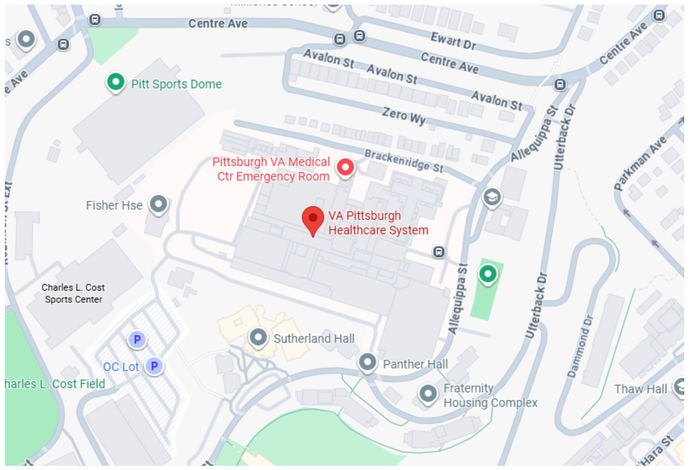
VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

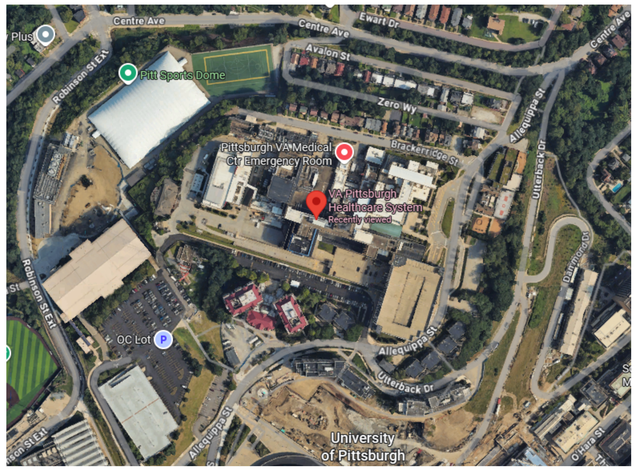
University Drive C Pittsburgh, PA 15240

SPECIALIZED ENGINEERING SOLUTIONS

SITE MAP:



VICINITY MAP:



646-24-100

GI-003	ICRA ASSESSMENT
GI-004	ICRA ASSESSMENT DETAILS
AE-001	GENERAL NOTES, SYMBOLS, ABBREVIATIONS, & CODE DATA
AE-011	EXISTING SEVENTH FLOOR PLAN -OVERALL
AE-101	ENLARGED PLANS -DEMOLITION
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AE-601	FINISH ROOM SCHEDULE, DOOR SCHEDULE AND DETAILS
EP000	ELECTRICAL SYMBOLS AND ABBREVIATIONS
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PP001	PLUMBING SYMBOLS AND ABBREVIATIONS
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VT-001	ELEVATOR DETAILS
VT-002	HALL FIXTURE DETAILS
VT-003	ELEVATOR CAB INTERIOR DETAILS

Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL SEAL 061879 ENGINEER KEITH LUNKENHEIMER 03/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: COVER SHEET	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Drawing Number: G000
		Issue Date: 02/26/2026 · Checked: JS · Drawn: AEA	

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Infection Control Risk Assessment
Matrix of Precautions for Construction & Renovation

Step 1: Using the following table, *identify* the Type of Construction Project Activity (A-D)

Type A	**Inspection and Non-Invasive Activities** Includes, but is not limited to: • Removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet • Painting (but not sanding) • Wallcovering(e.g. Acrovyn), electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings or other than for visual inspection.
Type B	**Small scale, short duration activities which create minimal dust** Includes, but is not limited to: • Opening of no more than one ceiling tile per 10 tiles • Installation of telephone and computer cabling • Access to chase spaces • Cutting of walls or ceiling where dust migration can be controlled • Minor renovation of existing space • Minor duct work(not including cutting of pip or duct work or removal, and /or nailing or drilling int the upper deck) , plumbing work or electrical work above ceilings (not including system demolition or installation). • Major cabling activities, multiple rooms/lines where multiple access points are needed • Removal of carpet sqauare or tile when dust migrations can be controlled. • Wet sanding of walls • Drilling • Snake drain or repair sink/shower that is to remain intact and requires no cutting.
Type C	
Type D	**Major demolition and construction projects** Includes, but is not limited to: • Activities which require consecutive work shifts, the closure of a unit/wing or relocation of an entire patient area • Requires heavy demolition or removal of a complete cabling system, HVAC, plumbing, medical gas or electrical system • Demolition of major fixed building components, assemblies, fit-out elements or structural elements • Outdoor construction of new structures located in close proximity (as determined by ICRA team) to existing patient care facility • New construction • Excavation activities within close proximity (as determined by ICRA team) of hospital building • Core drilling into floor • Major duct work (includes removal of insulation)

Step 2: Using the following table, *Identify the* Patient Risk Groups that will be affected.# If more than one risk group will be affected, select the higher risk group:

Low Risk	Medium Risk	High Risk	Highest Risk
• Office areas • Fisher House • Loading Dock • Research (*depends on location & whether work is invasive or non-invasive) • Hero's Hall • Chapel • Patriot Store • Mechanical Space • The Dom	• Admissions • Laboratories (specimen) • Starbucks • Nuclear Medicine-1st FL • PT/OT-(10West, BLD 51, BLD 71) • Radiology/MRI/CT Scan-(1st FL & BLD 51) • Respiratory Therapy-(3North & BLD 51) • ECHO/EKG/Vascular Lab-4th FL • Audiology (BLD 29 & BLD 71) • Sleep Lab-4th FL • EEG-10East • Outpatient Behavioral Health (e.g., clinics, therapy sessions, etc.) • Occupational Health • PPRT (BLD 69) • Barber Shop • Recreational Therapy • Morgue (UD/HZ)	• Canteen • Dialysis Clinic-7East • Nutrition & Food Services (patient kitchen) • Emergency Room • Pharmacy • Primary Care • ASU/SDSU-3West • Wound Clinic-10West • 9West/24 hour OBS • Med-Surg Units (e.g., 4W, 5W, 6W, 6WL) • Rainbow Clinic-8East • Women's Health Clinic-1st FL • Speech • Pulmonary Function Testing-8North • Radiation Oncology-Basement FL • 2NW /6E Clinic • Inpatient Behavioral Health Units (e.g., 3M, 4M, 5M) • Inpatient CLC Units (e.g., GS, 1N, 1S, 2A, 2B, 3A, 3B) • Biohazard Room (Loading Dock)	• Cath Lab/EP Lab-4th FL • Sterile Processing/Decontam • Distribution (UD/HZ) • ICU's (e.g., 3A, 3B, 4E, 5A) • Hem-Onc Clinic-8West • Operating room/PACU • Dental (1H/H) • Inpatient Pharmacy (*compounding room only) • Pain Procedural Room-3rd FL • G.I. Lab-3rd FL • Urology-2nd FL • Interventional Radiology-1st FL • Bronchoscopy-3rd FL • Eye Clinic • Fluoroscopy-3rd FL • Angiogram-3rd FL • Main Linen Room (Loading Dock-UD & BLD 51)

Assess all areas for immunosuppressed patients and/or special circumstances that may require additional environmental controls.

 # Less risk my be determined based on factors such as:

- ***If space is occupied***
- ***No clinical activity occurring at time of construction/demolotion/remodel.***

Step 3:
Match the Patient Risk Group (low, medium, high, highest) with the planned **Construction Project Type** (A, B, C, D) on the IC Matrix to find the **Class of Precautions** (I, II, III, IV) or level of infection control activities required. Classes of precautions are described in the table on the next page.

IC Matrix: Class of Precautions for Construction Projects by Patient Risk

Patient Risk Group	Type A	Type B	Type C	Type D
LOW Risk Group	I	II	III	III/IV
MEDIUM Risk Group	II	II	III	IV
HIGH Risk Group	II	II	III/IV	IV
HIGHEST Risk Group	II	II or III	III/IV	IV

Note: Infection Control signature will be required when the Construction Activity and Risk Level indicates that **Class III** and **Class IV** control procedures are necessary.

Step 4: Identify the areas surrounding the project area, assessing potential impact

Unit Below	Unit Above	Lateral	Lateral	Behind	Front
ELEVATOR PIT	ELEVATOR MACHINE ROOM	VARIES	VARIES	VARIES	CORRIDOR
Risk Group	Risk Group	Risk Group	Risk Group	Risk Group	Risk Group

Step 5: Identify specific site of activity, (e.g., patient rooms, medication room, etc.)

- PUBLIC CORRIDOR IN FRONT OF ELEVATOR / ELEVATOR SHAFT FLOORS 1-6
- ELEVATOR MACHINE ROOM - SEVENTH FLOOR

Step 6: Identify issues related to: ventilation, plumbing, electrical in terms of the occurrence of probable outages.

Step 7: Identify containment measures, using prior assessment.

- **Type of barrier (solid wall or plastic) :**
- **Ante-room (yes/no) if yes type of barrier (solid wall or plastic) :**
- **HEPA filtration required (yes/no) and vented to (e.g., corridor, window, etc.):**
- **HVAC, describe local or system isolation of work site :**

Step 8: Consider potential risk of water damage. Is there a risk due to compromising structural integrity: (e.g. wall, ceiling, roof, etc.).

- **Wall opened (yes/no)?**
- **Water shut off (yes/no)?**
- **Water flushed (yes/no)? IF yes, who will be responsible (FMS or Contractor)?**

Step 9: Work hours: Can or will the work be done during non-patient care hours? Duration of Project –how long will barriers be in place?

Step 10: Infection control considerations

- **Clean and Soiled Utility Rooms:**
- **Hand washing sinks:**
- **Support services space:**
- **Negative pressure rooms:**
- **Positive pressure rooms:**

Step 11: Plan to discuss the following containment issues with the project team:

- **Traffic Flow (i.e., doors for entering/exiting site, elevators supplies, removing debris, etc.):**
- **Housekeeping (maintaining the work site):**
- **Debris removal (how and time):**

Permit Number: 646-24-100 **Infection Control Construction Permit**

Location of Construction: 1 University DR, Pittsburgh, PA 15240	Project Start Date:
Project Coordinator:	Estimated Duration:
Contractor:	Permit Expiration Date:
Supervisor:	Telephone:

YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP
		TYPE A: Inspection, non-invasive activity, minimal dust.	X		GROUP 1: Low Risk
		TYPE B: Small scale, short duration, mod-high levels of dust.			GROUP 2: Medium Risk
X		TYPE C: Activity generates moderate to high levels of dust, requires greater than 1 work shift for completion.			GROUP 3: High Risk
		TYPE D: Major duration and construction activities requiring consecutive work shifts.			GROUP 4: Highest Risk

Class I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.
Class II	
Class III Date: Initials: Initials:	1. Obtain infection control permit before construction begins. IP signature required. 2. Isolate HVAC system in area where work is being performed, block off & seal air vents. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units 5. Do not remove barriers from work area until complete project is thoroughly cleaned by EMS. 6. Vacuum work area with HEPA filtered vacuums. 7. Wet mop with disinfectant. 8 Remove barrier carefully to minimize spreading of dirt and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers. 10. Seal holes, pipes, conduits, and punctures appropriately.
Class IV Date: Initials: Initials:	1. Obtain infection control permit before construction begins. IP signature required. 2. Isolate or remove HVAC system in areas where work is being Performed, block off & seal air vents. 3. Complete all critical barriers or implement mobile containment unit before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. Construct anteroom and require all personnel to pass through this room so they can be vacuumed, using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site... 7. All personnel entering work site are required to wear shoe covers. 8. Do not remove barriers from work area until completed project is thoroughly cleaned by EMS and cleared by Infection Prevention. 9. Vacuum work area with HEPA filtered vacuums. 10. Wet mop with disinfectant. 11. Remove barrier carefully to minimize spreading of dirt and debris associated with construction. 12. Contain construction waste before transport in tightly covered containers. 13. Manometers required to visually monitor negative air flow In highest risk areas. Daily readings during construction to be manually recorded by the contractor.

COR	Date	Infection Control Nurse	Date
General Contractor	Date	Unit Manager	Date

Pre-Construction:

_____Conduct initial ICRA meeting to determine Level and Barrier type and placement.

_____Discuss routes for removal of trash and debris and time restrictions if necessary.

_____Pre inspection by Infection Prevention prior to start of work for Level 4 projects.

_____All sharps must be removed from the room.

_____Assess need for pre-clean prior to work.

_____Patient care rooms, exam rooms, soiled utility rooms and isolation rooms to be cleaned prior to starting any work.

_____Other information pertinent to project.

During Construction:

_____Maintain precautions as directed on the ICRA form.

_____Contact Infection Prevention for review prior to any changes to approved design are completed.

_____Infection Prevention to complete weekly construction rounds of all projects that are Level 3 and 4. IP to determine when ICRA Level may be reduced.

Post Construction Check List:

_____All construction activities to be completed prior to starting any of the following steps. This includes all finishes and final touch ups by Contactors or VA Trades.

_____ The Contractor/VA Trade should perform a *contractor construction terminal clean* of construction debris *before* EMS is contacted. A Contractor/VA Trade construction terminal clean is NOT considered a "white glove," clean. No work should be completed once the EMS terminal clean process is initiated!

_____The COR/Project Coordinator is responsible for the initial ICRA check & post-terminal clean inspection for all Level 1, Level 2, & *select* Level 3 projects.

may be taken down but all exterior barriers should remain in place, and negative air should remain in place, until the terminal clean is completed and inspected.

_____Infection Prevention to inspect work site for select Level 3 all Level 4 projects to approve terminal clean is satisfactory *prior to* removing external barriers.

_____Once exterior barriers are removed, EMS to do clean area where barriers have been removed.

Infection Control Orientation – Construction Service Workers

The goal of the Infection Control program is to identify and reduce the risks of acquiring and transmitting infections among patients, employees, physicians, and other licensed independent practitioners, contract service workers, volunteers, students, and visitors.

During construction, renovation and minor improvement projects, hidden infectious disease hazards may be released into the air, carried on dust particles or on clothing – for example, fungal organisms such as, *Aspergillus. Aspergillus* species may be found in decaying leaves and compost, plaster and drywall, and settled dust. These organisms usually do not cause problems in healthy people, but a hospital is full of sick patients! *Aspergillus* and other fungal organisms can cause illness and even death in premature babies, transplant patients, cancer treatment patients, and patients with lung problems or poor immunity. Therefore, it is critical that you do your part to keep our patients, employees, and visitors as safe and healthy as possible. We, in turn, will make conditions as safe as possible for you.

1. Medical Waste:
   a. We will remove any medical waste, including sharps containers (for used needles and syringes), from construction areas prior to the start of the projects.
   b. If you (contract workers) find any needles, syringes, sharp medical objects, please notify Infection Control (x223401, or x601869 or x601703) **IMMEDIATELY**.

2. Barrier Walls:
   a. The construction areas MUST be kept separated from patient care areas by barriers that keep the dust and dirt inside the worksite.
   b. The walls must provide a complete seal of the construction area from adjacent areas (walls may be rigid or 4 or 6 mil thickness plastic).

3. Environmental Control:

   a. Negative air pressure must be maintained within the construction area.
   b. Keep covers on air supply and return until project completed.
   c. Demolition debris is removed in tightly fitted covered carts – use specified traffic patterns.
   d. Sticky or walk-off mats are placed immediately outside the construction zone and changed whenever necessary to control the spread of dust and dirt.
   e. For outside demolition, exterior window seals are to be maintained to reduce the amount of outside excavation debris coming into the building.
   f. If demolition chutes are used, they must be sealed when not in use; the chute and damper should be sprayed with water, as necessary to maintain dust control.
   g. Control, collection and disposal must be provided for any drain liquid or sludge found when demolishing plumbing.

4. Traffic Control:
   a. Use designated entry and exit procedures.
   b. Keep all egress pathways free of debris.
   c. No unauthorized personnel should be allowed to enter construction areas.
   d. Use designated elevators only.

5. Cleaning:
   a. Keep the construction area clean on a daily basis.
   b. Dust and dirt **must** be kept to a minimum.

6. Workers:
   a. Clothing must be free of loose soil and debris when exiting the construction area.
   b. Use personal protective equipment (masks, face shields, etc.) as indicated for the task at hand.
   c. Hand hygiene is the best method of reducing the transmission of infection. Always wash your hands with soap and water after visiting the restroom, and perform hand hygiene with soap and water or alcohol based hand sanitizer before eating or when leaving the construction site.

Revisions:	Date:

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REGISTERED ARCHITECT
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Patrick W. Hartz
3/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA ASSESSMENT	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved: VA DIRECTOR 001	FULLY SPRINKLERED	Location: UNIVERSITY DRIVE C PITTSBURGH, PA 15240	Drawing Number: GI-003
		Issue Date: 03/26/2026 · Checked: DH/LAA · Drawn: CN	

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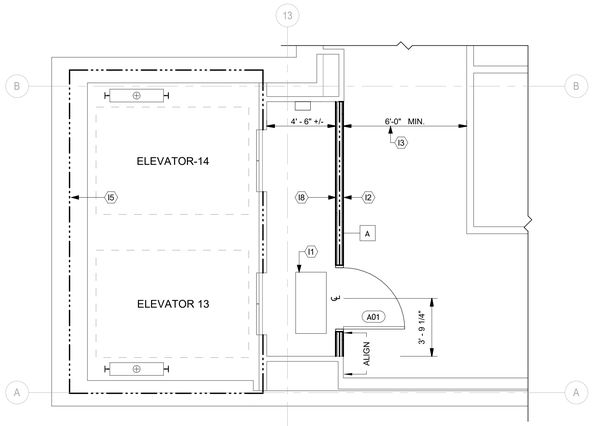
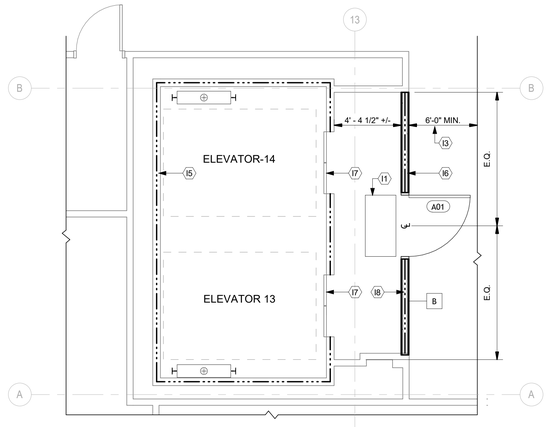
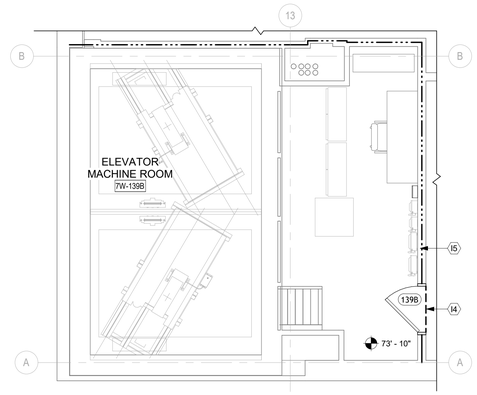


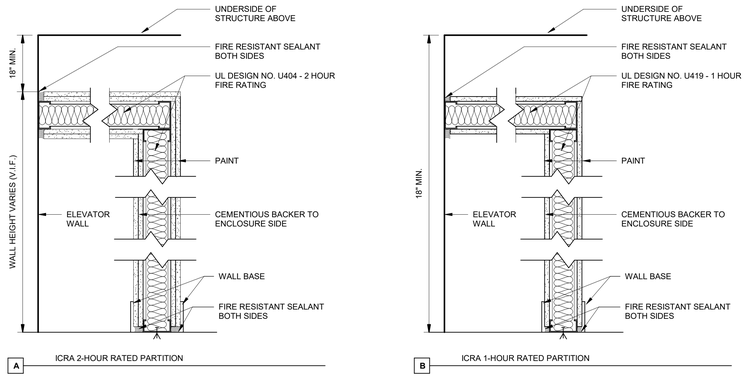
1 ENLARGED ICRA PLAN - 1ST FLOOR
1/4" = 1'-0"



2 ENLARGED ICRA PLAN - 2ND THRU 6TH FLOORS
1/4" = 1'-0"



4 ENLARGED ICRA MACHINE ROOM PLAN
1/4" = 1'-0"



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

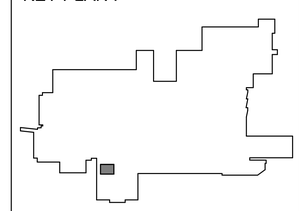
DOOR SCHEDULE

DOOR						FRAME				
MARK	WIDTH	HEIGHT	THK	TYPE	MATERIAL	TYPE	MATERIAL	DEPTH	HARDWARE	COMMENTS
A01	4' - 0"	7' - 0"	0' - 1 3/4"	A	HM	F1	HM	7"	COORDINATE WITH VA	PROVIDE 90 MIN FIRE RATING IN 2 HOUR CONSTRUCTION - PROVIDE 45 MIN IN 1 HOUR CONSTRUCTION

KEYNOTES

MARK	DESCRIPTION
I1	WALK OFF MAT - INSIDE ENCLOSURE
I2	2-HR FIRE RATED - ICRA BARRIER
I3	MAINTAIN 6'-0" MIN CORRIDOR WIDTH AT ALL TIMES
I4	INSTALL PLASTIC ZIPPER ENCLOSURE AT ELEVATOR MACHINE ROOM
I5	EXISTING 2-HR FIRE RATED BARRIER
I6	1-HR FIRE RATED - ICRA BARRIER - ALTERNATIVE USE OF PLASTIC BARRIER IS PERMISSABLE - COORDINATE WITH VA
I7	CONTRACTOR TO SEAL ELEVATOR DOORS ON LEVELS 2 THRU 6 WITH PAINTED DRY WALL
I8	FULL BARRIERS TO BE REVIEWED WITH STATION PRIOR TO WORK ON EACH FLOOR

KEY PLAN :-



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COMMONWEALTH OF PENNSYLVANIA
RICHARD FRITZ NOVOTNY
3/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICRA ASSESSMENT DETAILS

Approved: VA DIRECTOR 001

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: UNIVERSITY DRIVE C PITTSBURGH, PA 15240

Issue Date: 03/26/2026
Checked: DH/LAA
Drawn: LAA

Project Number: 646-24-100
Building Number: 01
Drawing Number: GI-004

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GENERAL DEMOLITION NOTES

DEMOLITION NOTES NOTED BELOW ARE GENERAL. REFER TO DEMOLITION PLAN FOR SPECIFIC SCOPE NOTES.

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND INSURANCES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION & MAINTENANCE OF ALL EXISTING SERVICES FOR THE DURATION OF THE WORK. I.E. MECHANICAL, ELECTRICAL, FIRE ALARM SYSTEM, SECURITY SYSTEM, AND PLUMBING.
3. THE CONTRACTOR SHALL FULLY ACQUAINT HIMSELF WITH THE EXISTING CONDITIONS AND SHALL HAVE VISITED THE JOB SITE & BE FULLY INFORMED AS TO THE NATURE OF THE EQUIPMENT AND FACILITIES NEEDED FOR THE PROPER EXECUTION OF THE WORK.
4. CONTRACTOR IS RESPONSIBLE TO FURNISH, INSTALL & MAINTAIN CLEAN CONSTRUCTION FILTERS ON THE FLOOR AIR HANDLERS & TO FURNISH, INSTALL & MAINTAIN AIR FILTERS PRIOR TO PERFORMING TEST & BALANCE OF HVAC SYSTEM.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PASSENGER & SERVICE ELEVATORS & PREMISES FOR THE DURATION OF THE WORK.
6. CLEAR ACCESS TO BATHROOMS, ELEVATORS LOBBIES, ELECTRICAL CLOSETS, FA EQUIPMENT AND MECHANICAL ROOMS NOT UNDER CONSTRUCTION SHALL BE MAINTAINED AT ALL TIMES.
7. THE DEMOLITION OPERATIONS SHALL AT ALL TIMES BE CARRIED OUT IN SUCH A MANNER SO AS TO PREVENT DAMAGE OR DUST TO ADJOINING SPACES AND FLOORS.
8. DEMOLITION OF ANY WORK OF A NOISE MAKING NATURE SHALL BE DONE AS REQUIRED BY BUILDING POLICIES AND ANY PREMIUM TIME, IF REQUIRED, SHALL BE INCLUDED IN THE DESCRIPTION OF WORK.
9. CONTRACTOR IS TO COORDINATE ALL DEMOLITION AND LOADING OPERATIONS WITH OWNER.
10. MAINTAIN PREMISES & PUBLIC PROPERTIES FREE FROM ACCUMULATION OF WASTE, DEBRIS & RUBBISH CAUSED BY OPERATIONS. AT COMPLETION OF WORK, LEAVE PREMISES & PUBLIC PROPERTIES CLEAN ON A DAILY BASIS.
11. CONTRACTOR TO COORDINATE BUILDING'S HOURS OF OPERATION FOR ELEVATOR, SERVICES, ETC. W/ OWNER AND BUILDING OFFICE PRIOR TO THE COMMENCEMENT OF ANY WORK.
12. ALL DEMOLITION SHALL BE PERFORMED BY THE TRADE HAVING JURISDICTION.
13. PROTECT ALL EXISTING FINISHES TO REMAIN THROUGHOUT THE LIFE OF THE PROJECT.
14. CONTRACTOR TO PROTECT ALL EXISTING AND NEW FLOOR FINISHES AND WALLS LEADING FROM PHASED AREAS TO OCCUPIED AREAS. ALL AREAS ARE TO BE VACUUMED ON A DAILY BASIS.
15. FOR EACH PHASE, TEMPORARY MEANS OF EGRESS SHALL BE MARKED WITH DIRECTIONAL EXIT SIGNS.
16. MAINTAIN TWO MEANS OF EGRESS FROM ALL PORTIONS OF THE FLOOR DURING ALL PHASES OF CONSTRUCTION.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF RUBBISH FROM AREA OF WORK AND THE LEGAL DISPOSAL OF ALL REMOVED AND DEMOLISHED MATERIALS.
18. CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS NOT TO REMOVE &/OR DISCONNECT ANY EXISTING FIRE ALARM WIRING. WHEN DEMOLITION IS TO TAKE PLACE IN THE AREA OF THE BUILDING WHERE FIRE SAFETY EQUIPMENT SUCH AS ALARMS, SPEAKERS, SMOKE DETECTORS, FLOOR WARDEN STATION, ETC. ARE LOCATED. BUILDING MANAGER SHALL BE NOTIFIED (5) WORKING DAYS PRIOR TO START OF DEMOLITION SO EQUIPMENT MAY BE REMOVED AND/OR PROTECTED. A FULLY WORKING FIRE ALARM SYSTEM IS TO BE MAINTAINED OPERATIONAL AT THE END OF EACH WORKING DAY.
19. REMOVE ANY PIPES, CONDUITS, METAL, ANCHORS AND ANY ITEMS THAT HAVE BEEN ABANDONED OR ARE NO LONGER REQUIRED FOR BUILDING SYSTEMS OPERATIONS THAT PROJECT FROM EXISTING FINISH LINE OF FLOORS, WALLS OR COLUMNS THAT ARE SCHEDULED TO REMAIN. U.O.N. COORDINATE WITH BUILDING ENGINEER.

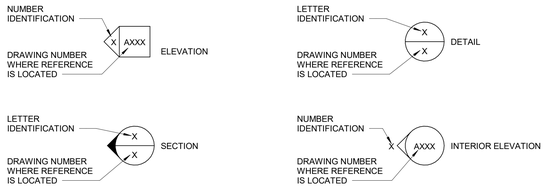
GENERAL CONSTRUCTION NOTES

1. ON ALL FIRE RATED PARTITIONS - ALL PENETRATIONS AND JOINTS ARE TO BE TAPED AND SPACKLED SLAB TO SLAB. FIRE STOP ALL PENETRATIONS.
2. DOUBLE STUDS ARE REQUIRED AT BOTH JAMBS OF DOOR FRAMES AND HEADER.
3. STUDS AT DOOR JAMBS AND ON TOPS OF DOOR FRAMES MUST BE SCREWED TO RUNNERS AT TOP, BOTTOMS AND BOTH SIDES.
4. PARTITIONS SHALL NOT BE FASTENED OR BRACED TO DUCTWORK, CONDUIT OR PIPING.
5. FLOOR MUST REMAIN IN A STATE OF SAFE CONDITIONS WITH REGARD TO FIRE SAFETY FOR PERSONNEL WORKING ON THE FLOOR. ALL FIRE STAIRS, ALARMS, SPEAKERS ETC. MUST REMAIN ACCESSIBLE AND OPERABLE AT ALL TIMES.
6. ALL WOOD TO BE FIRE RETARDANT.
7. ALL FIRE-STOPPING UTILIZED AT PENETRATIONS THROUGH FLOOR ASSEMBLIES SHALL PROVIDE A FIRE RESISTANCE RATING PER THE APPLICABLE CODE. FIRE-STOPPING/FIRE-SAFING THROUGH PARTITION ASSEMBLIES SHALL PROVIDE A FIRE RESISTIVE RATING THAT MATCHES THAT OF THE PARTITION. COMPLY WITH UL 1479 "FIRE TESTS OF THROUGH PENETRATION FIRE-STOP".
8. WHERE NEW AND EXISTING BUILDING PARTITIONS ARE SHOWN TO ALIGN, THE JUNCTION SHALL BE TAPED, SPACKLED AND FINISHED SMOOTH.
9. FIRE SAFETY EQUIPMENT AND THEIR ASSOCIATED CONDUIT AND WIRING SYSTEMS SHALL NOT BE MARRED DURING CONSTRUCTION AND SHALL BE PROTECTED FROM ANY PHYSICAL DAMAGE BY THE GENERAL CONTRACTOR AND SUBCONTRACTOR FOR THE DURATION OF THE PROJECT.
10. WHERE FIREPROOFING OF EXISTING COLUMNS OR BEAMS IS DISTURBED BY NEW WORK, THE FIREPROOFING SHALL BE RESTORED TO PROVIDE A MINIMUM RESISTANCE RATING AS REQUIRED BY THE APPLICABLE BUILDING CODE.
11. CONTRACTOR SHALL ISSUE COMPLETE, FULL SETS OF DRAWINGS AND SPECIFICATIONS TO SUB-CONTRACTORS FOR BIDDING PURPOSES. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY CONFLICTS BETWEEN DRAWINGS, FOR RESPONSE AND RESOLUTION.
12. THE CONTRACTOR SHALL DO ALL CUTTING, PATCHING, AND REPAIRING AS REQUIRED TO PERFORM ALL OF THE WORK INDICATED ON THE DRAWINGS AND ALL OTHER WORK THAT MAY BE REQUIRED TO COMPLETE THE PROJECT.
13. ALL ITEMS RECESSED INTO ONE OR TWO HOUR FIRE RATED PARTITIONS (SUCH AS OUTLET BOXES, PANEL BOXES, ETC) SHALL HAVE THE OPENINGS PROTECTED WITH BACK-UP MATERIALS SO AS TO RETAIN THE INTEGRITY OF THE FIRE RATING OF THE PARTITION THROUGHOUT. PROTECTION OF THE ONE AND TWO HOUR RATED PARTITIONS SHALL BE IN STRICT CONFORMANCE WITH THE APPLICABLE BUILDING CODE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL CONDITIONS AND MATERIALS WITHIN THE PROPOSED CONSTRUCTION AREAS. THE CONTRACTOR SHALL DESIGN AND INSTALL ADEQUATE SHORING AND BRACING FOR ANY STRUCTURAL TASKS. THE CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR ANY DAMAGE OR INJURY CAUSED BY OR DURING THE EXECUTION OF THE WORK.
15. THE CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY AND FOLLOW ALL OSHA REGULATIONS.
16. ALL WALLS AND/OR FLOORS THAT ARE SCHEDULED FOR PAINTING SHALL BE PROPERLY PREPARED (SEALED, SPACKLED, SANDED, ETC)AS REQUIRED BEFORE PRIMING AND PAINTING WORK COMMENCES. CONTRACTOR SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR SUBSTRATE AND PAINT TYPE.
17. ALL PAINT SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS FOR THE PARTICULAR SURFACE. PAINTS SHALL BE OF TYPE SPECIFICALLY MANUFACTURED FOR APPLICATION TO THE SURFACE TO WHICH IT IS TO BE APPLIED.
18. CONTRACTOR SHALL PERFORM ALL FINISH MATERIAL INSTALLATION AS TO AVOID DAMAGE TO OTHER SURFACES. ALL DAMAGE TO ADJACENT SURFACES SHALL BE REPAIRED IN A MANNER SATISFACTORY TO THE OWNER.

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
A.F.F	ABOVE FINISHED FLOOR
ALUM.	ALUMINUM
APPROX	APPROXIMATELY
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING, & AIR-CONDITIONING ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
BLDG	BUILDING
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT.	CONTINUOUS
DIA	DIAMETER
DIM	DIMENSION
DWGS	DRAWINGS
EA	EACH
EF	EXHAUST FAN
ELEV	ELEVATION
ETC.	ETCETERA
EQ	EQUAL
EXIST.	EXISTING
F.E.	FIRE EXTINGUISHER
FIN.FL.LVL.	FINISHED FLOOR LEVEL
GA	GAUGE
GWB	GYPSUM WALLBOARD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HW	HARDWARE
I.D.	IDENTIFICATION
MAX	MAXIMUM
MECH.	MECHANICAL
MIN	MINIMUM
M.O.	MASONRY OPENING
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
N.I.C.	NOT IN CONTRACT
N.I.S.	NOT IN SCOPE
NO.	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
OCC	OCCUPANTS
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PT	PAINT
REQ.	REQUIRED
RM	ROOM
R.O.	ROUGH OPENING
SS	STAINLESS STEEL
STL	STEEL
SF	SQUARE FEET
THK	THICK
T.O.	TOP OF
TYP.	TYPICAL
UL	UNDERWRITER'S LABORATORY
V.I.F.	VERIFY IN FIELD
WD	WOOD
W/	WITH
W/O	WITHOUT
Ø	DIAMETER
@	AT
&	AND
℄	CENTERLINE
#	NUMBER

SYMBOLS



Revisions:	Date:

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Fletcher Nicholas Hamilton
RA-024611-A
3/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: GENERAL NOTES, SYMBOLS, ABBREVIATIONS, & CODE DATA	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved: VA DIRECTOR 001	FULLY SPRINKLERED	Location: UNIVERSITY DRIVE C PITTSBURGH, PA 15240	Drawing Number: AE-001
		Issue Date: 03/26/2026 · Checked: DH/LAA · Drawn: CN	

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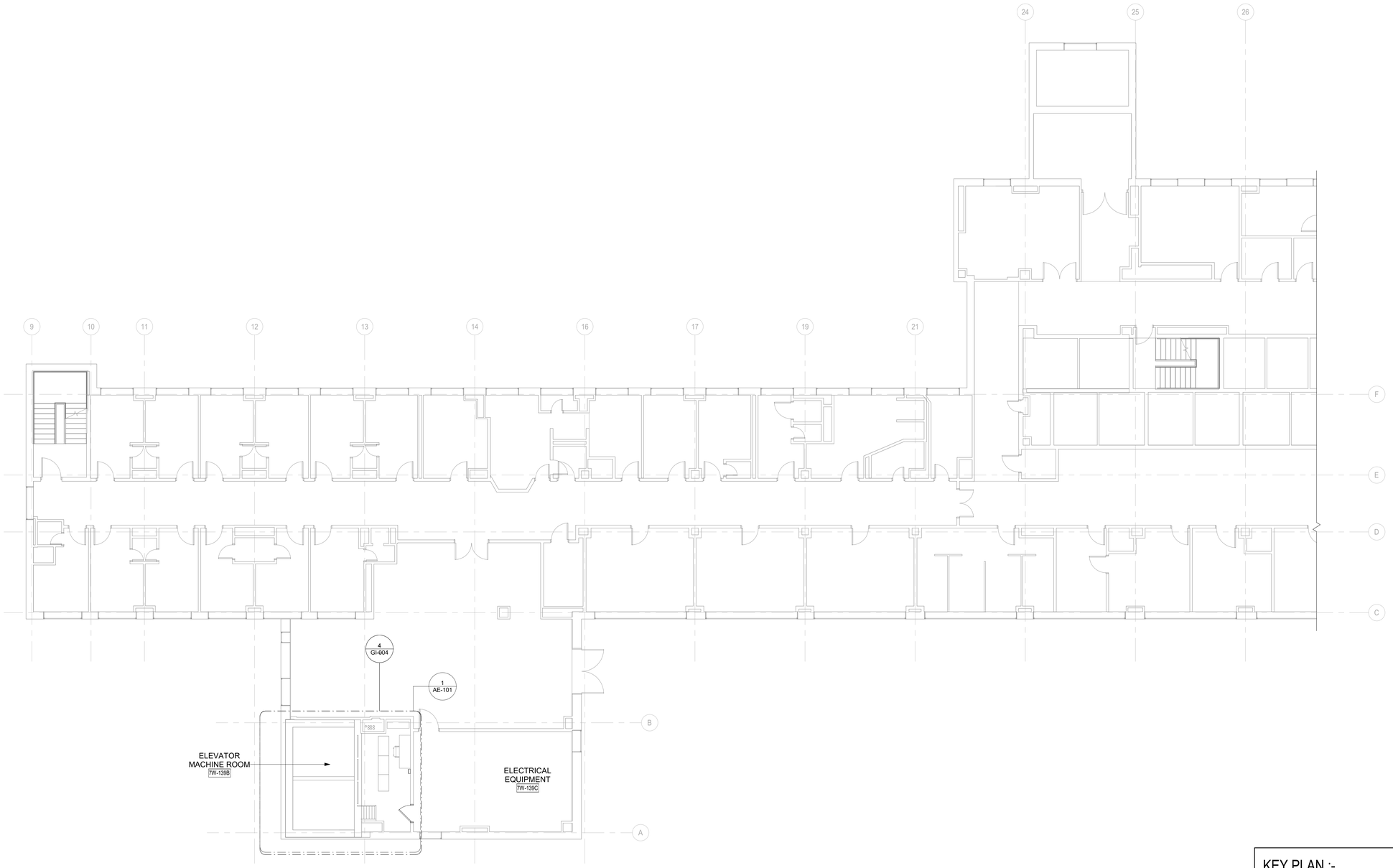
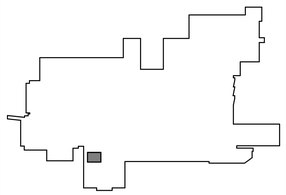


1 EXISTING SEVENTH FLOOR PLAN - PARTIAL
1/8" = 1'-0"

KEY PLAN :-



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

NORTH

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: EXISTING SEVENTH FLOOR PLAN - OVERALL	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved: VA DIRECTOR 001	FULLY SPRINKLERED	Location: UNIVERSITY DRIVE C PITTSBURGH, PA 15240	Drawing Number: AE-011
		Issue Date: 03/26/2026 / Checked: DH/LAA / Drawn: CN	

