ELECTRICAL GENERAL NOTES

A. DRAWING DEPICTS AREAS OF WORK.

B. NEW THIRD FLOOR UPS FEED FROM MCR WILL INTERCEPT AND SPLICE INTO UPS FEEDER FOR THE 3rd FLOOR.

C. NEW EMERGENCY POWER DISTRIBUTION PANELS, FED FROM NEW MCR, WILL BE LOCATED IN 3rd FLOOR TO FEED EXISTING TR ROOMS.

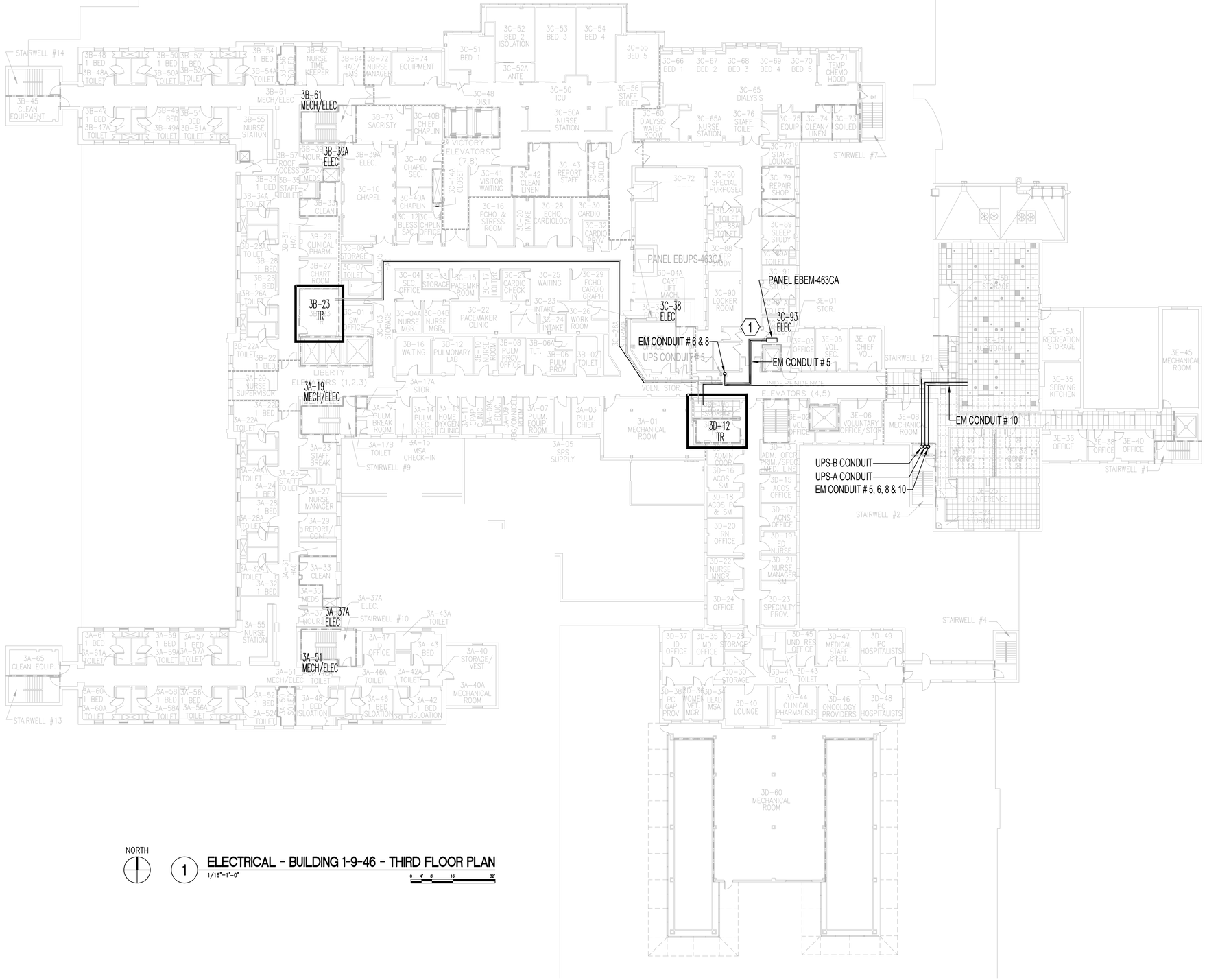
ELECTRICAL KEY NOTES

1. INSTALL NEW PANEL EBEM-463CA.

RATED PARTITION LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)

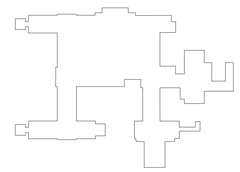


NORTH

1 ELECTRICAL - BUILDING 1-9-46 - THIRD FLOOR PLAN

1/16"=1'-0"

0 4' 8' 16' 32'



N KEY PLAN

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - OVERALL THIRD FLOOR PLAN	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
			Building Number: 01-09-46
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Drawing Number: EP-B1-131
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	

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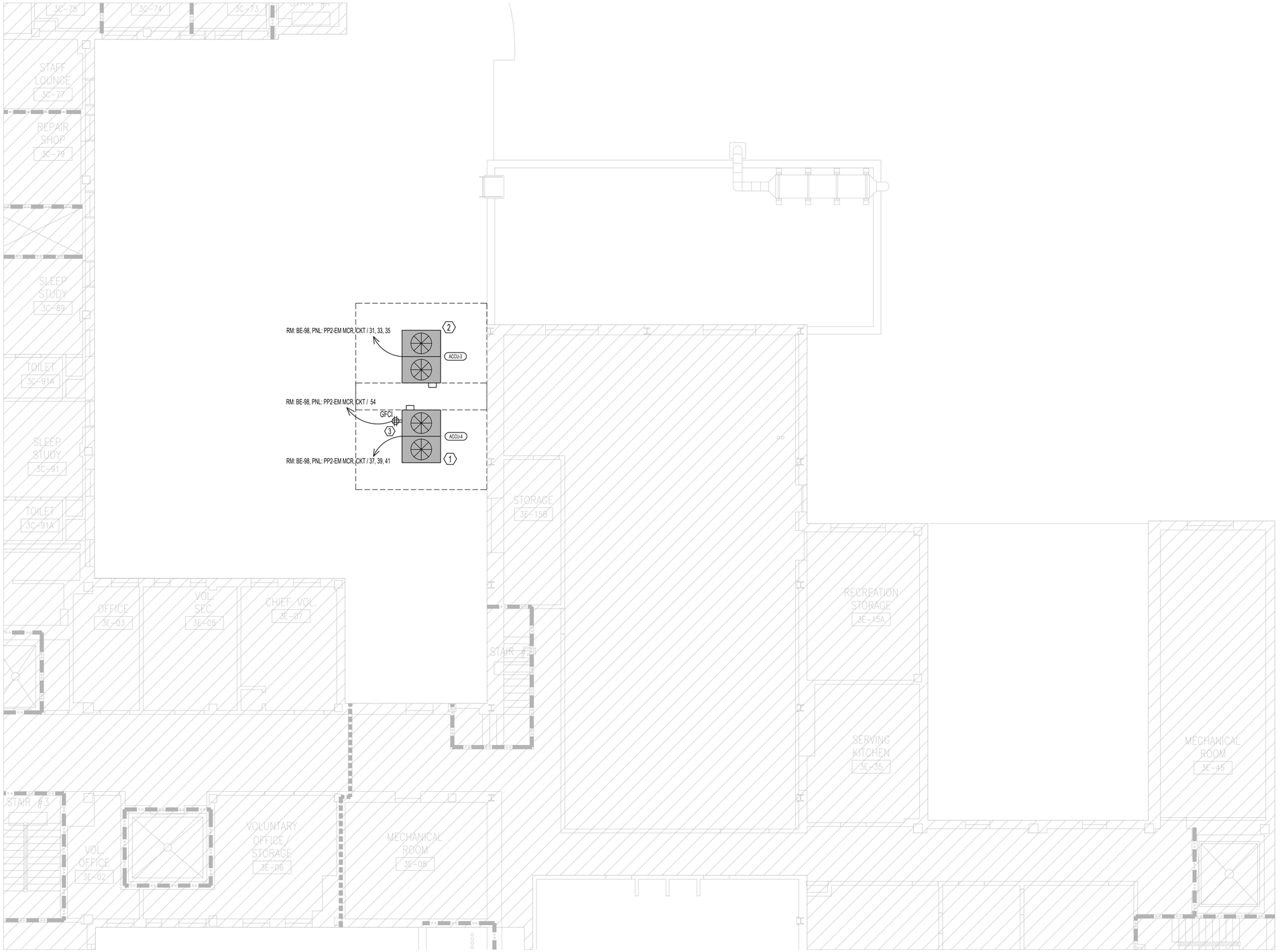
VA FORM 08 - 6231



ELECTRICAL GENERAL NOTES

A. DRAWING DEPICTS AREAS OF WORK.

B. SEE SINGLE LINE DRAWING E-707 TO BETTER UNDERSTAND THE WIRING CONFIGURATION.

C. CONTRACTOR TO USE THE SAME SUPPORTS FOR BOTH MECHANICAL AND ELECTRICAL TUBING AND CONDUITS, INCLUDING CONTROL CONDUITS. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR.

