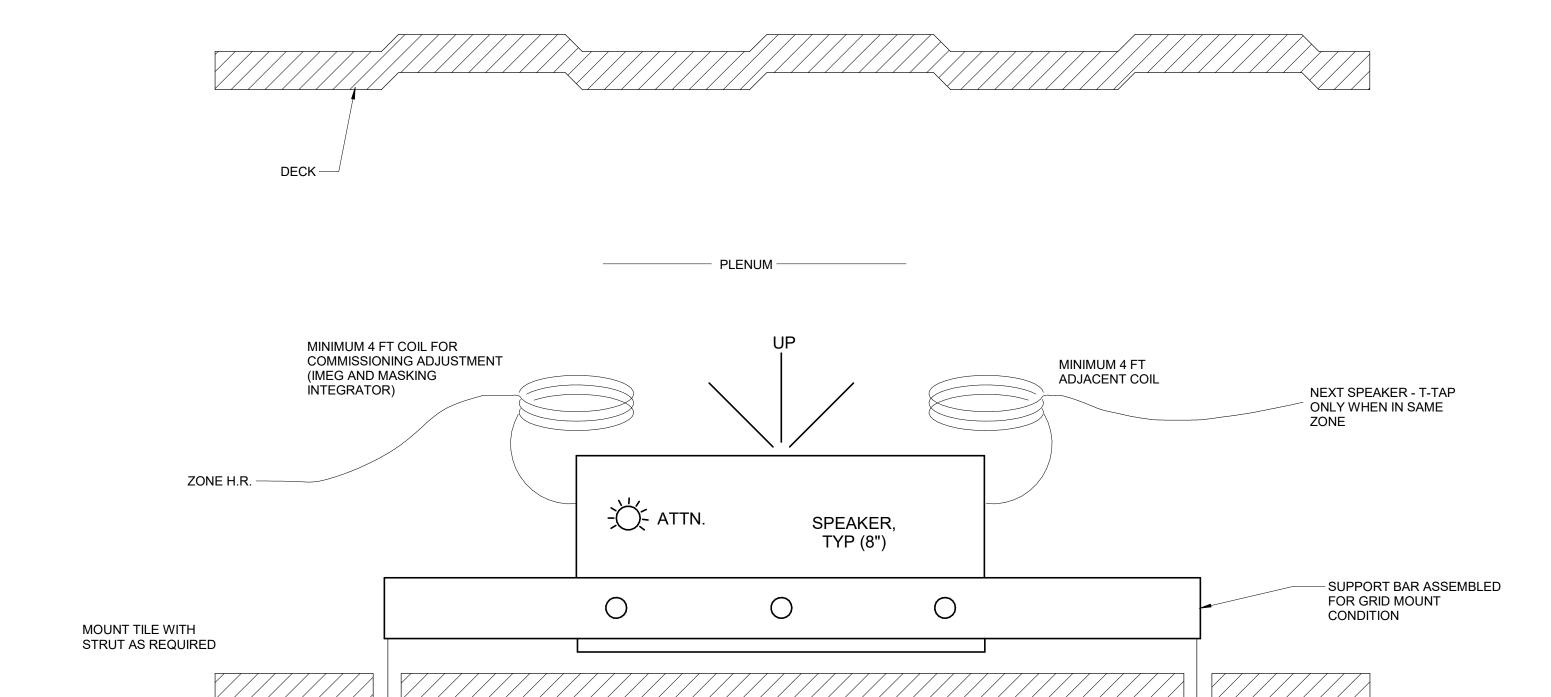
REQUIREMENTS. REFER TO SPECIFICATIONS FOR FIRESTOP REQUIREMENTS.