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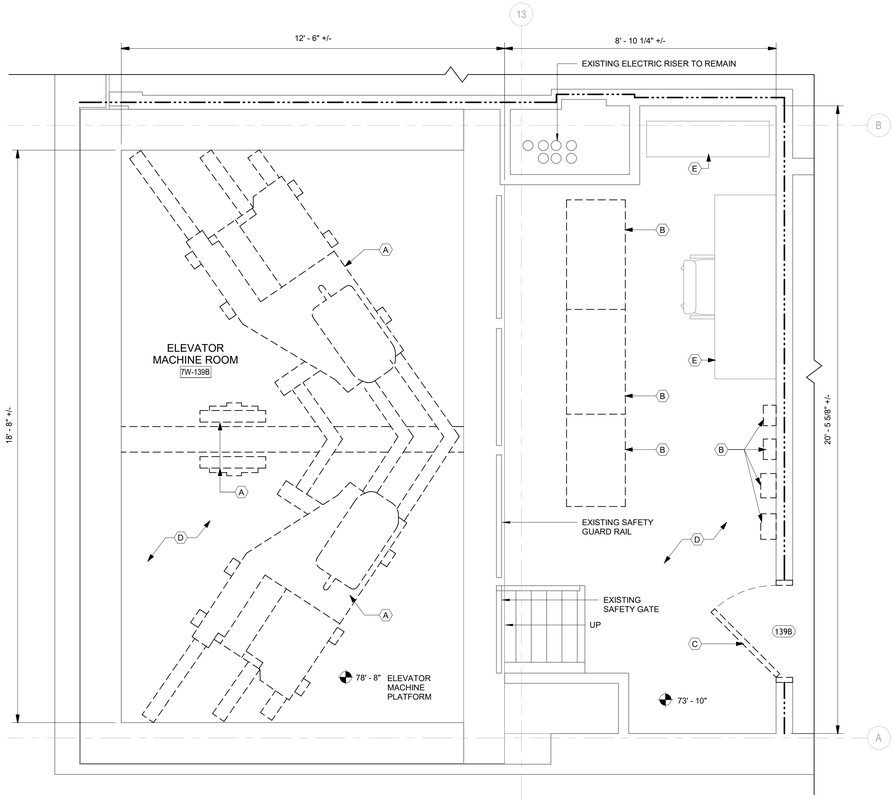
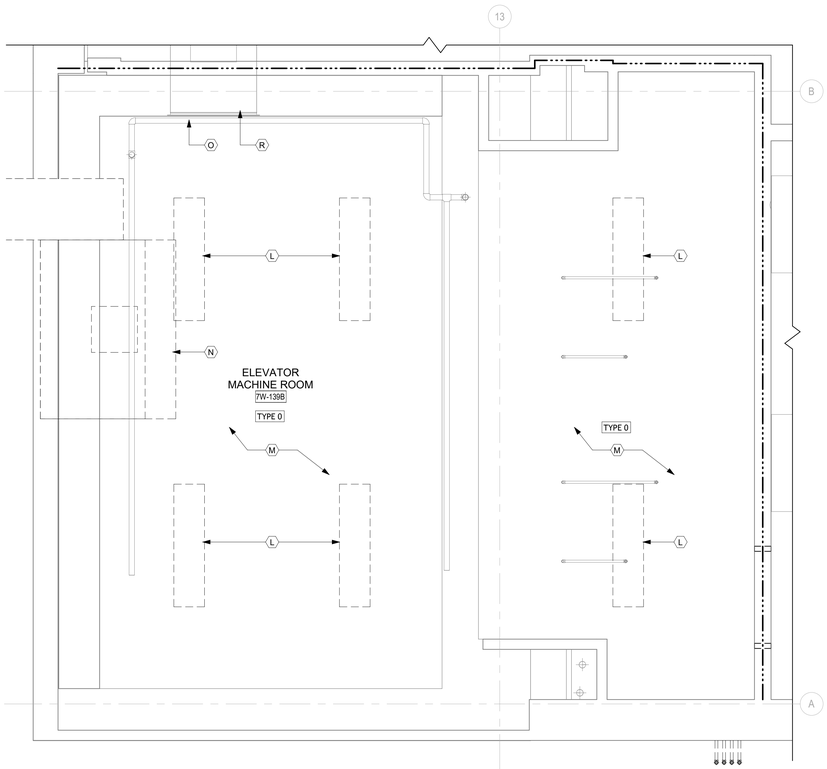


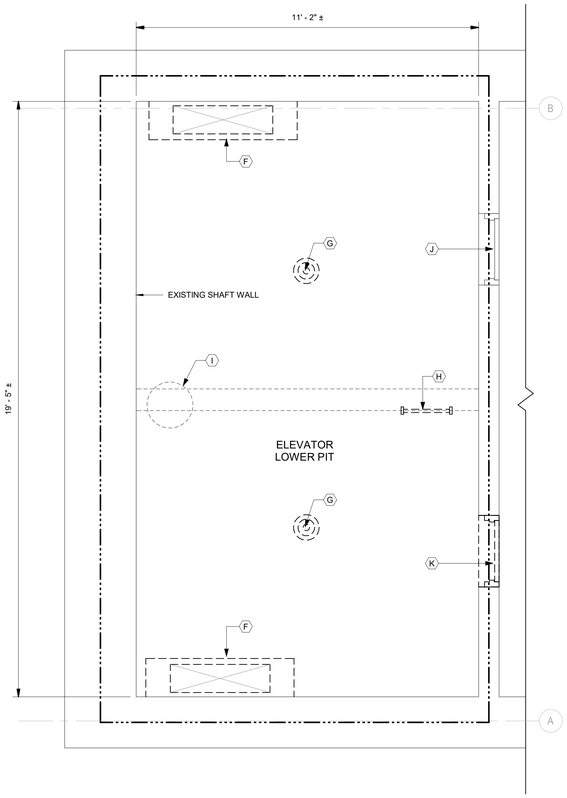
1 ENLARGED MACHINE ROOM PLAN - DEMO

1/2" = 1'-0"



2 ENLARGED MACHINE ROOM RCP - DEMO

1/2" = 1'-0"



3 ENLARGED LOWER ELEV. PIT PLAN - DEMO

1/2" = 1'-0"

DEMO LEGEND

- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED
- NEW CONSTRUCTION
- 2 HR FIRE RATING
- CEILING - TYPE 0 OPEN TO STRUCTURE

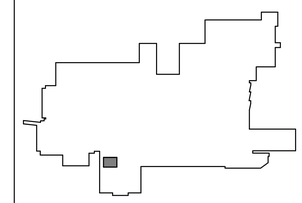
KEYNOTES

MARK	DESCRIPTION
A	REMOVE EXISTING ELEVATOR MACHINERY IN ITS ENTIRETY - REFER TO MEP & ELEVATOR DRAWINGS
B	REMOVE EXISTING ELEVATOR CONTROLS - REFER TO ELEVATOR DRAWINGS
C	REMOVE EXISTING DOOR, FRAME AND ASSOCIATED HARDWARE
D	PREPARE EXISTING CONCRETE SLAB TO RECEIVE NEW FLOOR FINISH
E	CONFIRM REPLACEMENT OF EXISTING FURNISHINGS WITH VA
F	REMOVE EXISTING ELEVATOR COUNTER WEIGHT - REFER TO ELEVATOR DRAWINGS
G	REMOVE EXISTING BUFFER - REFER TO ELEVATOR DRAWINGS
H	REMOVE EXISTING PIT LADDER - REFER TO ELEVATOR DRAWINGS
I	REMOVE EXISTING SUMP PUMP AND REPLACE IN KIND- REFER TO ELEVATOR DRAWINGS
J	CONFIRM ACCESS PANEL MEETS FIRE RATING REQUIREMENTS OF EXISTING 2 HR FIRE RATING - REPLACE AS REQUIRED
K	EXISTING 24" X 36" ACCESS OPENING TO BE PATCHED W/ 2 HR RATED CONSTRUCTION
L	REMOVE EXISTING LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
M	EXISTING EXPOSED STRUCTURAL DECK W/ FIREPROOFING TO REMAIN
N	REMOVE EXISTING DAMPER - SEE MECHANICAL DRAWINGS
O	EXISTING FP PIPING - SEE FIRE PROTECTION DRAWINGS
R	EXISTING FIRE DAMPER - SEE MECH DRAWINGS

DEMOLITION NOTES

1. DEMOLITION PLANS ARE INTENDED TO INDICATE MINIMUM DEMOLITION WORK. CONTRACTOR SHALL VERIFY IN FIELD THE FULL EXTENT OF THE WORK. REFER TO MEP & VT DRAWINGS FOR ADDITIONAL INFORMATION.
2. UNLESS OTHERWISE NOTED, ALL EXISTING WORK DISTURBED BY THE REMOVAL, RELOCATION, OR INSTALLATION OF PLUMBING, ELECTRICAL, MECHANICAL, OR STRUCTURAL WORK SHALL BE PATCHED TO MATCH ORIGINAL WORK.
3. UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFICATIONS, ALL EXISTING SURFACES DISTURBED BY ANY DEMOLITION WORK SHALL BE PATCHED TO MATCH ORIGINAL WORK:
   - NEW WORK IS ADDED TO EXISTING WORK
   - EXISTING OPENINGS ARE TO BE SEALED
   - EXISTING WORK IS TO BE REMOVED

KEY PLAN :-



0 1 2 4
SCALE: 1/2" = 1'-0"

NORTH

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED PLANS - DEMOLITION	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved: VA DIRECTOR 001	FULLY SPRINKLERED	Location: UNIVERSITY DRIVE C PITTSBURGH, PA 15240	Drawing Number: AE-101
		Issue Date: 03/26/2026 · Checked: DH/LAA · Drawn: CN	

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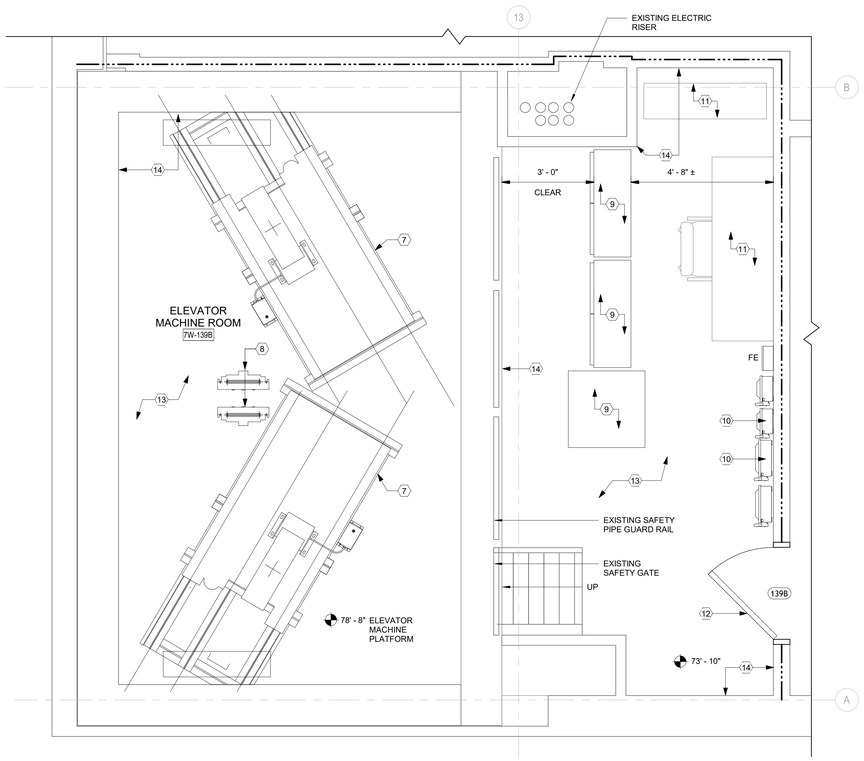
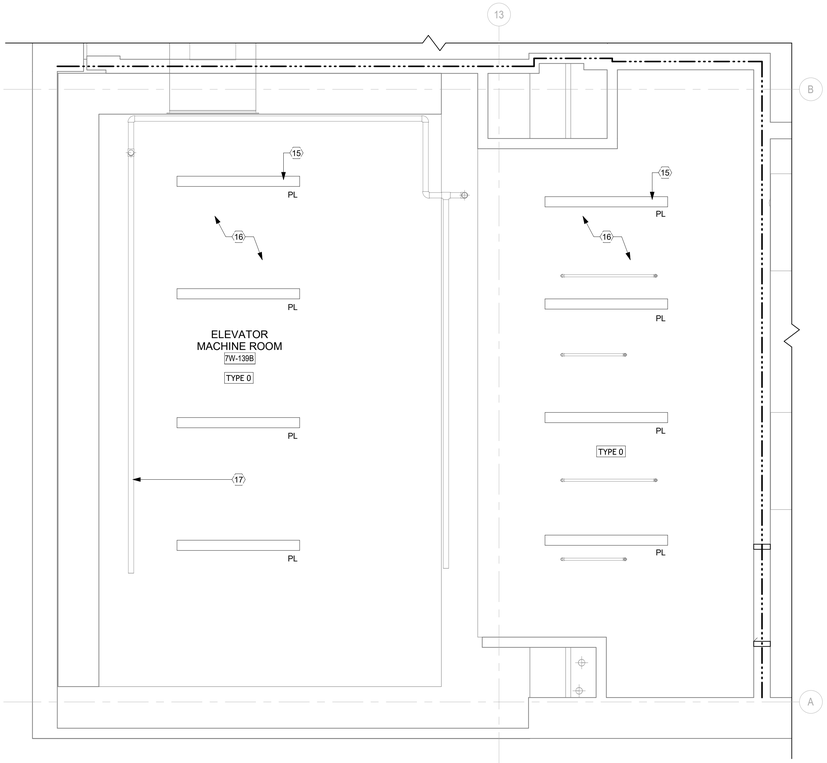
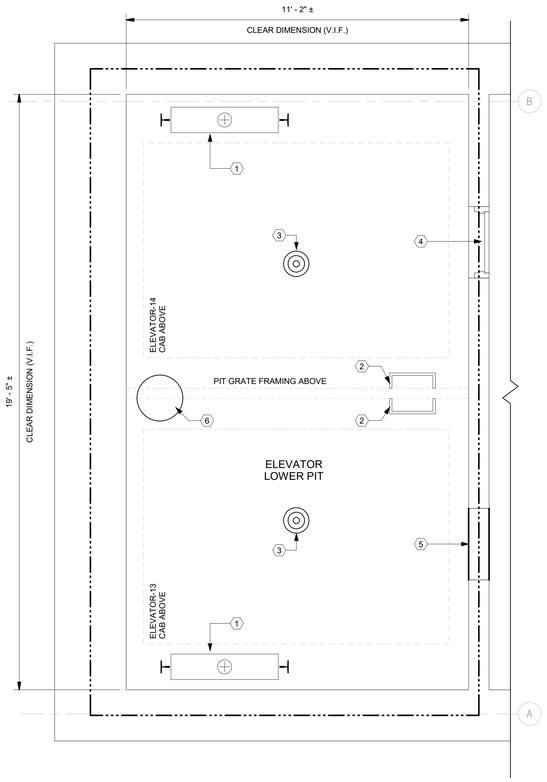


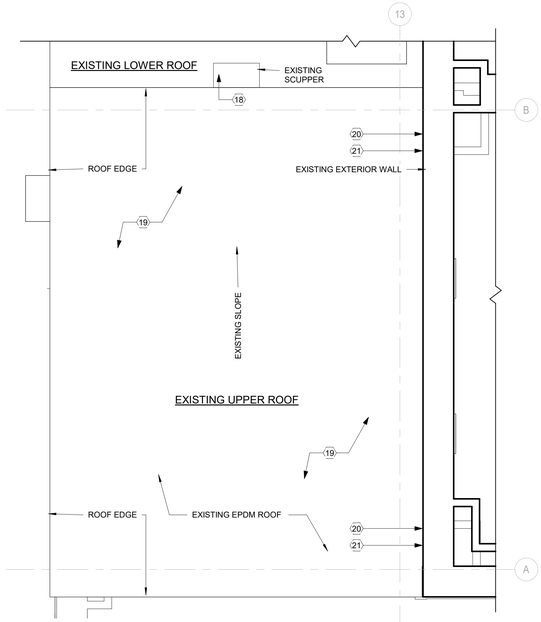
1 ENLARGED MACHINE ROOM PLAN
1/2" = 1'-0"



2 ENLARGED MACHINE ROOM RCP
1/2" = 1'-0"



3 ENLARGED LOWER ELEVATOR PIT PLAN
1/2" = 1'-0"



4 ENLARGED ROOF PLAN
3/8" = 1'-0"

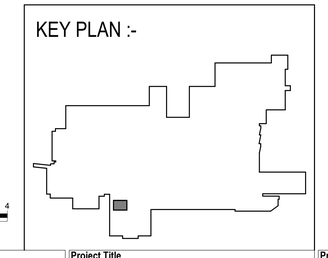
KEYNOTES

MARK	DESCRIPTION
1	ELEVATOR COUNTERWEIGHT - SEE ELEVATOR DRAWINGS
2	ELEVATOR PIT LADDER - SEE ELEVATOR DRAWINGS
3	ELEVATOR BUFFER - SEE ELEVATOR DRAWINGS
4	CONFIRM ACCESS PANEL MEETS FIRE RATING REQUIREMENTS OF EXISTING 2 HR FIRE RATING - MINIMUM REQUIREMENT - 90 MIN RATING REPLACE AS REQUIRED
5	PATCH EXISTING OPENING TO MATCH 2 HR FIRE RATING
6	SUMP PUMP - SEE ELEVATOR DRAWINGS
7	ELEVATOR MACHINE EQUIPMENT - SEE ELEVATOR DRAWINGS
8	ELEVATOR GOVERNOR - SEE ELEVATOR DRAWINGS
9	ELEVATOR CONTROLLERS, DRIVERS AND TRANSFORMERS - SEE ELEVATOR DRAWINGS
10	ELEVATOR DISCONNECTS - SEE ELEVATOR DRAWINGS
11	EXISTING FURNISHINGS - CONFIRM REPLACEMENT WITH VA
12	NEW HOLLOW METAL DOOR AND FRAME WHITHIN EXISTING OPENING - 90 MIN FIRE RATED
13	NEW EPOXY FLOOR FINISH OVER EXISTING CONCRETE SLAB
14	PAINT WALLS AS PER FINISH SCHEDULE ON SHEET AE-601
15	PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
16	REPAIR ANY DAMAGED EXISTING SPRAY FIREPROOFING TO MAINTAIN FIRE RATING
17	EXISTING FP PIPING - SEE FIRE PROTECTION DRAWINGS
18	INSPECT SCUPPER FOR POSSIBLE LEAKS, REPAIR AND OR REPLACE AS NECESSARY TO CREATE A WEATHER TIGHT CONDITION
19	ROOF REPLACEMENT TO BE PERFORMED UNDER SEPARATE CONTRACT - COORDINATE WITH THE VA
20	INSPECT WINDOW TO MASONRY FLASHING AND SEAL, REPAIR AND REPLACE AS NECESSARY TO CREATE A WEATHER TIGHT CONDITION
21	INSPECT FLASHING AT WALL TO ROOF CONDITION FOR POSSIBLE LEAKS, REPAIR AND OR REPLACE AS NECESSARY TO CREATE A WEATHER TIGHT CONDITION

CONSTRUCTION LEGEND

- EXISTING TO REMAIN
- NEW CONSTRUCTION
- 2 HR FIRE RATING
- XXX DOOR NUMBER
- FE FIRE EXTINGUISHER
- PL PENDANT LIGHT- SEE ELECTRICAL DRAWINGS
- CEILING - TYPE 0 OPEN TO STRUCTURE

KEY PLAN :-



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SCALE: 1/2" = 1'-0"

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3/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED PLANS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
Approved: VA DIRECTOR 001	FULLY SPRINKLERED	Location: UNIVERSITY DRIVE C PITTSBURGH, PA 15240	Building Number: 01
		Issue Date: 03/26/2026 · Checked: DH/LAA · Drawn: CN	Drawing Number: AE-102

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MATERIAL AND FINISHES LEGEND

RESINOUS	MANUFACTURER	MANUFACTURER NO.	PATTERN	COLOR	COMMENTS
RES-1	STONHARD	STONSHIELD	MEDIUM TEXTURE	ASH	PROVIDE 6" INTEGRAL BASE
PAINT	**BRAND NAME**				
P-1	SHERWIN WILLIAMS	6183	-	CONSERVATIVE GREY	
P-5 (DOOR/ FRAMES)	SHERWIN WILLIAMS	7047	-	PORPOISE	

ROOM FINISH SCHEDULE

SPACE	FLOOR FINISH	WALL FINISH	BASE	CEILING FINISH	NOTES
ELEVATOR MACHINE ROOM 7W-139B	RES-1	P-1	INTEGRAL BASE	EX	

ROOM SCHEDULE LEGEND

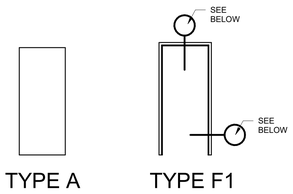
EX EXISTING
P PAINT
RES RESINOUS FLOORING (EPOXY)
RB RUBBER BASE

DOOR SCHEDULE

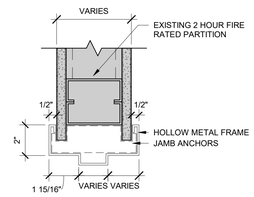
TO ROOM NAME	TO ROOM NUMBER	DOOR MARK	DOOR WIDTH	DOOR HEIGHT	DOOR THK	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME HEAD	FRAME JAMB	FRAME FINISH	THRESHOLD MATERIAL	THRESHOLD DETAIL	HARDWARE (SEE SPECS)	CARD READER (Y/N)	COMMENTS
ELEVATOR MACHINE ROOM	7W-139B	139B	3' - 0"	7' - 0"	0' - 1 3/4"	A	HW	P	F1	HM	H1	J1	P	AL	1	HW-5G	Y	MAINTAIN EXISTING CARD READING ACCESS - 90 MIN FIRE RATING

ABBREVIATIONS

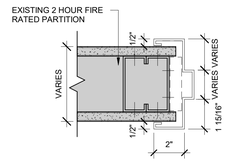
AL ALUMINUM
HW HOLLOW METAL
P PAINT



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



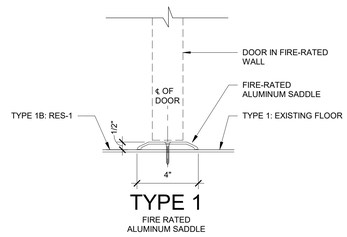
HEAD TYPE 1 (H1)



JAMB TYPE 1 (J1)

NOTES:
- FOR DOOR WIDTH- SEE DOOR SCHEDULE
- FRAME WIDTH VARIES WITH PARTITION WIDTH - SEE PARTITION TYPE

2 DOOR FRAME DETAILS
3" = 1'-0"



3 DOOR THRESHOLD DETAILS
3" = 1'-0"

Revisions:	Date:

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3/26/2026

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

Drawing Title: FINISH ROOM SCHEDULE, DOOR SCHEDULE AND DETAILS
Approved: VA DIRECTOR 001
Phase: 100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED
Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS
Location: UNIVERSITY DRIVE C PITTSBURGH, PA 15240
Issue Date: 03/26/2026
Checked: DH/LAA
Drawn: CN
Project Number: 646-24-100
Building Number: 01
Drawing Number: AE-601

VA FORM 08 - 6231

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ELECTRICAL MISC SYMBOLS

PLAN SYMBOL	NAME
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL
	BRANCH CIRCUIT CONCEALED IN FLOOR OR BELOW GRADE
	CLEARANCE SPACE
	CONDUIT BREAK
	CONDUIT DOWN
	CONDUIT STUB-OUT
	CONDUIT UP
	HOMERUN TO PANEL G = GFCI CIRCUIT (PART) = PARTIAL CIRCUIT

ONE LINE SYMBOL

PLAN SYMBOL	NAME
	AUTOMATIC TRANSFER SWITCH
	CONTINUATION
DM	DIGITAL METER
	DISCONNECT SWITCH
	GROUND BAR
	GROUNDING ELECTRODE
	KEY INTERLOCK
M	MOTOR
	PANEL BOARD
SPD	SURGE PROTECTIVE DEVICE
	SWITCHBOARD/SWITCHGEAR
	TRANSFORMER

LIGHTING DEVICE SYMBOLS

PLAN SYMBOL	NAME
S	LIGHT SWITCH
S^3	SWITCH - 3 WAY

ELECTRICAL FIXTURE SYMBOLS

PLAN SYMBOL	NAME
	RECEPTACLE - DOUBLE DUPLEX - EMERGENCY (RED) - CONV
	RECEPTACLE - DUPLEX - CONV
	RECEPTACLE - DUPLEX - CONV - GFCI
	RECEPTACLE - DUPLEX - EMERGENCY (RED) - CONV - GFCI
	RECEPTACLE - SIMPLEX

FIRE ALARM SYMBOLS

PLAN SYMBOL	NAME
	DETECTOR - SYSTEM HEAT - CEILING
	DETECTOR - SYSTEM SMOKE - CEILING
F W	HORN AND STROBE COMBINATION - WALL

ELECTRICAL EQUIPMENT SYMBOLS

PLAN SYMBOL	NAME
	DISTRIBUTION PANEL
	ENCLOSED DISCONNECT SWITCH - FUSED
	ENCLOSED DISCONNECT SWITCH - NON-FUSED
	PANELBOARD - SURFACE
	TRANSFORMER - DRY TYPE

SECURITY SYMBOL LEGEND

PLAN SYMBOL	NAME	DESCRIPTION
AC	ACCESS CONTROL DEVICE	GENERAL: PROVIDE ACCESS CONTROL COMPONENTS AS DESCRIBED IN THESE GENERAL NOTES AND NOTES BELOW FOR EACH ACCESS CONTROLLED DEVICE TYPE AT DOORS INDICATED. REFER TO FLOOR PLANS FOR DEVICE DESIGNATION. PROVIDE ROUGH-INS PER ACCESS CONTROL ROUGH-IN DETAIL. DOOR ACCESS COMPONENTS SHALL BE RATED FOR CONTINUOUS OPERATION IN THEIR INSTALLED PROJECT CONDITIONS AS REQUIRED IN SPECIFICATION SECTION 281300. COORDINATE REQUIRED CONDUITS TO DOOR FRAME AND WALL MOUNTED DEVICES WITH DOOR HARDWARE CONTRACTOR. PROVIDE SURFACE MOUNTED CONDUIT AND BACK BOX IN UNFINISHED AREAS. PROVIDE 20A 120V EQUIPMENT BRANCH CIRCUIT TO DOOR CONTROLLERS LOCATED WITHIN ACCESS CONTROL CABINET IN ASSOCIATED COMMUNICATIONS ABOVE THE ACCESS CONTROLLED DOOR. PROVIDE FINAL CONNECTION OF 120V BRANCH CIRCUIT TO ALL POWER SUPPLIES REQUIRED FOR EACH DOOR FUNCTION. REFER TO FLOOR PLANS FOR BRANCH CIRCUIT DESIGNATIONS. PROVIDE ACCESS CONTROL CABLING FROM DOOR CONTROLLER TO COMPONENTS REQUIRED BY THE DOOR HARDWARE SPECIFICATION INCLUDING BUT NOT LIMITED TO CARD READER, DOOR POSITION SWITCH, ELECTRIC STRIKE, ELECTRIFIED HINGE, DOOR RELEASE PUSH BUTTON, MAGNETIC LOCK, AND REQUEST TO EXIT. PROVIDE DOOR POSITION SWITCH AND REQUEST TO EXIT AT EACH ACCESS CONTROLLED DOOR, UNLESS PROVIDED BY DOOR HARDWARE CONTRACTOR. CONTRACTOR SHALL TERMINATE ACCESS CONTROL CABLING TO DEVICES AT DOOR LOCATION AND PROVIDE A 7'-0" PIGTAIL WITHIN COMMUNICATIONS ROOM AT ACCESS CONTROL CABINET WITH APPROPRIATE DEVICE LABEL FOR OWNER TERMINATION. COORDINATE ALL TERMINATION REQUIREMENTS AND EXACT LOCATION OF TERMINATIONS WITH OWNER'S ACCESS CONTROL MANAGER. CABLE SHALL BE ROUTED WITHIN CABLE TRAY WHERE ABOVE ACCESSIBLE CEILINGS AND WITHIN CONDUIT IN UNFINISHED AREAS. PROVIDE ALL COMPONENTS REQUIRED FOR A COMPLETE SYSTEM PER SPECIFICATION SECTION 281300 INCLUDING BUT NOT LIMITED TO INSTALLATION, CONFIGURATION, DEVICES, AND CABLING. WHERE DOOR IS ALSO SPECIFIED/SHOWN TO UTILIZE DOOR OPERATOR, PROVIDE INTERLOCK TO ALLOW AUTOMATIC DOOR OPENING FROM THE ACCESS CONTROL SYSTEM UPON SUCCESSFUL CARD READ. SUBMIT SHOP DRAWINGS FOR APPROVAL. PROVIDE FIRE ALARM SYSTEM CONNECTION FOR DOOR RELEASE UPON ALARM. INTEGRATE ACCESS CONTROL SYSTEM WITH DOOR OPERATORS, FIRE ALARM, WANDER PREVENTION, INFANT PROTECTION, INTERCOM, AND DOOR HARDWARE. REFER TO ACCESS CONTROL AND ARCHITECTURAL DOOR HARDWARE SPECIFICATIONS FOR COORDINATION OF FEATURES, DEVICES, AND CONNECTIONS REQUIRED.
AC	ACCESS CONTROL PANEL	CIRCUIT CONTROL PANEL TO 20A 120V BRANCH CIRCUIT IN LOCAL [EQUIPMENT] [NORMAL] BRANCH PANEL OF THE ASSOCIATED CONSTRUCTION PHASE. REFER TO FLOOR PLANS FOR BRANCH CIRCUIT DESIGNATIONS. COORDINATE CONNECTION REQUIREMENTS WITH FINAL EQUIPMENT SELECTION AND PROVIDE NEMA 5-20 RECEPTACLE OR HARD-WIRED CONNECTION TO CABINET AS REQUIRED.
CR	CREDENTIAL CARD READER	GENERAL: PROVIDE PROXIMITY CARD READER AS DESCRIBED IN THESE GENERAL NOTES AND NOTES BELOW FOR EACH CARD READER TYPE AT APPROXIMATE LOCATION INDICATED. REFER TO FLOOR PLANS FOR CARD READER DESIGNATION. PROVIDE ROUGH-IN PER ACCESS CONTROL ROUGH-IN DETAIL. WHERE SHOWN MOUNTED ON DOOR/WINDOW SYSTEM MULLION, PROVIDE MULLION MOUNT CARD READER SURFACE MOUNTED ON MULLION. CABLING SHALL BE ROUTED RECESSED WITHIN MULLION TO ACCESSIBLE CEILING SPACE. COORDINATE INSTALLATION WITH MANUFACTURER. CARD READERS SHALL BE RATED FOR CONTINUOUS OPERATION IN THEIR INSTALLED PROJECT CONDITIONS AS REQUIRED IN SPECIFICATION SECTION 281300. SUBMIT SHOP DRAWINGS FOR APPROVAL. COORDINATE EXACT LOCATION OF CARD READER WITH ARCHITECT, ARCHITECTURAL INTERIOR ELEVATIONS, AND OTHER DOOR COMPONENTS INCLUDING BUT NOT LIMITED TO PUSH PLATE ACTUATORS, REQUEST TO EXIT PUSH BUTTONS, INTERCOM STATIONS, NURSE CALL CANCEL STATIONS, INTRUSION DETECTION KEYPADS, WANDER PREVENTION KEYPADS, AND INFANT PROTECTION KEYPADS. REFER TO ACCESS CONTROL SYMBOL LEGEND DESCRIPTION FOR CABLING AND ADDITIONAL REQUIREMENTS. TYPE 'KEYPAD'. COMBINATION KEYPAD PROXIMITY CARD READER: PROVIDE COMBINATION KEYPAD PROXIMITY CARD READER PER SPECIFICATION.
DO	DOOR OPERATOR	PROVIDE 20A 120V LIFE SAFETY BRANCH DOOR OPERATOR. REFER TO FLOOR PLANS FOR BRANCH CIRCUIT DESIGNATIONS. COORDINATE REQUIRED ROUGH-IN TO DOOR FRAME FOR PUSH PLATE OR HAND WAVE ACTUATOR CABLING WITH DOOR HARDWARE CONTRACTOR. INCLUDE INTERLOCKS WITH OTHER DOOR HARDWARE COMPONENTS REQUIRED BY THE DOOR HARDWARE SPECIFICATION INCLUDING BUT NOT LIMITED TO CARD READER, ELECTRIC STRIKE, ELECTRIFIED HINGE, MAGNETIC LOCK, REQUEST TO EXIT, MOTION SAFETY CONTROLS, KEY SWITCH, AND POWER SUPPLY. WHERE DOOR IS ALSO SPECIFIED/SHOWN TO UTILIZE ACCESS CONTROL, PROVIDE INTERLOCK TO ALLOW AUTOMATIC DOOR OPENING FROM THE ACCESS CONTROL SYSTEM UPON SUCCESSFUL CARD READ. PROVIDE FIRE ALARM SYSTEM CONNECTION FOR OPERATOR DISABLING UPON ALARM. INTEGRATE DOOR OPERATOR WITH FIRE ALARM, ACCESS CONTROL, WANDER PREVENTION, INFANT PROTECTION, INTERCOM, AND DOOR HARDWARE. REFER TO PUSH PLATE OR HAND WAVE ACTUATOR SYMBOL LEGEND DESCRIPTION FOR ADDITIONAL REQUIREMENTS. COORDINATE INSTALLATION WITH DOOR HARDWARE CONTRACTOR.
PB AC	ROUGH-IN ACCESS CONTROL REQUEST TO EXIT PUSH BUTTON	PROVIDE REQUEST TO EXIT PUSH BUTTON AT APPROXIMATE LOCATION INDICATED. PROVIDE ROUGH-IN AS INDICATED WITHIN ACCESS CONTROL ROUGH-IN DETAIL. WHERE SHOWN MOUNTED ON DOOR/WINDOW SYSTEM MULLION, PROVIDE MULLION MOUNT PUSH BUTTON SURFACE MOUNTED ON MULLION. CABLING SHALL BE ROUTED RECESSED WITHIN MULLION TO ACCESSIBLE CEILING SPACE. COORDINATE INSTALLATION WITH MULLION MANUFACTURER. PUSH BUTTONS SHALL BE RATED FOR CONTINUOUS OPERATION IN THEIR INSTALLED PROJECT CONDITIONS AS REQUIRED IN SPECIFICATION SECTION 281300. SUBMIT SHOP DRAWINGS FOR APPROVAL. COORDINATE EXACT LOCATION OF PUSH BUTTON WITH ARCHITECT, ARCHITECTURAL INTERIOR ELEVATIONS, AND OTHER DOOR COMPONENTS INCLUDING BUT NOT LIMITED TO PUSH PLATE ACTUATORS, CARD READERS. REFER TO ACCESS CONTROL SYMBOL LEGEND DESCRIPTION FOR CABLING AND ADDITIONAL REQUIREMENTS.
©	SECURITY SURVEILLANCE CAMERA - CEILING	GENERAL: PROVIDE POWER, ROUGH-INS, AND CABLING FOR OWNER PROVIDED POWER OVER ETHERNET (POE) SECURITY SURVEILLANCE CAMERA AS DESCRIBED IN THESE GENERAL NOTES AND NOTES BELOW FOR EACH CAMERA TYPE AT LOCATIONS INDICATED. REFER TO FLOOR PLANS FOR CAMERA DESIGNATION. SECURITY SURVEILLANCE COMPONENTS SHALL BE RATED FOR CONTINUOUS OPERATION IN THEIR INSTALLED PROJECT CONDITIONS AS REQUIRED IN SPECIFICATION SECTION 282300. PROVIDE ONE (1) CATEGORY 6A NETWORK DATA CABLE FROM ASSOCIATED COMMUNICATIONS DISTRIBUTION ROOM TO APPROXIMATE LOCATION INDICATED ON FLOOR PLANS, COILED ABOVE FINISHED CEILING. TERMINATE CABLE WITH RJ45 CONNECTOR. PROVIDE WITH 10' OF CABLE SLACK AT LOCATION INDICATED. INSTALL CAMERA CENTERED IN CEILING TILE. PROVIDE 4" SQUARE BACK BOX WITH SINGLE GANG TRIM RING AND ONE (1) 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING FOR CABLING AT LOCATIONS INDICATED WITHIN GYP CEILINGS. PROVIDE SURFACE MOUNTED CONDUIT AND BACK BOX IN UNFINISHED AREAS. COORDINATE ROUGH-IN REQUIREMENTS, PENDANT MOUNTS, PROTECTIVE DOMES, AND OTHER REQUIRED ACCESSORIES FOR EXTERIOR CAMERA LOCATIONS WITH SELECTED MANUFACTURER. PROVIDE 20A 120V NORMAL BRANCH CIRCUIT TO CAMERA LOCATIONS AS REQUIRED BY SELECTED MANUFACTURER FOR HEATED ENCLOSURES, PAN-TILT-ZOOM FUNCTIONS, AND ACCESSORIES. COORDINATE CABLING, POWER, AND ROUGH-IN REQUIREMENTS WITH SELECTED MANUFACTURER FOR CAMERA LOCATIONS WITH NETWORK DATA CABLE LENGTHS EXCEEDING 100 METERS. CABLE SHALL BE ROUTED WITHIN CABLE TRAY WHERE ABOVE ACCESSIBLE CEILINGS AND WITHIN CONDUIT IN UNFINISHED AREAS. PROVIDE NETWORK DATA CABLES AND JACKS PER SPECIFICATION SECTION 271200. PROVIDE ALL COMPONENTS REQUIRED FOR A COMPLETE SYSTEM PER SPECIFICATION SECTION 282300 INCLUDING BUT NOT LIMITED TO INSTALLATION, CONFIGURATION, DEVICES, AND CABLING. SUBMIT SHOP DRAWINGS FOR APPROVAL. COORDINATE EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION. TYPE 'ELEV'. ELEVATOR SECURITY SURVEILLANCE CAMERA: PROVIDE SECURITY SURVEILLANCE CAMERA WITHIN ELEVATOR CAB INDICATED ON FLOOR PLANS. COORDINATE EXACT MOUNTING LOCATION WITHIN CAB WITH OWNER. COORDINATE ROUGH-IN, CABLING, AND INSTALLATION REQUIREMENTS WITH FINAL SELECTED ELEVATOR MANUFACTURER.

LIGHTING DEVICE SYMBOL LEGEND

PLAN SYMBOL	NAME	DESCRIPTION
	PUSH BUTTON	REFER TO LIGHTING CONTROL WALL DEVICE SCHEDULE FOR KEYPAD ID, DESCRIPTION, REQUIRED BUTTON FUNCTIONS, AND ADDITIONAL REQUIREMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

COMMUNICATION SYMBOL LEGEND

PLAN SYMBOL	NAME	DESCRIPTION
	WALL MOUNT COMMUNICATIONS RACK	DATA/COMMUNICATIONS RACK.

ELECTRICAL FIXTURE SYMBOL LEGEND

PLAN SYMBOL	NAME	DESCRIPTION
	DUPLEX AND DATA (CONV) - GFCI	PROVIDE DUPLEX RECEPTACLE AND COMATIONS OUTLET AT APPROXIMATE LOCATION INDICATED. BACK BOXES FOR EACH DEVICE SHALL BE MOUNTED APPROXIMATELY 9" BETWEEN BOX CENTERS. REFER TO SYMBOL LEGEND ENTRY FOR EACH DEVICE FOR ADDITIONAL REQUIREMENTS.
	JUNCTION BOX - WALL	ELECTRICAL VERTICAL WALL-TYPE JUNCTION BOX.

LOW VOLTAGE COORDINATION LEGEND

SYSTEMS	ROUGH-INS & PATHWAYS	CABLING & TERMINATIONS	DEVICES & EQUIPMENT	REMARKS
ACCESS CONTROL	CF / CI	CF / CI	CF / CI	-
FIRE ALARM	CF / CI	CF / CI	CF / CI	2
LIGHTING CONTROLS	CF / CI	CF / CI	CF / CI	-
SECURITY SURVEILLANCE (CCTV)	CF / CI	CF / CI	CF / CI	-
VOICE / DATA	CF / CI	CF / CI	OF / OI	1

LEGEND: (LOW VOLTAGE COORDINATION LEGEND)
CF: CONTRACTOR FURNISHED
CI: CONTRACTOR INSTALLED
OF: OWNER FURNISHED
OI: OWNER INSTALLED

REMARKS: (LOW VOLTAGE COORDINATION LEGEND)
1. PATCH PANELS SHALL BE CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED PER SPECIFICATION. REFER TO TYPICAL COMMUNICATION TERMINATION DETAIL.
2. FIRE ALARM IS AN EXTENSION OF AN EXSTING SYSTEM. NEW DEVICES SHALL FUNCTION AS AN EXTENSION OF THE EXISTING SYSTEM. REFER TO SPECIFICATIONS.

GENERAL NOTES: (LOW VOLTAGE COORDINATION LEGEND)
A. REFER TO SYMBOL LEGENDS AND SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.
B. COORDINATE ROUGH-IN REQUIREMENTS WITH FINAL EQUIPMENT SELECTION FOR ALL SYSTEMS.
C. COORDINATE ROUGH-IN REQUIREMENTS WITH OWNER FOR OWNER FURNISHED SYSTEMS.
D. CONDUITS SHALL ROUTE CONCEALED INSIDE WALL TO ABOVE NEAREST ACCESSIBLE CEILING SPACE, UNLESS OTHERWISE INDICATED.
E. WHERE CABLING IS CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED, TERMINATE AND TEST ALL CABLING PER SPECIFICATION.