⟨X⟩ ELECTRICAL KEY NOTES

1. TERMINATE POWER AND CONTROLS TO UPS ROOM CONDENSER 1.
2. TERMINATE POWER AND CONTROLS TO UPS ROOM CONDENSER 2.
3. INSTALL OUTDOOR NEMA 3 QUAD GFCI RECEPTACLE ON STRUCTURE OF ONE CONDENSER FO MAINTENANCE PURPOSES.

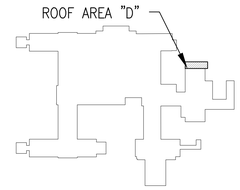
RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

1 HR FIRE BARRIER — 1 HR FIRE BARRIER (EXISTING)

2 HR FIRE BARRIER — 2 HR FIRE BARRIER (EXISTING)

SMOKE BARRIER — SMOKE BARRIER (EXISTING)



N

KEYPLAN BUILDING 1-9-46

NTS

N

1 ELECTRICAL - BUILDING 1 - EMERGENCY GENERATOR ENLARGED POWER PLAN - THIRD FLOOR

3/16"=1'-0"

0 2' 4' 8' 16'

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - THIRD FLOOR & ROOF POWER PLAN

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 01

Drawing Number: EP-B1-231

ELECTRICAL GENERAL NOTES

A. CONTACT VA IT PRIOR TO WORKING IN DATA CENTER OR IT CLOSET.

B. ALL RACKS ARE IN OPERATION ON UPS POWER. REMAINING WORK IS TO INSTALL EMERGENCY POWER ABOVE EACH RACK.

C. USE PRECAUTIONS TO AVOID SNAGGING, WIRING OR DAMAGING EQUIPMENT.

D. PROTECT IT EQUIPMENT FROM DUST DURING WORK THAT CREATES DUST.

E. SEE PANEL SCHEDULES ON DRAWING SERIES E600 FOR EMERGENCY POWER (EM) PANEL SCHEDULES AND EM CIRCUIT NUMBERS. CABLE LENGTHS ARE FOR INFORMATION ONLY. CONTRACTOR TO DETERMINE CORRECT LENGTHS BASED ON FIELD CONDITIONS.

F. SEE DRAWING SERIES E700 FOR SINGLE LINE DRAWINGS.

G. EM POWER TO RACKS / CABINETS IN NEW TR's MUST BE PROVIDED TO THE TOP OF THE RACKS / CABINETS. NO POWER WIRING ON FLOORS!

H. RECEPTACLES ABOVE RACKS MUST BE NEMA L21-20R, LOCKING RECEPTACLES.

I. PANEL CIRCUIT NUMBERS ARE SUGGESTIONS, CONTRACTOR TO SELECT BREAKERS AND CIRCUIT NUMBERS BASED ON FIELD CONDITIONS AT TIME OF INSTALLATION.