# CEILING PAGING SPEAKER MOUNTING DETAIL

NOTES:

1. WHERE SUPPORTS ATTACH TO METAL ROOF DECKING, EXCLUDING CONCRETE ON METAL DECKING, DO NOT EXCEED 25 LBS. PER HANGAR AND A MINIMUM SPACING OF 2'-0" ON CENTER. THIS 25 LB. LOAD AND 2'-0" SPACING INCLUDE ELECTRICAL AND MECHANICAL ITEMS HANGING FROM DECK. IF THE HANGER RESTRICTIONS CANNOT BE ACHIEVED, THE ADDITION OF SUPPLEMENTAL FRAMING OFF STEEL FRAMING WILL BE REQUIRED.



# CEILING SOUND MASKING SPEAKER MOUNTING DETAIL

NOTES:

1. WHERE SUPPORTS ATTACH TO METAL ROOF DECKING, EXCLUDING CONCRETE ON METAL DECKING, DO NOT EXCEED 25 LBS. PER HANGAR AND A MINIMUM SPACING OF 2'-0" ON CENTER. THIS 25 LB. LOAD AND 2'-0" SPACING INCLUDE ELECTRICAL AND MECHANICAL ITEMS HANGING FROM DECK. IF THE HANGER RESTRICTIONS CANNOT BE ACHIEVED, THE

ADDITION OF SUPPLEMENTAL FRAMING OFF STEEL FRAMING WILL BE REQUIRED.

# 10/28/2022 - ISSUE FOR 100% CONSTRUCTION DOCUMENTS

- GRID WITH TAG PER SPEAKER ON T-BAR SUPPORT WITHIN 3' OF SPEAKER LOCATION

ISSUE FOR 100% CONSTRUCTION DOCUMENTS 10/28/22

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MINNEAPOLIS, MN

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Date:10/28/2022 License Number: 53095

ARCHITECT/ENGINEER OF RECORD

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BAE PROJECT NO. 18-116

DATE: APPROVED: SERVICE LINE DIRECTOR DATE: APPROVED: INFECTION CONTROL NURSE DATE: DRAWING TECH

APPROVED: GEMS PROJECT MANAGER DATE: APPROVED: PATIENT SAFETY DATE: APPROVED: DATE: APPROVED: DATE: APPROVED: APPROVED: DATE: APPROVED: APPROVED: DATE: APPROVED: SAFETY MANAGER DATE: APPROVED: APPROVED: DATE: APPROVED: DATE: APPROVED: SAFETY MANAGER DATE: APPROVED: APPROVED: DATE: APPROVED

DRAWING TITLE
TECHNOLOGY - DETAILS

APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR
DATE:

DATE:

DATE:

CONSTRUCT PACT CLINIC
BUILDING 4 FIRST FLOOR

PLOT SCALE
PLOT SCALE
PROJECT NO.
656-400

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DRAWING NO.
T300

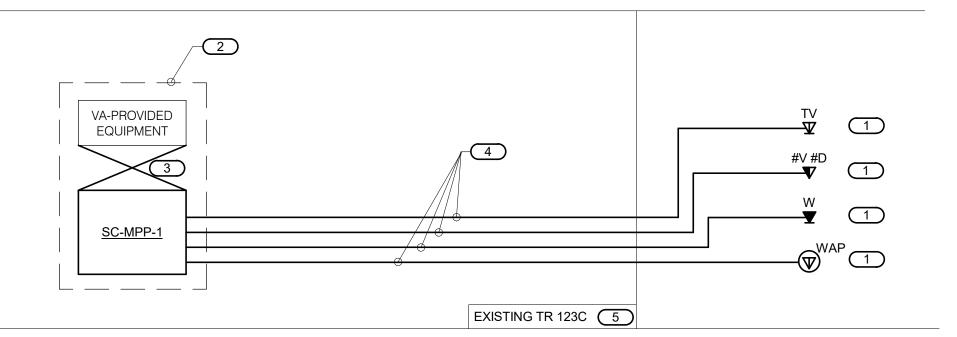
APPROVED: HEALTH CARE SYSTEM DIRECTOR
DATE:
LOCATION ST. CLOUD VAHOS

ST. CLOUD, MN 56303 DWG. OF





**FIRST FLOOR** 



# FIBER AND COPPER RISER DIAGRAM

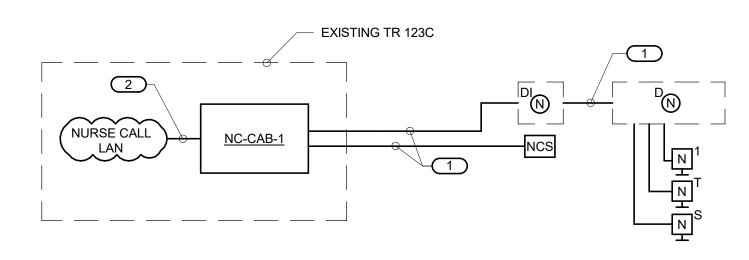
1. THIS RISER IS DIAGRAMMATIC AND MAY NOT SHOW ACTUAL ROUTING OR QUANTITIES OF MATERIALS SHOWN. THIS RISER IS SHOWN FOR CLARIFICATION OF CONNECTION(S), LOCATIONS AND CABLE TYPE. ALL INFORMATION OUTLETS ARE TYPICAL OF THE OUTLETS IN THE AREA SHOWN. REFER TO FLOOR PLANS FOR MORE SPECIFIC ROUTING

INFORMATION. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. 2. REFER TO FLOOR PLANS FOR QUANTITY OF CABLES AND JACKS TO BE INSTALLED AT EACH INFORMATION OUTLET.

3. REFER TO SPECIFICATIONS FOR CABLE COLOR CODES AND LABELING. 4. ALL CABLES TO BE TERMINATED AT EACH END AND LABELED AT EACH TERMINATION, WITHIN 3' OF ENTERING CONDUIT, AND AT 25' INCREMENTS WITHIN TRAYS OR RACEWAYS.

#### KEYNOTES: #

- 1. INDICATES VOICE/DATA FACEPLATE CONFIGURATION. REFER TO THE INFORMATION OUTLET SCHEDULE ON T500 FOR ADDITIONAL INFORMATION. REFER TO ELECTRICAL
- FLOOR PLANS AND ELECTRICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION. 2. EXISTING EQUIPMENT RACK AS DEFINED ON THE TELECOM ROOM LAYOUT. REFER TO THE TELECOM ROOM REFERENCES MATRIX ON THE COVERPAGE FOR LOCATION.
- 3. RJ-45 TO RJ45 CATEGORY 6A UTP PATCH CORDS, REFER TO SPECIFICATIONS. 4. 23 GAUGE 4-PAIR, CATEGORY 6A, UNSHIELDED TWISTED PAIR CABLE, REFER TO
- 5. REFER TO COVERPAGE AND FLOOR PLANS FOR TELECOMMUNICATIONS ROOM LOCATIONS.

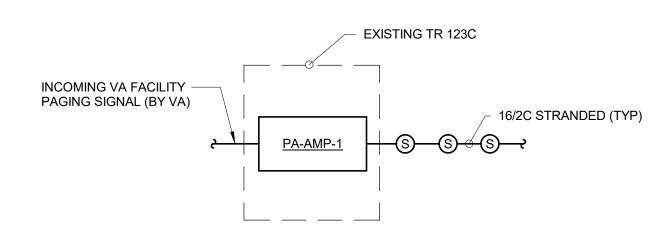


# **NURSE CALL RISER DIAGRAM**

- 1. THIS RISER IS DIAGRAMMATIC AND MAY NOT SHOW ACTUAL ROUTING OR QUANTITIES OF MATERIALS SHOWN. THIS RISER IS SHOWN FOR CLARIFICATION OF CONNECTION(S), LOCATIONS AND CABLE TYPE. ALL INFORMATION OUTLETS ARE TYPICAL OF THE OUTLETS IN THE AREA SHOWN. REFER TO FLOOR PLANS FOR MORE SPECIFIC ROUTING INFORMATION. REFER TO SPECIFICATIONS FOR ADDITIONAL
- REQUIREMENTS. 2. REFER TO SPECIFICATIONS AND STATION STANDARD FOR CABLE COLOR CODES AND LABELING.