ELECTRICAL GENERAL NOTES:

(GENERAL NOTES SHALL APPLY TO ALL SHEETS)

A. BRANCH CIRCUITS WITH A TOTAL LENGTH LONGER THAN 75' SHALL UTILIZE #10 AWG CONDUCTORS. RECEPTACLE BRANCH CIRCUITS WITH A TOTAL LENGTH LONGER THAN 150' SHALL UTILIZE #8 AWG CONDUCTORS.
B. FOR ALL CONDUIT AND OTHER ITEMS PENETRATING A FIRE RATED WALL, PROVIDE UL LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM THAT IS SPECIFIC TO THE WALL CONSTRUCTION ASSEMBLY AND COMPLIANT WITH ASTM E814. INSTALL SYSTEM IN STRICT COMPLIANCE WITH THE FIRE STOPPING MANUFACTURER'S U.L. APPROVED DETAIL WHERE EXISTING WALLS ARE BEING UPGRADED TO FIRE RATED WALLS OR THE FIRE RATING IS BEING MODIFIED, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM FOR ALL NEW AND EXISTING PENETRATIONS. REFER TO THE ARCHITECTURAL LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED WALLS.
C. NEW ROOF MOUNTED EQUIPMENT SHALL BE BONDED TO EXISTING BUILDING LIGHTNING PROTECTION SYSTEM IF ONE EXISTS. PROVIDE AIR TERMINALS ON TOP OF EQUIPMENT AND BOND TO EXISTING SYSTEM PER NFPA 780 AND UL 96A REQUIREMENTS. PROVIDE UL INSPECTION AND/OR LPI SYSTEM INSPECTION AS REQUIRED TO OBTAIN UL MASTER LABEL RECERTIFICATION. UL MASTER LABEL AND/OR LPI SYSTEM CERTIFICATE.
D. ANY ITEMS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.
E. NEW WIRING DEVICES AND ASSOCIATED COVERPLATES SHALL MATCH EXISTING FINISH OF SIMILAR INSTALLED DEVICES.
F. THE SELECTED EQUIPMENT AIC RATINGS ARE BASED ON THE IMPEDANCES FOR CONDUCTORS AND TRANSFORMERS USED IN THE CALCULATIONS. IF DIFFERENT EQUIPMENT OR DIFFERENT CONFIGURATIONS ARE SELECTED FOR INSTALLATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATELY RATED EQUIPMENT THAT MEETS APPLICABLE SELECTIVE COORDINATION GOALS AND PROVIDES SIMILAR INCIDENT ENERGY RISK OF ARC FLASH HAZARDS.
G. PROVIDE AN INSULATED CONTINUOUS COPPER CONDUCTOR, NOT SMALLER THAN #10, TO BOND ALL NORMAL AND ESSENTIAL ELECTRICAL SYSTEM PANELBOARDS TOGETHER THAT SERVE THE SAME INDIVIDUAL PATIENT VICINITY AS DEFINED IN NEC 517.14
H. ALL CRITICAL AND LIFE SAFETY BRANCH CIRCUITS, INCLUDING LIGHTING AND WALL RECEPTACLES, SHALL BE MECHANICALLY PROTECTED PER NEC 517.31(C)(3). NON-FLEXIBLE RACEWAY SHALL BE USED FOR CRITICAL AND LIFE SAFETY BRANCH CIRCUITS, EXCEPT THAT THE FINAL CONNECTION TO VIBRATING EQUIPMENT OR LIGHT FIXTURES 8' THE TOTAL LENGTH OF FLEXIBLE RACEWAY IS 6' OR LESS ACROSS THE ENTIRE CIRCUIT LENGTH.
I. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO INDEPENDENTLY SUPPORT ALL EXISTING TO REMAIN CABLING.

ELECTRICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
##"	MOUNTING HEIGHT TO CENTERLINE (ABOVE FINISHED FLOOR)
A	AMPERE
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
AT	AMPERE TRIP
C	CONDUIT
CB	CIRCUIT BREAKER
CCT	CORRELATED COLOR TEMPERATURE
CU	COPPER
D	DATA (WHEN APPLIED TO COMMUNICATIONS OUTLET)
D	DEMO (WHEN APPLIED TO EXISTING/DEMO ITEMS)
E	EXISTING
EO	ELECTRICALLY OPERATED
ERMS	ENERGY REDUCING MAINTENANCE SWITCH
F	FUSE
FLA	FULL LOAD AMPS
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFA	GROUND FAULT ALARM
GFP	GROUND FAULT PROTECTION
HP	HORSEPOWER
KAIC	KILOAMPERE INTERRUPTING CAPACITY
KVA	KILOVOLT AMPERE
KW	KILOWATT
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MO	MANUALLY OPERATED
NC	NORMALLY CLOSED
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
P	POLES
PART	PARTIAL
R	RELOCATE
SCCR	SHORT CIRCUIT CURRENT RATING
SPD	SURGE PROTECTIVE DEVICE
ST	SHUNT TRIP
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V	VOICE
W	WALL PHONE
W	WIRE
WR	WEATHER RESISTANT
XFMR	TRANSFORMER
ZSI	ZONE SELECTIVE INTERLOCKING

REFER TO OTHER SCHEDULES AND NOTES FOR ADDITIONAL ABBREVIATIONS.

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL SYMBOLS AND ABBREVIATIONS

Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026 | Checked: CGH | Drawn: EAH

Project Number: 646-24-100

Building Number: 01

Drawing Number: EP000

VA FORM 08 - 6231

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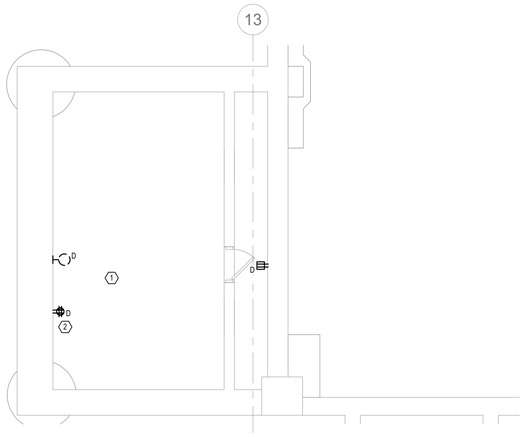
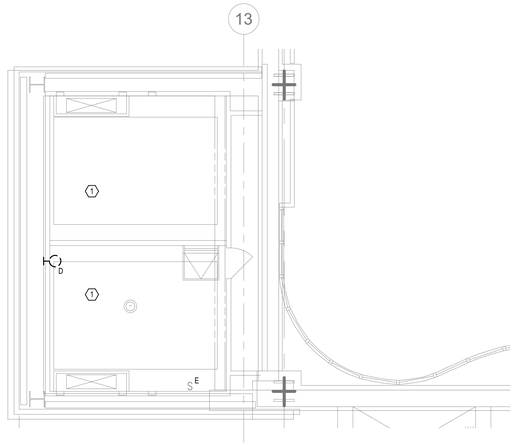
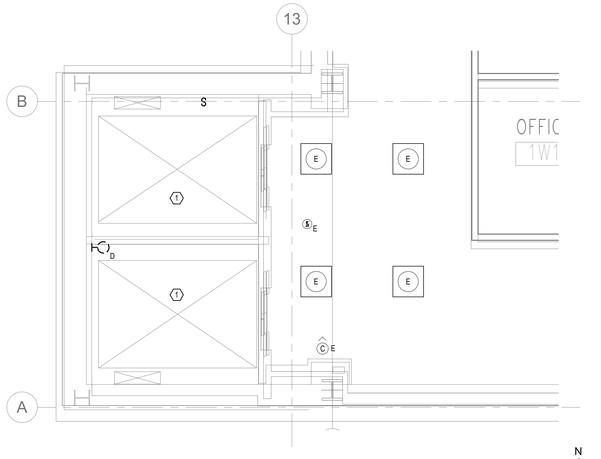


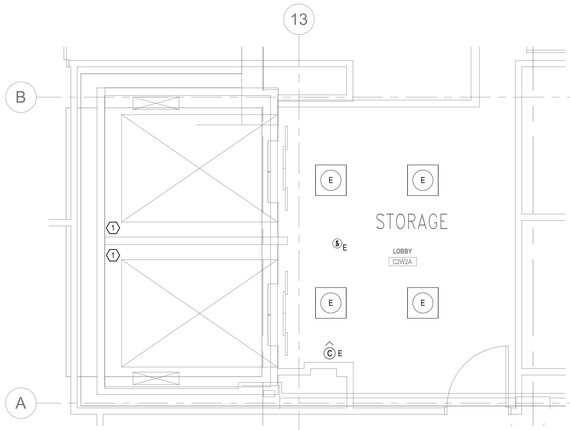
1 BASEMENT FLOOR - ELECTRICAL - DEMOLITION
1/4" = 1'-0"



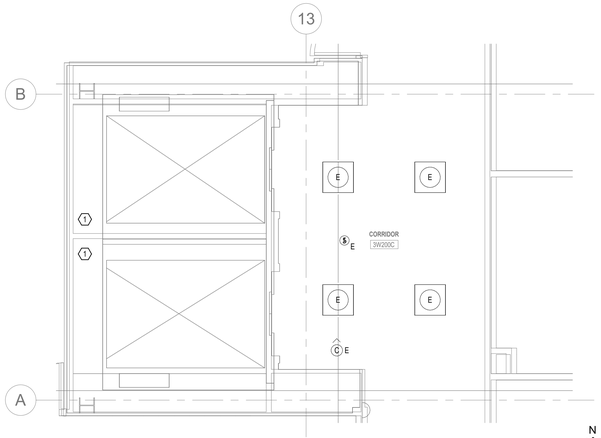
2 GROUND FLOOR - ELECTRICAL DEMOLITION
1/4" = 1'-0"



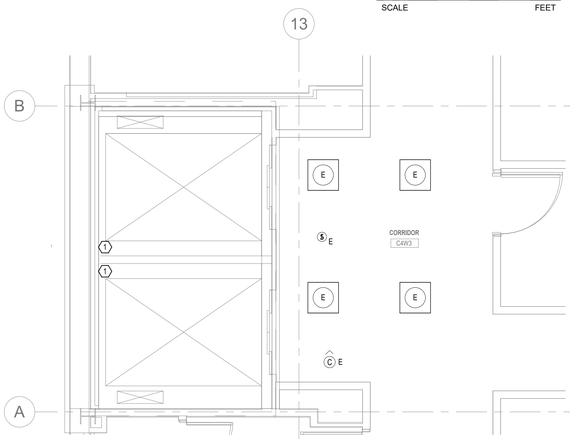
3 FIRST FLOOR - ELECTRICAL DEMOLITION
1/4" = 1'-0"



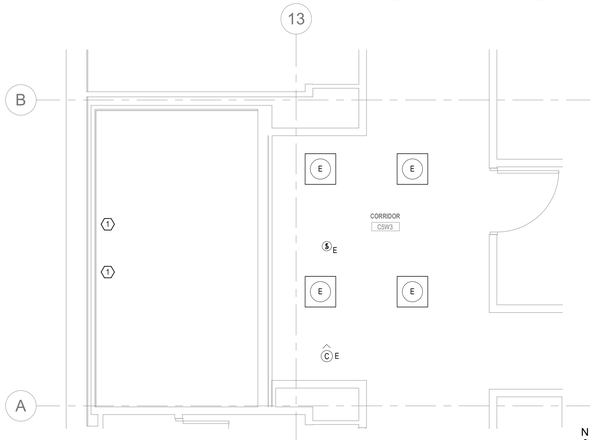
4 SECOND FLOOR - ELECTRICAL DEMOLITION
1/4" = 1'-0"



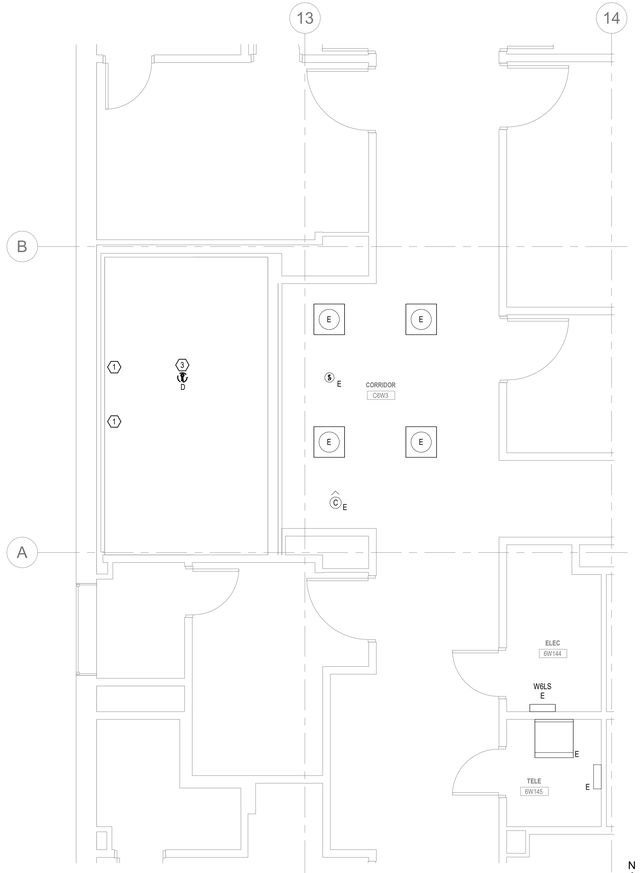
5 THIRD FLOOR - ELECTRICAL DEMOLITION
1/4" = 1'-0"



6 FOURTH FLOOR - ELECTRICAL DEMOLITION
1/4" = 1'-0"



7 FIFTH FLOOR - ELECTRICAL DEMOLITION
1/4" = 1'-0"



8 SIXTH FLOOR - ELECTRICAL DEMOLITION
1/4" = 1'-0"

ELECTRICAL DEMOLITION GENERAL NOTES:

(ELECTRICAL DEMOLITION NOTES APPLY TO ALL ELECTRICAL DEMOLITION PLANS AND ALL ELECTRICAL DEMOLITION WORK)

A. THE INTENT OF THE DEMOLITION DRAWINGS IS TO DEFINE THE SCOPE OF ELECTRICAL DEMOLITION WORK. EXISTING ELECTRICAL SYSTEMS (DEVICES, FIXTURES, EQUIPMENT, WIRING, AND RACEWAYS INCLUDING DATA/COMMUNICATION SYSTEMS). EXISTING ELECTRICAL SYSTEMS SERVING ADJACENT AREAS SHALL REMAIN UNLESS OTHERWISE INDICATED. RE-SUPPORT EXISTING CONDUITS AND CABLES THAT MUST REMAIN. REFER TO FLOORPLANS FOR INDICATION OF DEMOLITION TYPE FOR EACH AREA:
   a. SELECTIVE DEMOLITIONS AREAS:
      - PROVIDE DEMOLITION FOR ITEMS AS SHOWN. EXISTING ELECTRICAL SYSTEMS WITHIN LIMITS OF DEMOLITION SHALL REMAIN UNLESS OTHERWISE INDICATED.

B. ITEMS INDICATED WITH A SUBSCRIPT 'E' SHALL BE EXISTING TO REMAIN (E-EXISTING). ITEMS INDICATED WITH A SUBSCRIPT 'D' OR SHOWN DASHED SHALL BE REMOVED (D-DEMOLITION). ITEMS INDICATED WITH A SUBSCRIPT 'R' SHALL BE REMOVED, STORED, AND REINSTALLED PER NEW WORK (R-RELOCATION).

C. THESE DRAWINGS DO NOT IDENTIFY EACH INDIVIDUAL ITEM TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ITEMS WHICH MUST BE REMOVED TO FACILITATE NEW CONSTRUCTION. SEE ARCHITECTURAL PLANS FOR EXACT LIMITS OF DEMOLITION AND CONSTRUCTION. THESE PLANS ARE BASED ON PAST PROJECT DRAWINGS AND SITE OBSERVATIONS. THE DRAWINGS ARE PROVIDED TO THE CONTRACTOR AS AN AID IN DETERMINING THE EXTENT OF WORK REQUIRED FOR DEMOLITION AND TO PROVIDE GENERAL INFORMATION ABOUT EXISTING SYSTEMS. THESE DRAWINGS MAY NOT BE ACCURATE IN ALL AREAS. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND IS ENCOURAGED TO REVIEW FACILITY DRAWINGS PRIOR TO THE BID DATE.

D. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ALL ITEMS REMOVED. IF OWNER REFUSES SALVAGE, CONTRACTOR IS RESPONSIBLE FOR DISPOSAL.

E. WHERE EXISTING WALLS ARE TO BE REMOVED, ALL ASSOCIATED ELECTRICAL EQUIPMENT SHALL BE REMOVED. DISCONNECT POWER SO THAT DEVICES AND EQUIPMENT MAY BE REMOVED WITH WALLS. SEE ARCHITECTURAL DRAWINGS FOR WALLS TO BE REMOVED. ABANDON CONCEALED CONDUITS WHERE WALLS ARE NOT REMOVED. CONCEALED CONDUITS MAY BE REUSED WHERE AVAILABLE. WHERE EXISTING CIRCUITING/CABLING IS TO BE DEMOLISHED AND NOT REUSED, REMOVE CONDUCTORS AND ASSOCIATED ACCESSIBLE RACEWAYS/CONDUIT BACK TO THE SOURCE. WHERE EXISTING ELECTRICAL CONDUITS SERVING CIRCUITS TO BE DEMOLISHED ARE EMBEDDED IN CONCRETE FLOORS OR WALLS, CONDUITS MAY BE ABANDONED IN PLACE. EXISTING CONDUCTORS SHALL BE REMOVED BACK TO SOURCE AND CONDUITS SHALL BE CUT AT SURFACE OF CONCRETE AND FILLED. EXISTING BACK BOXES AND CONDUITS REMAINING FROM DEVICES BEING REMOVED MAY BE UTILIZED FOR NEW DEVICES WHERE LOCATIONS PERMIT. REMOVE AND PATCH WHERE BOXES ARE NOT REUSED. REMOVE CONCRETE EQUIPMENT PADS THAT REMAIN, TO BE FLUSH WITH FLOOR/GRADE.

F. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL ELECTRICAL DEMOLITION ITEMS. DISCONNECT AND REMOVE ELECTRICAL DEVICES, EQUIPMENT AND ASSOCIATED WIRING AS REQUIRED TO ACCOMMODATE NEW WORK. IF THE CONTRACTOR IS UNCLEAR REGARDING A SPECIFIC ITEM TO REMAIN OR BE REMOVED, THE CONTRACTOR SHALL SEEK CLARIFICATION FROM THE ARCHITECT.

G. SYSTEMS SERVING ADJACENT AREAS AND ITEMS THAT REMAIN SHALL BE MAINTAINED AT ALL TIMES. MODIFY SYSTEMS AS REQUIRED THROUGHOUT CONSTRUCTION TO MAINTAIN CONTINUITY OF SERVICE. DO NOT INTERRUPT SERVICE WITHOUT OWNER'S PRIOR WRITTEN APPROVAL. LIMIT DURATION OF INTERRUPTION ONLY TO THE TIME NECESSARY FOR DISCONNECTION AND IMMEDIATE RECONNECTION. INTERRUPTION TO SERVICE DEEMED BY OWNER AS ESSENTIAL MAY REQUIRE PREMIUM TIME AND SHALL BE INCLUDED WITH THE BID. EXTREME CARE SHALL BE TAKEN BY THE CONTRACTOR TO IDENTIFY EXISTING SYSTEM COMPONENTS ASSOCIATED WITH THESE SERVICES. APPROPRIATE METHODS OF MARKING THESE SHALL OCCUR TO ELIMINATE THE POSSIBILITY OF ACCIDENTAL INTERRUPTION. FOR CONDUIT AND CABLING THAT CAN REMAIN, PROVIDE SUPPORT AS REQUIRED. RELOCATE EXISTING JUNCTION BOXES THAT BECOME INACCESSIBLE DUE TO NEW WORK.

H. COORDINATE DEMOLITION WITH THE WORK OF OTHER TRADES. PROVIDE TEMPORARY POWER AND LIGHTING AS REQUIRED TO ALLOW THE WORK OF OTHER TRADES TO PROCEED.

I. PROTECT EXISTING ELECTRICAL EQUIPMENT THAT REMAINS. IF DAMAGED OR DISTURBED IN THE COURSE OF THE WORK, REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL CAPACITY, QUALITY, AND FUNCTIONALITY.

J. PATCH AND REPAIR OPENINGS IN EXISTING WALLS AND FLOORS RESULTANT FROM SPECIFIED ELECTRICAL DEMOLITION. PATCH SHALL MATCH EXISTING CONSTRUCTION, FIRE RATING, AND FINISH. SEE ARCHITECTURAL SPECIFICATIONS FOR MEANS AND METHODS.

K. THIS PROJECT WILL BE PHASED. SEE PROJECT MANUAL AND ARCHITECTURAL PLANS FOR DETAILS. SYSTEM SERVICES TO AREAS NOT IN THE CURRENT PHASE OF CONSTRUCTION SHALL BE MAINTAINED AT ALL TIMES.

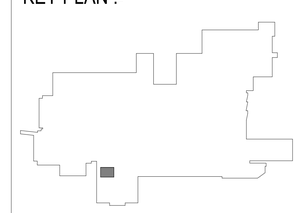
L. WHERE DEMOLITION OF EQUIPMENT INVOLVES REMOVAL OF EQUIPMENT LOCATED ON CONCRETE HOUSEKEEPING PADS, PADS SHALL ALSO BE REMOVED AND FLOOR/GRADE SHALL BE FINISHED TO MATCH ADJACENT SURFACE.

M. ALL UNLABELED ELECTRICAL DEVICES WITH CIRCUITRY OR DEVICES MODIFIED DURING CONSTRUCTION THAT EXIST IN ALL ROOMS WHERE THERE IS WORK WITHIN SCOPE SHALL BE CIRCUIT TRACED AS NEEDED WITH A LABEL PROVIDED.

SHEET NOTES:

1. DEMOLISH EXISTING WALL MOUNTED LIGHT FIXTURES AND INSTALL NEW LED WALL MOUNTED FIXTURES. REFER TO FLOOR PLAN SHEET 01-EP200 FOR NEW FIXTURE LOCATIONS.
2. DEMOLISH EXISTING QUAD RECEPTACLE (DUPLEX GFCI AND DUPLEX NON-GFCI) IN SURFACE BOX. PROVIDE NEW TWIST-LOCK RECEPTACLE FOR SUMP PUMP AND NEW DUPLEX GFCI RECEPTACLE. UTILIZE EXISTING CIRCUIT AND BRANCH.
3. DEMOLISH EXISTING HEAT DETECTOR ON TOP OF HOISTWAY. HOISTWAY SHALL NOT INCLUDE ANY HEAT DETECTORS IN THE TOP OR PIT.

KEY PLAN :-



Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029777 03/26/2026 CHARLES G. HILL

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FLOOR PLAN - ELECTRICAL DEMOLITION	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Drawing Number: ED100
		Issue Date: 03/26/2026 · Checked: CGH · Drawn: EAH	

VA FORM 08 - 6231

Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100.B01.MEP-R24.rvt
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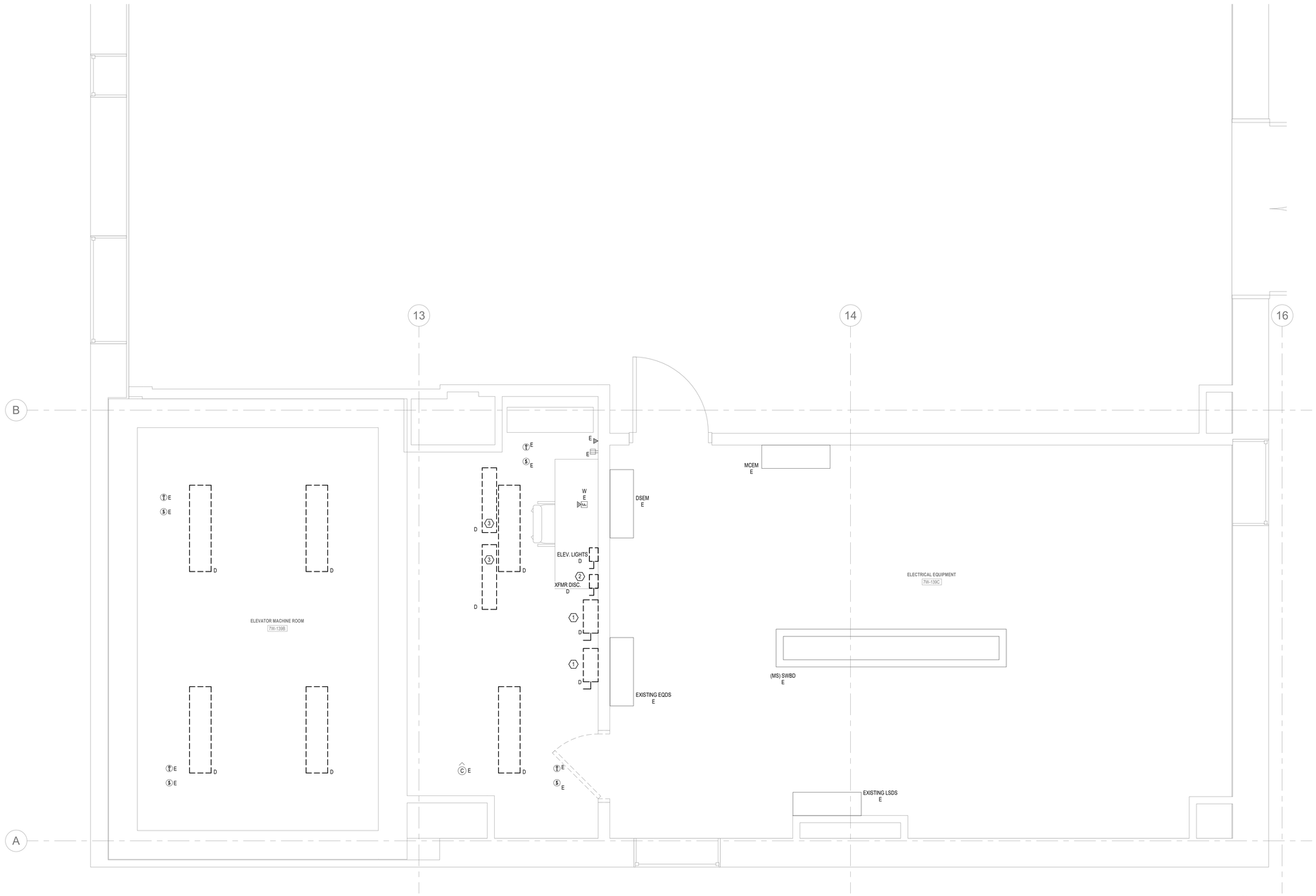
SHEET NOTES: ⬡

1. DEMOLISH EXISTING ELEVATOR DISCONNECT SWITCH AND INSTALL NEW FUSED 150A DISCONNECT IN THE SAME LOCATION.
2. DEMOLISH EXISTING SHUNT TRIP DEVICE. NEW ELEVATOR DISCONNECTS SHALL INCLUDE INTEGRAL SHUNT TRIP.
3. DEMOLISH EXISTING CONTROLLERS AND UTILIZE EXISTING CIRCUITS TO FEED NEW CONTROLLERS.

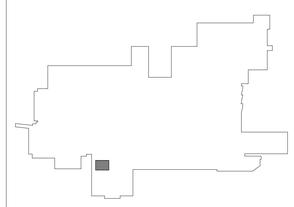


1 SEVENTH FLOOR - ELECTRICAL DEMOLITION
1/2" = 1'-0"

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

N

KEY PLAN :-



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Office of Construction and Facilities Management

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Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

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Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026

Checked: CGH

Drawn: EAH

Project Number: 646-24-100

Building Number: 01

Drawing Number: ED101

VA FORM 08 - 6231

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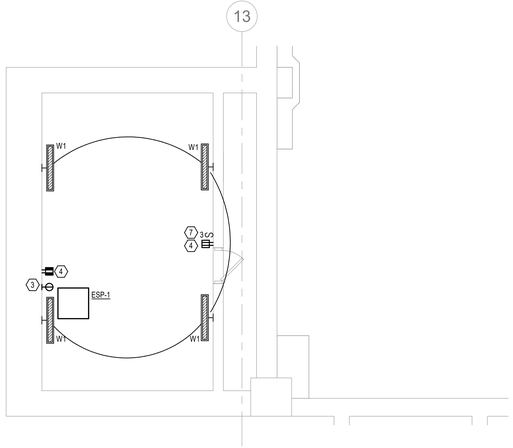
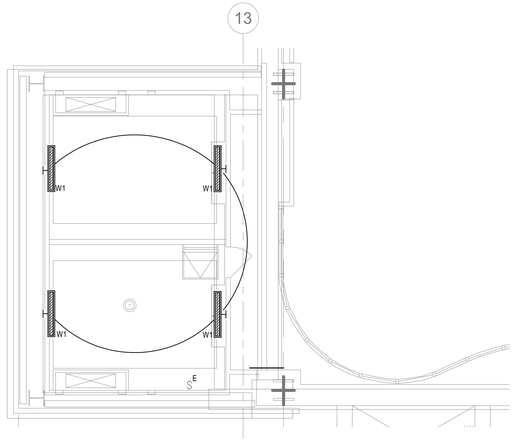
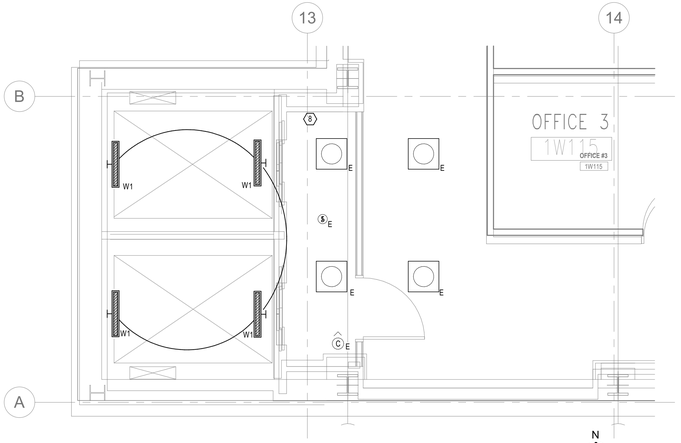


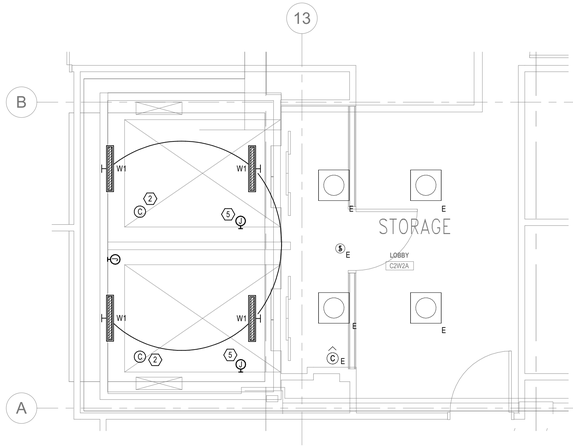
1 BASEMENT FLOOR - ELECTRICAL
1/4" = 1'-0"



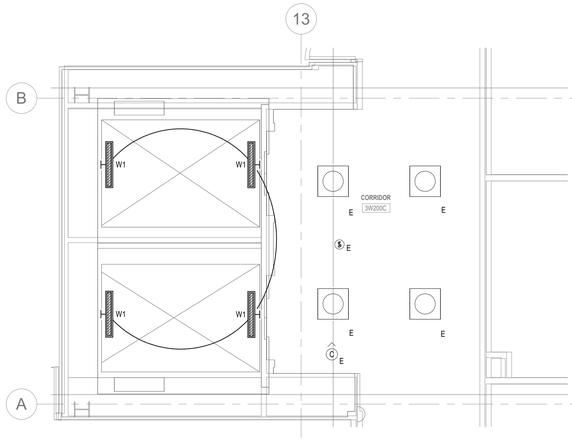
2 GROUND FLOOR - ELECTRICAL
1/4" = 1'-0"



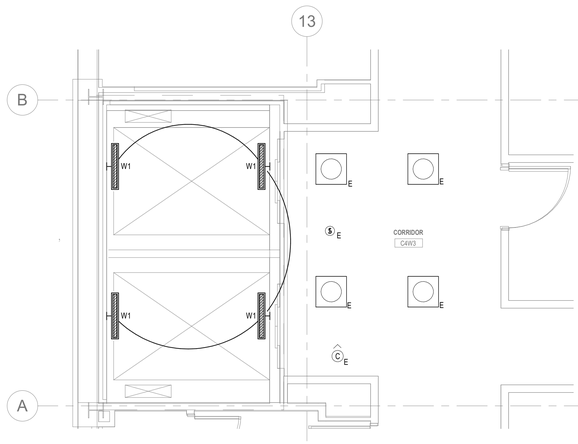
3 FIRST FLOOR - ELECTRICAL
1/4" = 1'-0"



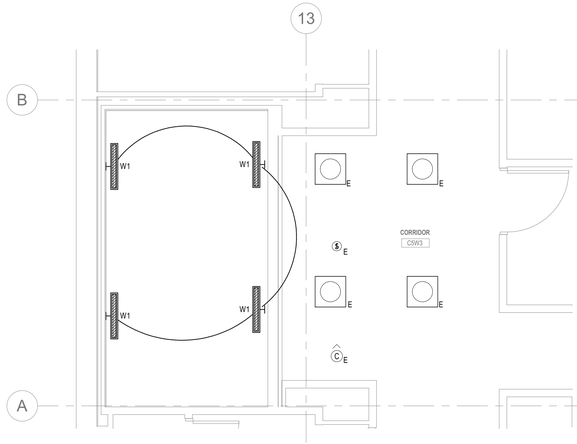
4 SECOND FLOOR - ELECTRICAL
1/4" = 1'-0"



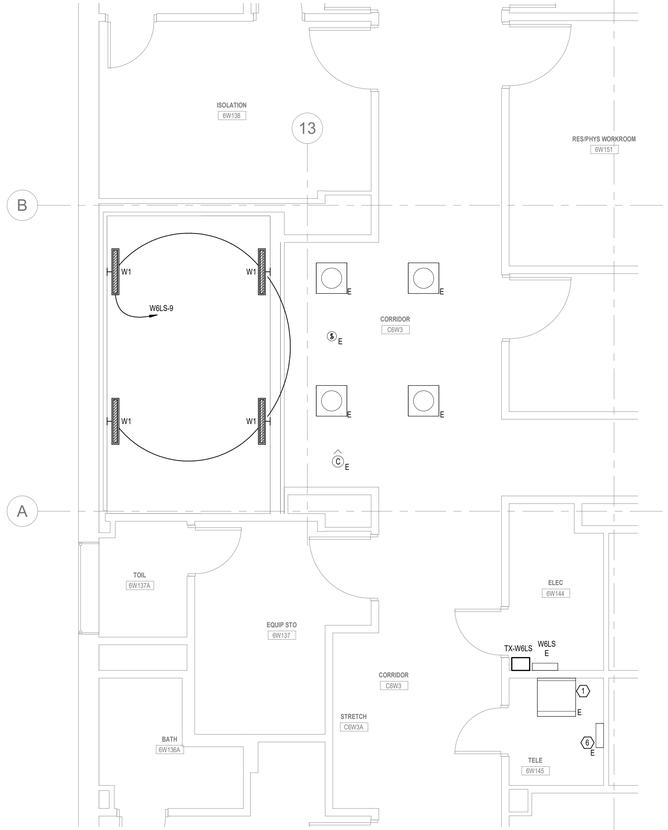
5 THIRD FLOOR - ELECTRICAL
1/4" = 1'-0"



6 FOURTH FLOOR - ELECTRICAL
1/4" = 1'-0"



7 FIFTH FLOOR - ELECTRICAL
1/4" = 1'-0"



8 SIXTH FLOOR - ELECTRICAL
1/4" = 1'-0"

POWER GENERAL NOTES:

(POWER GENERAL NOTES SHALL APPLY TO ALL SHEETS)

A. ELECTRICAL DEVICE MOUNTING HEIGHTS ARE NOT INDICATED ON ELECTRICAL FLOOR PLANS FOR ALL DEVICES. CONTRACTOR SHALL COORDINATE EXACT DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL INTERIOR ELEVATIONS, SYMBOL LEGENDS, AND TYPICAL ELECTRICAL DEVICE MOUNTING HEIGHTS DETAIL. WHERE DEVICE MOUNTING HEIGHTS ARE NOT INDICATED PER ARCHITECT, SYMBOL LEGENDS, OR DETAILS, MOUNT DEVICES AT HEIGHT INDICATED IN ELECTRICAL PROJECT SPECIFICATIONS.
B. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL DEVICE ROUGH-IN LOCATIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS TO ENSURE COMPATIBILITY WITH FINISHES SPECIFIED ON THE ARCHITECTURAL DRAWINGS. COORDINATE ROUTING OF ALL ELECTRICAL BRANCH CIRCUITS AND CONDUITS WITH OTHER TRADES TO ALLOW FOR SERVICE AND MAINTENANCE AND TO MINIMIZE THE USE OF ACCESS PANELS. WHERE ACCESS PANELS CANNOT BE AVOIDED, COORDINATE WORK TO INSTALL PANELS IN LOCATIONS ACCEPTABLE TO ARCHITECT.
C. REDUNDANT GROUNDING METHODS REQUIRED FOR PATIENT CARE AREAS. REFER TO NEC FOR REQUIREMENTS AND TO PROJECT SPECIFICATIONS FOR ACCEPTABLE METHODS/APPLICATIONS.
D. GFCI TYPE RECEPTACLES ARE NOTED AS SUCH ON THE PLANS FOR PRICING PURPOSES. HOWEVER, CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL RECEPTACLES INSTALLED WHERE A 6' CORD LENGTH COULD REACH THE EDGE OF A SINK HAVE GFCI PROTECTION.
E. REFER TO DETAILS, SCHEDULES, AND SYMBOL LEGENDS FOR ADDITIONAL REQUIREMENTS.

LOW VOLTAGE GENERAL NOTES:

(LOW VOLTAGE GENERAL NOTES SHALL APPLY TO ALL SHEETS)

A. LOW VOLTAGE DEVICE MOUNTING HEIGHTS ARE NOT INDICATED ON LOW VOLTAGE FLOOR PLANS FOR ALL DEVICES. CONTRACTOR SHALL COORDINATE EXACT DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL INTERIOR ELEVATIONS, SYMBOL LEGENDS, AND TYPICAL ELECTRICAL DEVICE MOUNTING HEIGHTS DETAIL. WHERE DEVICE MOUNTING HEIGHTS ARE NOT INDICATED PER ARCHITECT, SYMBOL LEGENDS, OR DETAILS, MOUNT DEVICES AT HEIGHT INDICATED IN ELECTRICAL PROJECT SPECIFICATIONS.
B. CONTRACTOR SHALL COORDINATE ALL LOW VOLTAGE DEVICE ROUGH-IN LOCATIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS TO ENSURE COMPATIBILITY WITH FINISHES SPECIFIED ON THE ARCHITECTURAL DRAWINGS. COORDINATE ROUTING OF ALL ELECTRICAL BRANCH CIRCUITS AND CONDUITS WITH OTHER TRADES TO ALLOW FOR SERVICE AND MAINTENANCE AND TO MINIMIZE THE USE OF ACCESS PANELS. WHERE ACCESS PANELS CANNOT BE AVOIDED, COORDINATE WORK TO INSTALL PANELS IN LOCATIONS ACCEPTABLE TO ARCHITECT.
C. COORDINATE THE LOCATIONS AND CONTROLS OF ALL FIRE/SMOKE DAMPERS WITH MECHANICAL CONTRACTOR PRIOR TO WORK.
D. REFER TO DETAILS, SCHEDULES, AND SYMBOL LEGENDS FOR ADDITIONAL REQUIREMENTS.

FIRE ALARM GENERAL NOTES:

(FIRE ALARM GENERAL NOTES SHALL APPLY TO ALL SHEETS)

A. FIRE ALARM DEVICE MOUNTING HEIGHTS ARE NOT INDICATED ON FIRE ALARM FLOOR PLANS. MOUNT DEVICES AT HEIGHT INDICATED IN ELECTRICAL PROJECT SPECIFICATIONS AND TYPICAL FIRE ALARM MOUNTING HEIGHTS DETAIL.
B. CONTRACTOR SHALL COORDINATE ALL FIRE ALARM DEVICE ROUGH-IN LOCATIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS TO ENSURE COMPATIBILITY WITH FINISHES SPECIFIED ON THE ARCHITECTURAL DRAWINGS. COORDINATE ROUTING OF ALL ELECTRICAL BRANCH CIRCUITS AND CONDUITS WITH OTHER TRADES TO ALLOW FOR SERVICE AND MAINTENANCE AND TO MINIMIZE THE USE OF ACCESS PANELS. WHERE ACCESS PANELS CANNOT BE AVOIDED, COORDINATE WORK TO INSTALL PANELS IN LOCATIONS ACCEPTABLE TO ARCHITECT.
C. COORDINATE THE LOCATIONS AND CONTROLS OF ALL FIRE/SMOKE DAMPERS WITH MECHANICAL CONTRACTOR PRIOR TO WORK.
D. REFER TO EQUIPMENT CONNECTION SCHEDULE IN THE ELECTRICAL DRAWING SET FOR REQUIRED FIRE ALARM CONTROL OF MECHANICAL EQUIPMENT. COORDINATE EQUIPMENT REQUIREMENTS WITH MECHANICAL AND CONTROLS CONTRACTORS.
E. INTEGRATE EMERGENCY LIGHTING CONTROL DEVICES WITH FIRE ALARM SYSTEM. IN THE EVENT OF AN ALARM, ALL LIGHTING SERVING AS PART OF THE EMERGENCY EGRESS SYSTEM WITHIN THE AREA UNDER ALARM SHALL BE SWITCHED ON TO FULL BRIGHTNESS REGARDLESS OF CURRENT LIGHTING CONTROL STATUS.
F. PROVIDE FIRE ALARM CONNECTION TO DOOR OPERATORS TO DISABLE OPERATION WITHIN THE AREA UNDER ALARM. REFER TO LOW VOLTAGE PLANS FOR LOCATION OF DOOR OPERATORS.
G. PROVIDE FIRE ALARM CONNECTION TO ACCESS CONTROL SYSTEM SECURED DOORS FOR DOOR RELEASE OF DOORS WITHIN THE AREA UNDER ALARM. REFER TO LOW VOLTAGE PLANS FOR LOCATION OF SECURED DOORS.
H. PROVIDE MONITORING OF GENERATOR ALARM CONDITIONS AS SPECIFIED IN SECTION 263213.
I. PROVIDE FIRE ALARM CABLING ROUTED IN CONDUIT. SUPPORT CABLING ON J-HOOKS INDEPENDENT FROM ALL OTHER CABLING SYSTEMS.
J. UTILIZE CIRCUIT INTEGRITY, CLASSIFICATION CI, OR OTHER 2-HOUR RATED CABLE ASSEMBLY FOR CABLING BETWEEN SMOKE COMPARTMENTS. CABLING WITHIN A SINGLE SMOKE COMPARTMENT CAN BE TYPE FPL.
K. REFER TO DETAILS, SCHEDULES, AND SYMBOL LEGENDS FOR ADDITIONAL REQUIREMENTS.