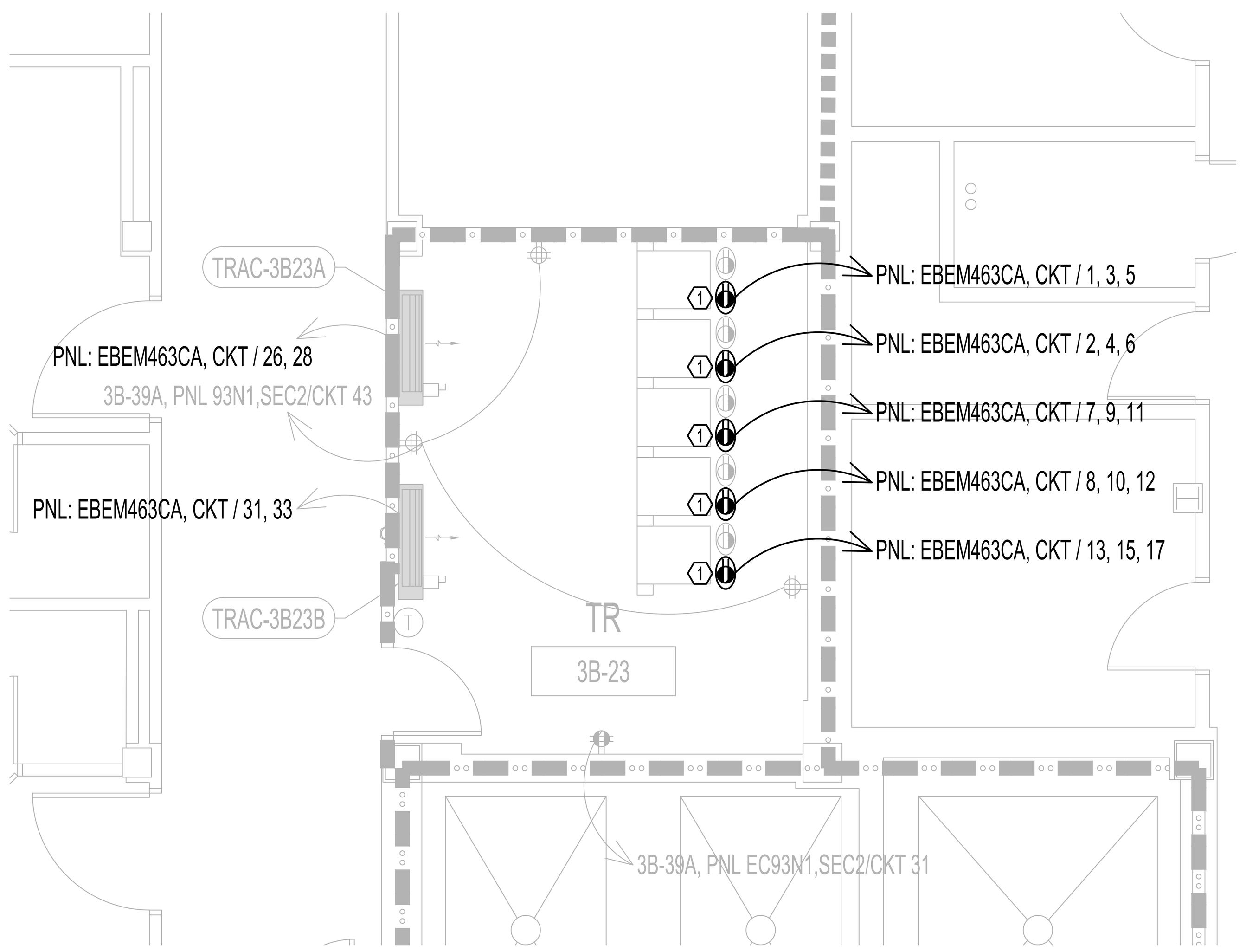
(X) ELECTRICAL KEY NOTES

1. EMERGENCY POWER TO RACK.

RATED WALL LEGEND

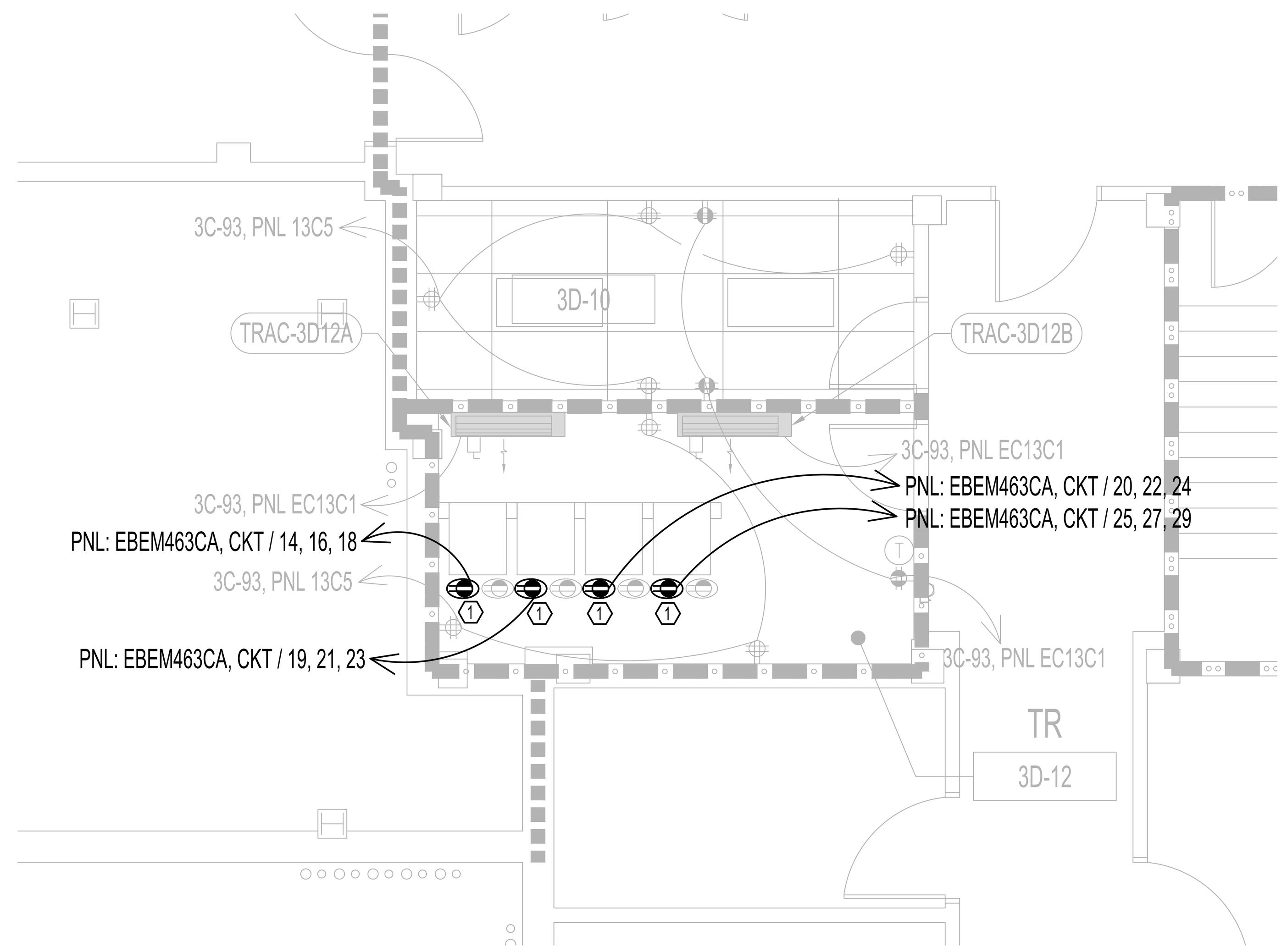
CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



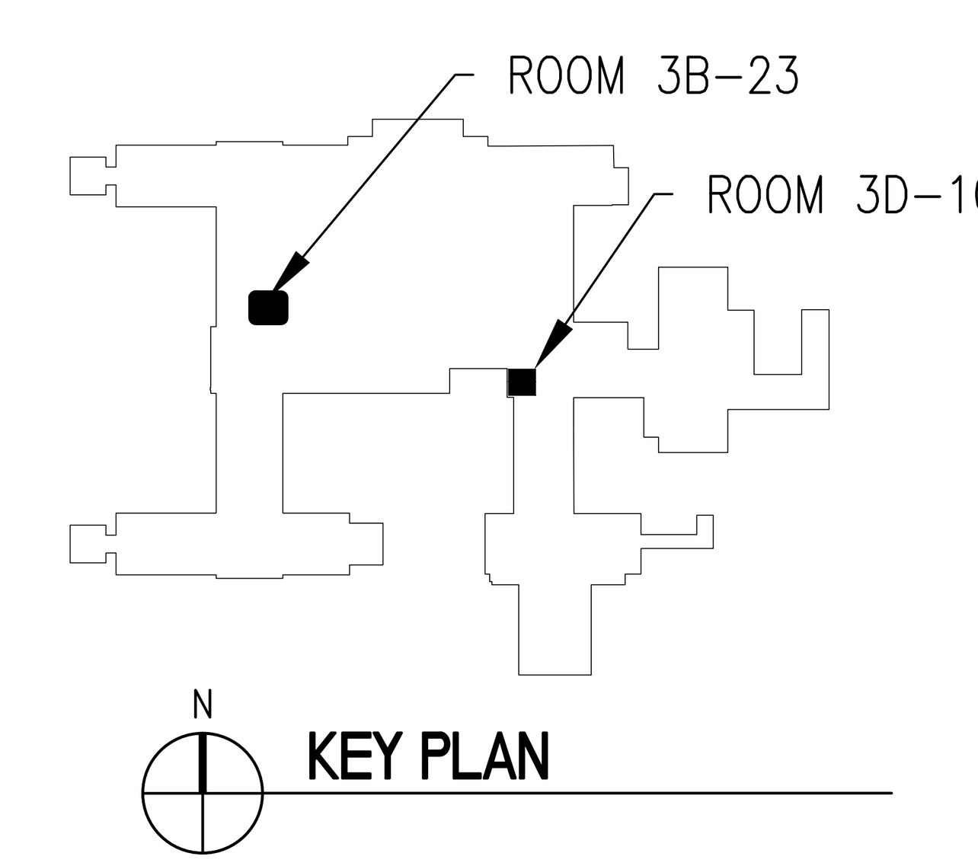
(1) ENLARGED POWER PLAN RM 3B-23

1/4"=1'-0"



(2) ENLARGED POWER PLAN RM 3D-12

1/4"=1'-0"



KEY PLAN

ISSUE FOR BID	01-16-24
Revisions:	Date:

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1/16/24

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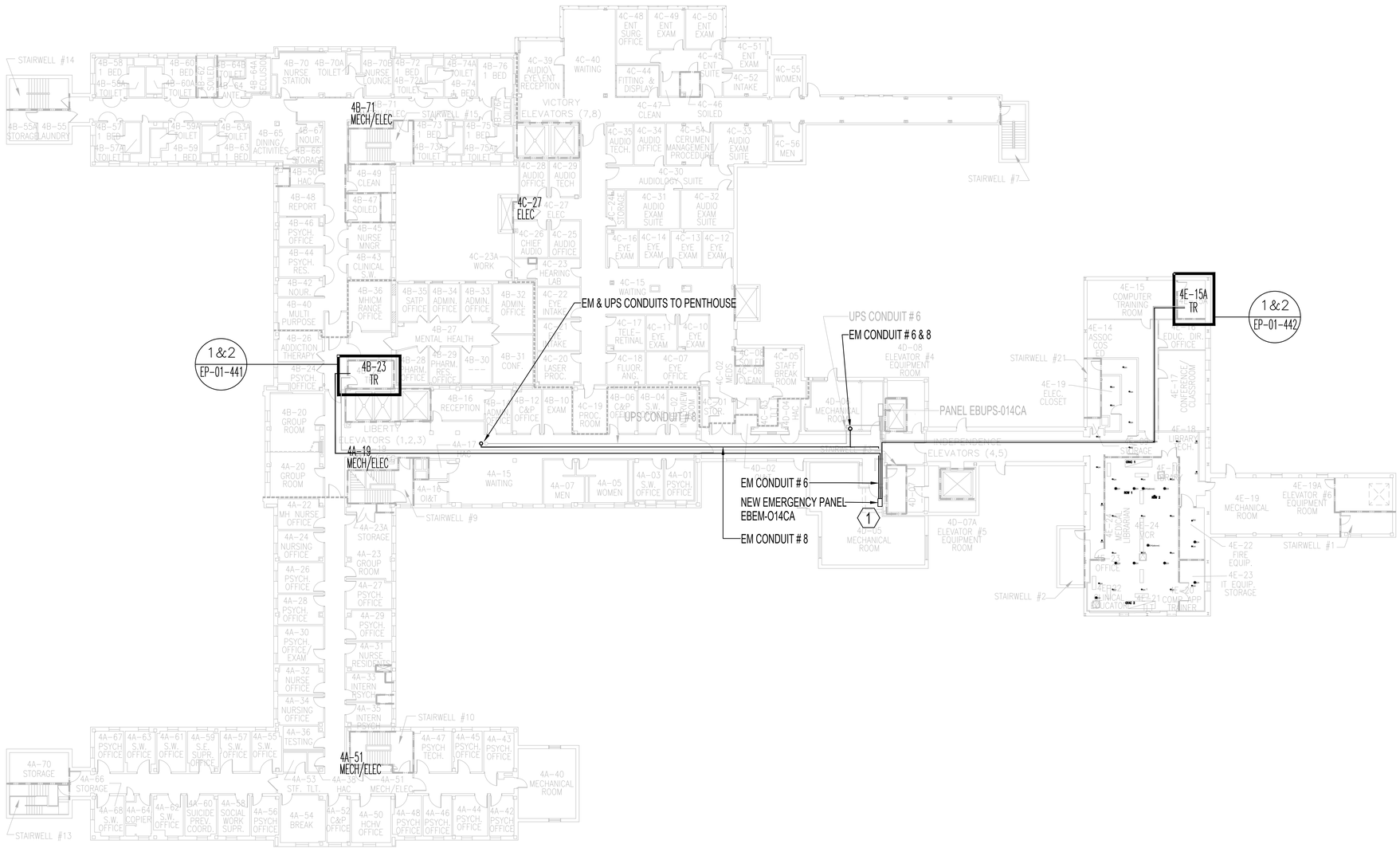
VA U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Field	Value
Drawing Title	ELECTRICAL - BLDG-1-9-46 - ENLARGED PLANS - THIRD FLOOR
Approved: Project Director	
Phase	ISSUE FOR BID
	BUILDING FULLY SPRINKLERED
Project Title	EHRM INFRASTRUCTURE UPGRADES - TIER 2
Location	FARGO VA HEALTH CARE SYSTEM
Issue Date	01/16/2024
Checked	WG
Drawn	BX
Project Number	437-21-210
Building Number	01, 09, 46
Drawing Number	EP-B1-431