#### KEYNOTES: #

1. REFER TO SPECIFICATIONS FOR CABLE TYPE. 2. CATEGORY 6A RJ-45 TO RJ-45 PATCH CABLE.



# PAGING SYSTEM RISER DIAGRAM

1. REFER TO T500 FOR GENERAL TECHNOLOGY EQUIPMENT SCHEDULE. 2. REFER TO SPECIFICATIONS AND STATION STANDARD FOR CABLE COLOR CODES AND LABELING.

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Typed or Printed Name: Alexander S. Quast

Date:10/28/2022 License Number: 53095

ARCHITECT/ENGINEER OF RECORD BANCROFT ARCHITECTS + ENGINEERS

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DRAWING TITLE
TECHNOLOGY - RISER DIAGRAMS
TECHNOLOGY - RISER DIAGRAMS
DATE:
10/28/2022
PLOT SCALE APPROVED: ASSOCIATE HEALTH CARE SYSTEM DIRECTOR JILDING No CHECKED BY DRAWN DRAWING NO. T400 ST. CLOUD, MN 56303 DWG. OF





	GENERAL TECHNOLOGY EQUIPMENT SCHEDULE	
		1
EQUIPMENT LIST ABBREVIATION	EQUIPMENT LIST DESCRIPTION	
AC-CR1	CARD READER. SUBSCRIPT INDICATES TYPE, REFER TO TECHNOLOGY SYMBOL LIST ON COVER SHEET FOR ADDITIONAL INFORMATION. CARD READERS SHOWN ON PLANS TO IDENTIFY INTENDED MOUNTING LOCATION.	HID ICLASS
NC-D-C	NURSE CALL DOME LIGHT CEILING MOUNTED, DETECTION LIGHT INDICATING CALLS FROM PATIENT STATIONS, TOILETS, SHOWERS, DUTY STATIONS, ETC. LEDS TO PROVIDE HIGH-VISIBILITY ANNUNCIATION OF PATIENT CALLS, COLOR PATTERNS AND FLASH RATES OF THE LEDS ARE PROGRAMMABLE. REFER TO FLOOR PLANS FOR DEVICE LOCATIONS. INSTALL IN 3-GANG (NON-GANGABLE) 3 1/2" DEEP BACKBOX WITH 3/4" EMT CONDUIT TO EXISTING TR 123C.	RAULAND RESPONDER V
NC-DTY-W	NURSE CALL DUTY STATION, PROVIDES FULL DUPLEX COMMUNICATIONS VIA CALL-IN PUSHBUTTON. LED INDICATORS PROVIDE VISUAL INDICATION OF CALLS. DUTY STATION IS CONNECTED TO AN ASSOCIATED DOME LIGHT LOCATED IN THE CORRIDOR. REFER TO FLOOR PLANS FOR DEVICE MOUNTING HEIGHT AND LOCATIONS. INSTALL IN 3-GANG (NON-GANGABLE) 3 1/2" DEEP BACKBOX WITH 3/4" EMT CONDUIT TO EXISTING TR 123C.	RAULAND RESPONDER V
NC-N1-W	NURSE CALL SINGLE PATIENT STATION, PROVIDES FULL-DUPLEX COMMUNICATIONS WITH MULTIPLE CALL-IN PRIORITIES. INPUTS FOR PILLOW SPEAKER, HANDSET INTERCOM OR AUXILIARY DEVICES. LED'S TO INDICATE CONNECTION TO DEVICES. BIO-SEAL OPTION FOR CLEANING OF DEVICE. REFER TO FLOOR PLANS FOR DEVICE MOUNTING HEIGHT. INSTALL IN 3-GANG (NON-GANGABLE) 3 1/2" DEEP BACKBOX WITH 3/4" EMT CONDUIT TO EXISTING TR 123C.	RAULAND RESPONDER V
NC-NC-W	NURSE CALL CODE BLUE STATION, WALL MOUNT.	RAULAND RESPONDER V
NC-NCS-W	NURSE CALL MASTER STATION.	RAULAND RESPONDER V
NC-NT-W	NURSE CALL EMERGENCY STATION, MOUNTED AT +36" FOR TOILETS.	RAULAND RESPONDER V