SHEET NOTES: ⬡

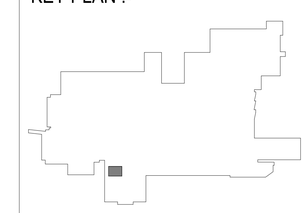
1. TELECOM ROOM AND COMM CABINET IN SPACE SHALL SERVE ELEVATOR CAMERAS, ACCESS CONTROL EQUIPMENT, AND DATA PATCH PANELS.
2. CAMERA ON EACH CAR. CAMERA COAX TRAVEL CABLE PROVIDED BY ELEVATOR VENDOR. PROVIDE CONVERTOR TO CAT 6A AND EXTEND TO TELECOMMUNICATIONS ROOM. ALL CAMERAS SHALL UTILIZE ETHERNET CAT 6A CABLING EXTENDED TO THE DESIGNATED TELECOM ROOM ON THE SIXTH FLOOR. CAMERA ETHERNET CABLING COLORING SHALL MATCH CAMPUS STANDARD.
3. PROVIDE NEW TWIST LOCK SIMPLEX RECEPTACLE FOR SUMP PUMP LOCATED AT ELEVATOR PIT. UTILIZE EXISTING BRANCH CIRCUIT AND WIRING.
4. PROVIDE NEW DUPLEX RECEPTACLE AT SAME LOCATION. UTILIZE EXISTING CIRCUIT, EQUIPMENT BRANCH, AND WIRING.
5. CODE BLUE STATION IN EACH ELEVATOR CAR PROVIDED BY ELEVATOR VENDOR. CABLE FROM ELEVATOR TRAVELING CABLE TO BE CAT 6A AND EXTEND TO TELECOMMUNICATIONS ROOM. ALL CODE BLUE STATIONS SHALL UTILIZE ETHERNET CAT 6A CABLING EXTENDED TO THE DESIGNATED TELECOM ROOM ON THE SIXTH FLOOR. CODE BLUE ETHERNET CABLING COLORING SHALL MATCH CAMPUS STANDARD.
6. CONTRACTOR TO PROVIDE NECESSARY COMPONENTS TO ACCESS CONTROL SYSTEM FOR NEW CARD READER LOCATED AT ELEVATOR EQUIPMENT ROOM.
7. PROVIDE HOISTWAY LIGHTING CONTROLS WITH 3-WAY SWITCHING AT TOP AND PIT AND 4-WAY SWITCHING AT EACH INTERMEDIATE LANDING. CONFIGURATION SHALL MATCH EXISTING CONDITIONS WHERE APPLICABLE.
8. INSTALL NEW CONTROL PANEL ASSOCIATED WITH PUMP HIGH ON WALL FOR ACCESS VIA SMALL LADDER. COORDINATE WITH COR REGARDING FINAL PLACEMENT OF PUMP PANEL PRIOR TO INSTALLATION.

LIGHTING GENERAL NOTES:

(LIGHTING GENERAL NOTES SHALL APPLY TO ALL SHEETS)

A. REFER TO DETAILS, SCHEDULES, AND SYMBOL LEGENDS FOR ADDITIONAL REQUIREMENTS.
B. REFER TO LUMINAIRE SCHEDULE FOR LUMINAIRE DETAILS.
C. EMERGENCY EGRESS LIGHTING
   a. FIXTURES DESIGNATED 'EM'. EXIT LIGHTS AND ELEVATOR HOIST LIGHTING (W1) ARE PART OF THE EMERGENCY EGRESS LIGHTING SYSTEM. EMERGENCY EGRESS LIGHTING SHALL BE SERVED FROM LIFE SAFETY LIGHTING BRANCH CIRCUIT PANEL W6LS AT 6TH FLOOR.
   b. EXIT SIGNS SHALL BE ILLUMINATED 24 HOURS.
   c. DURING NORMAL CONDITIONS, FIXTURES DESIGNATED 'EM' SHALL BE CONTROLLED (SWITCHED, DIMMED, ETC.) ALONG WITH NORMAL ROOM LIGHTING PER LIGHTING CONTROL PLAN.
   d. EMERGENCY LIGHTING CONTROL DEVICES: PROVIDE UL LISTED LIGHTING CONTROL DEVICE(S) AS REQUIRED BELOW. UPON LOSS OF NORMAL POWER, ALL LIGHTING SERVING AS PART OF THE EMERGENCY EGRESS SYSTEM SHALL BE SWITCHED ON TO FULL BRIGHTNESS, REGARDLESS OF CURRENT LIGHTING CONTROL STATUS.
      - UL-924 DEVICES - WHERE EMERGENCY EGRESS LIGHTING AND NORMAL BRANCH LIGHTING ARE LOCATED WITHIN THE SAME SPACE, PROVIDE UL-924 EMERGENCY LIGHTING CONTROL UNIT(S) TO ALLOW FOR LOCAL LIGHTING CONTROL OVERRIDE. DEVICE REQUIRES CONNECTION TO UNSWITCHED LEG OF NORMAL LIGHTING BRANCH CIRCUIT SERVING SPACE. INSTALL PER MANUFACTURER'S WIRING DIAGRAM.
      - UL-1008 DEVICES - WHERE A SPACE IS SERVED SOLELY BY LIGHTING THAT IS PART OF THE EMERGENCY EGRESS LIGHTING SYSTEM, PROVIDE A UL-1008 BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH (IN LIEU OF UL-924 DEVICE INDICATED ABOVE) TO ALLOW FOR LOCAL LIGHTING CONTROL OVERRIDE. DEVICE REQUIRES CONNECTION TO BOTH NORMAL AND EMERGENCY SOURCE. REFER TO PLANS FOR SOURCE CIRCUITS. DEVICE SHALL BE LOCATED EITHER WITHIN AREA SERVED OR WITHIN ELECTRICAL ROOM CONTAINING SOURCE PANELS.
      - FIRE ALARM INTEGRATION - INTEGRATE EMERGENCY LIGHTING CONTROL DEVICE(S) WITH FIRE ALARM SYSTEM. IN THE EVENT OF AN ALARM, ALL LIGHTING SERVING AS PART OF THE EMERGENCY EGRESS SYSTEM WITHIN THE AREA UNDER ALARM SHALL BE SWITCHED ON TO FULL BRIGHTNESS, REGARDLESS OF CURRENT LIGHTING CONTROL STATUS.

KEY PLAN :-



INSTALL GREEN INSULATED GROUND WIRE WITH LIGHTING, RECEPTACLE AND EQUIPMENT BRANCH CIRCUITS.

INSTALL INDIVIDUAL (DEDICATED) NEUTRAL CONDUCTORS FOR EACH 120V OR 277V PHASE CONDUCTOR SERVED FROM A SINGLE POLE CIRCUIT BREAKER

Revisions:	Date:

CONSULTANT

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NORTH CAROLINA PROFESSIONAL SEAL 029777 ENGINEER CHARLES G. HALL 03/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FLOOR PLAN - ELECTRICAL

Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026 | Checked: CGH | Drawn: EAH

Project Number: 646-24-100

Building Number: 01

Drawing Number: EP200

VA FORM 08 - 6231

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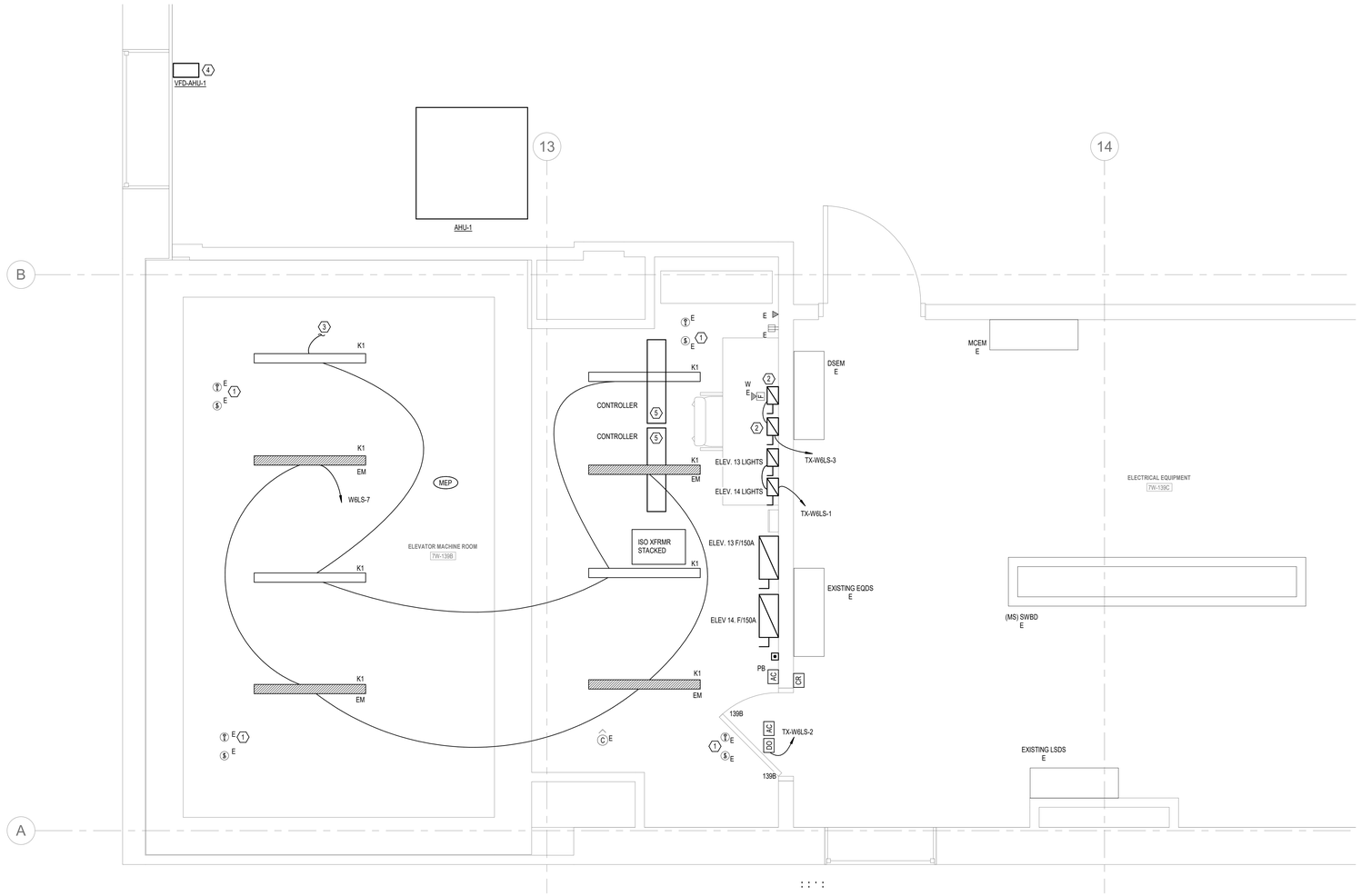
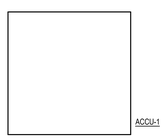




1 SEVENTH FLOOR - ELECTRICAL
1/2" = 1'-0"

SHEET NOTES:

1. EXISTING HEAT AND SMOKE DETECTORS TO REMAIN.
2. PROVIDE 20A FUSED DISCONNECT FOR ELEV. VIDEO COMMUNICATION. DISCONNECT SHALL BE FED FROM TX-W6LS, LIFE SAFETY BRANCH.
3. UTILIZE EXISTING LIGHTING CIRCUITS FOR NEW LIGHTING FIXTURES. PANEL W6CP, CIRCUIT 4.
4. VFD SHALL BE FED FROM SAME POWER SOURCE AS AHU-1. COORDINATE FEEDER, OVERCURRENT PROTECTION, AND DISCONNECT. REFER TO EQUIPMENT CONNECTION SCHEDULE.
5. UTILIZE EXISTING CIRCUITS SERVING EXISTING CONTROLLERS TO FEED NEW CONTROLLERS.

TRACTION MACHINE ROOM NOTES:

1. AIR CONDITIONING EQUIPMENT SHALL NOT BE LOCATED DIRECTLY ABOVE ELEVATOR EQUIPMENT. COORDINATE FINAL LOCATION OF AC EQUIPMENT WITH THE ELEVATOR SHOP DRAWINGS.
2. PROVIDE SELF CLOSING, SELF LOCKING, FIRE RATED MACHINE ROOM DOOR PER CODE.
3. MINIMUM 200 LUX MEASURED AT MACHINE ROOM FLOOR REQUIRED.
4. COORDINATE FINAL LOCATION OF MACHINE ROOM EQUIPMENT WITH ELEVATOR SHOP DRAWINGS.
5. MAINTAIN MINIMUM 7'-0" CLEAR HEIGHT THROUGHOUT ENTIRE MACHINE ROOM AFTER INSTALLATION OF EQUIPMENT. CLEAR HEIGHT ABOVE MACHINE MUST BE SHOWN PER SECTION DRAWING.
6. ACCESS TO ANOTHER PORTION OF THE BUILDING, INCLUDING THE ROOF, THROUGH THE MACHINE ROOM IS PROHIBITED PER CODE.
7. MACHINE ROOM TEMPERATURE MUST BE MAINTAINED BETWEEN 50~90 DEG. F.
8. EQUIPMENT IN THE MACHINE ROOM ROOM SHALL BE USED FOR THE FUNCTION OF THE ELEVATOR ONLY.
9. MACHINE ROOM TO BE VENTILATED IN ACCORDANCE WITH LOCAL CODE REGULATIONS.

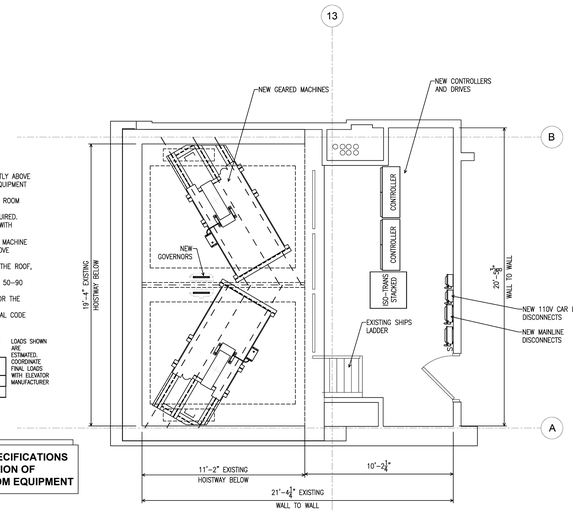
POWER AND VENTILATION / UNIT

POWER BASED ON: 480V 3-PHASE-60 HEIRTZ.

	MOTOR HP	FULL LOAD RUNNING AMPS	FULL LOAD ACCEL. AMPS	HEAT RELEASE BTU/HR/UNIT
ELV 13	60	87	170	31,500
ELV 14	60	87	170	31,500

LOADS SHOWN ARE ESTIMATED. COORDINATE FINAL LOADS WITH ELEVATOR MANUFACTURER

REFER TO SPECIFICATIONS FOR DISPOSITION OF MACHINE ROOM EQUIPMENT



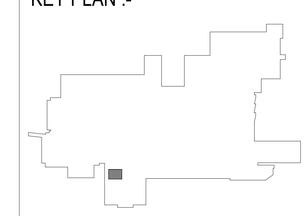
2 MACHINE ROOM PLAN
SCALE: 1/4"=1'-0"

- REFER TO SPECIFICATIONS SECTION 142100 FOR MACHINE ROOM EQUIPMENT.
- FUSED DISCONNECTS SHALL BE PROVIDED WITH 150A FUSES. COORDINATE FINAL REQUIREMENTS WITH ELEVATOR MANUFACTURER.

N

1/4" = 1'-0" 2 0 2 4 6 8 10
SCALE FEET

KEY PLAN :-



INSTALL GREEN INSULATED GROUND WIRE WITH LIGHTING, RECEPTACLE AND EQUIPMENT BRANCH CIRCUITS.

INSTALL INDIVIDUAL (DEDICATED) NEUTRAL CONDUCTORS FOR EACH 120V OR 277V PHASE CONDUCTOR SERVED FROM A SINGLE POLE CIRCUIT BREAKER

Revisions:	Date:

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SES Project : 22164.005

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NORTH CAROLINA PROFESSIONAL SEAL 029777 ENGINEER CHARLES G. HALL 03/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FLOOR PLAN - ELECTRICAL

Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026 | Checked: CGH | Drawn: EAH

Project Number: 646-24-100

Building Number: 01

Drawing Number: EP201

VA FORM 08 - 6231

Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100.B01 MEP R24.rvt

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FEEDER SCHEDULE - COPPER		
FEEDER	NOMINAL SIZE	WIRE AND CONDUIT
2X	20 A	2-#12 CU, #12 CU GND - 3/4" C.
3X	30 A	2-#10 CU, #10 CU GND - 3/4" C.
20	200 A	3-#3/0 CU, #6 CU GND - 2" C.

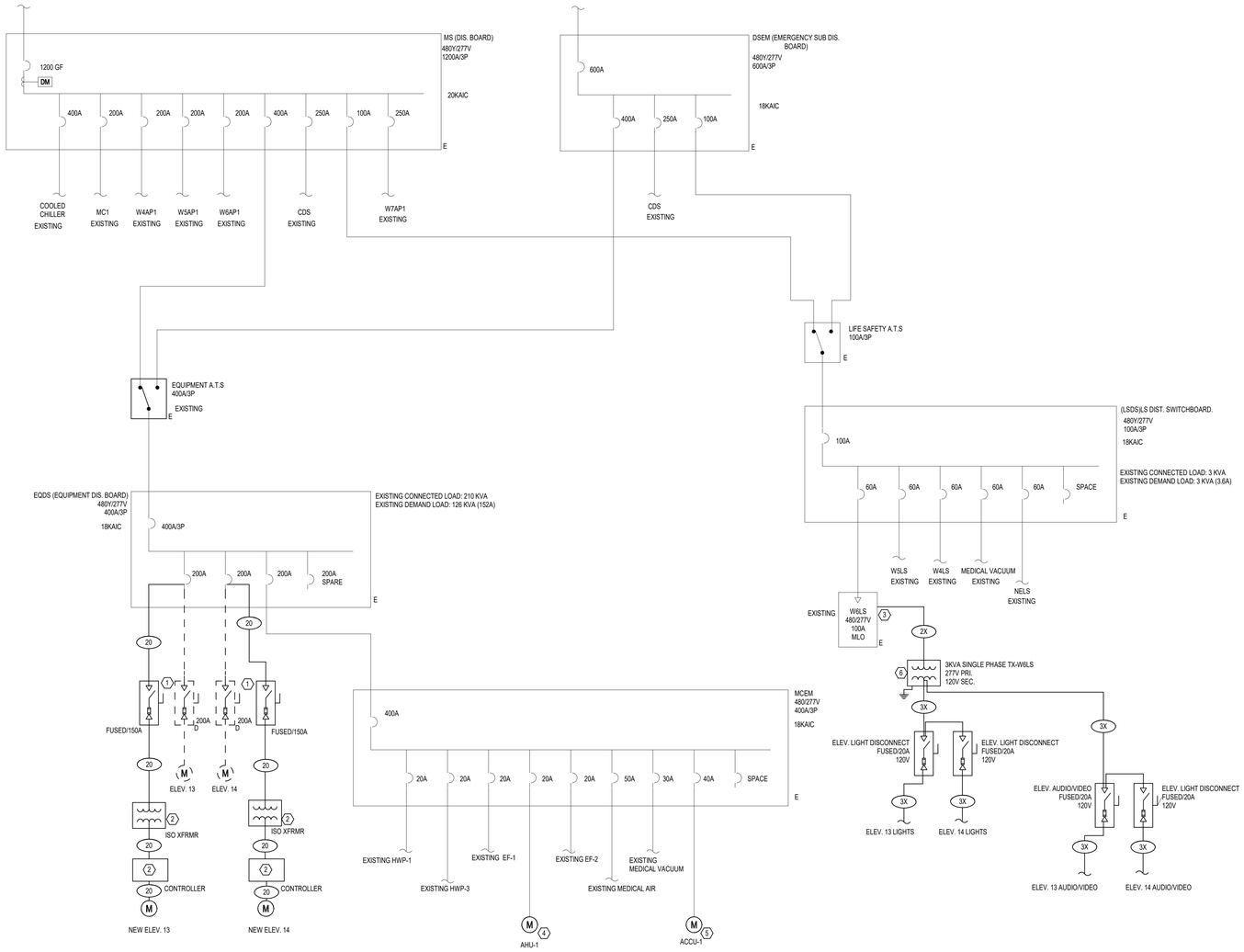
ONE-LINE GENERAL NOTES:

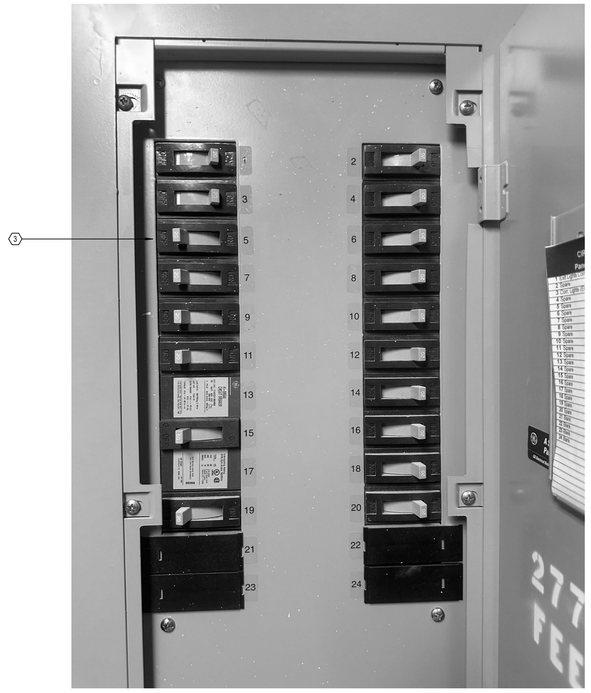
(GENERAL NOTES SHALL APPLY TO ALL ONE-LINE SHEETS)

A. MECHANICAL EQUIPMENT NOT SHOWN ON ONE-LINE. REFER TO PANEL SCHEDULES FOR COMPLETE LIST OF CIRCUIT BREAKER SIZES AND QUANTITIES REQUIRED.

SHEET NOTES: (1)

1. DEMOLISH EXISTING ELEVATOR DISCONNECT SWITCH, CONDUCTORS, AND INSTALL NEW FUSED 150A DISCONNECT WITH SHUNT TRIP IN THE SAME LOCATION. CONTRACTOR TO UTILIZE THE EXISTING RACEWAY AND PROVIDE NEW FEEDERS AS INDICATED. CONTRACTOR TO VERIFY THE FEEDER SIZE WITH ELEVATOR VENDOR PRIOR TO ROUGH -IN.
2. ELEVATOR CONTROLLER AND ISOLATION TRANSFORMER FURNISHED BY ELEVATOR VENDOR. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS.
3. UTILIZE EXISTING 20A, 1-POLE BREAKER IN EXISTING W6LS PANEL TO FEED SINGLE-PHASE 3 KVA TRANSFORMER.
4. UTILIZE EXISTING CIRCUIT TO FEED NEW AHU-1. DEMOLISH EXISTING DISCONNECT AND INSTALL NEW DISCONNECT AS DESCRIBED IN THE EQUIPMENT CONNECTION SCHEDULE ON SHEET EP700. CONTRACTOR SHALL VERIFY EXISTING OVERCURRENT PROTECTIVE DEVICE SIZE PRIOR TO NEW INSTALLATION.
5. UTILIZE EXISTING CIRCUIT TO FEED NEW ACCU-1. DEMOLISH EXISTING DISCONNECT AND INSTALL NEW DISCONNECT AS DESCRIBED IN THE EQUIPMENT CONNECTION SCHEDULE ON SHEET EP700. CONTRACTOR SHALL VERIFY EXISTING OVERCURRENT PROTECTIVE DEVICE SIZE PRIOR TO NEW INSTALLATION.
6. PROVIDE 3 KVA, SINGLE-PHASE TRANSFORMER FED FROM LIFE SAFETY BRANCH WITH FACTORY-PROVIDED SECONDARY DISTRIBUTION SECTION OR INTEGRAL PANELBOARD. PROVIDE (5) 20A, 1-POLE OUTGOING CIRCUIT BREAKERS ON THE 120V SECONDARY SIDE.





EXISTING PANEL W6LS

1 EP500 ELECTRICAL ONE-LINE
NO SCALE

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ONE-LINE DIAGRAM	100% CONSTRUCTION DOCUMENTS	VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	646-24-100
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Building Number: 01
		Issue Date: 03/26/2026 · Checked: CGH · Drawn: EAH	Drawing Number: EP500

VA FORM 08 - 6231

Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100.B01.MEP-R24.rvt

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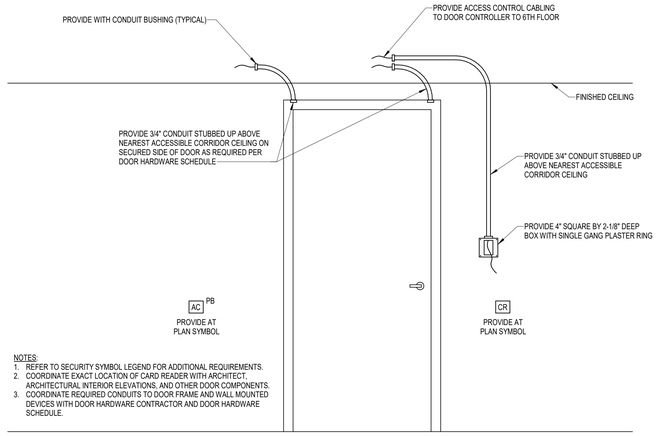


NOTES:
1. REFER TO SECURITY SYMBOL LEGEND FOR ADDITIONAL REQUIREMENTS.
2. COORDINATE EXACT LOCATION OF CARD READER WITH ARCHITECT, ARCHITECTURAL INTERIOR ELEVATIONS, AND OTHER DOOR COMPONENTS.
3. COORDINATE REQUIRED CONDUITS TO DOOR FRAME AND WALL MOUNTED DEVICES WITH DOOR HARDWARE CONTRACTOR AND DOOR HARDWARE SCHEDULE.

4 EP600 ACCESS CONTROL ROUGH-IN
NO SCALE

EXISTING PANEL: W6LS

LOCATION: ELEC 6W144
SUPPLY FROM: EXISTING LSDS
BRANCH: LIFE SAFETY
SERVICE RATED: No
MOUNTING: SURFACE
NEMA ENCLOSURE: TYPE-1

VOLTS: 480/277 WYE
PHASES: 3
WIRES: 4
INTEGRAL SPD: No
AVAILABLE SCC (kA):

MAINS TYPE: MLO
MCB/MLO RATING: 100 A
MCB OPTIONS: NONE
SECTIONS: 1
PANEL POLES: 24

CKT	CIRCUIT DESCRIPTION	OPT	RATING	POLES	A		B		C		POLES	RATING	OPT	CIRCUIT DESCRIPTION	CKT
1	EX. EXIT LIGHTS	--	20 A	1	120 VA	0 VA					1	20 A	--	SPARE	2
3	EX. CORRID. LIGHTS	--	20 A	1			500 VA	0 VA			1	20 A	--	SPARE	4
5	TX-W6LS		20 A	1					500 VA	0 VA	1	20 A	--	SPARE	6
7	EMERGENCY LTG MACHINE...		20 A	1	104 VA	0 VA					1	20 A	--	SPARE	8
9	HOISTWAY LTG		20 A	1			1170 VA	0 VA			1	20 A	--	SPARE	10
11	SPARE	--	20 A	1					0 VA	0 VA	1	20 A	--	SPARE	12
13	SPARE	--	50 A	3	0 VA	0 VA					1	20 A	--	SPARE	14
15							0 VA	0 VA			1	20 A	--	SPARE	16
17									0 VA	0 VA	1	20 A	--	SPARE	18
19	SPARE	--	20 A	1	0 VA	0 VA					1	20 A	--	SPARE	20
21	SPACE	--	--	1			--	--			1	--	--	SPACE	22
23	SPACE	--	--	1					--	--	1	--	--	SPACE	24
				TOTAL LOAD:	224 VA		1670 VA		500 VA						
				TOTAL AMPS:	1 A		6 A		2 A						

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
LTG	1274 VA	125.00%	1593 VA
PWR-C	500 VA	125.00%	625 VA
Spare	620 VA	100.00%	620 VA

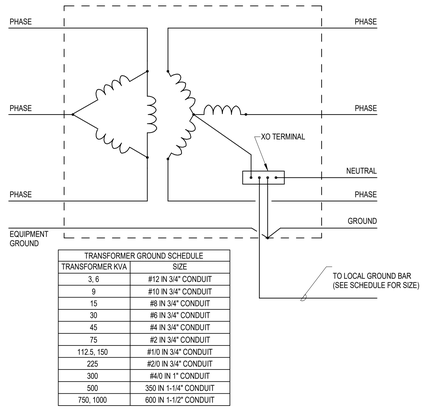
PANEL TOTALS	
CONNECTED LOAD:	2394 VA
CONNECTED CURRENT:	3 A
DEMAND LOAD:	2838 VA
DEMAND CURRENT:	3 A
CONSIDER 125% DEMAND:	3547 A
EQUIPMENT AMPS:	100 A
FEEDER AVAILABLE:	
SPARE CAPACITY:	96 %
	97 A

OPTIONS:

CIRCUIT BREAKER OPTIONS SUFFIX: 'S' OR 'ST' - PROVIDE SHUNT TRIP CIRCUIT BREAKER / 'G' OR 'GFCI' - PROVIDE GFCI CIRCUIT BREAKER / 'GFP' - PROVIDE GFP CIRCUIT BREAKER / 'ERMS' - ENERGY REDUCING MAINTENANCE SWITCH / 'ZSI' - ZONE SELECTIVE INTERLOCKING / 'L' - PROVIDE CIRCUIT BREAKER WITH LOCKING PROVISIONS / 'R' - PROVIDE CIRCUIT BREAKER WITH RED MARKING

GENERAL REMARKS:

A. PANEL AIC (INTERRUPTING) RATING SHALL BE MINIMUM 120% OF THE AVAILABLE SCC (SHORT CIRCUIT CURRENT).



TRANSFORMER GROUND SCHEDULE	
TRANSFORMER KVA	SIZE
3, 6	#12 IN 3/4" CONDUIT
9	#10 IN 3/4" CONDUIT
15	#8 IN 3/4" CONDUIT
30	#6 IN 3/4" CONDUIT
45	#4 IN 3/4" CONDUIT
75	#2 IN 3/4" CONDUIT
112.5, 150	#1/0 IN 3/4" CONDUIT
225	#2/0 IN 3/4" CONDUIT
300	#4/0 IN 1" CONDUIT
500	350 IN 1-1/4" CONDUIT
750, 1000	600 IN 1-1/2" CONDUIT

3 DRY-TYPE TRANSFORMER GROUNDING1
NO SCALE

Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL SEAL 029777 ENGINEER CHARLES G. HALL 03/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS

Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026
Checked: CGH
Drawn: EAH

Project Number: 646-24-100
Building Number: 01
Drawing Number: EP600

VA FORM 08 - 6231

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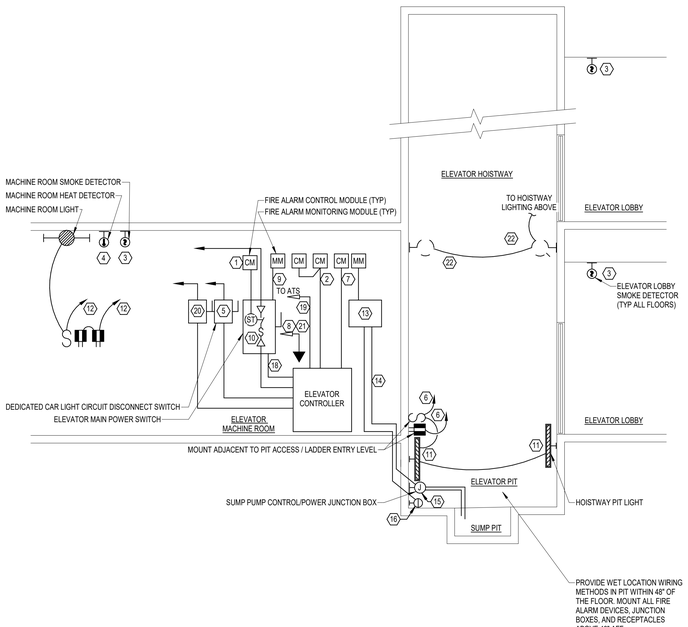


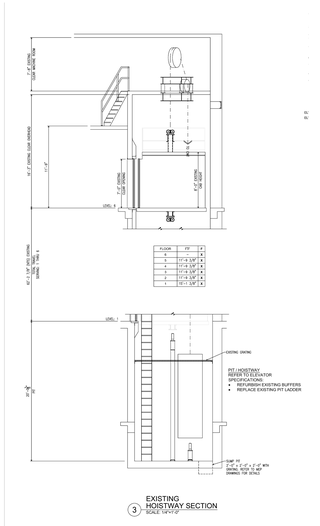
ELEVATOR CONNECTION SCHEMATIC GENERAL NOTES:

A. COMPLY WITH NFPA 70, ARTICLE 620.
B. SMOKE DETECTORS SHALL BE INSTALLED AT EACH ELEVATOR LOBBY AT EACH LANDING AND ASSOCIATED ELEVATOR MACHINE ROOM, AND WITHIN ELEVATOR HOISTWAY. PROVIDE QUANTITY OF SMOKE DETECTORS REQUIRED BASED ON FINAL CEILING HEIGHT, BEAM POCKET DEPTH, ETC. TO MEET NFPA 72, CHAPTER 17 REQUIREMENTS. ACTIVATION OF ANY OF THESE SMOKE DETECTORS SHALL INITIATE ELEVATOR RECALL.
C. ACTIVATION OF SMOKE DETECTOR(S) ON A DESIGNATED LEVEL SHALL CAUSE THE ELEVATOR TO RETURN TO AN ALTERNATE LEVEL. DESIGNATED AND ALTERNATE LEVELS TO BE DETERMINED BY THE ELEVATOR INSPECTOR AND FIRE MARSHAL.
D. HEAT DETECTORS USED FOR ELEVATOR POWER SHUT DOWN SHALL BE LOCATED WITHIN 24" OF SPRINKLER HEADS WITHIN ELEVATOR MACHINE ROOM AND ELEVATOR HOISTWAY. COORDINATE EXACT LOCATION(S) AND QUANTITY WITH FIRE SPRINKLER CONTRACTOR. ACTIVATION OF HEAT DETECTOR WITHIN ELEVATOR MACHINE ROOM OR ELEVATOR HOISTWAY SHALL SHUT DOWN POWER TO ELEVATOR CONTROLLER.
E. FIRE ALARM CONNECTIONS INDICATED ARE BASED ON AN ADDRESSABLE FIRE ALARM SYSTEM. WHERE A NON-ADDRESSABLE FIRE ALARM SYSTEM IS SPECIFIED PROVIDE RELAYS AND CONNECTIONS TO CONTROL PANEL AS REQUIRED.
F. VERIFY ALL EQUIPMENT LOCATIONS WITH ELEVATOR MANUFACTURER'S SHOP DRAWINGS PRIOR TO INSTALLATION OF EQUIPMENT.
G. WHERE MULTIPLE ELEVATOR CABS APPLY (MULTIPLE ELEVATOR PITS, HOISTWAYS, AND MACHINE ROOMS), PROVIDE MULTIPLES OF ALL DEVICES, EQUIPMENT, AND CONNECTIONS AS REQUIRED.
H. FOR NON-FIRE SPRINKLERED BUILDINGS ONLY: HEAT DETECTORS MAY BE EXCLUDED, AND FUSED SWITCH WITH AUXILIARY CONTACTS MAY BE SUBSTITUTED FOR SHUNT TRIP DISCONNECT SWITCH.