VA FORM 08 - 6231



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NORTH

1 ELECTRICAL - BUILDING 1-9-46 - FOURTH FLOOR PLAN

1/16"=1'-0"

0 4' 8' 16' 32'

ELECTRICAL GENERAL NOTES

A. DRAWING DEPICTS AREAS OF WORK.

B. NEW 4TH FLOOR UPS FEEDERS FROM MCR WILL INTERCEPT AND SPLICE INTO UPS FEEDERS FOR 4th FLOOR AND PENTHOUSE.

C. THE NEW EMERGENCY POWER DISTRIBUTION PANEL, EBEM014CA FED FROM THE NEW MCR, WILL BE LOCATED ON 4th FLOOR TO FEED EXISTING TR ROOMS.

X ELECTRICAL KEY NOTES

1. INSTALL NEW PANEL EBEM-014CA.

RATED PARTITION LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

■·■·■·■·■ 1 HR FIRE BARRIER	▨·▨·▨·▨·▨ 1 HR FIRE BARRIER (EXISTING)
■··■··■··■ 2 HR FIRE BARRIER	▨··▨··▨··▨ 2 HR FIRE BARRIER (EXISTING)
▮▮▮▮▮▮▮▮ SMOKE BARRIER	▯▯▯▯▯▯▯▯ SMOKE BARRIER (EXISTING)

N
KEY PLAN

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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1/16/24

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Management

VA U.S. Department
of Veterans Affairs

Drawing Title ELECTRICAL - OVERALL FOURTH FLOOR PLAN	Phase ISSUE FOR BID	Project Title EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number 437-21-210
			Building Number 1-9-46
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location FARGO VA HEALTH CARE SYSTEM	Drawing Number EP-B1-141
		Issue Date 01/16/2024 Checked WG Drawn BX	

VA FORM 08 - 6231

ELECTRICAL GENERAL NOTES

A. CONTACT VA IT PRIOR TO WORKING IN DATA CENTER OR IT CLOSET.

B. ALL RACKS ARE IN OPERATION ON UPS POWER. REMAINING WORK IS TO INSTALL EMERGENCY POWER ABOVE EACH RACK.

C. USE PRECAUTIONS TO AVOID SNAGGING, WIRING OR DAMAGING EQUIPMENT.

D. PROTECT IT EQUIPMENT FROM DUST DURING WORK THAT CREATES DUST.

E. SEE PANEL SCHEDULES ON DRAWING SERIES E600 FOR EMERGENCY POWER (EM) PANEL SCHEDULES AND EM CIRCUIT NUMBERS. CABLE LENGTHS ARE FOR INFORMATION ONLY. CONTRACTOR TO DETERMINE CORRECT LENGTHS BASED ON FIELD CONDITIONS.

F. SEE DRAWING SERIES E700 FOR SINGLE LINE DRAWINGS.

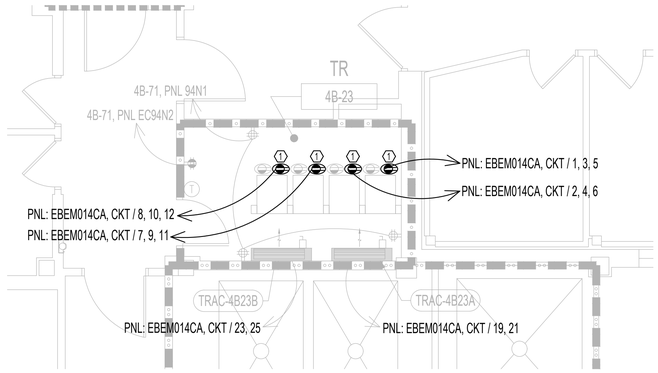
G. EM POWER TO RACKS / CABINETS IN NEW TR's MUST BE PROVIDED TO THE TOP OF THE RACKS / CABINETS. NO POWER WIRING ON FLOORS!

H. RECEPTACLES ABOVE RACKS MUST BE NEMA L21-20R, LOCKING RECEPTACLES.

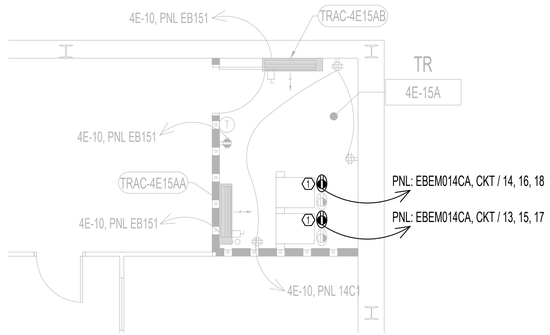
I. PANEL CIRCUIT NUMBERS ARE SUGGESTIONS, CONTRACTOR TO SELECT BREAKERS AND CIRCUIT NUMBERS BASED ON FIELD CONDITIONS AT TIME OF INSTALLATION.

⟨X⟩ ELECTRICAL KEY NOTES

1. EMERGENCY POWER TO RACK.



1 ENLARGED POWER PLAN RM 4B-23
1/4"=1'-0"

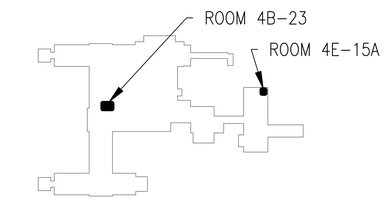


2 ENLARGED POWER PLAN RM 4E-15A
1/4"=1'-0"

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEY PLAN

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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1/16/24

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1-9-46 - ENLARGED PLANS - FOURTH FLOOR

Phase: ISSUE FOR BID

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Project Number: 437-21-210

Building Number: 01, 09, 46

Approved: Project Director

BUILDING FULLY SPRINKLERED

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024

Checked: WG

Drawn: BX

Drawing Number: EP-B1-441

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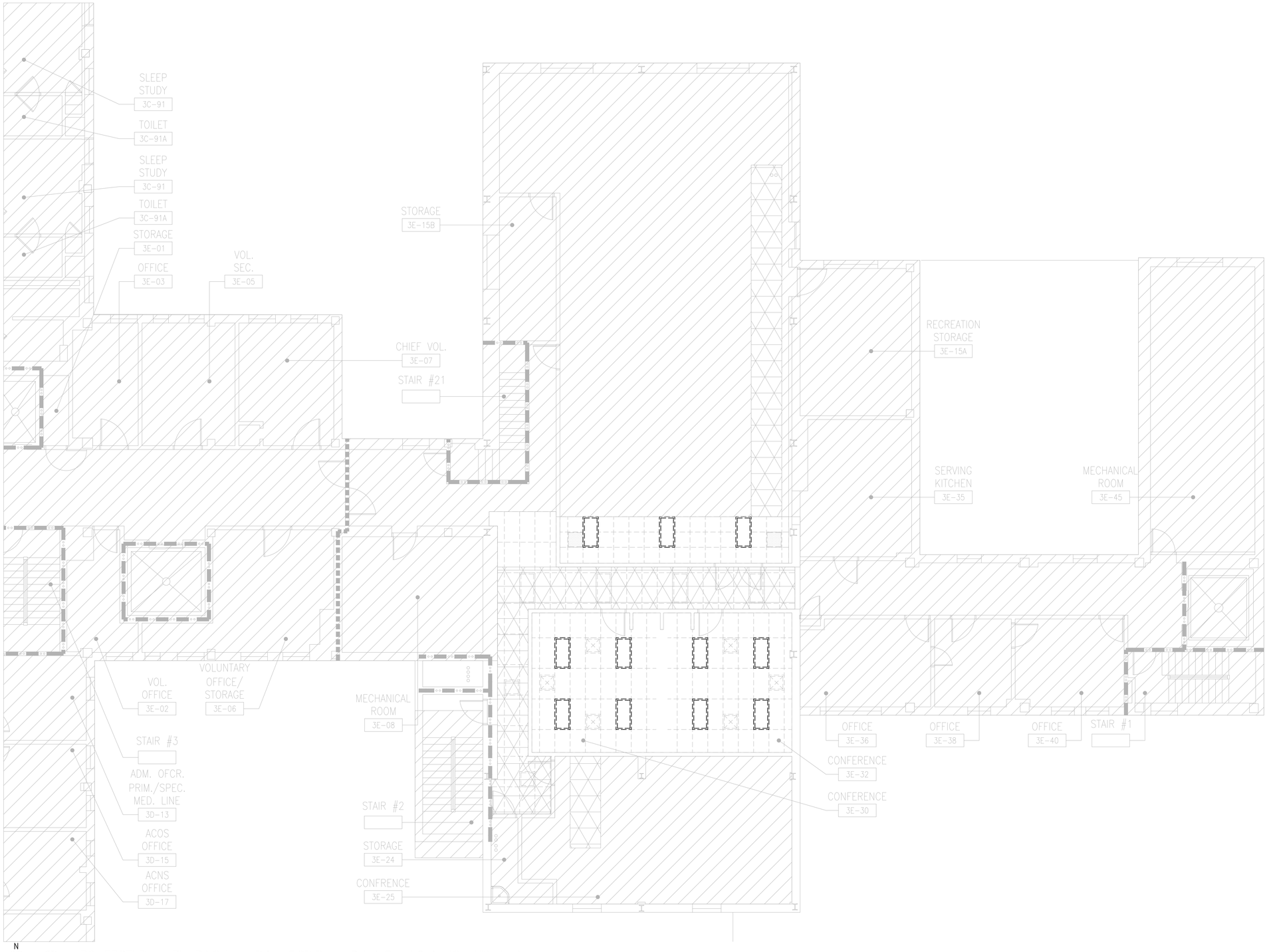