PA-AMP-1	COMMERCIAL TELEPHONE PAGING AMPLIFIER, 60 WATTS @ 70 VOLT AMPLIFIER OUTPUT WITH 600 OHM BALANCED TRANSFORMER ISOLATED TELEPHONE INPUT, 5 RU HEIGHT WITH RPK82 RACK MOUNT KIT. REFER TO PAGING SYSTEM RISER DIAGRAM ON 4/T4.0 FOR ADDITIONAL INFORMATION.	BOGEN TPU60B
PA-S-C	RECESSED CEILING MOUNT PAGING SPEAKER WITH 4" DRIVER, 70 VOLT @ 4, 2, AND 1 WATT TRANSFORMER TAPS, 70 HZ TO 20 KHZ FREQUENCY RESPONSE, 110 DEGREE COVERAGE PATTERN, STEEL FRAME.	BOGEN SEC4T
PA-SM-C	SOUND MASKING SPEAKER, PART OF COMPLETE 6-ZONE SOUND MASKING SYSTEM, POWER RATING: 10W (RMS). POWERED BY NOISE GENERATOR, ALUMINUM HOUSING, CEILING MOUNTED.	CAMBRIDGE QT
PA-UPS-1	RACK MOUNT LINE INTERACTIVE SINE WAVE UPS FOR PA-AMP-1 INCLUDING 12 NEMA 5-20R REAR OUTLETS, 3000VA BACKUP WITH AUTOMATIC VOLTAGE REGULATION, EMI/RFI LINE NOISE FILTERING, INTERACTIVE LCD SCREEN AND OPTIONAL NETWORK CARD, 6 FOOT CORD WITH NEMA L6-20P PLUG, 4RU HEIGHT, 20" DEPTH.	APC SRT3000 SERIES TRIPPLITE
SC-IO-C	INFORMATION OUTLET, CEILING MOUNT FOR VA-PROVIDED WIRELESS ACCESS POINT, 2-PORT COVERPLATE AS INDICATED ON DRAWINGS AND INFORMATION OUTLET SCHEDULE. REFER TO INFORMATION OUTLET SCHEDULE ON T5.0 FOR PIN CONFIGURATION INFORMATION.	COVERPLATE: PANDUIT NK SERIES
	"#" INDICATES INFORMATION OUTLET FACEPLATE CONFIGURATION AS INDICATED ON THE DRAWINGS. REFER TO INFORMATION OUTLET SCHEDULE ON T5.0 FOR ADDITIONAL INFORMATION.	JACK: PANDUIT CAT6: NK688M SERIES
	COORDINATE WITH VA COR/ENGINEER TO INSTALL INFORMATION OUTLET IN A 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER RING. PROVIDE 20' COIL OF UTP CABLE AT WIRELESS OUTLET LOCATION. INSTALL A 1" EMT CONDUIT 6" BEYOND BOX AND TERMINATE WITH NYLON BUSHING. REFER TO SPECIFICATION SECTION 27 15 00 FOR ADDITIONAL INFORMATION.	SYSTIMAX SIEMON
SC-IO-W	INFORMATION OUTLET, WALL MOUNT, 2 OR 4-PORT COVERPLATE AS INDICATED ON DRAWINGS AND INFORMATION OUTLET SCHEDULE. REFER TO INFORMATION OUTLET SCHEDULE ON T5.0 FOR PIN CONFIGURATION INFORMATION.	COVERPLATE: PANDUIT NK SERIES
	"#" INDICATES INFORMATION OUTLET FACEPLATE CONFIGURATION AS INDICATED ON THE DRAWINGS. REFER TO INFORMATION OUTLET SCHEDULE ON T5.0 FOR ADDITIONAL INFORMATION.	JACK: PANDUIT CAT6: NK688M SERIES
	INSTALL INFORMATION OUTLET IN A 4" SQUARE BACKBOX WITH A SINGLE GANG PLASTER RING. INSTALL A 1" EMT CONDUIT TO CABLE TRAY. REFER TO SPECIFICATION SECTION 27 15 00 FOR ADDITIONAL INFORMATION.	SYSTIMAX SIEMON
SC-MPP-1	MODULAR PATCH PANEL, 48 MODULAR RJ-45 TERMINATIONS, MOUNTS DIRECTLY TO EIA/TIA STANDARD 19" RELAY RACK, PORT IDENTIFICATION NUMBERS, PROVIDED WITH COLOR CODING AND LABEL HOLDER KITS, U.L. LISTED. REQUIRES (2) 1.75" MOUNTING SPACES.	PANDUIT NKPPA48FMY
		SYSTIMAX SIEMON