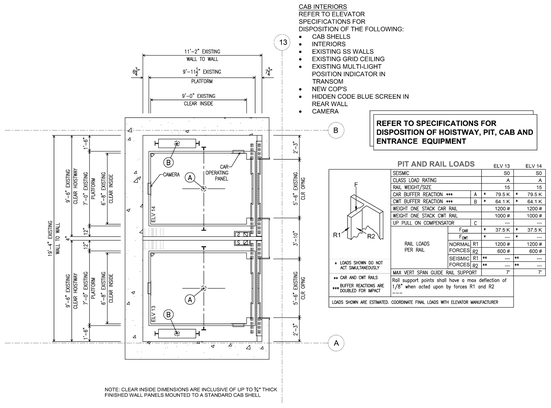
ELEVATOR CONNECTION SCHEMATIC KEYED NOTES:

1. ELEVATOR POWER SHUNT TRIP. CONNECT TO FIRE SAFETY INTERFACE IN ELEVATOR MAIN POWER SWITCH.
2. ELEVATOR RECALL INITIATED BY FIRE ALARM SYSTEM VIA CONTROL MODULES.
3. EXISTING SMOKE DETECTOR ALARM SIGNAL TO FIRE ALARM SYSTEM INITIATES ELEVATOR RECALL.
4. EXISTING HEAT DETECTOR ALARM SIGNAL TO FIRE ALARM SYSTEM INITIATES ELEVATOR POWER SHUTDOWN.
5. DEDICATED CAR LIGHT CIRCUIT WITH LOCKABLE FUSED SWITCH PER NFPA 70, ARTICLE 620. SERVE FROM LIFE SAFETY BRANCH SOURCE INDICATED. PROVIDE 2-#12, #12 GROUND IN 3/4" CONDUIT.
6. DEDICATED ELEVATOR HOISTWAY PIT BRANCH CIRCUITS PER NFPA 70, ARTICLE 620. SERVE FROM EQUIPMENT BRANCH SOURCE INDICATED.
7. ELEVATOR CAB VISUAL INDICATOR CONTROL. (FIREFIGHTERS HAT LIGHT)
8. TELEPHONE OUTLET AND CONDUIT PER SPECIFICATIONS. PROVIDE CONNECTION TO ELEVATOR CONTROLLER PER MANUFACTURERS INSTRUCTIONS.
9. SHUNT TRIP POWER SOURCE MONITORING MODULE.
10. PROVIDE BUSSMANN POWER MODULE SWITCH, LITTELFUSE LPS SERIES, MERSEN ES SERIES OR EQUIVALENT SHUNT TRIP DISCONNECT SWITCH WITH AMPACITY TO MEET OR EXCEED OVERCURRENT DEVICE SERVING ELEVATOR. PROVIDE WITH CONTROL POWER TRANSFORMER, FIRE SAFETY INTERFACE RELAY, AND AUXILIARY CONTACTS (1 SET). PROVIDE CLASS J FUSES SIZED 150A PER ELEVATOR MANUFACTURER'S RECOMMENDATIONS. THE AVAILABLE SHORT CIRCUIT CURRENT (SCC) AT THE ELEVATOR MAIN POWER SWITCH SHALL MATCH EXISTING. REFER TO CURRENT POWER SYSTEM STUDY UNDER DESIGN. RATING SHALL BE ADJUSTED IF REQUIERED BASED ON FINAL SCC CALCULATION. PROVIDE NEW FEEDERS PER SINGLE LINE, UTILIZE EXISTING CONDUIT. CONFIRM FINAL FEEDER AND CIRCUIT BREAKER SIZE WITH FINAL EQUIPMENT SELECTION.
11. ELEVATOR HOISTWAY PIT LIGHTS. PROVIDE TWO (2) LIGHT FIXTURES, MOUNTED ON OPPOSITE WALLS OF ELEVATOR PIT. COORDINATE EXACT FIXTURE LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. REFER TO FLOORPLANS EP200 FOR LOCATIONS.
12. DEDICATED MACHINE ROOM BRANCH CIRCUITS PER NFPA 70, ARTICLE 620. SERVE FROM EXISTING BRANCH SOURCE AND CIRCUIT.
13. SUMP PUMP CONTROL PANEL (PROVIDED BY SUMP PUMP MANUFACTURER). REFER TO FLOORPLANS FOR EXACT LOCATION. POWER SOURCE FOR ASSOCIATED SUMP PUMP SHALL ROUTE THROUGH CONTROL PANEL AND PROVIDE POWER TO CONTROL PANEL. COORDINATE LOCATION OF CONTROL PANEL TO ACCOMMODATE ALL RELEVANT CODES AND AVAILABLE LENGTHS OF CONTROL CABLE. PROVIDE PUMP ALARM SIGNAL TO FIRE ALARM CONTROL PANEL AS A SUPERVISORY ALARM. COORDINATE ALL REQUIREMENTS OF SUMP PUMP SYSTEMS SPECIFIED AND MAKE PROVISIONS FOR MOUNTING, CONFIGURATION, AND CONNECTION AS DIRECTED BY VENDOR / MANUFACTURER.
14. PROVIDE TWO (2) 1" CONDUITS FROM CONTROL PANEL INTO ELEVATOR PIT FOR CONTROL CABLE ROUTING BY SUMP PUMP MANUFACTURER. COORDINATE SIZE AND QUANTITY OF CONDUITS TO ACCOMMODATE CONTROL CABLES (FLOATS, PROBES, SENSORS, ETC.) AS RECOMMENDED BY MANUFACTURER. ROUTE CONDUIT TO CONNECTION JUNCTION BOX AND PROVIDE CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS. COORDINATE ROUTING OF CONTROL CABLE CONDUIT TO DETERMINE LENGTH REQUIREMENTS OF CONTROL CABLES.
15. SURFACE MOUNT MANUFACTURER FURNISHED SUMP PUMP CONTROL JUNCTION BOX WITHIN ELEVATOR PIT. MOUNT WITH BOTTOM OF JUNCTION BOX 50" ABOVE ELEVATOR PIT FLOOR. COORDINATE LOCATION OF JUNCTION BOX WITH LOCATION OF SUMP PUMP AND CONTROL CABLE LENGTHS. PROVIDE FINAL CONNECTIONS OF CONTROL CABLES AT SUMP PUMP. COORDINATE ALL REQUIREMENTS OF SUMP PUMP SYSTEMS SPECIFIED AND MAKE PROVISIONS FOR MOUNTING AND CONNECTION AS DIRECTED BY VENDOR/MANUFACTURER.
16. PROVIDE SIMPLEX NEMA RECEPTACLE, HARD-WIRED FROM SUMP PUMP CONTROL PANEL. MOUNTED WITH BOTTOM OF BACK BOX AT 50" ABOVE ELEVATOR PIT FLOOR. SERVE FROM SUMP PUMP CONTROL PANEL SOURCE. PROVIDE SUMP PUMP WITH CORD AND PLUG TO MATCH NEMA CONFIGURATION OF SIMPLEX NEMA RECEPTACLE. REFER TO EQUIPMENT CONNECTION SCHEDULE SUMP PUMP FOR NEMA CONFIGURATION, FEEDER, AND OVERCURRENT PROTECTION REQUIREMENTS.
17. NOT USED.
18. PROVIDE CONNECTION FROM ELEVATOR CONTROLLER DISCONNECT SWITCH AUXILIARY CONTACTS TO AUTOMATIC BATTERY LOWERING FEATURE FOR SAFETY INTERLOCK TO PREVENT AUTOMATIC LOWERING OF ELEVATOR DURING MAINTENANCE.
19. IMPENDING TRANSFER AND TRANSFER SWITCH POSITION STATUS. PROVIDE CONDUCTORS IN CONDUIT TO AUTOMATIC TRANSFER SWITCH IF ELEVATOR IS ON EMERGENCY POWER.
20. DEDICATED TWO-WAY VIDEO COMMUNICATION DEVICE CIRCUIT PER ASME A17.1. PROVIDE WITH LOCKABLE FUSED SWITCH PER NFPA 70, ARTICLE 620. SERVE FROM 120V, 20A LIFE SAFETY BRANCH SOURCE INDICATED IN FLOOR PLAN EP201. PROVIDE 2-#12, #12 GROUND IN 3/4" CONDUIT.
21. DEDICATED TWO-WAY VIDEO COMMUNICATION DEVICE CONNECTION PER ASME A17.1. PROVIDE NETWORK DATA CONNECTION FROM ASSOCIATED COMMUNICATIONS ROOM.
22. HOISTWAY LIGHTS. MOUNTED AT EACH ELEVATOR LANDING, UP ENTIRE HOISTWAY. PROVIDE TWO (2) LIGHT FIXTURES MOUNTED ON OPPOSITE WALLS OF HOISTWAY FOR EACH LANDING. COORDINATE EXACT FIXTURE LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN. REFER TO FLOORPLANS FOR LOCATIONS. PROVIDE 3-WAY LIGHT SWITCH WITHIN HOISTWAY AT TOP AND BOTTOM ELEVATOR LANDING TO CONTROL LIGHTS FOR EACH ELEVATOR CAB ACCESSIBLE FROM ELEVATOR LANDING, AND 4-WAY SWITCH AT EACH INTERMEDIATE LANDING .

1 EP601 ELEVATOR CONNECTION SCHEMATIC
NO SCALE

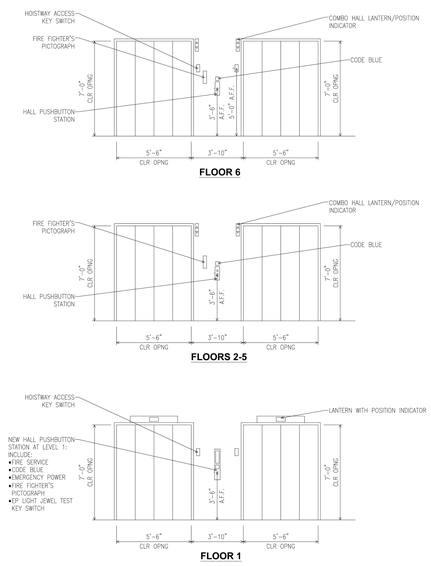


• VENDOR DRAWING SHOWN FOR REFERENCE.



1 PIT / HOISTWAY PLAN
SCALE: 1/4"=1'-0"

• VENDOR DRAWING SHOWN FOR REFERENCE.



1 HALL STATIONS AT ALL FLOORS
SCALE: 1/2"=1'-0"

• VENDOR DRAWING SHOWN FOR REFERENCE.
• ELECTRICAL CONTRACTOR TO FURNISH WIRING BOXES FOR ELECTRICAL COMPONENTS.

Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029777 03/26/2026 CHARLES G. HALL

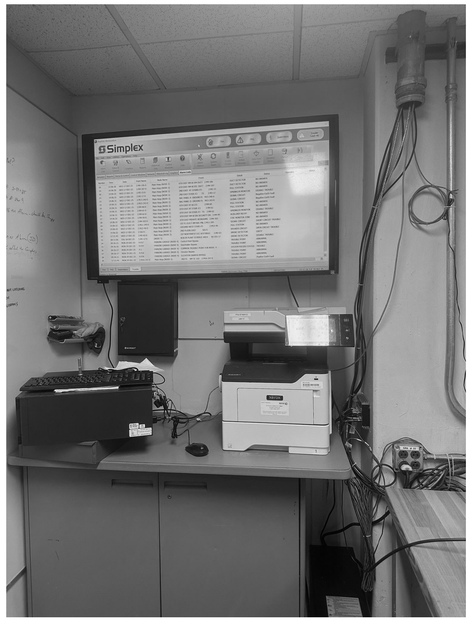
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

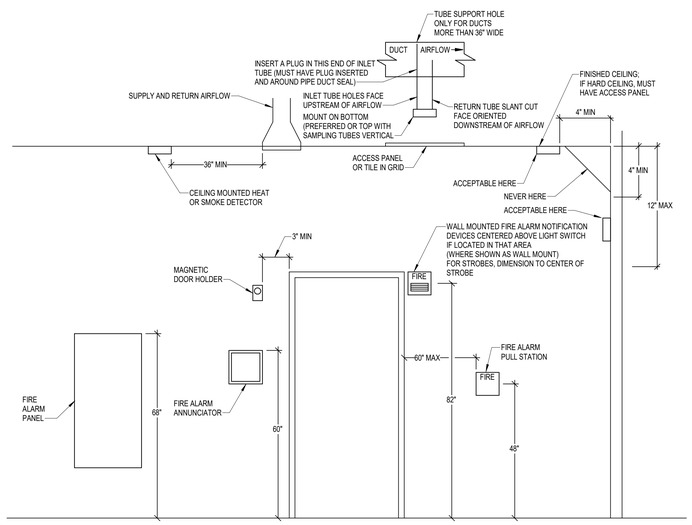
Drawing Title	Phase	Project Title	Project Number
ELECTRICAL DETAILS	100% CONSTRUCTION DOCUMENTS	VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	646-24-100
			Building Number: 01
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Drawing Number: EP601
		Issue Date: 03/26/2026 · Checked: CGH · Drawn: EAH	

VA FORM 08 - 6231

Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100-B01-MEP-R24.rvt 3/26/2026 5:20:09 PM

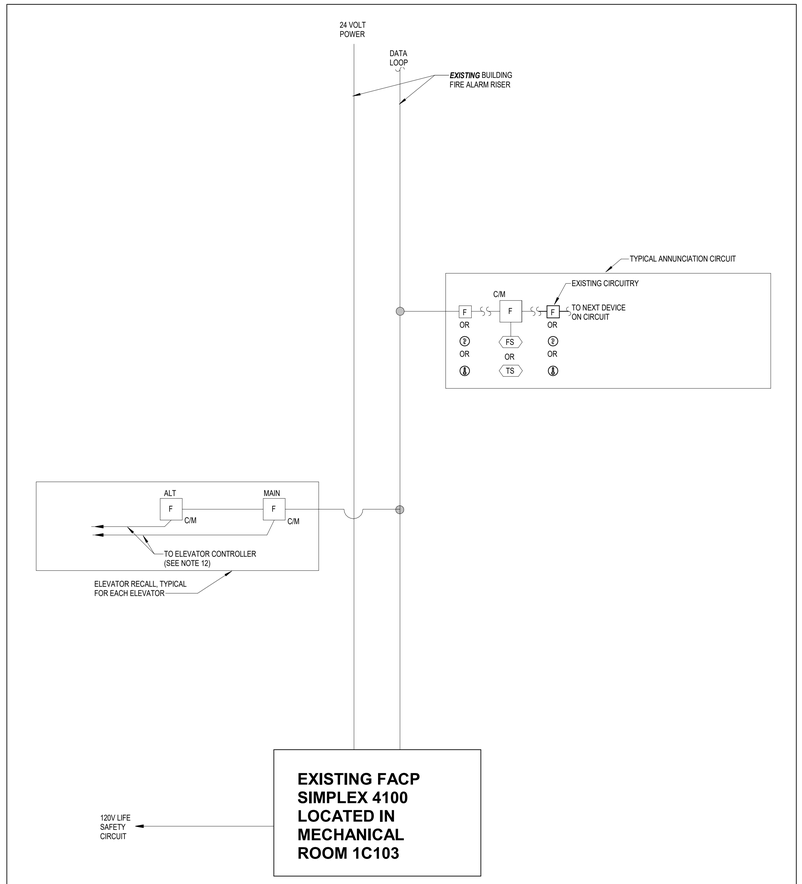


- EXISTING FIRE COMMAND CENTER LOCATED IN FMS ELECTRONICS ROOM AN-111. SUCCESSFUL BIDDER SHALL VERIFY FINAL LOCATION WITH VA COR GIVEN ONGOING CONSTRUCTION IN CURRENT AREA.



NOTES:
1. COORDINATE DEVICE MOUNTING HEIGHTS WITH ARCHITECT AND ARCHITECTURAL DETAILS. MOUNTING HEIGHTS INDICATED ABOVE ARE TO BE UTILIZED FOR DEVICES NOT DETAILED BY ARCHITECT.
2. WHERE DEVICES SHOWN ON PLAN ARE NOTED WITH AN EQUIPMENT TAG, COORDINATE EXACT LOCATION AND ELEVATION TO DIRECTLY SERVE EQUIPMENT.
3. COORDINATE DEVICE LOCATIONS TO BE 12" MINIMUM FROM ALCOHOL ANTISEPTIC DISPENSERS.
4. COORDINATE DEVICES ON PATIENT HEADWALLS WITH ARCHITECTURAL ELEVATIONS.

1 EP602 TYPICAL FIRE ALARM MOUNTING HEIGHTS
NO SCALE



FIRE ALARM RISER DIAGRAM
NO SCALE

EXISTING FIRE ALARM SYSTEM NOTES:

1. SYSTEM SHOWN IS A CLASS "A" SYSTEM. DESIGNED IN ACCORDANCE WITH NCBC AND NFPA 72.
2. REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND LOCATION OF DEVICES.
3. PROVIDE WIRING AS DIRECTED BY FIRE ALARM SYSTEM MANUFACTURER.
4. CONDUIT IS REQUIRED. MINIMUM SIZE: 3/4", OR AS REQUIRED TO MEET CODES.
5. UPGRADE AND REPROGRAM EXISTING FACP SOFTWARE TO REFLECT NEW CONDITIONS AS REQUIRED.
6. ADD ADDRESSABLE CIRCUIT CARDS AND SYNC MODULES AS REQUIRED IN EXISTING FACP TO ACCOMMODATE NEW WORK.CONTROL MODULES MUST BE LOCATED WITHIN 3'-0" OF DEVICE OR EQUIPMENT THEY ARE CONTROLLING.
7. PROVIDE A PHOTOELECTRIC SMOKE DETECTOR PER NFPA AT EACH POWER SUPPLY LOCATION.
8. EXISTING ELEVATOR RECALL FUNCTION AND WIRING FOR ELEVATORS SHALL BE MAINTAINED AND EXTENDED FROM EXISTING LOCATIONS TO NEW LOCATIONS IF REQUIRED BY REMODEL.
9. CONTRACTOR SHALL VERIFY OPERATION OF EXISTING FIRE ALARM SYSTEM DEVICES TO BE REMOVED AND REUSED PRIOR TO REMOVAL. ARCHITECT SHALL NOTIFIED IMMEDIATELY IF ANY DEVICES ARE NOT WORKING.
10. THE CONTRACTOR SHALL OBTAIN THE STAMP AND SEAL OF AN ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED ON THE SHOP DRAWINGS. THE ENGINEER OF RECORD FOR THESE DOCUMENTS WILL NOT SEAL THE SHOP DRAWINGS. PROVIDE FIRE ALARM DEVICES AND RELOCATE EXISTING ON A DESIGN-BUILD BASIS AS REQUIRED. CONNECT EQUIPMENT TO EXISTING FIRE ALARM ZONES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE ADDITIONAL POWER SUPPLIES AS NECESSARY FOR NEW DEVICES. AFTER THE INSTALLATION IS COMPLETE, THE FIRE ALARM SYSTEM SHALL BE TESTED IN THE PRESENCE OF FIRE DEPARTMENT REPRESENTATIVES AND THE OWNER'S REPRESENTATIVE FOR SYSTEM INTEGRITY AND OPERATION. COORDINATE EXACT FIRE ALARM REQUIREMENTS WITH FIRE DEPARTMENT PRIOR TO BIDS. MAKE NECESSARY CHANGES TO DESIGN/BUILD DOCUMENTS AS DESIGNED PER FIRE DEPARTMENT COMMENTS. PROVIDE SHOP DRAWINGS FOR APPROVAL AFTER RECEIPT OF AHJ APPROVAL, REVISE AND RE-SUBMIT AS REQUIRED FOR FIRE DEPARTMENT APPROVAL AND OBTAINING APPLICABLE PERMITS.
11. THE FIRE ALARM RISER IS GENERAL AND FOR REFERENCE ONLY. THE EXISTING SYSTEM MAY VARY. EXISTING SYSTEM CONFIGURATION SHALL BE VERIFIED IN THE FIELD.

33 EP602 FIRE ALARM COMM RISER
NO SCALE

Revisions:	Date:

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EQUIPMENT CONNECTION SCHEDULE

MARK	DESCRIPTION	ROOM NAME	ROOM NUMBER	HP	KW	FLA	MCA	MOCP	VOLTS	PHASE	POLES	LOAD (VA)	CONTROL TYPE	DISCONNECT BY	DISCONNECT TYPE	FEEDER	PANEL	CIRCUIT NUMBER	SCCR	GEN	REMARKS
ACCU-1	AIR-COOLED CONDENSING UNIT	SIXTH FLOOR	N/A	0.5		15	16	25	480	3	3	10400	DCC	MANUFACTURER	NF 30/3	(30A) 3#10 CU, #10 CU GND - 3/4"C.			5	Yes	4,1
AHU-1	AIR HANDLING UNIT	ROOF	N/A	2		4	5	20	480	3	3	2830	VFD	MANUFACTURER	NF 30/3	(20A) 3#12 CU, #12 CU GND - 3/4"C.			5	Yes	4,2
ESP-1	ELEVATOR SUMP PUMP	ELEVATOR	13,14	0.5		8	10	20	115	1	2	1000	DCC	MANUFACTURER	TWIST LOCK NEMA	EXISTING			5	Yes	3

REMARKS: (EQUIPMENT CONNECTION SCHEDULE)
1. CONTROLS BETWEEN INDOOR AND OUTDOOR UNITS - INCLUDE CONTROL WIRING IN CONDUIT BETWEEN INDOOR AND OUTDOOR UNIT PER MANUFACTURER'S REQUIREMENTS.
2. EQUIPMENT UTILIZES A FAN ARRAY WITH MULTIPLE MOTOR CONNECTIONS. REFER TO MECHANICAL SCHEDULES FOR QUANTITY OF FANS.
3. UTILIZE EXISTING CIRCUIT TO FEED NEW SUMP PUMP.
4. UTILIZE EXISTING CIRCUIT FROM EXISTING MCEM TO FEED NEW EQUIPMENT.

GENERAL NOTES: (EQUIPMENT CONNECTION SCHEDULE)
A. EQUIPMENT LISTED MAY NOT BE UNIQUE. VERIFY QUANTITY WITH FLOOR PLANS. WHERE LOCATIONS ARE NOT INDICATED ON ELECTRICAL FLOOR PLANS, REFER TO MECHANICAL SHEETS. REFER TO DEFINITIONS BELOW FOR CLARIFICATIONS OF CONNECTION REQUIREMENTS.
B. PROVIDE WIRING AND EQUIPMENT CONNECTIONS FOR INTERNAL EQUIPMENT COMPONENTS AS REQUIRED. COORDINATE REQUIREMENTS WITH MECHANICAL CONTRACTOR.
C. ITEMS NOTED AS "NA" ARE NOT APPLICABLE TO THE CONNECTION.
D. "CONTROL TYPE" - PROVIDE CONTROL AND CONNECTIONS:
- "INT" = CONTROLS ARE MANUFACTURED INTEGRAL TO THE EQUIPMENT (SELF-CONTAINED).
- "CONT" = EQUIPMENT OPERATES CONTINUOUSLY (NO CONTROLS). FOR MOTORS WITHOUT INTERNAL OVERLOAD PROTECTION, PROVIDE SEPARATE OVERLOAD PROTECTION. OVERLOAD PROTECTION MAY BE PROVIDED AS PART OF A MANUAL MOTOR STARTER.
- "DDC" = CONTROL SIGNAL FROM TEMPERATURE CONTROL SYSTEM PROVIDED BY MECHANICAL CONTRACTOR OR TEMPERATURE CONTROLS CONTRACTOR.
- "TIME SW" = CONTROL SIGNAL FROM TIME SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.
  - TIME SWITCH SHALL BE 7-DAY DIGITAL TYPE WITH AUTOMATIC DAYLIGHT SAVINGS ADJUSTMENTS AND BATTERY BACKUP. LOCATE TIMESWITCH IN NEAREST MECHANICAL OR ELECTRICAL UTILITY ROOM. LABEL TIME SWITCH. COORDINATE TIME SCHEDULE WITH OWNER AND MECHANICAL ENGINEER.
- "WALL SW" = CONTROL SIGNAL FROM WALL SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.
  - COORDINATE LOCATION OF WALL SWITCH WITH OWNER. LABEL WALL SWITCH
- "FA STOP" = FANS WITH CFM OF 2000 OR GREATER AND FANS SERVING DUCTS CONTAINING SMOKE DAMPERS.
  - PROVIDE FIRE ALARM SYSTEM DUCT SMOKE DETECTORS AT RETURN-SIDE AND SUPPLY-SIDE OF FAN/UNIT. PROVIDE MULTIPLE DETECTORS IF REQUIRED TO ACCOMMODATE MAIN DUCT TAKE-OFFS WHERE A SINGLE DETECTOR CANNOT BE INSTALLED TO CAPTURE ALL AIRFLOW. FIRE ALARM SYSTEM SHALL SHUTDOWN FAN UPON DETECTION OF SMOKE IN DUCT OR ROOMS SERVED FROM THIS EQUIPMENT. PROVIDE WITH INDIVIDUAL FIRE ALARM SYSTEM ADDRESSABLE CONTROL MODULE AT MOTOR CONTROLLER/STARTER AND CONNECT TO SHUTDOWN FAN.
- "WF STOP" = HIGH VOLUME LOW SPEED (HVLS) FANS SHUT DOWN HVLS FAN UPON WATERFLOW ALARM. PROVIDE WITH INDIVIDUAL FIRE ALARM SYSTEM ADDRESSABLE CONTROL MODULE AT MOTOR AND CONNECT TO SHUT DOWN FAN.
- "FA START" = FANS USED FOR SMOKE EVACUATION OR PRESSURIZATION.
  - FIRE ALARM SYSTEM SHALL START FAN UPON DETECTION OF SMOKE IN DUCT OR ROOMS SERVED FROM THIS EQUIPMENT. PROVIDE WITH INDIVIDUAL FIRE ALARM SYSTEM ADDRESSABLE CONTROL MODULE AT MOTOR CONTROLLER/STARTER AND CONNECT TO START FAN.
- "DATA" = PROVIDE WITH DATA CONNECTION FROM NEAREST DATA NETWORK COMMUNICATIONS ROOM.
- "CONDUIT" = PROVIDE EMPTY 3/4" CONTROLS CONDUIT BETWEEN INDOOR AND OUTDOOR UNIT TO ACCOMMODATE CONTROL CABLING BY MECHANICAL OR TEMPERATURE CONTROLS CONTRACTOR.
- "EPO" = PROVIDE EMERGENCY POWER OFF. REFER TO FLOOR PLANS FOR DEVICE LOCATION.

E. "DISCONNECT BY" :
- "MECHANICAL" = DISCONNECT IS FURNISHED BY MECHANICAL CONTRACTOR OR PROVIDED WITH MECHANICAL EQUIPMENT.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE MOUNTING AND ADDITIONAL CONNECTIONS REQUIRED FOR LOOSE DISCONNECTS FURNISHED BY THE MECHANICAL CONTRACTOR.
- "ELECTRICAL" = DISCONNECT IS FURNISHED BY ELECTRICAL CONTRACTOR. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT FURNISHED BY MECHANICAL CONTRACTOR.
- "MANUFACTURER" = DISCONNECT IS FURNISHED BY EQUIPMENT MANUFACTURER. ELECTRICAL CONTRACTOR SHALL PROVIDE MOUNTING AND ADDITIONAL CONNECTIONS REQUIRED FOR LOOSE DISCONNECTS FURNISHED BY EQUIPMENT MANUFACTURER.

F. "DISCONNECT TYPE" - PROVIDE DISCONNECT/RECEPTACLE AT EQUIPMENT LOCATION AND ASSOCIATED CONNECTION TO EQUIPMENT AND BRANCH CIRCUIT:
- "NEMA-___" = DUPLEX (TYP) RECEPTACLE TO ACCOMMODATE CORD AND PLUG CONNECTION (CORD AND PLUG FURNISHED WITH EQUIPMENT UNLESS NOTED OTHERWISE)
- "REC/SWI" = PROVIDE 20A 120V RECEPTACLE OR 20A TOGGLE SWITCH DISCONNECT.
  - COORDINATE REQUIRED SELECTION WITH EQUIPMENT.
- "NF" = NON-FUSED DISCONNECT. SIZE AND POLE QUANTITY AS INDICATED. 20/1 AND SMALLER SHALL BE TOGGLE SWITCH DISCONNECT.
- "F" = FUSED DISCONNECT. SIZE AND POLE QUANTITY AS INDICATED.
  - FUSE PER MANUFACTURER'S RECOMMENDATIONS.
- "FUSTAT" = SWITCH AND FUSTAT. FUSE SIZE PER EQUIPMENT MANUFACTURER.
  - LOCATE SWITCH IN CONCEALED ACCESSIBLE LOCATION.
- "ENCL CB" = ENCLOSED CIRCUIT BREAKER DISCONNECT.
  - SIZE, POLE QUANTITY, AND FLUSH/SURFACE MOUNTING AS INDICATED.
- "ENCL MCSW" = ENCLOSED MOLDED CASE SWITCH DISCONNECT.
  - SIZE, POLE QUANTITY, AND FLUSH/SURFACE MOUNTING AS INDICATED.
- "SHUNT ENCL CB" = SHUNT TRIP ENCLOSED CIRCUIT BREAKER DISCONNECT.
  - SIZE, POLE QUANTITY, AND FLUSH/SURFACE MOUNTING AS INDICATED. PROVIDE WITH INTEGRAL 120V CONTROL TRANSFORMER SERVED FROM LINE SOURCE WITH PRIMARY AND SECONDARY FUSING. COORDINATE ENCLOSURE AND COVER SIZE TO ACCOMMODATE TRANSFORMER. PROVIDE WITH EQUIPMENT GROUND BAR AND SEPARATE INSULATED ISOLATED GROUND BAR. WHERE NEUTRAL CONDUCTOR IS UTILIZED. PROVIDE SOLID NEUTRAL BAR. CONNECT SHUNT TRIP VOLTAGE SOURCE AND ACTUATOR TO ASSOCIATED EMERGENCY POWER (EPO) SWITCHES. PROVIDE EPO AND COORDINATE LOCATION.
- "LOCK CB" = CIRCUIT BREAKER CAPABLE OF BEING LOCKED IN THE OPEN POSITION, LOCATED IN THE SOURCE ELECTRICAL PANEL. THE PROVISIONS FOR LOCKING MUST REMAIN IN PLACE WITH OR WITHOUT THE LOCK INSTALLED.
- "MAG" = COMBINATION MAGNETIC MOTOR STARTER WITH DISCONNECT (COORDINATE COIL VOLTAGE WITH CONTROL SOURCE). LOCATE COMBINATION MAGNETIC MOTOR STARTER TO SERVE AS THE MOTOR DISCONNECT. WHERE STARTER SERVES OUTDOOR EQUIPMENT, LOCATE STARTER IN THE SOURCE ELECTRICAL ROOM.
- "MAN" = COMBINATION MANUAL MOTOR STARTER WITH DISCONNECT. LOCATE COMBINATION MANUAL MOTOR STARTER TO SERVE AS THE MOTOR DISCONNECT. WHERE STARTER SERVES OUTDOOR EQUIPMENT, LOCATE STARTER IN THE SOURCE ELECTRICAL ROOM.
- "VFD" = VARIABLE FREQUENCY DRIVE CONTROLLER. LOCATE VARIABLE FREQUENCY DRIVE CONTROL TO SERVE AS THE MOTOR DISCONNECT.
- "INT" = DISCONNECT IS MANUFACTURED INTEGRAL TO THE EQUIPMENT.
- "HW" = HARDWIRE. DISCONNECT NOT REQUIRED.
- LOCATE DISCONNECT ADJACENT TO EQUIPMENT PER NEC - PROVIDE WITH STRUT MOUNTING AS REQUIRED.
- LOCATE RECEPTACLE OR JUNCTION BOX TO DIRECTLY SERVE EQUIPMENT.
  - COORDINATE EXACT LOCATION WITH ARCHITECT, ARCHITECTURAL DETAILS, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- WHERE DISCONNECT SERVES OUTDOOR EQUIPMENT, PROVIDE AS NEMA-3R.
- PROVIDE DISCONNECT WITH EQUIPMENT GROUND KIT.
- WHERE FEEDER INDICATED UTILIZES A NEUTRAL, PROVIDE DISCONNECT WITH SOLID NEUTRAL KIT.
- WHERE FEEDER INDICATED UTILIZES AN ISOLATED GROUND, PROVIDE DISCONNECT WITH ADDITIONAL INSULATED GROUND KIT.
- DISCONNECTS NOT SHOWN AS "F" OR "NF" SHALL BE NON-FUSED.
- DISCONNECTS OF MOTORS SERVED FROM A VFD SHALL CONTAIN AUXILIARY CONTACTS CONNECTED TO THE VFD TO DISABLE VFD UPON DISCONNECTION.
- WHERE STARTERS OR VFD'S CONTAIN INTEGRAL DISCONNECTS AND ARE LOCATED PER NEC TO SATISFY AS THE EQUIPMENT DISCONNECT, AN ADDITIONAL EQUIPMENT DISCONNECT IS NOT REQUIRED.

G. "FEEDER":
- PROVIDE CONDUCTORS AND RACEWAY AS INDICATED. TYPICAL FORMAT IS: (FEEDER TAG) (NOMINAL SIZE) CONDUCTORS AND RACEWAY REQUIRED.

H. "GEN" - EQUIPMENT IS SERVED FROM A SOURCE PANEL PROVIDED WITH GENERATOR BACK-UP.

I. "SCCR" - VALUE INDICATED IS AVAILABLE SHORT CIRCUIT CURRENT (SCC) IN KILOAMPS AT THE EQUIPMENT BASED ON PRELIMINARY DESIGN PHASE CALCULATIONS. EQUIPMENT SCCR SHALL BE MINIMUM 120% OF THE AVAILABLE SCC. RATING SHALL BE ADJUSTED IF REQUIRED BASED ON FINAL SCC CALCULATION. EQUIPMENT INDICATED WITH 5 KA MAY BE PROVIDED WITH 5 KA SCCR

LIGHTING CONTROL WALL DEVICE SCHEDULE

KEYPAD ID	DESCRIPTION	REQUIRED BUTTON FUNCTIONS
NO MARK	SINGLE ZONE - ON/OFF	ON @ 100%, OFF

LUMINAIRE SCHEDULE

MARK	DESCRIPTION	SUBS	MANUFACTURER	CATALOG # (NOTE A)	LUMENS	CCT (K)	MIN. CRI	VOLTAGE	INPUT WATTS	MOUNTING	REMARKS
K1	INDUSTRIAL STRIP	Y	LITHONIA LIGHTING	CLX-L48-4000LM-SEF-RDL-WD-MVOLT-GZ1 0-40K-80CRI-WH	4000	4000	80	277 V	26	SUSPENDED(CHAIN HUNG)	2
W1	LOW-PROFILE ENCLOSED AND GASKETED	Y	LITHONIA LIGHTING	FEM-L48-6000LM-LPAFL-WD-MVOLT-GZ10-40K-80CRI	6586	4000	80	277 V	39	SURFACE (WALL)	1,3

REMARKS: (LUMINAIRE SCHEDULE)
1. WALL MOUNTING - COORDINATE EXACT LOCATION WITH ARCHITECT AND ARCHITECTURAL DETAILS. COORDINATE FRAMING AND BOX SUPPORTS PRIOR TO ROUGH-IN FOR EXACT PLACEMENT OF BOX TO ACHIEVE CENTERING AND ALIGNMENT WITH FINAL ARCHITECTURAL FINISHES.
2. PENDANT/SUSPENSION MOUNTING - COORDINATE EXACT LOCATION, MOUNTING ELEVATION, AND REQUIRED PENDANT/SUSPENSION LENGTH WITH ARCHITECT AND ARCHITECTURAL DETAILS.
3. MOUNTED AT EACH ELEVATOR LANDING ON OPPOSITE WALLS OF HOISTWAY FOR EACH LANDING. COORDINATE EXACT FIXTURE LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN. REFER TO FLOORPLANS FOR LOCATIONS. REFER TO ELEVATOR CONNECTION SCHEMATIC FOR ADDITIONAL ELEVATOR HOISTWAY LIGHTING REQUIREMENTS.

GENERAL NOTES: (LUMINAIRE SCHEDULE)
A. CATALOG NUMBER VERIFICATION - CONTRACTOR SHALL VERIFY LIGHTING FIXTURE INSTALLATION REQUIREMENTS AND CATALOG NUMBER PRIOR TO ORDERING.
B. SUBSTITUTIONS - WHERE INDICATED WITH 'N' (NO), NO SUBSTITUTIONS WILL BE ACCEPTED. WHERE INDICATED WITH 'P' (PRIOR APPROVAL), SUBSTITUTIONS MUST BE APPROVED PRIOR TO BID WITH ACCEPTANCE ISSUED BY ADDENDUM. WHERE INDICATED WITH 'Y' (YES), THE FOLLOWING MANUFACTURER'S ARE CONSIDERED ACCEPTABLE EQUIVALENT MANUFACTURER'S. PROVIDED THE EQUIVALENT FIXTURE IS OF THE SAME QUALITY, EFFICIENCY, PERFORMANCE AND CHARACTERISTICS AS THAT SCHEDULED:
  1. ACUITY BRANDS
  2. COOPER BRANDS
  3. HUBBELL
  4. WILLIAMS
  5. SIGNIFY BRANDS
C. FIXTURE FINISH - WHERE CATALOG NUMBER LISTED INDICATES "*" IN LIEU OF MANUFACTURER'S FINISH OPTION, COORDINATE WITH ARCHITECT FOR EXACT FINISH PRIOR TO ORDERING.

LIGHTING CONTROL SEQUENCE OF OPERATIONS

TAG	SPACE TYPE	OCCUPANCY SENSOR TYPE	OCCUPANCY SENSOR TIME DELAY	AUTO ON %	AUTO OFF %	NETWORK	RECEPTACLE CONTROL	SCHEDULE CONTROL	REMARKS
MEP	MECHANICAL/ ELECTRICAL	N	-	-	-	Y	N	-	

REMARKS: (LIGHTING CONTROL SEQUENCE OF OPERATIONS)
1. PROVIDE ALL NECESSARY PARTS AND ACCESSORIES TO MEET THE 'OCCUPANT SENSOR CONTROL FUNCTION IN OPEN PLAN OFFICE AREAS'. REQUIREMENTS SET FORTH IN IECC 2018– C405.2.1.3. CONTROL ZONES AND SPACE BOUNDARY(S) INDICATED ON PLAN. LUMINAIRE LEVEL LIGHTING CONTROLS ARE ACCEPTABLE IN THIS SPACE TYPE.
2. PROVIDE WIRELESS DIMMING CONTROL MODULE COMPATIBLE WITH 7 PIN RECEPTACLE.

GENERAL NOTES: (LIGHTING CONTROL SEQUENCE OF OPERATIONS)
A. WHERE MULTIPLE CONTROL ZONES ARE INDICATED WITHIN A SPACE, THE 'AUTO ON' AND 'AUTO OFF' FUNCTIONS SHALL INCLUDE ALL CONTROL ZONES WITHIN THE SPACE UNLESS NOTED OTHERWISE.
B. DAYLIGHT HARVESTING - REFER TO LIGHTING CONTROL PLAN FOR DAYLIGHT ZONES REQUIRING PHOTOCELL CONTROL AND THEIR ASSOCIATED LIGHTING SET POINTS. TARGET ILLUMINANCE LEVELS SHALL BE MEASURED AT THE WORK PLANE OF THE PRIMARY TASK WITHIN THE SPACE.
C. OCCUPANCY SENSOR – PROVIDE OCCUPANCY SENSOR TYPE AS INDICATED BELOW. OCCUPANCY SENSORS SHALL BE CEILING MOUNTED.
  1. SENSOR TYPE:
     - N = NO OCCUPANCY SENSOR(S)
     - IR = PASSIVE INFRARED
     - DT = DUAL-TECHNOLOGY
  2. SENSOR OPTIONS:
     - F = FINE MOTION - CAPABLE OF DETECTING HAND MOTION
     - L = LARGE MOTION - CAPABLE OF DETECTING WALKING MOTION
     - LTHH = LOW TEMPERATURE/HIGH HUMIDITY
     - HB = HIGH BAY
     - O = OUTDOOR
D. AUTO ON % - WHEN OCCUPANCY IS DETECTED WITHIN SPACE, ROOM LIGHTING SHALL BE TURNED ON TO SPECIFIED LIGHT LEVEL. WHERE INDICATED WITH 'M', ROOM SHALL BE MANUAL ON.
E. AUTO OFF % - WHEN SPECIFIED SENSOR TIME DELAY IS REACHED, ROOM LIGHTING SHALL BE REDUCED TO SPECIFIED LIGHT LEVEL. WHERE INDICATED AS ZERO PERCENT, ROOM LIGHTING SHALL BE SWITCHED OFF.
F. NETWORK – NETWORKED LIGHTING CONTROL SYSTEM INTERCOMMUNICATION:
  1. Y = PROVIDE NETWORK COMMUNICATIONS BETWEEN CONTROL DEVICES LIGHTING CONTROL SYSTEM HEAD END
  2. N = CONNECTION TO SYSTEM HEAD END NOT REQUIRED
G. RECEPTACLE CONTROL – OCCUPANCY SENSOR CONTROL OF SELECTED ROOM RECEPTACLES:
  1. Y = OCCUPANCY SENSOR SHALL SWITCH OFF INDICATED RECEPTACLES 20 MINUTES AFTER ALL OCCUPANTS HAVE VACATED SPACE
  2. N = RECEPTACLE CONTROL NOT REQUIRED IN SPACE
H. SCHEDULE CONTROL – NORMAL BUSINESS HOURS SHALL BE CONSIDERED 9:00 AM TO 4:00 PM. COORDINATE EXACT BUSINESS HOURS WITH BUILDING OWNER DURING PROGRAMMING.
  1. WHERE THE SEQUENCE INDICATES MULTIPLE SET POINT VALUES (TIME DELAY, AUTO ON %, AUTO OFF %), EACH VALUE SHALL BE THE SET POINT AT THE CORRESPONDING SCHEDULED TIMES INDICATED BELOW. FOR EXAMPLE, A TIME DELAY INDICATED AS 20 / 5 WITH A CORRESPONDING SCHEDULE OF 8:00 AM TO 5:00 PM / 5:00 PM TO 8:00 AM SHALL REQUIRE A 20 MINUTE DELAY FROM 5:00 AM TO 5:00 PM AND A 5 MINUTE DELAY FROM 5:00 PM TO 8:00 AM.
  2. PROJECT SCHEDULES:
     - SCHEDULE 'A' - 7:30 AM TO 5:30 PM / 5:30 PM TO 7:30 AM
     - SCHEDULE 'B' - FROM 15 MINUTES PRIOR TO DUSK TO 1 HOUR AFTER BUSINESS HOURS / FROM 1 HOUR AFTER CLOSE OF BUSINESS TO 1 HOUR BEFORE BUSINESS HOURS / FROM 1 HOUR BEFORE BUSINESS HOURS TO 15 MINUTES AFTER DAWN / FROM 15 MINUTES AFTER DAWN TO 15 MINUTES BEFORE DUSK
     - SCHEDULE 'C' - FROM 15 MINUTES PRIOR TO DUSK TO MIDNIGHT / FROM MIDNIGHT TO 6:00 AM / FROM 6:00 AM TO 15 MINUTES AFTER DAWN / FROM 15 MINUTES AFTER DAWN TO 15 MINUTES BEFORE DUSK

Revisions:	Date:

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Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

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Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026 | Checked: CGH | Drawn: EAH

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Building Number: 01

Drawing Number: EP700

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FIRE PROTECTION SYMBOLS

SYMBOL	DESCRIPTION	ADDITIONAL REMARKS
F	FLOW SWITCH	COORDINATE INTERFACE WITH FIRE ALARM SYSTEM CONTRACTOR
— F —	FIRE PIPE	
	FIRE DEPARTMENT CONNECTION	MOUNT BETWEEN 18" AND 48" ABOVE FINISHED GRADE
	O.S. & Y. VALVE	
TS	SHUT-OFF VALVE WITH TAMPER SWITCH	
● ○ ✱	SPRINKLER EXISTING SPRINKLER EXISTING SPRINKLER TO BE REMOVED	REFER TO SPECIFICATIONS FOR TYPES AND FINISHES. PENDANT REFERS TO FULL, SEMI-RECESSED AND RECESSED TYPES. LOCATIONS FOR EACH ARE INDICATED IN THE SPECIFICATIONS OR ON THE PLANS.
◁ ◁	SIDEWALL SPRINKLER EXISTING SIDEWALL SPRINKLER	-

FIRE PROTECTION ABBREVIATIONS

NOT ALL ABBREVIATIONS APPLY TO THIS SET OF DOCUMENTS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
BFP	BACK FLOW PREVENTER	FS	FLOW SWITCH
F	FIRE PROTECTION	PIV	POST INDICATOR VALVE
FDC	FIRE DEPARTMENT CONNECTION	SPR	SPRINKLER

FIRE PROTECTION AND PLUMBING GENERAL NOTES:

A. THESE NOTES APPLY TO ALL SHEETS CONTAINING PIPING AND FIRE PROTECTION WORK. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. WHERE A DISCREPANCY EXISTS BETWEEN THESE PLANS AND THE PROJECT SPECIFICATIONS, THE SPECIFICATION REQUIREMENTS SHALL TAKE PRECEDENCE OVER THE DRAWINGS.
B. VERIFY THE EXISTING CONDITIONS AT THE PROJECT SITE BEFORE SUBMITTING COST PROPOSAL. BE ADVISED THAT LOCATIONS SHOWN ARE APPROXIMATE. AN ATTEMPT HAS BEEN MADE TO SHOW ALL PIPING AND SPRINKLERS. CONTRACTOR SHALL VISIT THE SITE TO VERIFY COMPONENTS, LOCATIONS AND SIZES SHOWN OR NOT SHOWN. ALL COMPONENTS NEED TO BE REMOVED IN THE DEMOLITION AREA UNLESS NOTED ON THE DRAWINGS. IF DEVIATION BETWEEN EXISTING CONDITIONS AND NEW WORK IS FOUND, CONTRACTOR SHALL NOTIFY ENGINEER.
C. IT IS MANDATORY THAT THE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING THE CONSTRUCTION OF THE ADDITIONS AND REMODELING/ALTERATION OF THE EXISTING BUILDING. SERVICES TO THE EXISTING BUILDING SHALL BE KEPT ON CONTINUOUS OPERATION EXCEPT DURING SCHEDULED SHUTDOWNS FOR EXTENSION OR MODIFICATION. PLAN TO COMPLETE SHUTDOWNS DURING OFF HOURS TO MINIMIZE IMPACT TO THE OWNER. COORDINATE SHUTDOWNS WITH THE OWNER A MINIMUM OF 14 DAYS PRIOR TO WORK. PROVIDE TEMPORARY SERVICES WHERE NECESSARY TO ACCOMPLISH ANY SHUTDOWN. THIS INCLUDES BUT IS NOT LIMITED TO STAFFING AND EQUIPMENT FOR FIRE WATCHES, PROVISIONS FOR BOTTLED WATER, AND TEMPORARY HEATING OR COOLING EQUIPMENT. TEMPORARY MEASURES SHALL NOT BE REMOVED UNTIL THE PERMANENT SYSTEMS ARE OPERATIONAL AND HAVE PASSED ALL REQUIRED TESTING.
D. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN DEMOLITION, REMOVAL, CAPPING, STORING, ABANDONING, DISCONNECTING, RELOCATING AND RECONNECTION OF EXISTING EQUIPMENT AND MATERIAL. ALL CUTTING, PATCHING, REPAIRING, REPLACEMENT AND REFINISHING SHALL MATCH THE EXISTING CONSTRUCTION AS NEARLY AS POSSIBLE.
E. THESE DRAWINGS ARE NECESSARILY DIAGRAMMATIC IN NATURE. NOT ALL FITTINGS, OFFSETS, VENTS OR DRAINS ARE SHOWN. THE CONTRACTOR SHALL INCLUDE ALL FITTINGS, OFFSETS, VENTS, DRAINS, AND DEVICES REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM.
F. SEAL ALL WALL PENETRATIONS (PIPING, CONTROLS, ETC.) WITH NON-COMBUSTIBLE MATERIAL.
G. SUPPORT ALL PIPING AND EQUIPMENT FROM BUILDING STRUCTURE MEMBERS. ROUTE DUCT MAINS TIGHT TO STRUCTURE UNLESS NOTED OTHERWISE. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBERS OR RUN THROUGH JOIST WEBS IF POSSIBLE. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING. DO NOT SUPPORT PIPING FROM OTHER PIPING, DUCTWORK, AND/OR ELECTRICAL CONDUITS. DO NOT SUPPORT FROM WOOD TONGUE AND GROOVE ROOF DECK. SUPPORT FROM BOTTOM CHORD OF BAR JOISTS ONLY AT PANEL POINTS. ALL COMPONENTS REQUIRING MAINTENANCE SHALL BE SUPPORTED IN SUCH A MANNER AS TO BE READILY ACCESSIBLE WITHOUT REMOVAL OF THE CEILING SYSTEM AND TO ALLOW FOR REMOVAL FROM THE SYSTEM WHEN SUCH REMOVAL IS REQUIRED FOR MAINTENANCE.
H. PROTECT ALL PIPING DURING CONSTRUCTION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. AT A MINIMUM, DUCTWORK AND PIPING ENDS SHALL BE COVERED AND SEALED TO PREVENT THE COLLECTION OF DUST AND DEBRIS. CLEAN ALL INTERIOR SURFACES PRIOR TO INSTALLATION AND PROTECT ONCE INSTALLED.
I. FOR ALL PIPING AND OTHER ITEMS PENETRATING A FIRE RATED WALL, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM THAT IS SPECIFIC TO THE WALL CONSTRUCTION ASSEMBLY AND COMPLIANT WITH ASTM E814. INSTALL SYSTEM IN STRICT COMPLIANCE WITH THE FIRE STOPPING MANUFACTURER'S U.L. APPROVED DETAIL. WHERE EXISTING WALLS ARE BEING UPGRADED TO FIRE RATED WALLS OR THE FIRE RATING IS BEING MODIFIED, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM FOR ALL NEW AND EXISTING PENETRATIONS. REFER TO THE ARCHITECTURAL LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED WALLS.