N

1 ARCHITECTURAL - BUILDING 1 - THIRD FLOOR REFLECTED CEILING DEMOLITION PLAN

3/16"=1'-0"

0 2" 4" 8" 12"

ELECTRICAL GENERAL NOTES

A. CONTRACTOR TO FOLLOW VA LOCK-OUT-TAGOUT PROCEDURE.

B. COORDINATE WITH COR TWO WEEKS PRIOR TO SCHEDULE ANY SHUTDOWNS.

C. REMOVE AND STORE LIGHTING FIXTURES. THEY WILL BE REINSTALLED IN SAME LOCATIONS AFTER CEILING IS RESTORED.

D. COORDINATE WITH MECHANICAL CONTRACTOR AS TO WHICH CONDUIT WILL NEED TO BE REMOVED FOR PLUMBING WORK. DISPOSE OF OLD CONDUIT AND WIRING. NEW CONDUIT AND WIRING WILL BE USED FOR RE-INSTALLATION.

[X] ELECTRICAL KEY NOTES

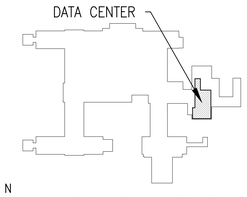
RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

1 HR FIRE BARRIER — 1 HR FIRE BARRIER (EXISTING)

2 HR FIRE BARRIER — 2 HR FIRE BARRIER (EXISTING)

SMOKE BARRIER — SMOKE BARRIER (EXISTING)



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KEYPLAN BUILDING 1-9-46

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ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - THIRD FLOOR LIGHTING DMO PLAN

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 1

Drawing Number: ELD-B1-231

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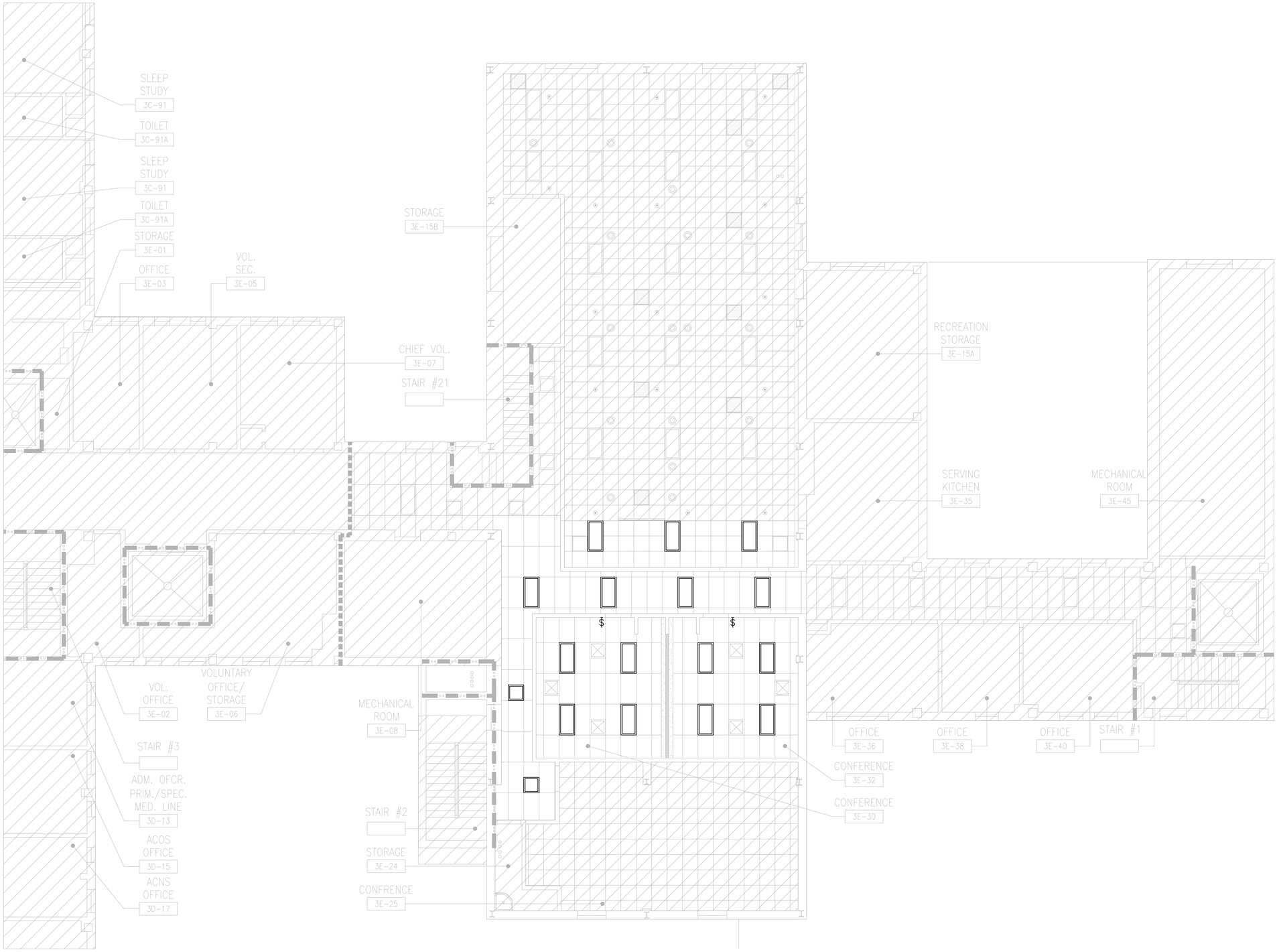


N

1 ELECTRICAL - BUILDING 1 - THIRD FLOOR LIGHTING PLAN

3/16"=1'-0"

0 2' 4' 8' 12'

ELECTRICAL GENERAL NOTES

A. CONTRACTOR TO FOLLOW VA LOCK-OUT-TAGOUT PROCEDURE.

B. COORDINATE WITH COR TWO WEEKS PRIOR TO SCHEDULE ANY SHUTDOWNS.

C. REINSTALL LIGHT FIXTURES IN ORIGINAL LOCATIONS.

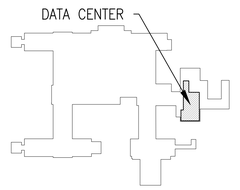
D. INSTALL NEW CONDUIT AND WIRING FOR THE CONDUIT REMOVED FOR THE PLUMBING WORK. UTILIZE SPLICE BOXES AS NEEDED.