INGLE GANG WALLPLAT	ΓES <u></u>									
			2-Port	t Faceplate	<b>;</b>	4-1	Port Facepla	ate	[	
				Interception 1 2			IDENTIFICATION  1 2 3 4			PAIR 3 PAIR 2 PAIR 1 PAIR 4  ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (
F <i>A</i>	UMBER INI ACEPLATE YP.)							REFER TO SPECIFICATIONS FOR IDENTIFICATION REQUIREMENTS (TYP.)	l	ANSI/TIA/EIA T568B
	,							IDENTIFICATION NEGOINENTS (TTF.)		PIN/PAIR ASSIGNMENT
OTES:	<u>,                                      </u>	IOEDT(O) I	-OD 411 11	INILIOED D	ODTO			IDENTIFICATION NEQUINEINTO (TTF.)	DATA	LEGEND
<del>-</del>	<u>,                                      </u>	ISERT(S) F	FOR ALL U	JNUSED P	ORTS.			IDENTIFICATION NEQUINEINTO (TTF.)	DATA	<b>LEGEND</b> CAT 6A RJ-45
PROVIDE REMOVABLE	<u>,                                      </u>	ISERT(S) F	FOR ALL U	JNUSED P	ORTS.			IDENTIFICATION NEGOINENTS (TTF.)	DATA BLANK	<b>LEGEND</b> CAT 6A RJ-45
PROVIDE REMOVABLE	E BLANK IN	ROVIDED	WIRELESS	S ACCESS	S POINT. P		A 20' SLACK	COIL AT THE NEAREST CABLE SUPPORT FOR POSSIBLE		<b>LEGEND</b> CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN	ROVIDED V SURVEY.	WIRELESS FACEPL	S ACCESS	S POINT. P	ICATION				LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN E OR VA-PI WIRELESS	ROVIDED V SURVEY.	WIRELESS FACEPL	S ACCESS	S POINT. P	ICATION				LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  HEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN E OR VA-PI WIRELESS	ROVIDED V SURVEY.	WIRELESS FACEPL	S ACCESS	S POINT. P	ICATION				LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  HEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN E OR VA-PI WIRELESS	ROVIDED V SURVEY.	WIRELESS FACEPL	S ACCESS	S POINT. P	ICATION				LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  :HEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN E OR VA-PI WIRELESS	ROVIDED V SURVEY.	7 JACK TYPE PACEDTY 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 3 JACK TYPE 3 JACK TYPE 3 JACK TYPE 4 JACK TYPE 4 JACK TYPE 5 JACK TYP	S ACCESS  ATE PORT  ALABE  3 79CK	4 JACK TYPE	S JACK TYPE NOITED	6 JACK TYPE			LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN E OR VA-PI WIRELESS	ROVIDED V SURVEY.	7 JACK TYPE PACEDTY 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 3 JACK TYPE 3 JACK TYPE 3 JACK TYPE 4 JACK TYPE 4 JACK TYPE 5 JACK TYP	ON 3 JACK TYPE	4 JACK TYPE	JACK TYPE VOITED	6 JACK TYPE			LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN E OR VA-PI WIRELESS	ON 1 JACK TYPE	ION 2 JACK TYPE PATA	ON 3 JACK TYPE	ON 4 JACK TYPE	ION 5 JACK TYPE NOI	ION 6 JACK TYPE			LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE  RELOCATION AFTER V	E BLANK IN E OR VA-PI WIRELESS	ON 1 JACK TYPE	ION 2 JACK TYPE PATA	ON 3 JACK TYPE	ON 4 JACK TYPE	ION 5 JACK TYPE NOI	ION 6 JACK TYPE	COIL AT THE NEAREST CABLE SUPPORT FOR POSSIBLE		LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE	E BLANK IN E OR VA-PI WIRELESS	ROVIDED V SURVEY.	7 JACK TYPE PACEDTY 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 2 JACK TYPE 3 JACK TYPE 3 JACK TYPE 4 JACK TYPE 4 JACK TYPE 5 JACK TYP	S ACCESS  ATE PORT  ALABE  3 79CK	4 JACK TYPE	S JACK TYPE NOITED	6 JACK TYPE			LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE RELOCATION AFTER V  CONFIGURATION	E OR VA-PI WIRELESS	POSITION 1 JACK TYPE	POSITION 2 JACK TYPE POSITION 2 JACK TYPE	POSITION 3 JACK TYPE  POSITION 3 JACK TYPE  POSITION 3 JACK TYPE	POSITION 4 JACK TYPE	ION 5 JACK TYPE NOI	ION 6 JACK TYPE	COIL AT THE NEAREST CABLE SUPPORT FOR POSSIBLE		LEGEND CAT 6A RJ-45
PROVIDE REMOVABLE  CHEDULE NOTES:  LOCATION OF FUTURE RELOCATION AFTER V  CONFIGURATION  0V 2D	E BLANK IN E OR VA-PI WIRELESS	POSITION 1 JACK TYPE  POSITION 1 JACK TYPE  BOST TO THE POSITION 1 JACK TYPE	FACEPLA  FAC	ATE PORT  ATE PORT  BLANK	POSITION 4 JACK TYPE  ANVERTEE	ION 5 JACK TYPE NOI	POSITION 6 JACK TYPE	COIL AT THE NEAREST CABLE SUPPORT FOR POSSIBLE	BLANK	LEGEND  CAT 6A RJ-45  BLANK FILLER MODULE