FIRE PROTECTION GENERAL NOTES:

A. FIRE PROTECTION WORK SHALL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING: A FULLY FUNCTIONAL WET SPRINKLER SYSTEM.
B. ALL AREAS OF THE BUILDING INDICATED SHALL BE SPRINKLERED ACCORDING TO THE CURRENTLY ADOPTED EDITION OF NFPA STANDARD 13 AND OTHER NFPA STANDARDS AS REQUIRED. ENTIRE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE FIRE MARSHAL OFFICE, OWNER'S INSURANCE COMPANY AND AUTHORITIES HAVING JURISDICTION.
C. FIRE SPRINKLER DESIGN SHALL BE BASED ON HYDRAULIC CALCULATIONS ACCORDING NFPA 13, WITH SHOP DRAWINGS PREPARED ACCORDING TO THE REQUIREMENTS OF THE STATE FIRE MARSHAL AND AUTHORITIES HAVING JURISDICTION.
D. SPRINKLER CONTRACTOR SHALL OBTAIN STATIC AND RESIDUAL WATER PRESSURE AND FLOW PRIOR TO SYSTEM DESIGN AND SHALL SUBMIT RECENT HYDRANT FLOW TEST DATA WITH SHOP DRAWING SUBMITTALS.
E. DRAWINGS ARE SCHEMATIC IN NATURE, INTENDED TO CONVEY THE SCOPE OF WORK AND GENERAL ARRANGEMENT OF THE SYSTEM. SPRINKLER SYSTEM INSTALLING CONTRACTOR SHALL COORDINATE SYSTEM ARRANGEMENT WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL COMPONENTS. SPRINKLER PIPING SHALL NOT BE INSTALLED BELOW MECHANICAL EQUIPMENT OR WITHIN CLEARANCE SPACES FOR MECHANICAL EQUIPMENT. PROVIDE SPRINKLER PROTECTION BELOW ALL DUCTS GREATER THAN 48 INCHES IN WIDTH. INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MODIFICATIONS TO THE SYSTEM REQUIRED TO AVOID CONFLICTS.
F. AREAS IDENTIFIED INDICATE THE RECOMMENDED MINIMUM OCCUPANCY CLASSIFICATION. SPRINKLER TEMPERATURE CHARACTERISTIC OR SPRINKLER TYPES TO BE INSTALLED. SPRINKLER SYSTEM SHALL BE DESIGNED TO MEET OR EXCEED THESE RECOMMENDATIONS AND SHALL BE SUBJECT TO APPROVAL BY THE AUTHORITY HAVING JURISDICTION.
G. A PRE-DESIGN MEETING SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO SUBMITTAL OF PIPING LAYOUT DRAWINGS. ARCHITECT SHALL ISSUE COMMENTS CONCERNING SUBMITTAL PACKAGE PRIOR TO COMMENCEMENT OF WORK.
H. REFER TO ARCHITECTURAL PLANS FOR SPECIFIC CEILING TYPES AND HEIGHTS, AND AREAS OF EXPOSED STRUCTURE.
I. COORDINATE PIPING AND SPRINKLERS IN EXPOSED AREAS TO MINIMIZE APPEARANCE. INSTALL SPRINKLERS A MINIMUM OF SIX INCHES FROM DIFFUSERS, GRILLES AND LIGHT FIXTURES. INSTALL SPRINKLERS IN LAY-IN CEILINGS WITHIN THREE INCHES OF THE CENTER OF CEILING TILE.
J. COORDINATE INSTALLATION OF SPRINKLERS AND PIPING SYSTEMS TO AVOID FREEZING CONDITIONS. NOTIFY ARCHITECT OF AREAS FOR WHERE SYSTEM MAY BE EXPOSED TO FREEZING. INSTALL DRY SIDEWALL SPRINKLERS IN ROOMS INDICATED WHERE ROOMS MAY BE UNCONDITIONED OR EXPOSED TO FREEZING CONDITIONS. PROVIDE AUXILIARY DRAINS WHERE REQUIRED.
K. SPRINKLER CONTRACT SHALL COORDINATE WITH KITCHEN EQUIPMENT VENDOR AND PLUMBING CONTRACTOR FOR SPRINKLER EQUIPMENT REQUIREMENTS WITH THE KITCHEN.
L. EXPOSED SPRINKLER PIPING, EXCEPT IN MECHANICAL AND STORAGE ROOMS, SHALL BE CLEANED, PRIMED AND PREPARED FOR PAINTING.
M. AVOID ROUTING SPRINKLER PIPING ABOVE ELECTRICAL, DATA, IT AND COMMUNICATION PANELS.
N. THE SPRINKLER CONTRACTOR SHALL PREPARE DOCUMENT SHOWING ALL PIPES, SIZES, HEAT TYPES AND LOCATIONS. LAYOUT SHALL BE FULLY COORDINATED WITH ALL OTHER TRADES. DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER/ARCHITECT FOR REVIEW AND THEN SUBMITTED TO LOCAL AHJ AND OWNER'S INSURANCE AGENCY. CHANGES REQUIRED BY THE AHJ OR OWNER'S INSURANCE AGENCY SHALL BE RESUBMITTED TO ENGINEER/ARCHITECT.
O. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEW AND COORDINATE OF ALL SPRINKLER ROUTING AND HEAD LOCATIONS. CONFLICTS WITH SPRINKLER PIPE AND ANY OTHER MECHANICAL OR ELECTRICAL SYSTEM SHALL BE RESOLVED THROUGH REROUTING OR RELOCATING SYSTEM COMPONENTS AT NOT ADDITIONAL PROJECT COST.

Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL SEAL 061879 03/26/2026 ENGINEER KEITH LUNKENHEIMER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FIRE PROTECTION SYMBOLS AND ABBREVIATIONS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Drawing Number: FX001
		Issue Date: 03/26/2026 · Checked: SJC · Drawn: KSL	

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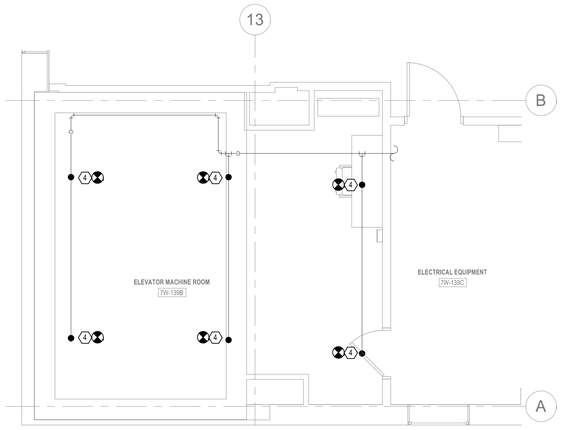
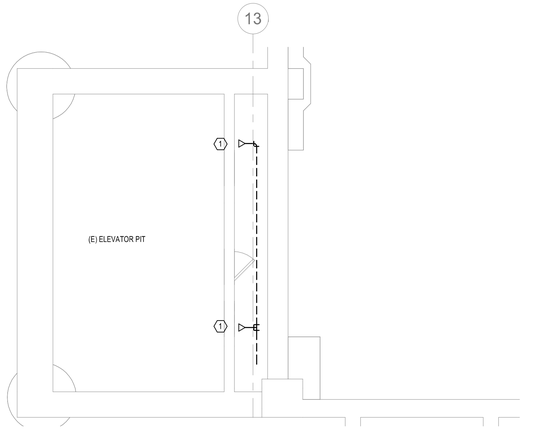


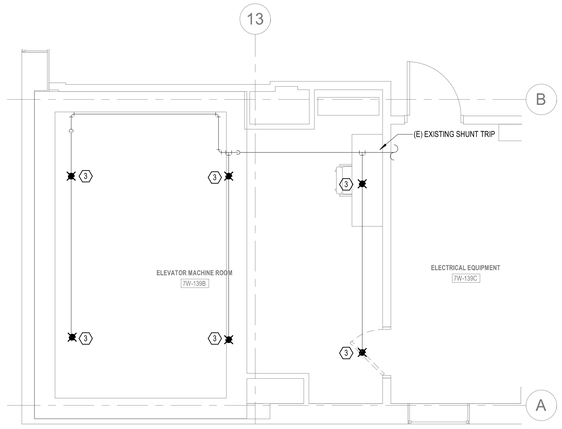
2 SEVENTH FLOOR - FIRE PROTECTION - NEW
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10
SCALE FEET



3 BASEMENT LEVEL - FIRE PROTECTION - DEMOLITION
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10
SCALE FEET



4 SEVENTH LEVEL - FIRE PROTECTION - DEMOLITION
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10
SCALE FEET

GENERAL NOTES:

1. UNLESS NOTED OTHERWISE DETAILS SHOWN WITHIN THESE DOCUMENTS ARE APPLICABLE FOR ALL PIPING, EQUIPMENT, AND FIXTURE INSTALLATIONS WHETHER OR NOT SPECIFICALLY NOTED.
2. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR THE MEANS AND METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THIS WORK.
3. ALL WORK SHALL BE INSTALLED PER NFPA 13, 24 AND LOCAL CODES.

SHEET NOTES:

1. REMOVE EXISTING SPRINKLER HEAD IN HOISTWAY AND PIPING BACK TO MAIN OUTSIDE OF HOISTWAY AND CAP.
2. NOT USED.
3. REMOVE EXISTING SPRINKLER HEAD IN ELEVATOR MACHINE ROOM.
4. INSTALL NEW SPRINKLER HEAD IN EXISTING LOCATION. MATCH EXISTING UPRIGHT TYPE SPRINKLER HEAD WITH GUARD.

KEY PLAN :-

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FLOOR PLAN - FIRE PROTECTION - DEMOLITION & NEW	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
			Building Number: 01
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Drawing Number: FX201
		Issue Date: 03/26/2026 · Checked: SJC · Drawn: KSL	

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GENERAL MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	ADDITIONAL REMARKS
(#)	SHEET NOTE	DENOTES SPECIFIC REQUIREMENT FOR THE SHEET ON WHICH THE NOTE APPEARS AND IS USED TO DESCRIBE WORK THAT IS TOO LENGTHY TO PLACE ON PLAN.
—— / – –	PIPING - SOLID LINE INDICATES SYSTEM SUPPLY -- DASHED LINE INDICATES SYSTEM RETURN	NUMBER INDICATES NOMINAL DIAMETER IN INCHES, LETTER(S) INDICATES SYSTEM. REFER TO ABBREVIATIONS FOR SYSTEM TYPE.
Ø	DIAMETER	
	DENOTES CONNECTION OF NEW WORK TO EXISTING SYSTEM	PROTECT EXISTING SYSTEM FROM ENTRANCE OF FOREIGN DEBRIS DURING WORK.
	ARROW INDICATES DIRECTION OF FLOW IN PIPING	
	ARROW INDICATES DOWNWARD PIPE SLOPE ## INDICATES SLOPE IN INCHES PER FOOT	WHERE PIPING IS NOT MARKED, REFER TO SPECIFICATIONS FOR REQUIREMENTS
	ISOLATION VALVE	REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	CHECK VALVE OR BACKWATER VALVE ARROW INDICATES DIRECTION OF NORMAL FLOW	REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	PIPE IN SLEEVE	REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	AUTOMATIC FLOW CONTROL VALVE # INDICATES FLOW TO BE BALANCED IN GPM	CIRCUIT SETTER, AUTOFLOW, ETC. REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	ELBOW UP ELBOW DOWN	
	TEE UP TEE DOWN TEE HORIZONTAL	
	PIPE REDUCER	INDICATES POINT WHERE PIPING CHANGES FROM ONE SIZE TO ANOTHER. SMALL POINT OF ARROW INDICATES SMALLER SIZE SIDE OF TRANSITION.
	UNION	
	Y STRAINER WITH BLOWDOWN	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	Y STRAINER	
	PRESSURE GAUGE	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	PRESSURE GAUGE STEAM	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	THERMOMETER - HORIZONTAL PIPE	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	THERMOMETER - VERTICAL PIPE	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	REQUIRED SERVICE CLEARANCE FOR EQUIPMENT	
	DUCT CONTINUATION	
	AIR VENT	
	BACKFLOW PREVENTER	
	CALIBRATED BALANCING VALVE	
	VALVE - THROTTLING SERVICE	
	VALVE - SHUTOFF SERVICE	
	P/T PORT	
	PIPE CAP	
	PIPE CONTINUATION	
	PRESSURE REDUCING VALVE	
	PUMP	
	RELIEF VALVE	
(S)	SENSOR	
	SUCTION DIFFUSER	
	VACUUM BREAKER	
	STEAM TRAP	

GENERAL ABBREVIATIONS

NOT ALL ABBREVIATIONS APPLY TO THIS SET OF DOCUMENTS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AD	ACCESS DOOR/PANEL	LF	LINEAR FEET
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AMB	AMBIENT	MC	MECHANICAL CONTRACTOR
BOB	BOTTOM OF BEAM	MFR	MANUFACTURER
CC	CONTROLS CONTRACTOR	MIN	MINIMUM
DIA	DIAMETER	NIC	NOT IN CONTRACT
DN	DOWN	NTS	NOT TO SCALE
E	EXISTING	PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR	PSIG	POUNDS PER SQUARE INCH GAUGE
EFF	EFFICIENCY	RPM	REVOLUTIONS PER MINUTE
FPM	FEET PER MINUTE	SHT	SHEET
FPS	FEET PER SECOND	TOB	TOP OF BEAM
GC	GENERAL CONTRACTOR	TOS	TOP OF STEEL
GPM	GALLONS PER MINUTE	VEL	VELOCITY
L	LENGTH	VFD	VARIABLE FREQUENCY DRIVE

TEMPERATURE CONTROL SYMBOLS

SYMBOL	DESCRIPTION	ADDITIONAL REMARKS
	WALL MOUNTED CONTROL DEVICE # INDICATES TYPE	REFER TO MOUNTING HEIGHTS DETAIL FOR MOUNTING ELEVATION. T = THERMOSTAT H = HUMIDISTAT S = SENSOR (CARBON MONOXIDE, ETC.)
	OCCUPANCY SENSOR	REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. WHEN SENSOR IS NOT SHOWN ON ELECTRICAL DRAWINGS IT SHALL BE PROVIDED AND INSTALLED BY THE TEMPERATURE CONTROLS CONTRACTOR.
	DUCT, PIPE, OR CEILING MOUNTED CONTROL SENSOR	REFER TO SPECIFICATIONS FOR TYPE. REFER TO SEQUENCES AND SCHEMATICS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. T = THERMOSTAT H = HUMIDISTAT S = SENSOR (CARBON DIOXIDE, ETC.)
	CONTROL VALVE (3-WAY)	REFER TO SPECIFICATIONS FOR TYPE. REFER TO SEQUENCES AND SCHEMATICS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
	CONTROL VALVE (2-WAY)	REFER TO SPECIFICATIONS FOR TYPE. REFER TO SEQUENCES AND SCHEMATICS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
	PRESSURE/TEMPERATURE TEST PORT	
	FLOW MEASURING STATION	REFER TO SPECIFICATIONS FOR TYPE. REFER TO SEQUENCES AND SCHEMATICS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
F	FLOW SWITCH	

HVAC SYMBOLS

SYMBOL	DESCRIPTION	ADDITIONAL REMARKS
W×H	RECTANGULAR DUCTWORK W = DIMENSION IN VIEW (INCHES) H = DIMENSION PERPENDICULAR TO VIEW (INCHES)	REFER TO DUCT CONSTRUCTION SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
D"Ø	ROUND DUCTWORK D = DUCT DIAMETER	REFER TO DUCT CONSTRUCTION SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
W/H#	FLAT OVAL DUCTWORK W = DIMENSION IN VIEW (INCHES) H = DIMENSION PERPENDICULAR TO VIEW (INCHES)	REFER TO DUCT CONSTRUCTION SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
	TURNING VANES	REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
	DUCT CROSS SECTION - SUPPLY DUCT CROSS SECTION - RETURN DUCT CROSS SECTION - EXHAUST	CROSS SECTION INDICATES DUCT EXTENDING PERPENDICULAR TO THE PAGE. IN PLAN VIEW THIS INDICATES A DUCT RISE OR DROP TO ANOTHER LEVEL. SOLID FILLED REGION INDICATE EXTENSION UP. NO FILLED REGION INDICATES EXTENSION DOWN.
	MANUAL BALANCE DAMPER	REFER TO SPECIFICATIONS FOR TYPE. LOCATE MANUAL BALANCE DAMPERS IN AN ACCESSIBLE LOCATION AND AS CLOSE TO THE MAIN DUCT AS POSSIBLE.
	CONTROL DAMPER	DAMPER SHALL BE SAME SIZE AS DUCT UNLESS NOTED OTHERWISE. REFER TO SEQUENCES, SCHEMATICS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
	FIRE DAMPER	REFER TO SPECIFICATIONS FOR TYPE. LOCATE DAMPERS IN AN ACCESSIBLE LOCATION AND PROVIDE ACCESS DOORS/PANELS IN DUCT AND CEILING/WALL.
	SMOKE DAMPER	REFER TO SPECIFICATIONS FOR TYPE. LOCATE DAMPERS IN AN ACCESSIBLE LOCATION AND PROVIDE ACCESS DOORS/PANELS IN DUCT AND CEILING/WALL.
	FIRE/SMOKE DAMPER	REFER TO SPECIFICATIONS FOR TYPE. LOCATE DAMPERS IN AN ACCESSIBLE LOCATION AND PROVIDE ACCESS DOORS/PANELS IN DUCT AND CEILING/WALL.
	DIFFUSER	
	DIFFUSER BLANK OFF	SHADED AREA INDICATES QUADRANT OF DIFFUSER TO BE PROVIDED WITH BLANK OFF PANEL.
	RETURN GRILLE	
	EXHAUST GRILLE	
	WALL REGISTER / GRILLE	
	DUCT MOUNTED REGISTER / GRILLE	
	LINEAR SLOT	
###	TRANSFER AIR ARROW ### = AIRFLOW IN CFM	ARROW INDICATES DIRECTION OF TRANSFER AIR.
	FLOW ARROW	ARROW INDICATES DIRECTION OF AIRFLOW FROM DIFFUSERS WITH ADJUSTABLE THROWS.
D# / ###	DIFFUSER TAG D = TYPE # = TYPE NUMBER ### = AIRFLOW IN CFM	REFER TO DIFFUSER SCHEDULE FOR TYPE DESCRIPTIONS AND SIZING. BALANCE TO AIRFLOW LISTED. WHEN TYPE IS NOT GIVEN AND ONLY CFM IS DESIGNATED, PROVIDE D1 FOR SUPPLY OR G1 FOR RETURN/EXHAUST.
	FLEXIBLE DUCT	REFER TO SPECIFICATIONS FOR TYPE. REFER TO DETAILS FOR INSTALLATION REQUIREMENTS. MAXIMUM LENGTH SHALL BE 48 INCHES UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
	FLEXIBLE PIPING	REFER TO SPECIFICATIONS FOR TYPE.
	VARIABLE AIR VOLUME BOX - NO COIL	REFER TO SCHEDULE, DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS.
	VARIABLE AIR VOLUME BOX - HOT WATER COIL	REFER TO SCHEDULE, DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS.
	VARIABLE AIR VOLUME BOX - ELECTRIC COIL	REFER TO SCHEDULE, DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS.
	VARIABLE AIR VOLUME BOX - DUAL DUCT	REFER TO SCHEDULE, DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND INSTALLATION REQUIREMENTS.
VB-# / ### CFM	VAV BOX TAG # = REFERENCE NUMBER IN SCHEDULE ### = AIRFLOW IN CFM	REFER TO VARIABLE VOLUME BOX SCHEDULE FOR TYPES AND SIZING. AIRFLOW LISTED IS NOMINAL DESIGN CFM AND GPM. FINAL VALUES ARE TO BE DETERMINED BY TESTING AND BALANCING CONTRACTOR AND PROGRAMMED BY CONTROLS CONTRACTOR.
VB-# / # # GPM	VAV BOX TAG # = REFERENCE NUMBER IN SCHEDULE # # = WATER FLOW RATE IN GPM	REFER TO VARIABLE VOLUME BOX SCHEDULE FOR TYPES AND SIZING. AIRFLOW LISTED IS NOMINAL DESIGN CFM AND GPM. FINAL VALUES ARE TO BE DETERMINED BY TESTING AND BALANCING CONTRACTOR AND PROGRAMMED BY CONTROLS CONTRACTOR.

HVAC ABBREVIATIONS

NOT ALL ABBREVIATIONS APPLY TO THIS SET OF DOCUMENTS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AB	AIR BLENDER	HP	HORSEPOWER
AC	AIR CONDITIONING UNIT (SPLIT SYSTEM INDOOR UNIT)	HPC	HIGH PRESSURE STEAM CONDENSATE
AHU	AIR HANDLING UNIT	HPS	HIGH PRESSURE STEAM SUPPLY (86 PSIG AND ABOVE)
BFU	BOILER FEED UNIT	HRC	HEAT RECOVERY CHILLER
BLR	BOILER	HUM	HUMIDIFIER
CAV	CONSTANT AIR VOLUME BOX	HWR	HEATING HOT WATER RETURN
CC	COOLING COIL	HWS	HEATING HOT WATER SUPPLY
CD	CONDENSATE DRAIN	LPC	LOW PRESSURE STEAM CONDENSATE
CFM	CUBIC FEET PER MINUTE	LPS	LOW PRESSURE STEAM SUPPLY (0-12 PSIG)
CH	CHILLER	LV	LOUVER
CP	CONDENSATE PUMP	LWT	LEAVING WATER TEMPERATURE
CR	CONDENSER WATER RETURN	MBH	BTU (1000'S)
CS	CONDENSER WATER SUPPLY	MD	MANUAL DAMPER
CT	COOLING TOWER	MOD	MOTOR OPERATED DAMPER
CU	CONDENSING UNIT	MPC	MEDIUM PRESSURE STEAM CONDENSATE
CUH	CABINET UNIT HEATER	MPS	MEDIUM PRESSURE STEAM SUPPLY (13-85 PSIG)
CWR	CHILLED WATER RETURN	NC	NORMALLY CLOSED, NOISE CRITERIA
CWS	CHILLED WATER SUPPLY	NO	NORMALLY OPEN, NUMBER
D	DIFFUSER	OA	OUTDOOR AIR
DD	DUAL DUCT	P	PUMP
DX	DIRECT EXPANSION	PC	PUMPED CONDENSATE
EA	EXHAUST AIR	PRV	PRESSURE REDUCING VALVE
EAT	ENTERING AIR TEMPERATURE	PSC	PUMPED STEAM CONDENSATE
EF	EXHAUST FAN	R	REGISTER
EFF	EFFICIENCY	RA	RETURN AIR
ERC	ENERGY RECOVERY COIL	RE	REMOVE EXISTING
ERW	ENERGY RECOVERY WHEEL	REL	RELIEF AIR
ET	EXPANSION TANK	REFL	REFRIGERANT DX LIQUID
EWT	ENTERING WATER TEMPERATURE	REFS	REFRIGERANT DX SUCTION GAS
FB	FILTER BANK (CONSISTING OF ONE OR MORE FILTERS)	RF	RETURN FAN
FCU	FAN COIL UNIT	RH	RELATIVE HUMIDITY
FMS	FLOW MEASURING STATION	RTU	ROOF TOP UNIT
FOR	FUEL OIL RETURN	SA	SUPPLY AIR
FOS	FUEL OIL SUPPLY	SD	SMOKE DAMPER
FOV	FUEL OIL VENT	SF	SUPPLY FAN
FRD	FIRE DAMPER	SP	STATIC PRESSURE
FSD	FIRE SMOKE DAMPER	STM	STEAM
FTR	FINNED TUBE RADIATOR	TEMP	TEMPERATURE
G	GRILLE	TR	TRANSFER
GCWR	GLYCOL CHILLED WATER RETURN	UH	UNIT HEATER
GCWS	GLYCOL CHILLED WATER SUPPLY	VAV	VARIABLE AIR VOLUME BOX
GE	GRAVITY EXHAUST	VTR	VENT THROUGH ROOF
GHWR	GLYCOL HEATING HOT WATER RETURN	WB	WET BULB TEMPERATURE
GHWS	GLYCOL HEATING HOT WATER SUPPLY	WC	WATER COLUMN
GI	GRAVITY INTAKE	WPD	WATER PRESSURE DROP
HC	HEATING COIL	WSHPR	WATER SOURCE HEAT PUMP RETURN
		WSHPS	WATER SOURCE HEAT PUMP SUPPLY

MECHANICAL GENERAL NOTES:

A. THESE NOTES APPLY TO ALL SHEETS CONTAINING HVAC, PIPING, AND TEMPERATURE CONTROLS WORK. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. WHERE A DISCREPANCY EXISTS BETWEEN THESE PLANS AND THE PROJECT SPECIFICATIONS, THE SPECIFICATION REQUIREMENTS SHALL TAKE PRECEDENCE OVER THE DRAWINGS.
B. VERIFY THE EXISTING CONDITIONS AT THE PROJECT SITE BEFORE SUBMITTING COST PROPOSAL. BE ADVISED THAT LOCATIONS SHOWN ARE APPROXIMATE. AN ATTEMPT HAS BEEN MADE TO SHOW ALL PIPING, DUCTWORK, AND OUTLETS. CONTRACTOR SHALL VISIT THE SITE TO VERIFY COMPONENTS, LOCATIONS AND SIZES SHOWN OR NOT SHOWN. ALL COMPONENTS NEED TO BE REMOVED IN THE DEMOLITION AREA UNLESS NOTED ON THE DRAWINGS. IF DEVIATION BETWEEN EXISTING CONDITIONS AND NEW WORK IS FOUND, CONTRACTOR SHALL NOTIFY ENGINEER.
C. IT IS MANDATORY THAT THE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING THE CONSTRUCTION OF THE ADDITIONS AND REMODELING/ALTERATION OF THE EXISTING BUILDING. SERVICES TO THE EXISTING BUILDING SHALL BE KEPT ON CONTINUOUS OPERATION EXCEPT DURING SCHEDULED SHUTDOWNS FOR EXTENSION OR MODIFICATION. PLAN TO COMPLETE SHUTDOWNS DURING OFF HOURS TO MINIMIZE IMPACT TO THE OWNER. COORDINATE SHUTDOWNS WITH THE OWNER A MINIMUM OF 14 DAYS PRIOR TO WORK. PROVIDE TEMPORARY SERVICES WHERE NECESSARY TO ACCOMPLISH ANY SHUTDOWN. THIS INCLUDES BUT IS NOT LIMITED TO STAFFING AND EQUIPMENT FOR FIRE WATCHES, PROVISIONS FOR BOTTLED WATER, AND TEMPORARY HEATING OR COOLING EQUIPMENT. TEMPORARY MEASURES SHALL NOT BE REMOVED UNTIL THE PERMANENT SYSTEMS ARE OPERATIONAL AND HAVE PASSED ALL REQUIRED TESTING.
D. REFER TO THE SPECIFICATIONS AND ARCHITECTURAL PLANS FOR PHASING REQUIREMENTS. DURING EACH PHASE THE CONTRACTOR SHALL COMPLETE ALL WORK LOCATED WITHIN THE BOUNDARY OF THAT PHASE. ANY WORK AND THAT MUST BE COMPLETED IN THE AREA AFTER THAT AREA HAS BEEN TURNED OVER TO THE OWNER SHALL BE IDENTIFIED AT THE BEGINNING OF THE PHASE FOR EVALUATION AND ACCEPTANCE OF THE OWNER.
E. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN DEMOLITION, REMOVAL, CAPPING, STORING, ABANDONING, DISCONNECTING, RELOCATING AND RECONNECTION OF EXISTING EQUIPMENT AND MATERIAL. ALL CUTTING, PATCHING, REPAIRING, REPLACEMENT AND REFINISHING SHALL MATCH THE EXISTING CONSTRUCTION AS NEARLY AS POSSIBLE.
F. THESE DRAWINGS ARE NECESSARILY DIAGRAMMATIC IN NATURE. NOT ALL FITTINGS, OFFSETS, VENTS OR DRAINS ARE SHOWN. THE CONTRACTOR SHALL INCLUDE ALL FITTINGS, OFFSETS, VENTS, DRAINS, AND DEVICES REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM.
G. PROVIDE ACCESS DOORS IN DUCTWORK AND/OR ARCHITECTURAL ELEMENTS WHERE REQUIRED TO ACCESS ALL EQUIPMENT REQUIRING MAINTENANCE AND ADJUSTMENT. THIS EQUIPMENT INCLUDES BUT IS NOT LIMITED TO SENSORS, DAMPERS, ACTUATORS, CONTROL DEVICES, VALVES, ETC. ACCESS DOORS SHALL BE SIZED TO PROVIDE APPROPRIATE ACCESS BASED ON HEIGHT OF ACCESS REQUIRED AND ACTIVITY. INSTALL SUCH THAT ACCESS DOOR IS FULLY OPERABLE WITHOUT THE REMOVAL OF ARCHITECTURAL ELEMENTS SUCH AS CEILING RUNNERS, SUPPORTS, ETC. INSTALL IN A LOCATION SUCH THAT STEPPING OR LEANING OVER PERMANENT EQUIPMENT OR FURNITURE IS NOT REQUIRED.
WHERE ACCESS DOORS ARE REQUIRED IN ARCHITECTURAL ELEMENTS THAT PROVIDE A FIRE AND/OR SMOKE RATING, ACCESS DOOR SHALL MAINTAIN THE REQUIRED RATING.
H. SEAL ALL WALL PENETRATIONS (DUCTWORK, PIPING, CONTROLS, CONDUITS, ETC.) WITH NON-COMBUSTIBLE MATERIAL. SEAL PENETRATIONS INTO ROOMS THAT REQUIRE PRESSURE CONTROL OR SOUND ISOLATION. WITH NON-COMBUSTIBLE MATERIAL AND CAULK.
I. PIPING AND DUCTWORK SHALL NOT BE ROUTED OVER ELECTRICAL AND TELECOM ROOMS. WHERE ROUTING OVER SUCH ROOMS IS UNAVOIDABLE, CONTRACTOR SHALL COORDINATE WITH OWNER, DESIGN TEAM, AHJ, AND OTHER TRADES REGARDING LOCATION OF PANELS AND UTILITY ROUTING AND SHALL PROVIDE DRIP PANS UNDER ALL UTILITIES WITH MOISTURE SENSORS OR DRAIN PIPING AS REQUIRED BY THE SPECIFICATIONS.
J. LOCATE PIPING AND DUCTWORK IN EXTERIOR BUILDING WALLS ON THE WARM SIDE OF THE BUILDING AND VAPOR BARRIER. COORDINATE INSTALLATION OF BUILDING INSULATION TO RUN CONTINUOUS BETWEEN PIPING AND BUILDING WALL.
K. SUPPORT ALL DUCTWORK, PIPING AND EQUIPMENT FROM BUILDING STRUCTURE MEMBERS. ROUTE DUCT MAINS TIGHT TO STRUCTURE UNLESS NOTED OTHERWISE. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBERS OR RUN THROUGH JOIST WEBS IF POSSIBLE. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING. DO NOT SUPPORT PIPING FROM OTHER PIPING, DUCTWORK, AND/OR ELECTRICAL CONDUITS. DO NOT SUPPORT FROM WOOD TONGUE AND GROOVE ROOF DECK. SUPPORT FROM BOTTOM CHORD OF BAR JOISTS ONLY AT PANEL POINTS. ALL COMPONENTS REQUIRING MAINTENANCE SHALL BE SUPPORTED IN SUCH A MANNER AS TO BE READILY ACCESSIBLE WITHOUT REMOVAL OF THE CEILING SYSTEM AND TO ALLOW FOR REMOVAL FROM THE SYSTEM WHEN SUCH REMOVAL IS REQUIRED FOR MAINTENANCE.
L. PROTECT ALL DUCTWORK AND PIPING DURING CONSTRUCTION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. AT A MINIMUM, DUCTWORK AND PIPING ENDS SHALL BE COVERED AND SEALED TO PREVENT THE COLLECTION OF DUST AND DEBRIS. CLEAN ALL INTERIOR SURFACES PRIOR TO INSTALLATION AND PROTECT ONCE INSTALLED.
M. UNLESS NOTED OTHERWISE, DETAILS SHOWN WITHIN THESE DOCUMENTS ARE APPLICABLE FOR ALL PIPING, EQUIPMENT AND DUCTWORK INSTALLATIONS WHETHER OR NOT SPECIFICALLY NOTED. REFER TO DETAIL SHEETS FOR GENERAL CONSTRUCTION DETAILS.
N. FOR ALL PIPING, CONDUIT, AND OTHER ITEMS PENETRATING A FIRE RATED WALL, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM THAT IS SPECIFIC TO THE WALL CONSTRUCTION ASSEMBLY AND COMPLIANT WITH ASTM E814. INSTALL SYSTEM IN STRICT COMPLIANCE WITH THE FIRE STOPPING MANUFACTURER'S U.L. APPROVED DETAIL. WHERE EXISTING WALLS ARE BEING UPGRADED TO FIRE RATED WALLS OR THE FIRE RATING IS BEING MODIFIED, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM FOR ALL NEW AND EXISTING PENETRATIONS. REFER TO THE ARCHITECTURAL LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED WALLS.
O. EXCEPT WHERE OTHERWISE SHOWN OR NOTED ON THE DRAWINGS AS "TO BE RETAINED, RELOCATED", ALL EXISTING EQUIPMENT AND MATERIAL IN AREAS TO BE REMODELED/ALTERED SHALL BE REMOVED WHERE THEY INTERFERE WITH PROPOSED NEW CONSTRUCTION AND/OR WITH PROPOSED USAGE OF SPACE BY OWNER AS FOLLOWS:
   a. REMOVE STEAM, HEATING HOT WATER, HVAC SUPPLY, RETURN AND EXHAUST AS NOTED. CAP WITHIN 3 PIPE DIAMETERS OF NEAREST ACTIVE MAIN. SUPPLY AND RETURN MAINS ON PIPING SYSTEMS CONVEYING WATER OR GASES SHALL BE VALVED AND CAPPED
   b. IN REMODELED/ALTERED AREAS, ANY PIPING OR DUCTWORK PASSING THROUGH THE REMODELED AREAS TO SERVE (OR BEING SERVED FROM EXISTING ADJACENT, REMOTE, OR SURROUNDING AREAS THAT ARE TO REMAIN) SHALL BE RETAINED AND KEPT OPERATIONAL AND SHALL BE REROUTED IN ALL CASES WHERE THEY INTERFERE WITH ANY NEW WORK OR USAGE TO BE ACCOMPLISHED IN THE REMODELED AREA.
   c. REMOVE UNUSED OR ABANDONED HANGERS AND PATCH ABANDONED PENETRATIONS TO MATCH EXISTING.
   d. PENETRATIONS THROUGH EXISTING WALLS AND FLOORS FORMERLY OCCUPIED BY REMOVED PIPING OR DUCTWORK SHALL BE PATCHED TO MATCH EXISTING CONSTRUCTION.
   e. RE-SUPPORT ANY PIPING AND DUCTWORK THAT WAS SUPPORTED FROM BUILDING ELEMENTS REMOVED AS PART OF THE WORK.
   f. MAINTAIN CONTROL WIRING OR PNEUMATIC TUBING REQUIRED FOR THE CONTINUED PROPER OPERATION OF THE BUILDING AUTOMATION SYSTEM.
P. FLEXIBLE DUCTWORK SHALL HAVE A MAXIMUM LENGTH OF 48" REGARDLESS OF LENGTH SHOWN ON DRAWINGS. FLEX DUCT INSTALLATION SHALL BE AT TERMINAL ENDS ONLY. CONNECTIONS AT VAV BOX INLETS SHALL BE SOLID HARD DUCT. THE DUCTWORK AT ANY FIRE AND/OR FIRE SMOKE DAMPER SHALL BE HARD DUCT.
Q. FOR DUCTWORK PENETRATING A ONE HOUR FIRE RATED WALL WHERE A FIRE DAMPER IS NOT SHOWN. PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM THAT IS SPECIFIC TO THE WALL CONSTRUCTION ASSEMBLY AND COMPLIANT WITH ASTM E814. THE SYSTEM SHALL BE FIRE TESTED PER ASTM E199 AND COMPLY WITH HE EXCEPTION 1 OF 2018 IPC PART 717.5.2. INSTALL SYSTEM IN STRICT COMPLIANCE WITH THE FIRE STOPPING MANUFACTURER'S U.L. APPROVED DETAIL. WHERE EXISTING WALLS ARE BEING UPGRADED TO ONE HOUR FIRE RATED WALL, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM FOR ALL NEW AND EXISTING PENETRATIONS REFER TO THE ARCHITECTURAL LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED WALLS. ALL DUCTWORK PENETRATIONS SHALL BE INSPECTED BY AN APPROVED THIRD PARTY INSPECTION AGENCY IN ACCORDANCE WITH ASTM E2174. THE INSPECTION AGENCY SHALL BE PROCURED BY THE CONTRACTOR. DOCUMENTATION OF APPROVED INSPECTION SHALL BE INCLUDED WITH PROJECT CLOSEOUT DOCUMENTATION.
R. FIRE ALARM CONTRACTOR SHALL PROVIDE A DUCT SMOKE DETECTOR FOR EACH SMOKE OR FIRE/SMOKE DAMPER AS REQUIRED BY CODE. MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF EACH DUCT SMOKE DETECTOR AND SHALL INSTALL THEM IN THE DUCT.
S. REFER TO SCHEDULES FOR SIZES OF FINAL RUNOUTS TO EQUIPMENT, FIXTURES, DIFFUSERS, GRILLES, AND TERMINAL DEVICES. FINAL RUNOUT SIZES LISTED SHALL BE USED TO WITHIN 10 EQUIVALENT DIAMETERS OF FINAL CONNECTION POINT. FINAL PIPING CONNECTION TO EQUIPMENT SHALL MATCH EQUIPMENT CONNECTION SIZE. PROVIDE TRANSITIONS AS REQUIRED. REFER TO DETAILS, DIAGRAMS AND SCHEMATICS FOR ADDITIONAL FINAL CONNECTION REQUIREMENTS. REFER TO SCHEDULE SHEETS FOR PROVIDED SCHEDULES.