ⓧ ELECTRICAL KEY NOTES

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEY PLAN BUILDING 1-9-46

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ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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STATE OF ILLINOIS

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - THIRD FLOOR LIGHTING PLAN	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
			Building Number: 1
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Drawing Number: EL-B1-232
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	

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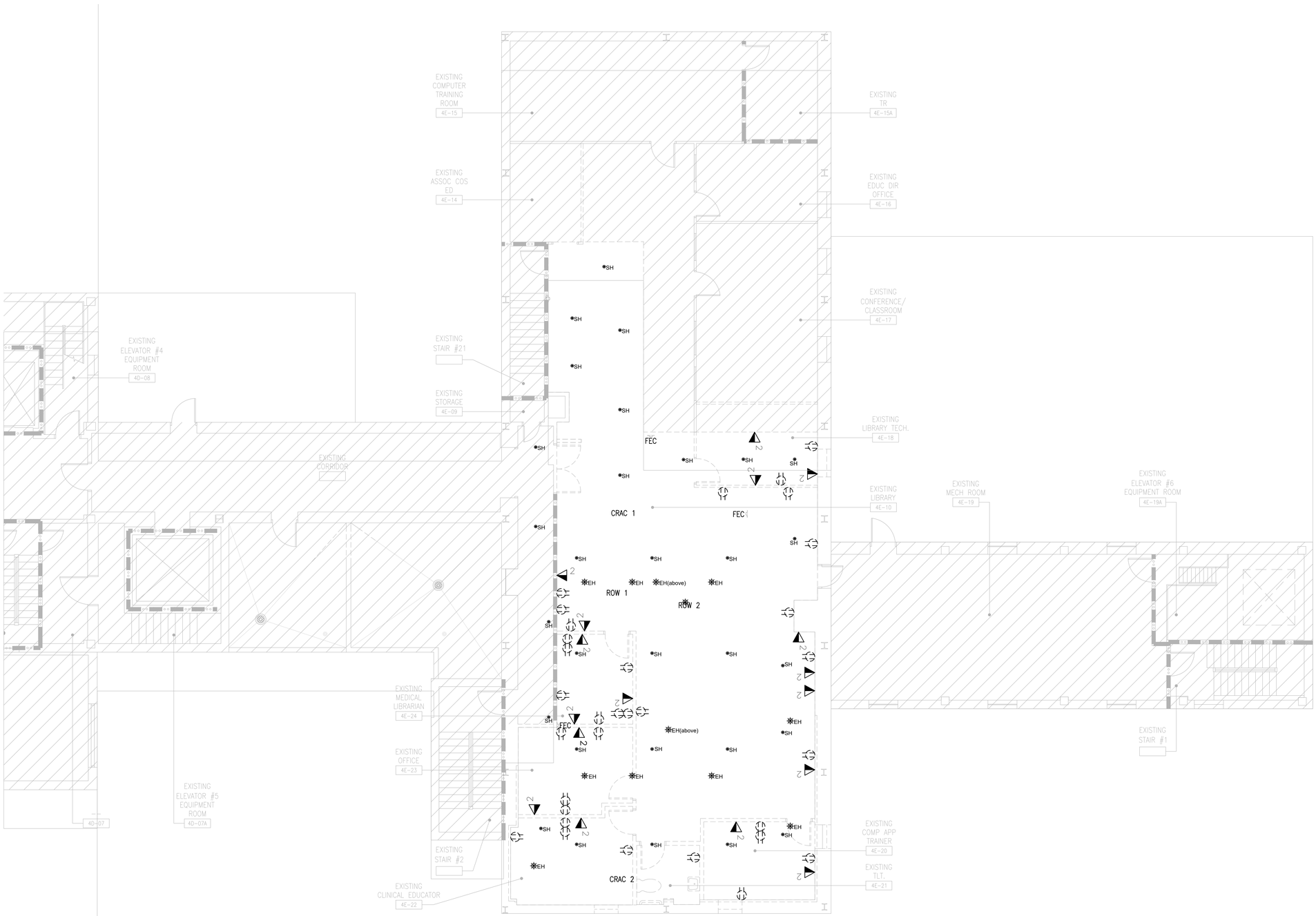


N

1 ELECTRICAL - BUILDING 1 - FOURTH FLOOR POWER DEMOLITION PLAN - DATA CENTER

3/16"=1'-0"

ELECTRICAL GENERAL NOTES

A. CONTRACTOR TO FOLLOW VA LOCK-OUT-TAGOUT PROCEDURE.

B. COORDINATE WITH COR TWO WEEKS PRIOR TO SCHEDULE ANY SHUTDOWNS.

C. REMOVE RECEPTACLES.

D. REMOVE DATA PORTS.

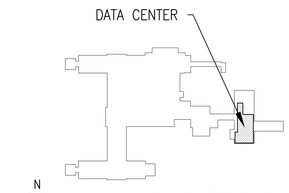
E. CONTRACTOR TO REMOVE ALL WIRING, CONDUIT, SUPPORTS AND RELATED APPURTENANCES BACK TO SOURCE. PATCH AND SEAL ALL OPENINGS THAT WILL NOT BE USED. UPDATE PANEL SCHEDULES FOR ALL REMOVED CIRCUITS.

[X] ELECTRICAL KEY NOTES

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



KEYPLAN BUILDING 1-9-46

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ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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STATE OF ILLINOIS

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - FOURTH FLOOR POWER DEMO - DATA CENTER	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
			Building Number: 1
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Drawing Number: EPD-B1-241
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	

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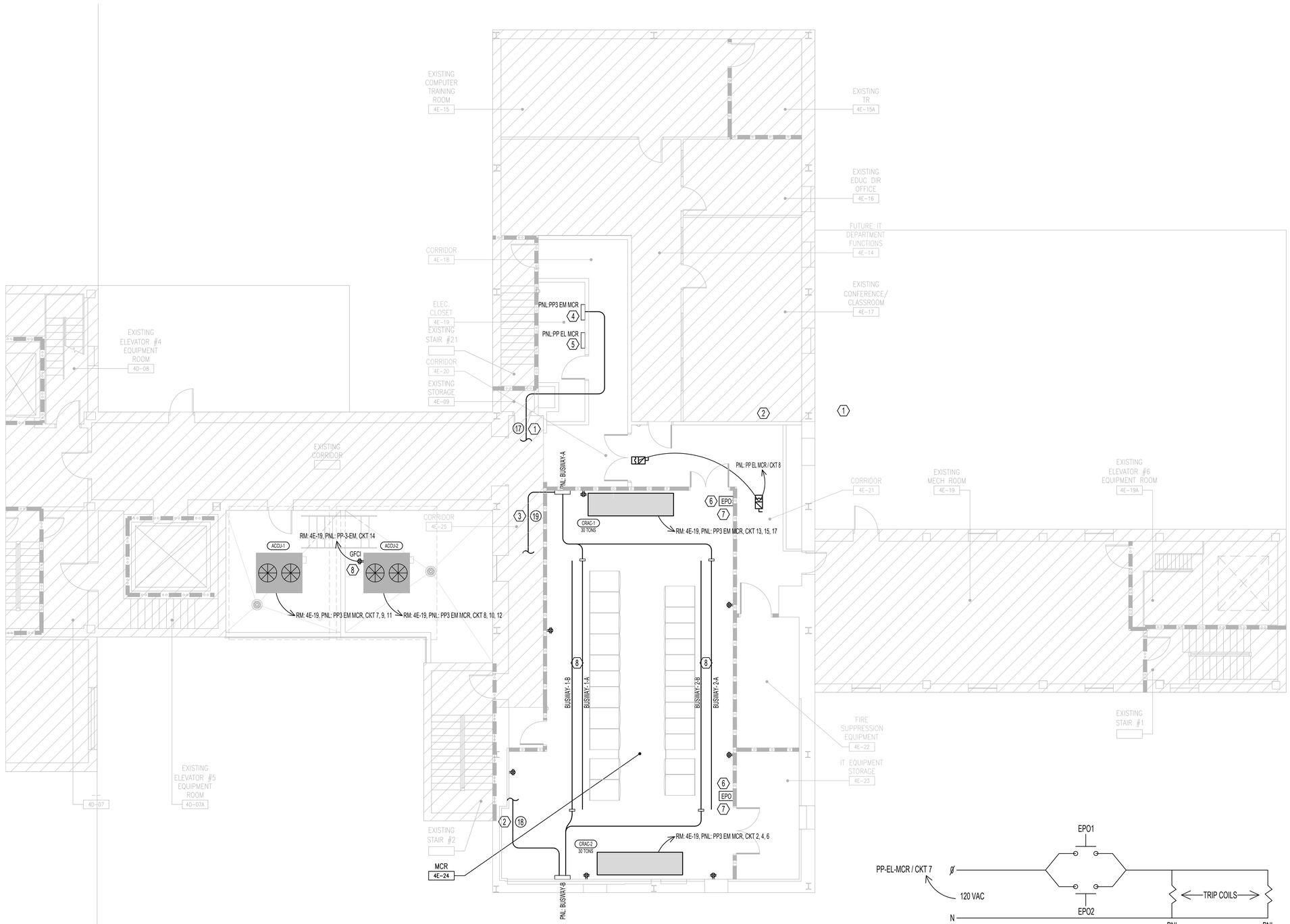
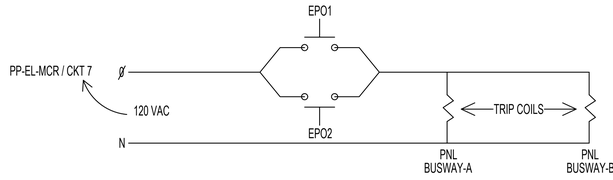


NORTH

1 ELECTRICAL - BUILDING 1 - FOURTH FLOOR POWER PLAN - DATA CENTER

3/16"=1'-0"

0 2' 4' 8' 12'



2 EPO SHUNT TRIP CKT, DATA CENTER

NTS

ELECTRICAL GENERAL NOTES

A. DRAWING DEPICTS AREAS OF WORK.

B. REFER TO "MCR WIRING SCHEDULE" ON DRAWING EP-B1-201 FOR WIRING. LESSER WIRING IS SHOWN ON DRAWINGS AS AN ARROW WITH "ROOM, PANEL, CKT" DESIGNATIONS.