				EG
			3001 BROADWAY	PH: 612.540.5000
			STREET NE, SUITE 601	www.imegcorp.com
	ISSUE FOR 100% CONSTRUCTION DOCUMENTS	10/28/22	MINNEAPOLIS, MN 55413	
NΙα	DEVISION	DATE	"""	

REFERENCE SCALE IN INCHES
0 1 2

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature:

Typed or Printed Name: Alexander S. Quast

Date:10/28/2022 License Number: 53095

ARCHITECT/ENGINEER OF RECORD

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BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www. bancroft-ae.com BAE PROJECT NO. 18-116 APPROVED: SERVICE LINE DIRECTOR

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: INFECTION CONTROL NURSE

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: PROJECTS SECTION MANAGER

DATE:

APPROVED: APPROVED: CHIEF OF POLICE

DATE:

APPROVED: APPROVED: SAFETY MANAGER

DATE: TECHNOLOGY - SCHEDULES

DATE: TECHNOLOGY - SCHEDULES

DATE: CONSTRUCT PACT CLINIC BUILDING 4 FIRST FLOOR

PROJECT NO. 656-400

PROJECT NO. 656-400

PROJECT NO. 656-400

DATE: DATE: BUILDING No CHECKED BY DRAWN DMD T500

DATE: APPROVED: CHIEF OF STAFF

DATE: LOCATION ST. CLOUD VAHCS ST. CLOUD, MN 56303

DWG. OF