HEALTHCARE FACILITY CONSTRUCTION GENERAL NOTES:

THE FOLLOWING SHALL APPLY TO ALL MECHANICAL SYSTEMS AFFECTED BY CONSTRUCTION ACTIVITIES. SYSTEMS INCLUDED BUT ARE NOT LIMITED TO HVAC, EXHAUST, EQUIPMENT, DUCTWORK, DUCTWORK ACCESSORIES, HYDRONICS, COILS, FILTERS, PLUMBING, TEMPERATURE CONTROLS, LIFE SAFETY CONTROLS AND PRESSURIZATION CONTROLS.
1. AIR QUALITY, QUANTITY AND PRESSURE RELATIONSHIPS SHALL COMPLY WITH THE LATEST, ANSI/ASHRAE/ASHE STANDARD REQUIREMENTS.
2. COMPLY WITH THE FACILITY'S INFECTIOUS CONTROL RISK ASSESSMENT (ICRA) REQUIREMENTS.
3. MAINTAIN EXISTING AIR QUALITY REQUIREMENTS, AIR PRESSURIZATION AND OTHER UTILITY REQUIREMENTS FOR OCCUPIED AREAS DURING ANY RENOVATION OR CONSTRUCTION.
4. DETERMINE AND VERIFY THE AREAS SERVED BY THE AFFECTED SYSTEMS.
5. TAKE AIR AND OR/ WATER BALANCE READINGS OF THE SYSTEMS BEING AFFECTED.
6. IF THERE ARE SPACES BEING SERVED OUTSIDE OF THE DEMOLITION OR ADDITION AREA, THE FOLLOWING PROCEDURES MUST BE TAKEN:
   A. TAKE AIR AND/OR WATER BALANCE READINGS AS NEEDED TO QUANTIFY THE AIR AND/OR WATER FLOWS DELIVERED TO THE SYSTEMS OUTSIDE THE AFFECTED AREA.
   B. DURING DEMOLITION, TAKE ALL NECESSARY MEASURES TO MAINTAIN THE CORRECT AIR AND/OR WATER FLOWS TO THE SYSTEMS THAT ARE REMAINING.
   C. AFTER THE COMPLETION OF DEMOLITION, VERIFY THAT AIR AND/OR WATER FLOWS ARE CORRECT.
   D. AFTER COMPLETING ANY ADDITIONS TO THE SYSTEM, VERIFY THAT AIR AND/OR WATER FLOWS ARE CORRECT.
7. THE CONTRACTOR IS TO PROVIDE TEMPORARY AIR/AND OR WATER SYSTEMS AS NEEDED TO MAINTAIN PROPER TEMPERATURE AND PRESSURE RELATIONSHIPS OF SPACES REQUIRED TO BE OCCUPIED DURING CONSTRUCTION.
8. ALL TEMPORARY AIR SUPPLY SYSTEMS MUST UTILIZE FINAL FILTERS THAT ARE A MINIMUM OF 90% EFFICIENT (MERV 14). FINAL FILTERS MUST BE DOWNSTREAM OF ALL AIR SUPPLY COMPONENTS.

Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL SEAL 061879 03/26/2026 ENGINEER KEITH LUNKENHEIMER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: MECHANICAL SYMBOLS AND ABBREVIATIONS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	Project Number: 646-24-100
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Building Number: 01
		Issue Date: 03/26/2026 · Checked: JMM · Drawn: KSL	Drawing Number: MH001

VA FORM 08 - 6231

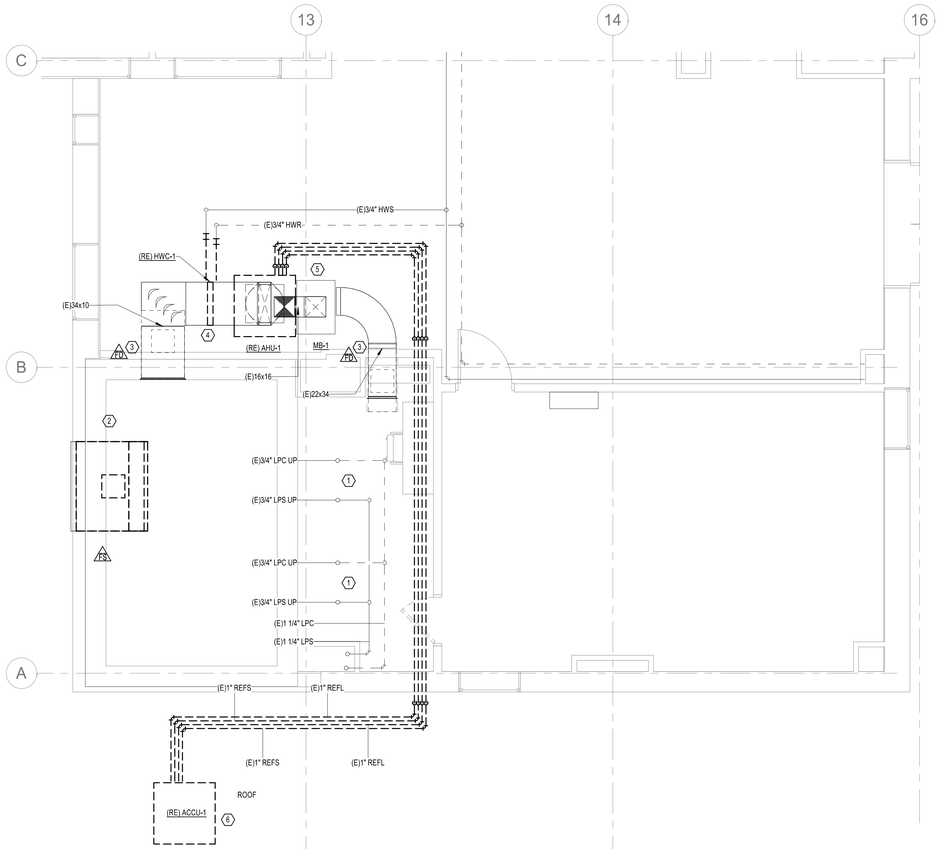
Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100 B01 MEP R24.rvt 3/26/2026 1:23:42 PM

SHEET NOTES:

1. VARIANCE REQUESTED AND ACCEPTED FOR EXISTING STEAM PIPING, RADIATORS, AND APPURTENANCES TO REMAIN.
2. REMOVE EXISTING DAMPER. PREP EXISTING DUCT TO REMAIN FOR SEALING OF DUCTWORK TO EXTERIOR LOUVER FROM INSIDE THE SHAFT.
3. PROVIDE PRE-DEMOLITION TESTING ON FIRE DAMPERS TO PROVE FUCTIONALITY.
4. REMOVE EXISTING DUCT MOUNTED HEATING COIL.
5. EXISTING UNIT PAD TO REMAIN AND BE REUSED FOR NEW UNIT MOUNTING.
6. EXISTING ROOF RAILS TO BE DEMOLISHED AND ROOF PATCHED TO MATCH EXISTING.

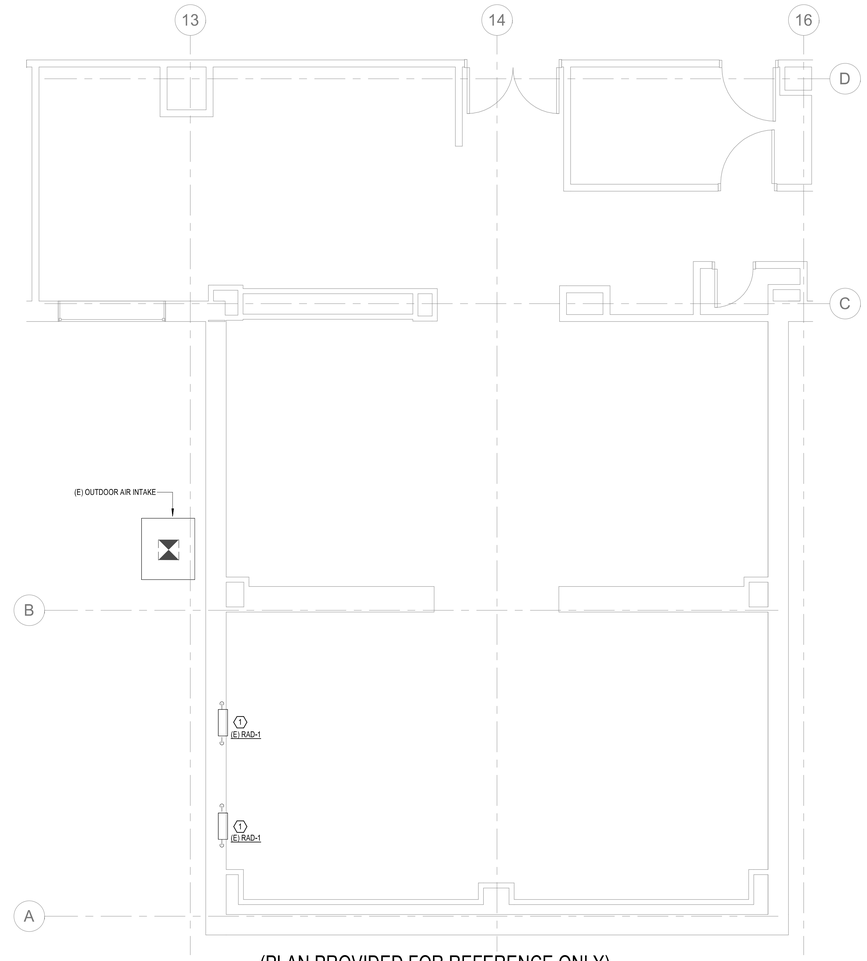
GENERAL NOTES:

1. MECHANICAL SYMBOLS AND ABBREVIATIONS SHEET GENERAL NOTES APPLY TO ALL SHEETS.
2. ON DEMOLITION PLANS; EXISTING MECHANICAL SYSTEMS TO BE REMOVED ARE SHOWN HATCHED AND/OR DASHED, EXISTING MECHANICAL SYSTEMS TO REMAIN ARE SHOWN LIGHT LINE WEIGHT. ON ALL OTHER PLANS, NEW MECHANICAL SYSTEMS ARE INDICATED WITH HEAVY LINE WEIGHTS.
3. UNLESS NOTED OTHERWISE, DETAILS SHOWN WITHIN THESE DOCUMENTS ARE APPLICABLE FOR ALL PIPING, EQUIPMENT AND DUCTWORK INSTALLATIONS WHETHER OR NOT SPECIFICALLY NOTED.
4. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR THE MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THIS WORK.



1 SEVENTH FLOOR - MECHANICAL DEMOLITION
1/4" = 1'-0"

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET



(PLAN PROVIDED FOR REFERENCE ONLY)

2 EIGHTH FLOOR - MECHANICAL DEMOLITION
1/4" = 1'-0"

1/4" = 1'-0" SCALE 2 0 2 4 6 8 10 FEET

KEY PLAN :-

Revisions:	Date:

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03/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FLOOR PLAN - MECHANICAL DEMOLITION	100% CONSTRUCTION DOCUMENTS	VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	646-24-100
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Building Number: 01
		Issue Date: 03/26/2026 · Checked: JMM · Drawn: KSL	Drawing Number: MD101

VA FORM 08 - 6231

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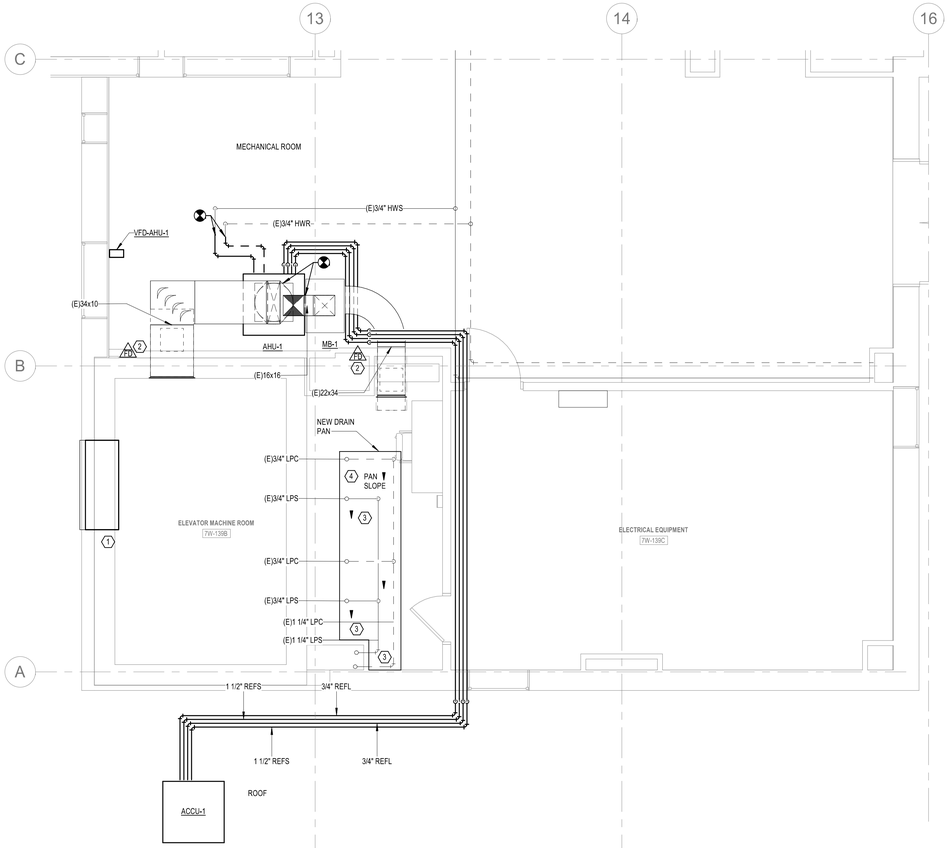
SHEET NOTES:

1. PROVIDE WEATHER PROOF SHEET METAL SEAL AT EXISTING ELEVATOR VENT PENETRATION ON INSIDE OF LOUVER. PROVIDE MIN. 1.5" FIRE BARRIER INSULATION COMPLIANT WITH ASTM E2336 AND ISO 6944 WITH WEATHPROOFING BLANKOFF FROM INTERIOR OF SHAFT FOR SEAL.
2. EXISTING FIRE DAMPER TO REMAIN PROVIDED IT PASSES PRE-DEMOLITION TESTING. EXISTING FIRE DAMPER TO BE REPLACED IN KIND IF PREDEMOLITION TESTING PROVES NON-FUNCTIONAL.
3. PROVIDE NEW LEAK DETECTOR IN DRAIN PAN WITH ALARM WIRED TO BAS.
4. PROVIDE NEW DRAIN PAN UNDER EXISTING STEAM PIPING TO REMAIN.

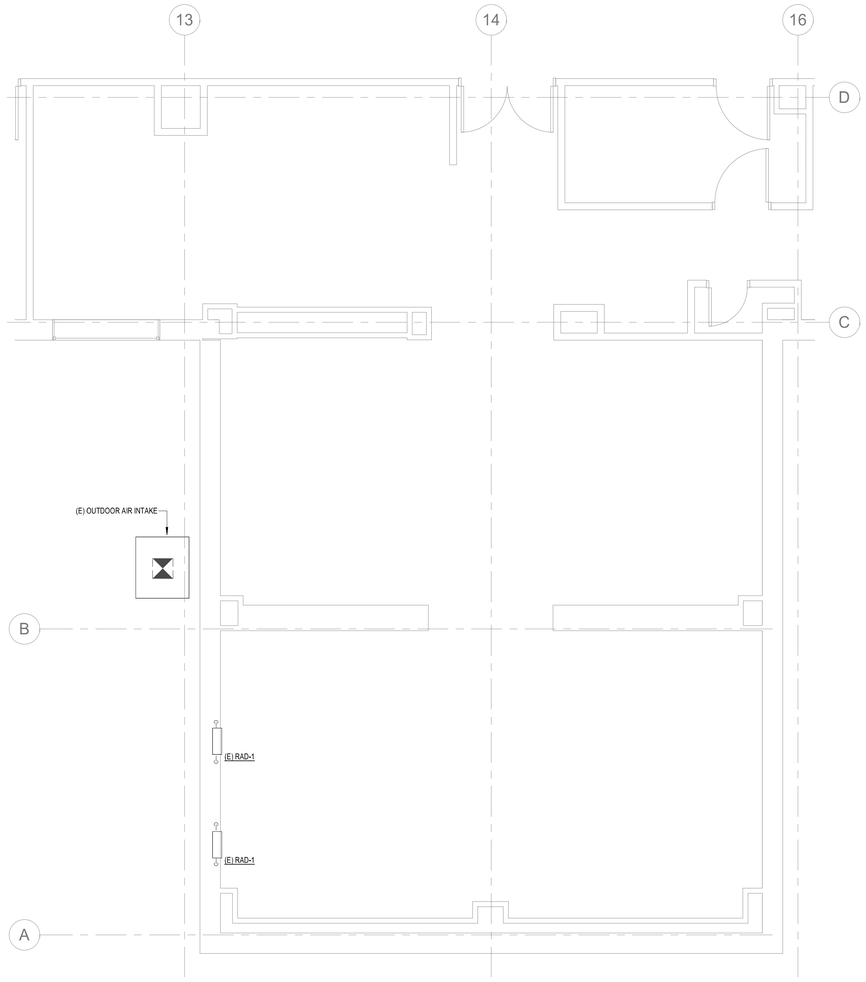
GENERAL NOTES:

1. MECHANICAL SYMBOLS AND ABBREVIATIONS SHEET GENERAL NOTES APPLY TO ALL SHEETS.
2. ON DEMOLITION PLANS: EXISTING MECHANICAL SYSTEMS TO BE REMOVED ARE SHOWN HATCHED AND/OR DASHED. EXISTING MECHANICAL SYSTEMS TO REMAIN ARE SHOWN LIGHT LINE WEIGHT. ON ALL OTHER PLANS, NEW MECHANICAL SYSTEMS ARE INDICATED WITH HEAVY LINE WEIGHTS.
3. UNLESS NOTED OTHERWISE, DETAILS SHOWN WITHIN THESE DOCUMENTS ARE APPLICABLE FOR ALL PIPING, EQUIPMENT AND DUCTWORK INSTALLATIONS WHETHER OR NOT SPECIFICALLY NOTED.
4. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR THE MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THIS WORK.



1 SEVENTH FLOOR - DUCTWORK / PIPING
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10 SCALE FEET



2 EIGHTH FLOOR - DUCTWORK / PIPING
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10 SCALE FEET

KEY PLAN :-

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FLOOR PLAN - DUCTWORK / PIPING	100% CONSTRUCTION DOCUMENTS	VA PITTSBURGH UPGRADE BED TOWER ELEVATORS	646-24-100
Approved:	FULLY SPRINKLERED	Location: University Drive C Pittsburgh, PA 15240	Building Number: 01
		Issue Date: 03/26/2026 · Checked: JMM · Drawn: KSL	Drawing Number: MH201

VA FORM 08 - 6231

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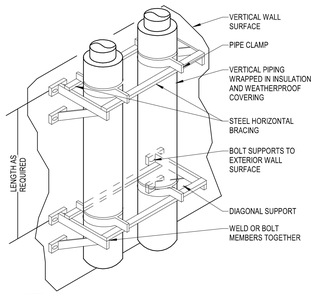
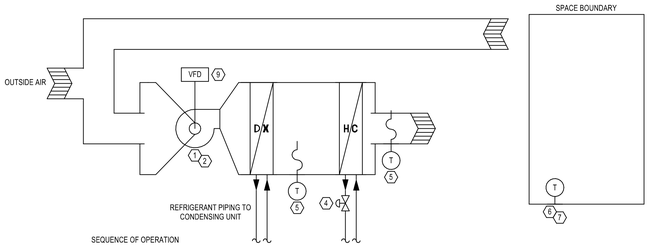


NOTES:
1. COMPLY WITH PROJECT PIPE SUPPORT, BRACING AND SPACING SPECIFICATIONS.
2. ALL PIPING SUPPORTS ARE TO BE STRUCTURALLY ENGINEERED FOR WEIGHT, WIND AND SEISMIC LOADING CONDITIONS.
3. PROVIDE STAMPED AND SEALED STRUCTURAL DRAWINGS IN COMPLIANCE WITH AHJ REQUIREMENTS.

1 MH501 EXTERIOR VERTICAL PIPE SUPPORT ON FACE OF BUILDING
NO SCALE



SEQUENCE OF OPERATION

OUTDOOR AIR INTAKE DAMPER BALANCED TO MINIMUM CFM PER SCHEDULE.

ZONE HAS A UNIT WITH A DX COOLING COIL, A UNIT MOUNTED HOT WATER HEATING COIL WITH CONTROL VALVE, AND DIRECT DIGITAL CONTROLLER. INSTALL A WALL MOUNTED THERMOSTAT TO MAINTAIN A SPACE TEMPERATURE OF 72°F (ADJUSTABLE). SEE DRAWINGS FOR SENSOR REQUIREMENTS.

ON A CALL FOR COOLING, THE DX COIL CONTROL VALVE SHALL MODULATE OPEN UNTIL SETPOINT IS MAINTAINED OR UNTIL IT IS FULLY OPEN. THE HEATING COIL CONTROL VALVE SHALL BE CLOSED.

ON A CALL FOR HEATING, THE HEATING COIL CONTROL VALVE SHALL MODULATE OPEN UNTIL SETPOINT IS MAINTAINED OR UNTIL IT IS FULLY OPEN. THE COOLING COIL CONTROL VALVE SHALL BE CLOSED.

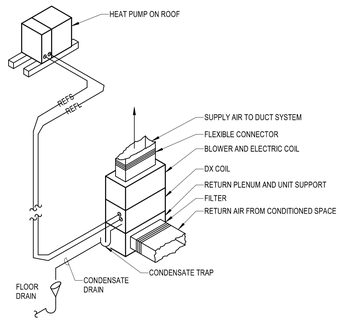
THE FAN SHALL CYCLE WITH DEMAND. IF THE CURRENT STATUS SWITCH DOES NOT PROVE OPERATION, SEND AN ALARM TO THE OPERATOR INTERFACE.

IF SPACE TEMPERATURE FALLS BELOW 55°F (ADJUSTABLE), SEND ALARM TO THE OPERATOR INTERFACE.

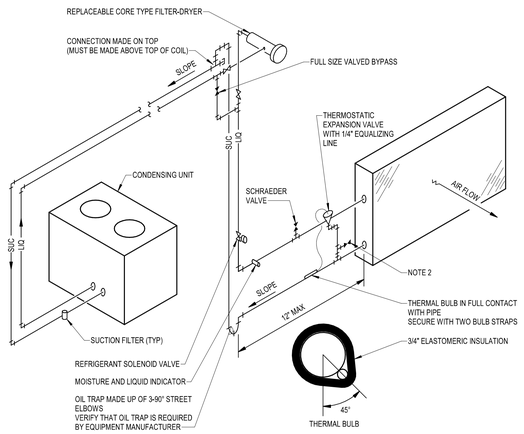
GENERAL NOTES

1. UNIT CONTROLLER SHALL HAVE A MINIMUM SERVICE CLEARANCE OF 24 INCHES.
2. MOUNT ALL ROOM SENSORS AT 48" ABOVE FINISHED FLOOR. COORDINATE LOCATION WITH NEARBY DEVICES SUCH AS LIGHT SWITCHES.

2 MH501 FAN COIL UNIT
NO SCALE

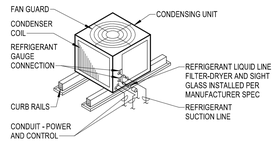


3 MH501 SPLIT SYSTEMS HEAT PUMP - ROOF
NO SCALE

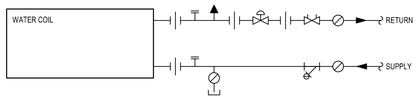


NOTES:
1. THIS DIAGRAM IS SCHEMATIC IN NATURE. UNIT MANUFACTURER SHALL SUBMIT DETAILED PIPING DIAGRAM SHOWING RECOMMENDED PIPING ARRANGEMENT IF DIFFERENT FROM ABOVE.
2. INSTALL 1/4" SCHRAEDER VALVE TO MEASURE REFRIGERANT PRESSURE WITH REFRIGERANT GAUGES.
3. PIPE SIZES, IF SHOWN ON DRAWINGS, ARE ONLY FOR THE CONVENIENCE OF THE BIDDERS. ACTUAL NUMBERS AND SIZES OF PIPES AND ANY ACCESSORIES SUCH AS ACCUMULATORS, RECEIVERS, SEPARATORS AND HEAT TRACING SHALL BE DETERMINED BY THE COIL SUPPLIER AND SUBMITTED AS SHOP DRAWINGS. NO COMPENSATION WILL BE MADE IF ACTUAL NUMBER OR SIZES OF PIPES EXCEED WHAT IS SHOWN.

4 MH501 REFRIGERANT COIL
NO SCALE



6 MH501 AIR-COOLED CONDENSING UNIT - ROOF MOUNTED
NO SCALE



5 MH501 HEATING/CHILLED WATER COIL
NO SCALE

DX UNIT SCHEDULE

MARK	SERVES	NOMINAL CAPACITY [TONS]	OUTDOOR UNIT: OPERATING WEIGHT [LBS]	OUTDOOR UNIT: MODEL	ELECTRICAL DATA: HP	KW	FLA	VOLTAGE	PHASE	MCA	MOCP	DISCONNECT BY	DISCONNECT TYPE	SCCR	MANUFACTURER	REMARKS
ACCU-1	AHU-1	7.5	345	EL090KCSST	0.5	0.58	1.5	460 V	3	16	25	MANUF.	MANUF.	5	ALLIED	ALL

REMARKS:
1. PROVIDE CURB RAILS AND ROOF SUPPORTS FOR OUTDOOR UNIT.
2. PROVIDE THE FOLLOWING ACCESSORIES: SINGLE POINT POWER CONNECTION, DISCONNECT, HAIL GUARDS, LOW AMBIENT KIT, WIND BAFFLES.
3. "SCCR" - VALUE INDICATED IS AVAILABLE SHORT CIRCUIT CURRENT (SCC) IN KILOAMPS AT THE EQUIPMENT BASED ON PRELIMINARY DESIGN PHASE CALCULATIONS. EQUIPMENT SCCR SHALL BE MINIMUM 120% OF THE AVAILABLE SCC. RATING SHALL BE ADJUSTED IF REQUIRED BASED ON FINAL SCC CALCULATION. EQUIPMENT INDICATED WITH 5 KA MAY BE PROVIDED WITH 5 KA SCCR. REVIEW SCCR WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

AIR HANDLING UNIT SCHEDULE

MARK	LOCATION	CFM	MIN OA	ELECTRICAL DATA: BHP	HP	VOLTAGE	PHASE	MCA	MOCP	DISCONNECT BY	SCCR	HOT WATER COIL EWT [F]	HOT WATER COIL LWT [F]	HOT WATER COIL MBH	HOT WATER COIL GPM	HOT WATER COIL PD [FT.WG]	MANUFACTURER	MODEL	REMARKS
AHU-1	MER 7TH FL	3500	200	1.3	2	480 V	3	5	15	MANUF.	5	140	120	76.0	7.7	1.6	ALLIED	EL090KASD-1G	ALL

REMARKS:
1. PROVIDE WITH SINGLE POINT POWER CONNECTION.
2. REUSE EXISTING HOUSEKEEPING PAD.
3. PROVIDE VIBRATION ISOLATION PER SPECIFICATIONS.
4. "SCCR" - VALUE INDICATED IS AVAILABLE SHORT CIRCUIT CURRENT (SCC) IN KILOAMPS AT THE EQUIPMENT BASED ON PRELIMINARY DESIGN PHASE CALCULATIONS. EQUIPMENT SCCR SHALL BE MINIMUM 120% OF THE AVAILABLE SCC. RATING SHALL BE ADJUSTED IF REQUIRED BASED ON FINAL SCC CALCULATION. EQUIPMENT INDICATED WITH 5 KA MAY BE PROVIDED WITH 5 KA SCCR. REVIEW SCCR WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

COORDINATION OF WORK SCHEDULE

ITEM	SUPPLIER	INSTALLER	POWER	CONTROL (REMARK 4)
MOTORS	MC	MC (REMARK 3)	EC	CC
MOTOR CONTROL CENTER	EC	EC	EC	CC
LOOSE MOUNTED ELECTRICAL COMPONENTS	EC	EC	EC	CC
CONTROL RELAYS, TRANSFORMERS, POWER	MC	EC	EC (REMARK 4)	CC
120V THERMOSTATS	MC	MC	MC	CC (REMARK 1)
TEMPERATURE CONTROL SENSORS	MC	MC	CC	CC
VARIABLE SPEED DRIVES	MC	MC	EC	CC
PE/EP SWITCHES, SOLENOID VALVES, ACTUATORS	CC	CC	EC (REMARK 4)	CC
FAN COIL UNITS	MC	MC	EC	CC (REMARK 1)
DX CONDENSING UNITS AND CONDENSERS	MC	MC	EC	CC (REMARK 1)
SMOKE DAMPERS	MC	MC	EC	EC

REMARKS:
1. IF NO CC IN CONTRACT, MC TO WIRE CONTROLS AND EC TO PIPE CONDUIT.
2. ALL LOW VOLTAGE WIRING OF PANELS TO BE COVERED IN MC BID. WIRING CONTRACTOR TO BE SUBCONTRACTOR TO MC.
3. INSTALLING CONTRACTOR IS RESPONSIBLE FOR FIELD ALIGNMENT SERVICES WHEN REQUIRED BY COMMON MOTOR REQUIREMENTS SPECIFICATION OR BY INDIVIDUAL EQUIPMENT SPECIFICATIONS.
4. ALL HARDWARE, SOFTWARE, EQUIPMENT, ACCESSORIES, WIRING (POWER AND SENSOR), PIPING, RELAYS, SENSORS, POWER SUPPLIES, TRANSFORMERS, AND INSTRUMENTATION REQUIRED FOR A COMPLETE AND OPERATIONAL DDC SYSTEM, BUT NOT SHOWN ON THE ELECTRICAL DRAWINGS, ARE THE RESPONSIBILITY OF THE CC.

Revisions: Date:

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NORTH CAROLINA PROFESSIONAL SEAL 061879 03/26/2026 ENGINEER KEITH LUNKENHEIMER

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

Drawing Title: MECHANICAL DETAILS & SCHEDULES
Phase: 100% CONSTRUCTION DOCUMENTS
Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS
Project Number: 646-24-100
Building Number: 01
Approved:
FULLY SPRINKLERED
Location: University Drive C Pittsburgh, PA 15240
Issue Date: 03/26/2026
Checked: JMM
Drawn: KSL
Drawing Number: MH501

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Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100.B01.MEP.R24.rvt

VA FORM 08 - 6231

GENERAL MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	ADDITIONAL REMARKS
	SHEET NOTE	DENOTES SPECIFIC REQUIREMENT FOR THE SHEET ON WHICH THE NOTE APPEARS AND IS USED TO DESCRIBE WORK THAT IS TOO LENGTHY TO PLACE ON PLAN.
	PIPING - SOLID LINE INDICATES SYSTEM SUPPLY -- DASHED LINE INDICATES SYSTEM RETURN	NUMBER INDICATES NOMINAL DIAMETER IN INCHES, LETTER(S) INDICATES SYSTEM. REFER TO ABBREVIATIONS FOR SYSTEM TYPE.
Ø	DIAMETER	
	DENOTES CONNECTION OF NEW WORK TO EXISTING SYSTEM	PROTECT EXISTING SYSTEM FROM ENTRANCE OF FOREIGN DEBRIS DURING WORK.
	ARROW INDICATES DIRECTION OF FLOW IN PIPING	
	ARROW INDICATES DOWNWARD PIPE SLOPE ## INDICATES SLOPE IN INCHES PER FOOT	WHERE PIPING IS NOT MARKED, REFER TO SPECIFICATIONS FOR REQUIREMENTS
	ISOLATION VALVE	REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	CHECK VALVE OR BACKWATER VALVE ARROW INDICATES DIRECTION OF NORMAL FLOW	REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	PIPE IN SLEEVE	REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	AUTOMATIC FLOW CONTROL VALVE # INDICATES FLOW TO BE BALANCED IN GPM	CIRCUIT SETTER, AUTOFLOW, ETC. REFER TO SPECIFICATIONS FOR TYPE BASED ON SIZE AND SYSTEM
	ELBOW UP ELBOW DOWN	
	TEE UP TEE DOWN TEE HORIZONTAL	
	PIPE REDUCER	INDICATES POINT WHERE PIPING CHANGES FROM ONE SIZE TO ANOTHER. SMALL POINT OF ARROW INDICATES SMALLER SIZE SIDE OF TRANSITION.
	UNION	
	Y STRAINER WITH BLOWDOWN	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	Y STRAINER	
	PRESSURE GAUGE	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	PRESSURE GAUGE STEAM	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	THERMOMETER - HORIZONTAL PIPE	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	THERMOMETER - VERTICAL PIPE	REFER TO SPECIFICATIONS FOR TYPE AND ACCESSORIES
	REQUIRED SERVICE CLEARANCE FOR EQUIPMENT	
	DUCT CONTINUATION	
	AIR VENT	
	BACKFLOW PREVENTER	
	CALIBRATED BALANCING VALVE	
	VALVE - THROTTLING SERVICE	
	VALVE - SHUTOFF SERVICE	
	P/T PORT	
	PIPE CAP	
	PIPE CONTINUATION	
	PRESSURE REDUCING VALVE	
	PUMP	
	RELIEF VALVE	
S	SENSOR	
	SUCTION DIFFUSER	
	VACUUM BREAKER	
	STEAM TRAP	

GENERAL ABBREVIATIONS

NOT ALL ABBREVIATIONS APPLY TO THIS SET OF DOCUMENTS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AD	ACCESS DOOR/PANEL	LF	LINEAR FEET
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AMB	AMBIENT	MC	MECHANICAL CONTRACTOR
BOB	BOTTOM OF BEAM	MFR	MANUFACTURER
CC	CONTROLS CONTRACTOR	MIN	MINIMUM
DIA	DIAMETER	NIC	NOT IN CONTRACT
DN	DOWN	NTS	NOT TO SCALE
E	EXISTING	PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR	PSIG	POUNDS PER SQUARE INCH GAUGE
EFF	EFFICIENCY	RPM	REVOLUTIONS PER MINUTE
FPM	FEET PER MINUTE	SHT	SHEET
FPS	FEET PER SECOND	TOB	TOP OF BEAM
GC	GENERAL CONTRACTOR	TOS	TOP OF STEEL
GPM	GALLONS PER MINUTE	VEL	VELOCITY
L	LENGTH	VFD	VARIABLE FREQUENCY DRIVE

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION	ADDITIONAL REMARKS
	PIPING - SINGLE DASH INDICATES DOMESTIC COLD WATER - DOUBLE DASH INDICATES DOMESTIC HOT WATER - TRIPLE DASH INDICATES HOT WATER CIRCULATING - SOLID INDICATES SANITARY ABOVE FLOOR - CONTINUOUS DASHED INDICATES VENT - LONG DASHED LINES INDICATE SANITARY BELOW FLOOR	NUMBER INDICATES NOMINAL DIAMETER IN INCHES, LETTER(S) INDICATES SYSTEM. REFER TO ABBREVIATIONS FOR SYSTEM TYPE.
#"RD # SF	ROOF DRAIN TAG INDICATES DRAIN SIZE IN INCHES AND AREA OF ROOF DRAINED IN SQUARE FEET	REFER TO PLUMBING FIXTURE SCHEDULE FOR TYPE.
#"DSN # SF	WALL DISCHARGE (DOWNSPOUT NOZZLE) TAG INDICATES DRAIN SIZE IN INCHES AND AREA OF ROOF DRAINED IN SQUARE FEET	REFER TO PLUMBING FIXTURE SCHEDULE FOR TYPE.
FD#	FLOOR DRAIN	REFER TO PLUMBING FIXTURE SCHEDULE FOR TYPE.
C.O. C.O.	CLEANOUT	CIRCLE INDICATES UP TO FLOOR OR WALL CLEANOUT. LINE INDICATES END OF PIPE CLEANOUT LOCATED ABOVE A CEILING.
	DOUBLE GRADE CLEANOUT	REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.
	SANITARY WYE AND 1/8TH BEND FITTINGS OR COMBINATION FITTING	SANITARY TEES MAY BE USED IN VERTICAL PIPING WHERE PERMITTED BY CODE.