C. LARGE WIRING IS IDENTIFIED IN CIRCLED NUMBERS.

D. SEE SINGLE LINE DRAWING E707 TO BETTER UNDERSTAND THE WIRING CONFIGURATION.

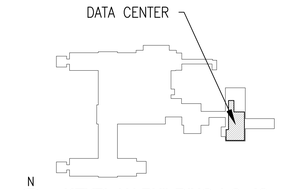
ELECTRICAL KEY NOTES

1. ROUTE WIRING NO 17 FROM PANEL PP-3-EM DOWN TO ROOM EB-98 PANEL PP-2-EM. USE CHASE NORTH OF STAIRWAY #2.
2. ROUTE WIRING FROM UPS MODULE UPS-B/MBP TO PANEL BUSWAY-B.
3. ROUTE WIRING FROM UPS MODULE UPS-A DISTRIBUTION TO PANEL BUSWAY-A.
4. INSTALL PNL-PP-3-EM IN ROOM 4E-19, 500A BUSS, 500A MAIN.
5. INSTALL PNL EL-MCR 100A BUSS, 100A MAIN, FEED FROM PANEL PP-3-EM.
6. INSTALL EPO SWITCH BY EACH DOOR. (SEE SHUNT TRIP CKT ON THIS DRAWING).
7. INSTALL 6 IN. X 4 IN. ENGRAVED RED SIGN / BLACK WRITING, BELOW EACH EPO SWITCH, TO READ "EPO DE-ENERGIZES DATA CENTER ONLY, UPS UNITS REMAIN OPERATIONAL".
8. CONTRACTOR TO TRAIN CABINET PDU PLUGS TO VICINITY OF THE UPS BUSWAYS. COORDINATE WITH IT DEPARTMENT PRIOR TO PLUGGING IN AND ENERGIZING.

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



KEYPLAN BUILDING 1-9-46

NTS

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - FOURTH FLOOR POWER PLAN - DATA CENTER

Phase: ISSUE FOR BID

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Project Number: 437-21-210

Building Number: 1

Approved: Project Director

BUILDING FULLY SPRINKLERED

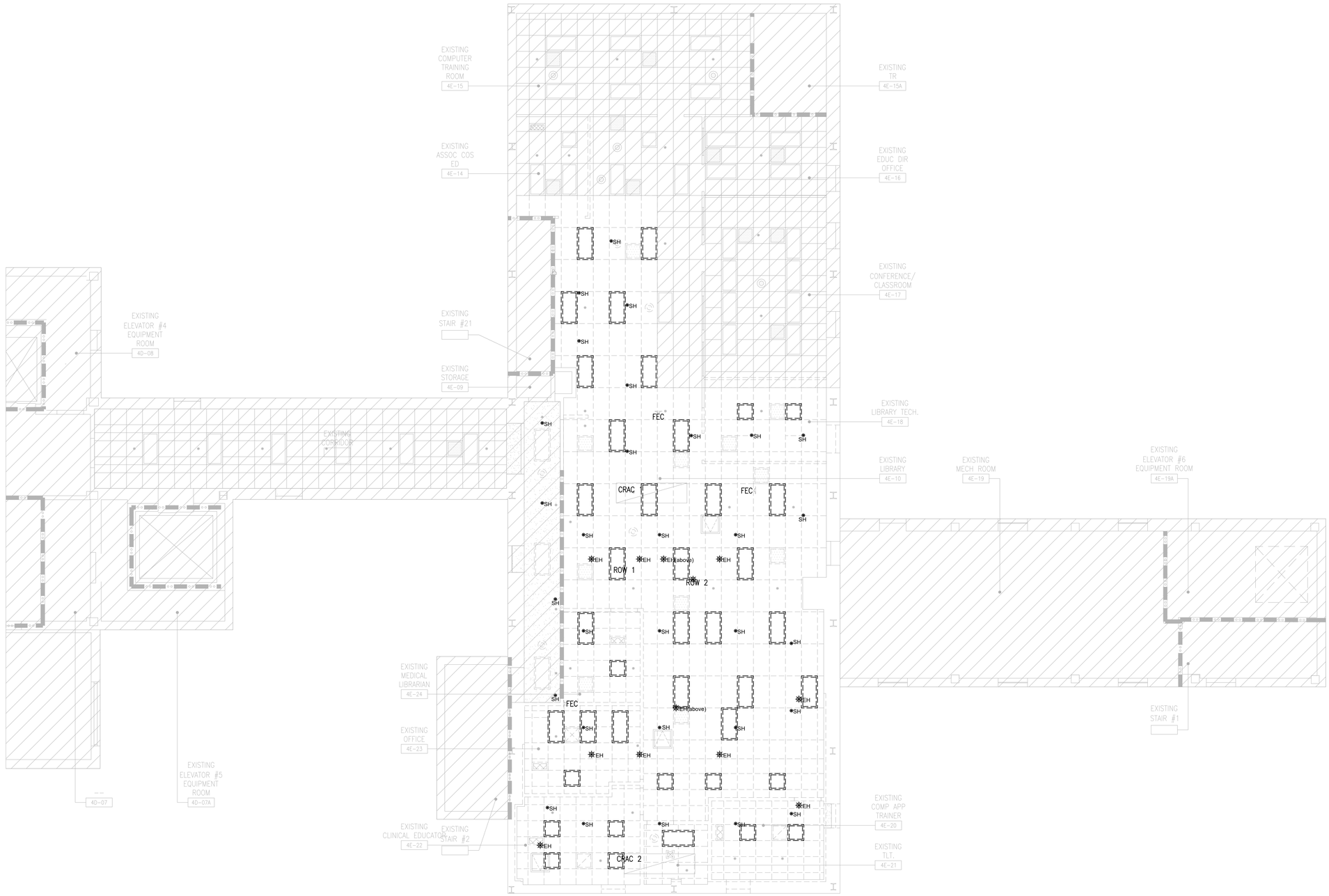
Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024

Checked: WG

Drawn: BX

Drawing Number: EP-B1-242



N

1 ELECTRICAL - BUILDING 1 - FOURTH FLOOR LIGHTING DEMOLITION PLAN - DATA CENTER

3/16"=1'-0"

0 2' 4' 8' 12'

ELECTRICAL GENERAL NOTES

A. CONTRACTOR TO FOLLOW VA LOCK-OUT-TAGOUT PROCEDURE.

B. COORDINATE WITH COR TWO WEEKS PRIOR TO SCHEDULE ANY SHUTDOWNS.

C. REMOVE AND DISPOSE LIGHTING FIXTURES AND APPURTENANCES. PROPERLY DISPOSE ALL BALLASTS.

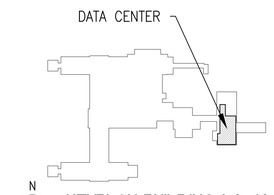
D. REMOVE CONDUIT, WIRING, CONTROLS, SWITCHES, SUPPORTS ETC BACK TO SOURCE.

[X] ELECTRICAL KEY NOTES

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



KEYPLAN BUILDING 1-9-46

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ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - FOURTH FLOOR LIGHTING DEMO - DATA CENTER