PLUMBING ABBREVIATIONS

NOT ALL ABBREVIATIONS APPLY TO THIS SET OF DOCUMENTS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
BF	BOTTLE/GLASS FILLER	HD	HUB DRAIN
BFP	BACK FLOW PREVENTER	HP	HORSEPOWER
BT	BATH TUB	IE	INVERT ELEVATION
CA	COMPRESSED AIR (NON-MEDICAL)	L	LAVATORY
CD	CONDENSATE DRAIN	LPG	PROPANE
CO	CLEANOUT	LWT	LEAVING WATER TEMPERATURE
CP	CONDENSATE PUMP	MBH	BTU (1000'S)
CS	CLINICAL SINK	MS	MOP SINK
CV	CHEMICAL VENT	NC	NORMALLY CLOSED
CW	CHEMICAL WASTE	NO	NORMALLY OPEN
DCW	DOMESTIC COLD WATER	NPCW	NON-POTABLE COLD WATER
DF	DRINKING FOUNTAIN	NPHW	NON-POTABLE HOT WATER
DGCO	DOUBLE GRADE CLEANOUT	PIV	POST INDICATOR VALVE
DHW	DOMESTIC HOT WATER	PRV	PRESSURE REDUCING VALVE
DHWC	DOMESTIC HOT WATER CIRCULATION	RD	ROOF DRAIN
DI	DEIONIZED WATER	RO	REVERSE OSMOSIS WATER
DIC	DEIONIZED WATER CIRCULATING	RPZ	REDUCED PRESSURE ZONE (BACK FLOW PREVENTER)
DIH	DEIONIZED HOT WATER	S	SINK
DIHC	DEIONIZED HOT WATER CIRCULATING	SAN	SANITARY SEWER
DIS	DISTILLED WATER	SCW	DOMESTIC SOFT COLD WATER
DISC	DISTILLED WATER CIRCULATING	SHW	DOMESTIC SOFT HOT WATER
DR	DIALYSIS WATER RETURN	SHWC	DOMESTIC SOFT HOT WATER CIRCULATING
DS	DIALYSIS WATER SUPPLY	SE	SEWAGE EJECTOR
DSN	DOWN SPOUT NOZZLE	SH	SHOWER
DT	DRAIN TILE	SO	STORM OVERFLOW
EEW	EMERGENCY EYE WASH	SP	SUMP PUMP
ES	EMERGENCY SHOWER	SS	SERVICE SINK
ESEW	EMERGENCY SHOWER AND EYE WASH COMBO	ST	STORM SEWER
ET	EXPANSION TANK	TEMP	TEMPERATURE
EWC	ELECTRIC WATER COOLER	UR	URINAL
EWT	ENTERING WATER TEMPERATURE	V	VENT
F	FILTER	VTR	VENT THROUGH ROOF
FCO	FLOOR CLEANOUT	WB	WALL BOX
FD	FLOOR DRAIN	WC	WATER CLOSET
FS	FLOOR SINK	WCO	WALL CLEANOUT
G	NATURAL GAS	WH	WATER HEATER
GCO	GRADE CLEANOUT	WS	WATER SOFTENER
GV	GREASE VENT	WPD	WATER PRESSURE DROP
GW	GREASE WASTE	YCO	YARD CLEANOUT
HB	HOSE BIB		

PLUMBING GENERAL NOTES:

A. THESE NOTES APPLY TO ALL SHEETS CONTAINING PLUMBING WORK. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. WHERE A DISCREPANCY EXISTS BETWEEN THESE PLANS AND THE PROJECT SPECIFICATIONS, THE SPECIFICATION REQUIREMENTS SHALL TAKE PRECEDENCE OVER THE DRAWINGS.
B. VERIFY THE EXISTING CONDITIONS AT THE PROJECT SITE BEFORE SUBMITTING COST PROPOSAL. BE ADVISED THAT LOCATIONS SHOWN ARE APPROXIMATE. AN ATTEMPT HAS BEEN MADE TO SHOW ALL PIPING AND FIXTURES. CONTRACTOR SHALL VISIT THE SITE TO VERIFY COMPONENTS, LOCATIONS AND SIZES SHOWN OR NOT SHOWN. ALL COMPONENTS NEED TO BE REMOVED IN THE DEMOLITION AREA UNLESS NOTED ON THE DRAWINGS. IF DEVIATION BETWEEN EXISTING CONDITIONS AND NEW WORK IS FOUND, CONTRACTOR SHALL NOTIFY ENGINEER.
C. IT IS MANDATORY THAT THE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING THE CONSTRUCTION OF THE ADDITIONS AND REMODELING/ALTERATION OF THE EXISTING BUILDING. SERVICES TO THE EXISTING BUILDING SHALL BE KEPT ON CONTINUOUS OPERATION EXCEPT DURING SCHEDULED SHUTDOWNS FOR EXTENSION OR MODIFICATION. PLAN TO COMPLETE SHUTDOWNS DURING OFF HOURS TO MINIMIZE IMPACT TO THE OWNER. COORDINATE SHUTDOWNS WITH THE OWNER A MINIMUM OF 14 DAYS PRIOR TO WORK. PROVIDE TEMPORARY SERVICES WHERE NECESSARY TO ACCOMPLISH ANY SHUTDOWN. THIS INCLUDES BUT IS NOT LIMITED TO STAFFING AND EQUIPMENT FOR FIRE WATCHES, PROVISIONS FOR BOTTLED WATER, AND TEMPORARY HEATING OR COOLING EQUIPMENT. TEMPORARY MEASURES SHALL NOT BE REMOVED UNTIL THE PERMANENT SYSTEMS ARE OPERATIONAL AND HAVE PASSED ALL REQUIRED TESTING.
D. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN DEMOLITION, REMOVAL, CAPPING, STORING, ABANDONING, DISCONNECTING, RELOCATING AND RECONNECTION OF EXISTING EQUIPMENT AND MATERIAL. ALL CUTTING, PATCHING, REPAIRING, REPLACEMENT AND REFINISHING SHALL MATCH THE EXISTING CONSTRUCTION AS NEARLY AS POSSIBLE.
E. THESE DRAWINGS ARE NECESSARILY DIAGRAMMATIC IN NATURE. NOT ALL FITTINGS, OFFSETS, VENTS OR DRAINS ARE SHOWN. THE CONTRACTOR SHALL INCLUDE ALL FITTINGS, OFFSETS, VENTS, DRAINS, AND DEVICES REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM.
F. SEAL ALL WALL PENETRATIONS (PIPING, ETC.) WITH NON-COMBUSTIBLE MATERIAL. SEAL PENETRATIONS INTO ROOMS THAT REQUIRE PRESSURE CONTROL OR SOUND ISOLATION. WITH NON-COMBUSTIBLE MATERIAL AND CAULK.
G. PIPING SHALL NOT BE ROUTED OVER ELECTRICAL AND TELECOM ROOMS. WHERE ROUTING OVER SUCH ROOMS IS UNAVOIDABLE, CONTRACTOR SHALL COORDINATE WITH OWNER, DESIGN TEAM, AHJ, AND OTHER TRADES REGARDING LOCATION OF PANELS AND UTILITY ROUTING AND SHALL PROVIDE DRIP PANS UNDER ALL UTILITIES WITH MOISTURE SENSORS OR DRAIN PIPING AS REQUIRED BY THE SPECIFICATIONS
H. LOCATE PIPING IN EXTERIOR BUILDING WALLS ON THE WARM SIDE OF THE BUILDING AND VAPOR BARRIER. COORDINATE INSTALLATION OF BUILDING INSULATION TO RUN CONTINUOUS BETWEEN PIPING AND BUILDING WALL.
I. SUPPORT ALL PIPING AND EQUIPMENT FROM BUILDING STRUCTURE MEMBERS. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBERS OR RUN THROUGH JOIST WEBS IF POSSIBLE. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING. DO NOT SUPPORT PIPING FROM OTHER PIPING, DUCTWORK, AND/OR ELECTRICAL CONDUITS. DO NOT SUPPORT FROM WOOD TONGUE AND GROOVE ROOF DECK. SUPPORT FROM BOTTOM CHORD OF BAR JOISTS ONLY AT PANEL POINTS. ALL COMPONENTS REQUIRING MAINTENANCE SHALL BE SUPPORTED IN SUCH A MANNER AS TO BE READILY ACCESSIBLE WITHOUT REMOVAL OF THE CEILING SYSTEM AND TO ALLOW FOR REMOVAL FROM THE SYSTEM WHEN SUCH REMOVAL IS REQUIRED FOR MAINTENANCE.
J. PROTECT ALL PIPING DURING CONSTRUCTION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. AT A MINIMUM, PIPING ENDS SHALL BE COVERED AND SEALED TO PREVENT THE COLLECTION OF DUST AND DEBRIS. CLEAN ALL INTERIOR SURFACES PRIOR TO INSTALLATION AND PROTECT ONCE INSTALLED.
K. AT THE COMPLETION OF WORK, CLEAN ALL STRAINERS PROVIDED AS A PART OF THE WORK AS WELL AS PRIMARY SYSTEM STRAINERS LOCATED AT PUMPS WHERE SYSTEMS WERE EXTENDED. ON EXISTING EQUIPMENT, COORDINATE WORK WITH OWNER.
L. UNLESS NOTED OTHERWISE, DETAILS SHOWN WITHIN THESE DOCUMENTS ARE APPLICABLE FOR ALL PIPING AND EQUIPMENT INSTALLATIONS WHETHER OR NOT SPECIFICALLY NOTED. REFER TO DETAIL SHEETS FOR GENERAL CONSTRUCTION DETAILS.
M. FOR ALL PIPING AND OTHER ITEMS PENETRATING A FIRE RATED WALL, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM THAT IS SPECIFIC TO THE WALL CONSTRUCTION ASSEMBLY AND COMPLIANT WITH ASTM E814. INSTALL SYSTEM IN STRICT COMPLIANCE WITH THE FIRE STOPPING MANUFACTURER'S U.L. APPROVED DETAIL. WHERE EXISTING WALLS ARE BEING UPGRADED TO FIRE RATED WALLS OR THE FIRE RATING IS BEING MODIFIED, PROVIDE U.L. LISTED THROUGH PENETRATION FIRE STOPPING SYSTEM FOR ALL NEW AND EXISTING PENETRATIONS. REFER TO THE ARCHITECTURAL LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED WALLS.
N. EXCEPT WHERE OTHERWISE SHOWN OR NOTED ON THE DRAWINGS AS "TO BE RETAINED, RELOCATED", ALL EXISTING EQUIPMENT AND MATERIAL IN AREAS TO BE REMODELED/ALTERED SHALL BE REMOVED WHERE THEY INTERFERE WITH PROPOSED NEW CONSTRUCTION AND/OR WITH PROPOSED USAGE OF SPACE BY OWNER AS FOLLOWS:
   a. REMOVE ANY PIPING PROTRUDING ABOVE FINISHED FLOOR OR THROUGH WALL AND CAP WITHIN 3 PIPE DIAMETERS OF NEAREST ACTIVE MAIN WITH MATERIAL TO MATCH EXISTING.
   b. REMOVE UNUSED OR ABANDONED HANGERS AND PATCH ABANDONED PENETRATIONS TO MATCH EXISTING.
   c. PENETRATIONS THROUGH EXISTING WALLS AND FLOORS FORMERLY OCCUPIED BY REMOVED PIPING SHALL BE PATCHED TO MATCH EXISTING CONSTRUCTION.
   d. RE-SUPPORT ANY PIPING THAT WAS SUPPORTED FROM BUILDING ELEMENTS REMOVED AS PART OF THE WORK.
O. ALL EXISTING EQUIPMENT BEING REMOVED WILL BE HANDED OVER TO OWNER FOR FIRST RIGHT OF SALVAGE. IF OWNER REFUSES SALVAGE ITEMS, REMOVING CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL.
P. CONTRACTOR SHALL REFER TO THE DRAWINGS OF ALL TRADES TO FAMILIARIZE THEMSELVES WITH EXTENT OF WORK INCLUDING BUT NOT LIMITED TO WHERE NEW PARTITIONING IS BEING INSTALLED, WHERE EXISTING PARTITIONING IS BEING REMOVED, WHERE CEILINGS ARE BEING REMOVED AND/OR REPLACED, ETC.

PLUMBING GENERAL NOTES:

A. ALL MISCELLANEOUS EQUIPMENT TO BE FURNISHED UNDER OTHER SECTIONS OF SPECIFICATIONS THAT REQUIRE PIPING CONNECTIONS SHALL BE RECEIVED AND SET WITH ROUGH - IN AND FINAL CONNECTIONS MADE UNDER THESE SECTIONS.
B. THE PLUMBING CONTRACTOR SHALL VERIFY PIPING INVERTS AND LOCATIONS PRIOR TO INSTALLATION.
C. THIS PROJECT AREA IS WITHIN AN EXISTING FACILITY CONNECTED TO CITY DOMESTIC COLD WATER AND IS PROTECTED BY AN EXISTING REDUCED PRESSURE BACKFLOW PREVENTER.

HEALTHCARE FACILITY CONSTRUCTION GENERAL NOTES:

THE FOLLOWING SHALL APPLY TO ALL MECHANICAL SYSTEMS AFFECTED BY CONSTRUCTION ACTIVITIES. SYSTEMS INCLUDED BUT ARE NOT LIMITED TO HVAC, EXHAUST, EQUIPMENT, DUCTWORK, DUCTWORK ACCESSORIES, HYDRONICS, COILS, FILTERS, PLUMBING, TEMPERATURE CONTROLS, LIFE SAFETY CONTROLS AND PRESSURIZATION CONTROLS.
1. COMPLY WITH THE FACILITY'S INFECTIOUS CONTROL RISK ASSESSMENT (ICRA) REQUIREMENTS.
2. MAINTAIN EXISTING AIR QUALITY REQUIREMENTS, AIR PRESSURIZATION AND OTHER UTILITY REQUIREMENTS FOR OCCUPIED AREAS DURING ANY RENOVATION OR CONSTRUCTION.
3. DETERMINE AND VERIFY THE AREAS SERVED BY THE AFFECTED SYSTEMS..

Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL SEAL 061879 03/26/2026 ENGINEER KEITH LUNKENHEIMER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING SYMBOLS AND ABBREVIATIONS

Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026

Checked: SJC

Drawn: KSL

Project Number: 646-24-100

Building Number: 01

Drawing Number: PP001

VA FORM 08 - 6231

Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100-B01-MEP-R24.rvt

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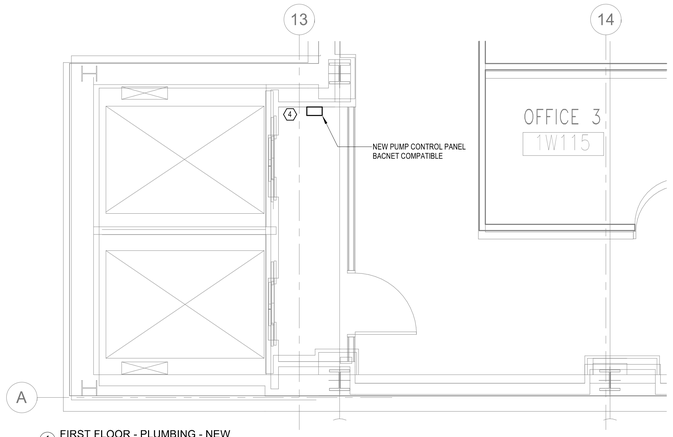
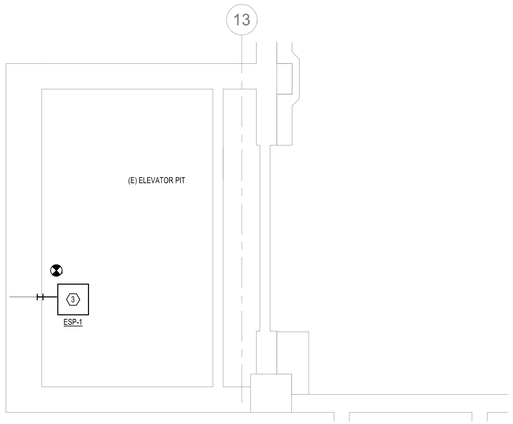


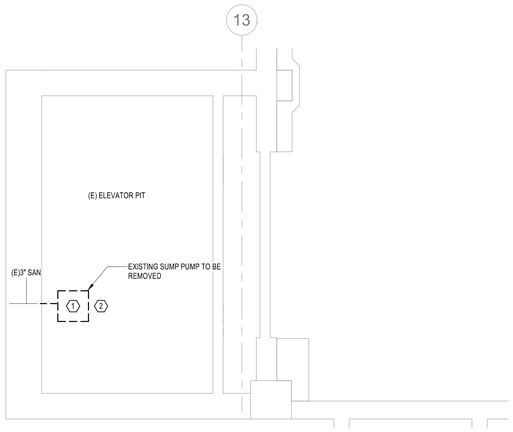
1 FIRST FLOOR - PLUMBING - NEW
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10
SCALE FEET



2 BASEMENT FLOOR PLAN - PLUMBING - NEW
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10
SCALE FEET



3 BASEMENT FLOOR - PLUMBING - DEMOLITION
1/4" = 1'-0"

1/4" = 1'-0" 2 0 2 4 6 8 10
SCALE FEET

GENERAL NOTES:

1. PLUMBING SYMBOLS AND ABBREVIATIONS SHEET GENERAL NOTES APPLY TO ALL SHEETS.
2. ON DEMOLITION PLANS; EXISTING MECHANICAL SYSTEMS TO BE REMOVED ARE SHOWN HATCHED AND/OR DASHED. EXISTING MECHANICAL SYSTEMS TO REMAIN ARE SHOWN LIGHT LINE WEIGHT. ON ALL OTHER PLANS, NEW MECHANICAL SYSTEMS ARE INDICATED WITH HEAVY LINE WEIGHTS.
3. UNLESS NOTED OTHERWISE, DETAILS SHOWN WITHIN THESE DOCUMENTS ARE APPLICABLE FOR ALL PIPING, EQUIPMENT AND DUCTWORK INSTALLATIONS WHETHER OR NOT SPECIFICALLY NOTED.
4. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR THE MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THIS WORK.
5. PLUMBING CONTRACTOR SHALL ROUGH-IN AND MAKE FINAL CONNECTIONS TO EQUIPMENT AS REQUIRED.
6. PLUMBING CONTRACTOR SHALL COORDINATE PIPING ELEVATIONS AT STRUCTURAL FOOTING LOCATIONS WITH STRUCTURAL PLANS. PIPING SHALL BE SLEEVED AND INSULATED PER STRUCTURAL DOCUMENTS.

SHEET NOTES:

1. DEMOLISH EXISTING PUMP AND ASSOCIATED PIPING TO THE EXTENT INDICATED. CONTRACTOR TO INSPECT PUMP BASIN. REUSE EXISTING IF IN GOOD WORKING CONDITION.
2. DEMOLISH EXISTING CONTROL PANEL ASSOCIATED WITH PUMP.
3. INSTALL NEW ELEVATOR SUMP PUMP AND ASSOCIATED PIPING TO THE EXTENT INDICATED. REPLACE BASIN WITH NEW IN KIND. PROVIDE DEDUCT ALT PRICING FOR VISUAL INSPECTION, CLEANING, AND REUSE OF EXISTING BASIN IF NO DAMAGE OR RUST IS VISIBLE.
4. INSTALL NEW CONTROL PANEL ASSOCIATED WITH PUMP HIGH ON WALL FOR ACCESS VIA SMALL LADDER. COORDINATE WITH COR REGARDING FINAL PLACEMENT OF PUMP PANEL PRIOR TO INSTALLATION.

KEY PLAN :-

Revisions:	Date:

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SES Project : 22164.005

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NORTH CAROLINA PROFESSIONAL SEAL 061879 ENGINEER KEITH LUNKENHEIMER
03/26/2026

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: FLOOR PLAN - PLUMBING - DEMOLITION & NEW

Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026
Checked: SJC
Drawn: KSL

Project Number: 646-24-100
Building Number: 01
Drawing Number: PP201

VA FORM 08 - 6231

Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100-B01-MEP-R24.rvt
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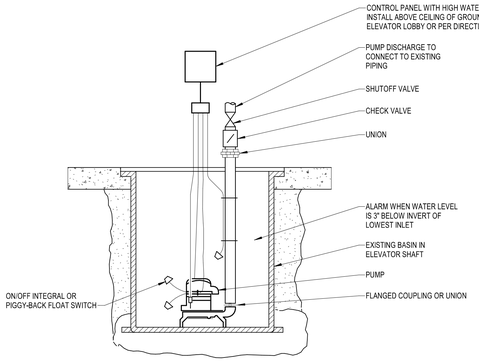
PUMP SCHEDULE

MARK	FLOW [GPM]	TOTAL HEAD [FT]	SUCTION / DISCHARGE SIZE [IN]	ELECTRICAL DATA					BASIS OF DESIGN	MODEL	REMARKS
				HP	FLA	VOLTAGE	PHASE	DISCONNECT TYPE			
ESP-1	50	22	2"	0.5	8	115 V	1	NON FUSED	STANCOR (TRACTION MINDER)	SE-50/115/1	ALL

REMARKS:
1. PROVIDE BACNET INTERFACE.
2. PROVIDE ALARM CONNECTIONS TO BUILDING AUTOMATION SYSTEM THROUGH DRY CONTACTS.
3. PROVIDE SYSTEM COMPONENTS (CONTROLS AND FLOATS) AND ANY OTHER NECESSARY COMPONENTS FOR A COMPLETE CODE COMPLIANT SYSTEM.
4. CONNECT NEW PUMP TO EXISTING BMS AND THE ALARM POINTS TO BE MONITORED PER VA REQUIREMENTS.



NOTES:
1. INSTALL CONTROL PANEL PER MANUFACTURER INSTRUCTIONS. COMPONENTS AND WIRING ARRANGEMENT MAY DIFFER FROM THAT SHOWN.
2. CONTRACTOR TO REPLACE BASIN IN KIND. UPON VISIBLE INSPECTION DETERMINING CONDITION IS ACCEPTABLE FOR REUSE, CLEAN EXISTING PUMP BASIN TO ENSURE BASIN IS IN GOOD WORKING CONDTION PRIOR TO INSTALLTION OF THE NEW PUMP.

1 / PP501 ELEVATOR SUMP PUMP
NO SCALE

Revisions:	Date:

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NORTH CAROLINA PROFESSIONAL SEAL 061879 03/26/2026 ENGINEER KEITH LUNKENHEIMER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLUMBING DETAILS & SCHEDULES

Approved:

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATORS

Location: University Drive C Pittsburgh, PA 15240

Issue Date: 03/26/2026

Checked: SJC

Drawn: KSL

Project Number: 646-24-100

Building Number: 01

Drawing Number: PP501

Autodesk Docs://22164.005 - VA Pittsburgh Upgrade Bed Tower Elevator/646-100.B01 MEP R24.rvt

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VA FORM 08 - 6231

TRACTION MACHINE ROOM NOTES:

1. AIR CONDITIONING EQUIPMENT SHALL NOT BE LOCATED DIRECTLY ABOVE ELEVATOR EQUIPMENT. COORDINATE FINAL LOCATION OF AC EQUIPMENT WITH THE ELEVATOR SHOP DRAWINGS.
2. PROVIDE SELF CLOSING, SELF LOCKING, FIRE RATED MACHINE ROOM DOOR PER CODE.
3. MINIMUM 200 LUX MEASURED AT MACHINE ROOM FLOOR REQUIRED.
4. COORDINATE FINAL LOCATION OF MACHINE ROOM EQUIPMENT WITH ELEVATOR SHOP DRAWINGS.
5. MAINTAIN MINIMUM 7'-0" CLEAR HEIGHT THROUGHOUT ENTIRE MACHINE ROOM AFTER INSTALLATION OF EQUIPMENT. CLEAR HEIGHT ABOVE MACHINE MUST BE SHOWN PER SECTION DRAWING.
6. ACCESS TO ANOTHER PORTION OF THE BUILDING, INCLUDING THE ROOF, THROUGH THE MACHINE ROOM IS PROHIBITED PER CODE.
7. MACHINE ROOM TEMPERATURE MUST BE MAINTAINED BETWEEN 50-90 DEG. F.
8. EQUIPMENT IN THE MACHINE ROOM ROOM SHALL BE USED FOR THE FUNCTION OF THE ELEVATOR ONLY.
9. MACHINE ROOM TO BE VENTILATED IN ACCORDANCE WITH LOCAL CODE REGULATIONS.

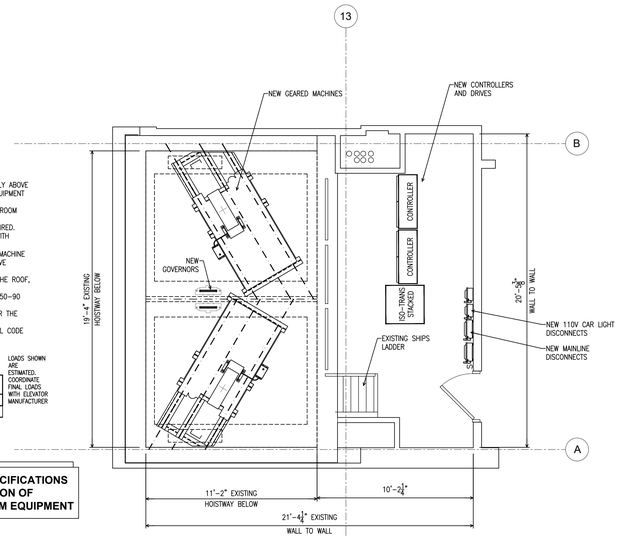
POWER AND VENTILATION / UNIT

POWER BASED ON: 480V 3-PHASE-60 HERTZ

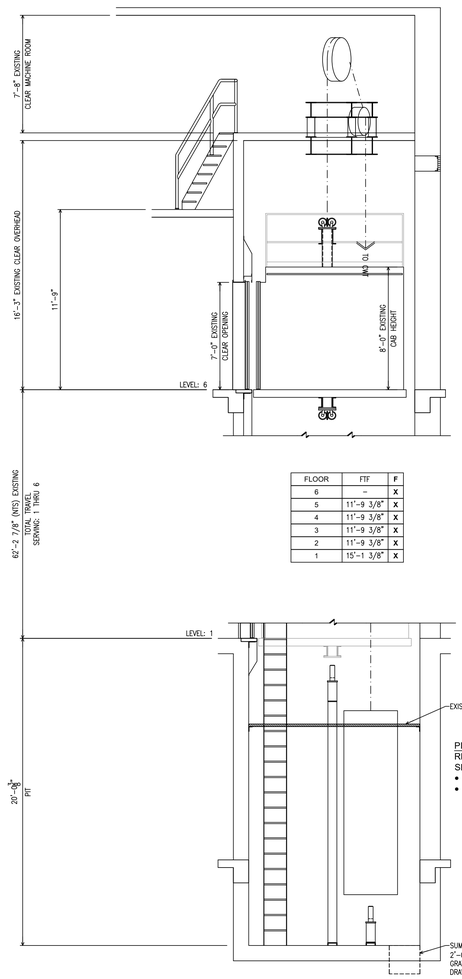
	MOTOR HP	FULL LOAD RUNNING AMPS	FULL LOAD ACCEL. AMPS	HEAT RELEASE BTU/HR/UNIT
ELV 13	60	87	170	31,500
ELV 14	60	87	170	31,500

LOADS SHOWN ARE ESTIMATED. COORDINATE FINAL LOADS WITH ELEVATOR MANUFACTURER

REFER TO SPECIFICATIONS FOR DISPOSITION OF MACHINE ROOM EQUIPMENT



2 MACHINE ROOM PLAN
SCALE: 1/4"=1'-0"



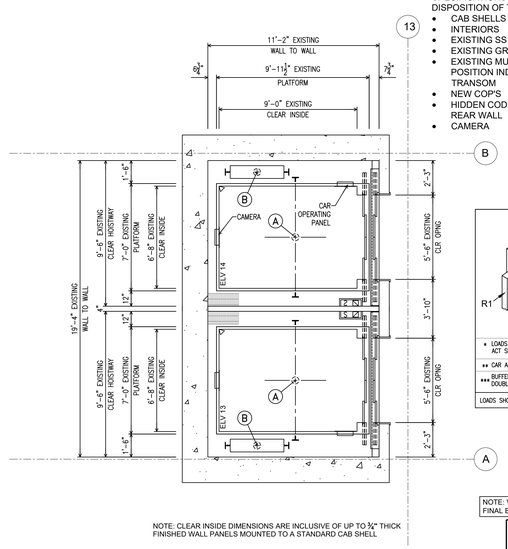
FLOOR	FTF	F
6	–	X
5	11'-9 3/8"	X
4	11'-9 3/8"	X
3	11'-9 3/8"	X
2	11'-9 3/8"	X
1	15'-1 3/8"	X

3 EXISTING HOISTWAY SECTION
SCALE: 1/4"=1'-0"

CAB INTERIORS
REFER TO ELEVATOR SPECIFICATIONS FOR DISPOSITION OF THE FOLLOWING:

- CAB SHELLS
- INTERIORS
- EXISTING SS WALLS
- EXISTING GRID CEILING
- EXISTING MULTI-LIGHT POSITION INDICATOR IN TRANSOM
- NEW COP'S
- HIDDEN CODE BLUE SCREEN IN REAR WALL
- CAMERA

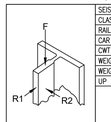
REFER TO SPECIFICATIONS FOR DISPOSITION OF HOISTWAY, PIT, CAB AND ENTRANCE EQUIPMENT



NOTE: CLEAR INSIDE DIMENSIONS ARE INCLUSIVE OF UP TO ¾" THICK FINISHED WALL PANELS MOUNTED TO A STANDARD CAB SHELL

1 PIT / HOISTWAY PLAN
SCALE: 1/4"=1'-0"

PIT AND RAIL LOADS



			ELV 13		ELV 14
SEISMIC			S0		S0
CLASS LOAD RATING			A		A
RAIL WEIGHT/SIZE			15		15
CAR BUFFER REACTION ***	A	*	79.5 K	*	79.5 K
CWT BUFFER REACTION ***	B	*	64.1 K	*	64.1 K
WEIGHT ONE STACK CAR RAIL			1200 #		1200 #
WEIGHT ONE STACK CWT RAIL			1000 #		1000 #
UP PULL ON COMPENSATOR	C		---		---
RAIL LOADS PER RAIL: F_{CAR}		*	37.5 K	*	37.5 K
RAIL LOADS PER RAIL: F_{CWT}		*	---	*	---
RAIL LOADS PER RAIL: NORMAL FORCES	R1		1200 #		1200 #
RAIL LOADS PER RAIL: NORMAL FORCES	R2		600 #		600 #
RAIL LOADS PER RAIL: SEISMIC FORCES	R1	**	---	**	---
RAIL LOADS PER RAIL: SEISMIC FORCES	R2	**	---	**	---
MAX VERT SPAN GUIDE RAIL SUPPORT			7'		7'

Rail support points shall have a max deflection of 1/8" when acted upon by forces R1 and R2

* LOADS SHOWN DO NOT ACT SIMULTANEOUSLY

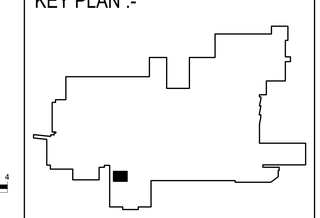
** CAR AND CWT RAILS

*** BUFFER REACTIONS ARE DOUBLED FOR IMPACT

LOADS SHOWN ARE ESTIMATED. COORDINATE FINAL LOADS WITH ELEVATOR MANUFACTURER

NOTE: VDA DRAWINGS ARE PROVIDED FOR DESIGN INTENT ONLY. FINAL ENGINEERING SHALL BE PROVIDED BY ELEVATOR CONTRACTOR.

KEY PLAN :-



SERVICE ELEVATORS
ELV 13, ELV 14
CLASS "A" LOADING
6500# @ 350 FPM

VERIFY IN FIELD ALL EXISTING DIMENSIONS, CONDITIONS AND EQUIPMENT. REFER TO SPECIFICATIONS FOR DISPOSITION OF EQUIPMENT

0 1 2 4
SCALE: 1/2" = 1'-0"

NORTH

Revisions:	Date:

CONSULTANT

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

Drawing Title: ELEVATOR DETAILS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATOR	Project Number: 646-24-100
Approved: VA DIRECTOR 001	FULLY SPRINKLERED	Location: PITTSBURGH, PA	Building Number: 01
		Issue Date: 03/26/2026 · Checked: MD · Drawn: BD	Drawing Number: VT-001

VA FORM 08 - 6231

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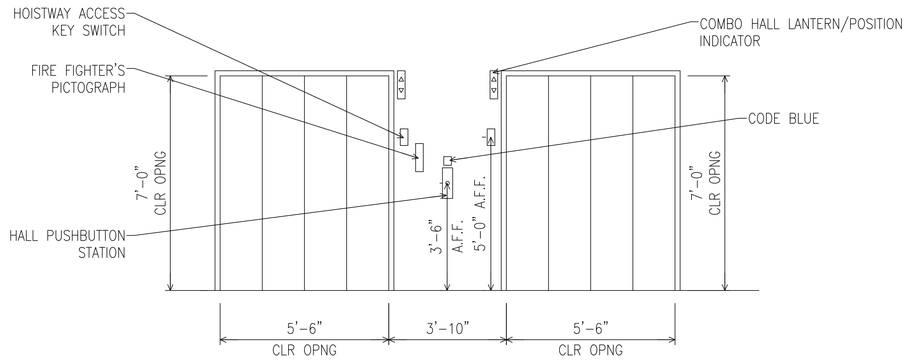
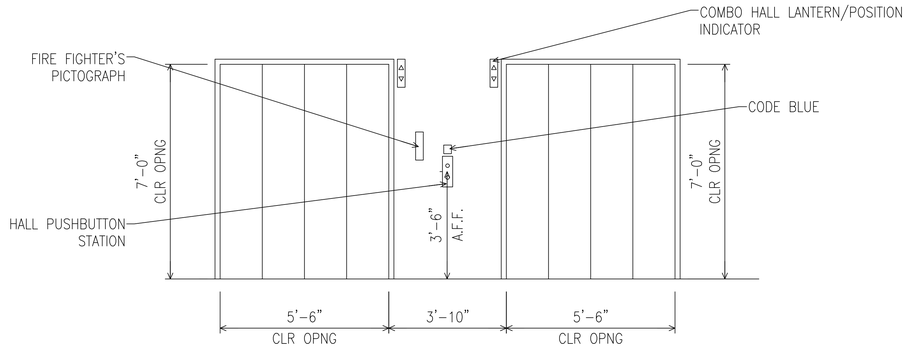
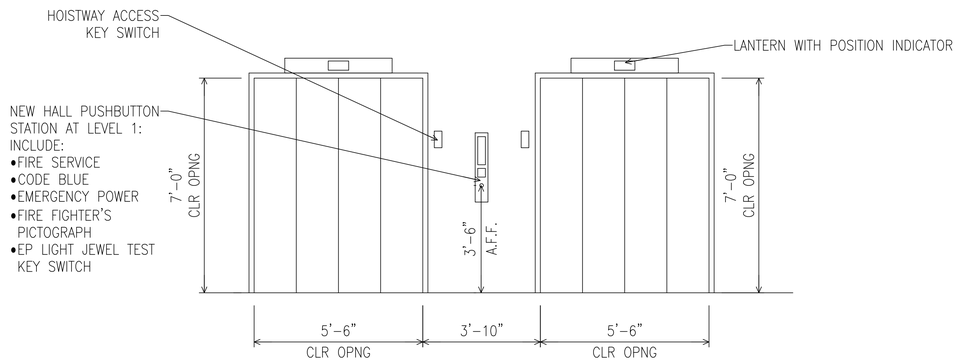


FLOOR 6



FLOORS 2-5



FLOOR 1

HALL FIXTURES
RETAIN HALL STATION WIRING BOXES AT TYPICAL FLOORS.

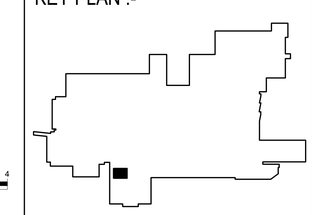
PROVIDE NEW WIRING BOXES FOR HALL STATION AT FLOOR 1 AND FOR ANY HALL FIXTURE WHERE REQUIRED TO ACCOMMODATE NEW COMPONENTS.

NEW FLUSH MOUNTED FIXTURES, RETAIN WIRING BOXES.

REFER TO SPECIFICATIONS

1 HALL STATIONS AT ALL FLOORS
SCALE: 1/2"=1'-0"

KEY PLAN :-



0 1 2 4
SCALE: 1/2" = 1'-0"

NORTH

Revisions:	Date:

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SES Project : 22164.005

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: HALL FIXTURE DETAILS	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATOR	Project Number: 646-24-100
Approved: VA DIRECTOR 001	FULLY SPRINKLERED	Location: PITTSBURGH, PA	Building Number: 01
		Issue Date: 02/26/2026 / Checked: MD / Drawn: BD	Drawing Number: VT-002

VA FORM 08 - 6231

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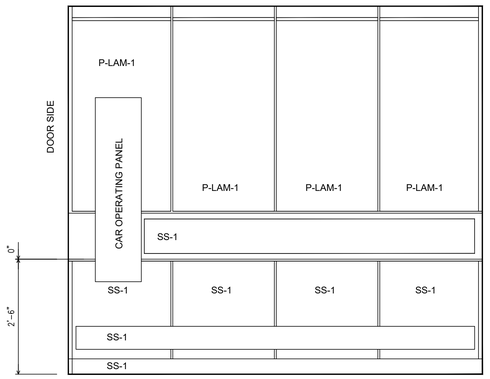
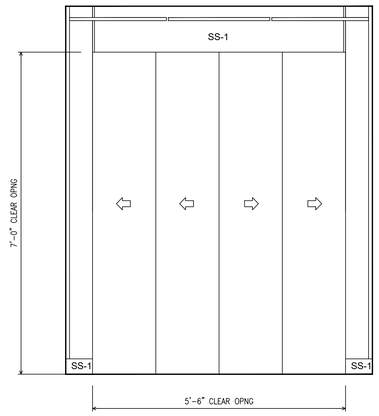
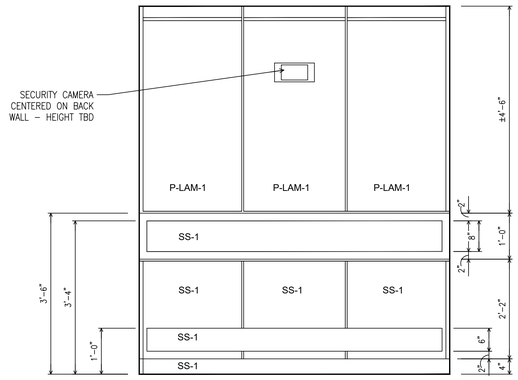


LEFT SIDE

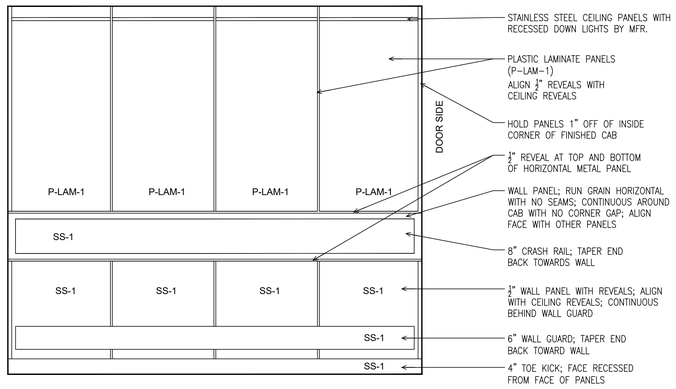
REF: ELV 13
(ELV 14 ON OPPOSITE RIGHT WALL)



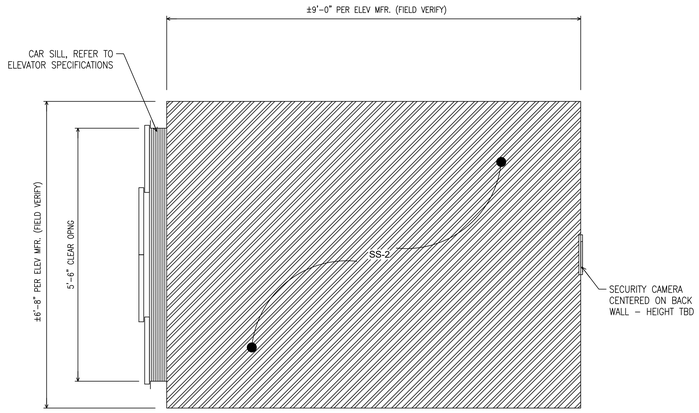
FRONT SIDE



BACK SIDE



RIGHT SIDE

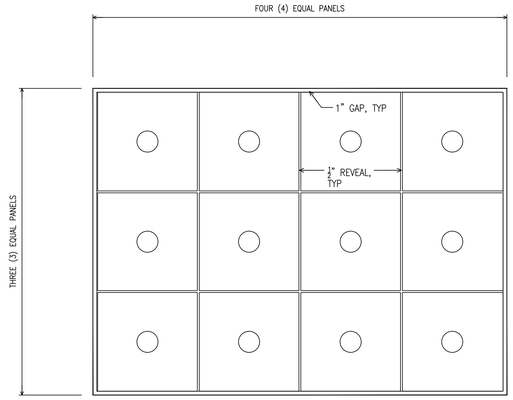


FLOOR

WALLS:
P-LAM-1 PLASTIC LAMINATE; WILSONART; COCOBALA; 7942K-07
SS-1 BRUSHED STAINLESS STEEL PANEL

FLOOR:
SS-2 STAINLESS STEEL DIAMOND PLATE (TYPE 304)

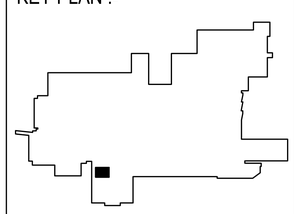
CEILING:
- STAINLESS STEEL PANELS (FINISH TO BE SELECTED FROM MFR. OPTIONS)



CEILING

1 CAB INTERIORS
SCALE: 3/4"=1'-0"

KEY PLAN :-



0 1 2 4
SCALE: 1/2" = 1'-0"

NORTH

Revisions:	Date:

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

Drawing Title: ELEVATOR CAB INTERIOR DETAILS
Approved: VA DIRECTOR 001
Phase: 100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED
Project Title: VA PITTSBURGH UPGRADE BED TOWER ELEVATOR
Location: PITTSBURGH, PA
Issue Date: 02/26/2026
Checked: MD
Drawn: BD
Project Number: 646-24-100
Building Number: 01
Drawing Number: VT-003

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