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024

Checked: WG

Drawn: BX

Project Number: 437-21-210

Building Number: 1

Drawing Number: ELD-B1-243

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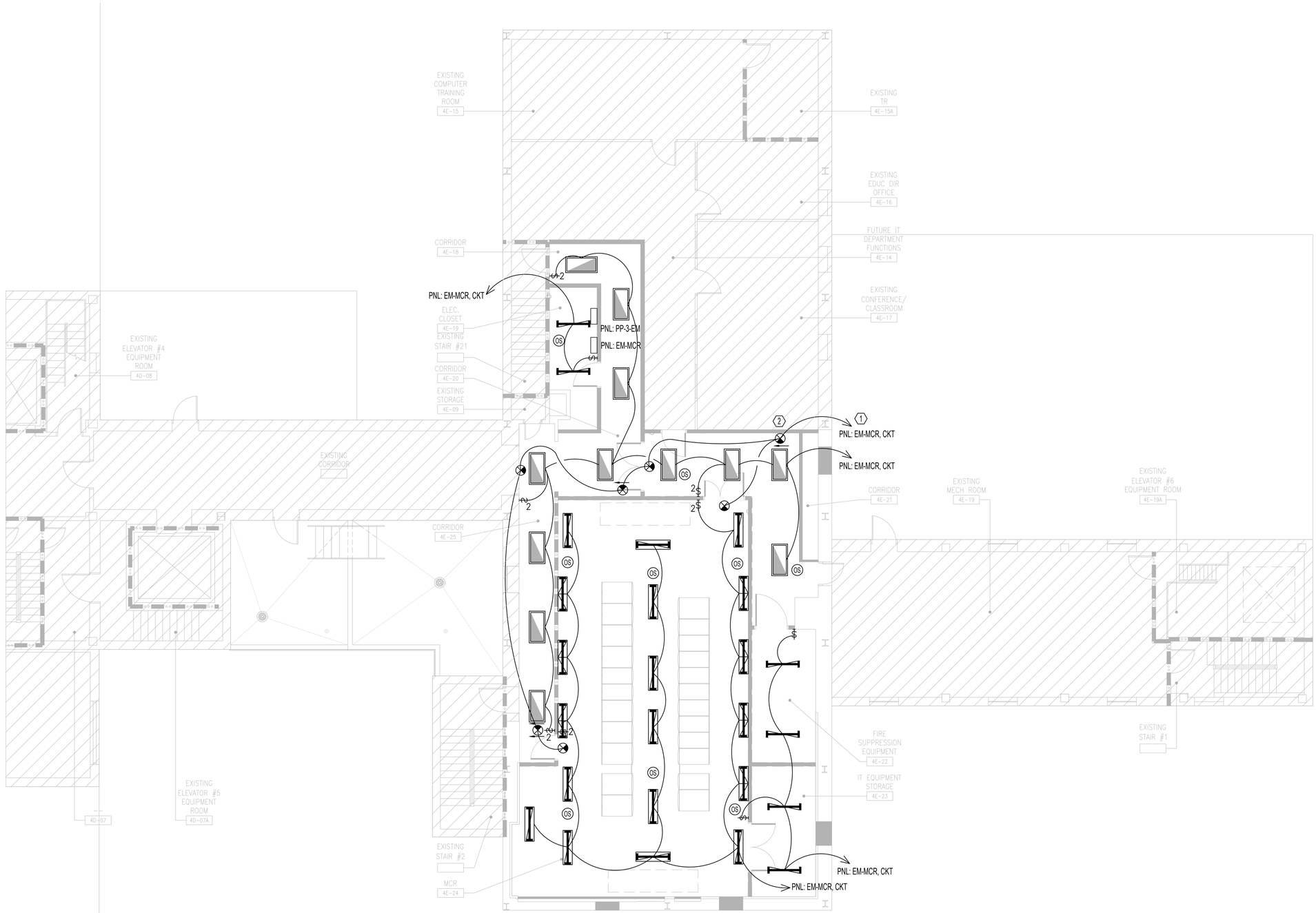


NORTH

1 ELECTRICAL - BUILDING 1 - FOURTH FLOOR LIGHTING PLAN - DATA CENTER

3/16"=1'-0"

0 2' 4' 8' 12'

ELECTRICAL GENERAL NOTES

A. CONTRACTOR TO FOLLOW VA LOCK-OUT-TAGOUT PROCEDURE.

B. COORDINATE WITH COR TWO WEEKS PRIOR TO SCHEDULE ANY SHUTDOWNS.

C. FIELD INSTALL OCCUPANCY SENSORS IN ALL AISLES AS THE COMPUTER CABINETS BLOCK AREAS FROM EACH OTHER.

D. CONNECT OCCUPANCY SENSORS SUCH THAT ONE FOURTH OF THE DATA CENTER IS CONTROLLED BY ONE GROUP OF SENSORS.

E. UTILIZE PLENUM RATED CABLING IN THE CEILING, AS CEILING IS A RETURN AIR PLENUM.

F. LOCATE TUBE LIGHTS MIDWAY BETWEEN CABINETS. SEE DRAWING E501 FOR ELEVATION DETAILS OF EQUIPMENT ABOVE CABINETS.

G. CONTRACTOR TO FIELD LOCATE FIXTURES TO AVOID OBSTRUCTIONS AND PROVIDE LIGHTING ON THE FACES OF CABINETS.

H. CONTRACTOR TO SELECT CIRCUIT NUMBERS IN PANELS TO BALANCE POWER, AND FILL OUT PANEL INDEX CARD.

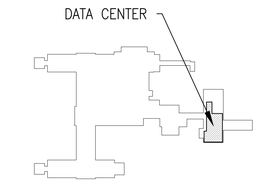
(X) ELECTRICAL KEY NOTES

1. CONTRACTOR TO NOTE "DO NOT SHUT OFF" ON CIRCUIT THAT FEEDS THE EXIT LIGHTS.
2. CONTRACTOR TO PURCHASE EXIT SIGNS WITH CORRECT ARROW DIRECTIONS TO MATCH EXIT PATH SHOWN ON GENERAL LIFE SAFETY DRAWINGS.

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEYPLAN BUILDING 1-9-46

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ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - FOURTH FLOOR LIGHTING PLAN - DATA CENTER

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 1

Drawing Number: EL-B1-244

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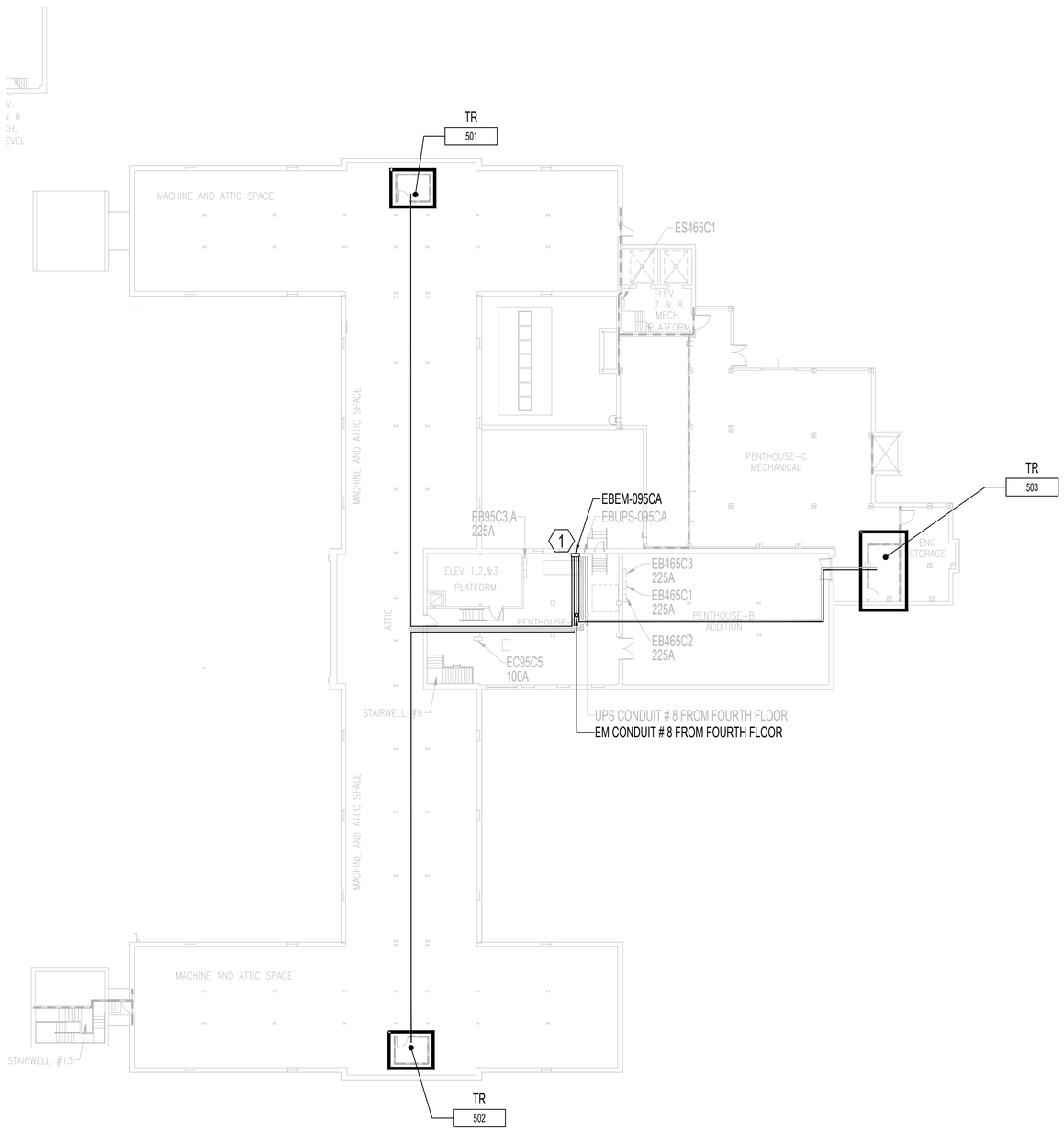


NORTH

1 ELECTRICAL - BUILDING 1-9-46 - FIFTH FLOOR PLAN

1/16"=1'-0"

0 4' 8' 16' 32'

ELECTRICAL GENERAL NOTES

A. DRAWING DEPICTS AREAS OF WORK.

B. NEW PENTHOUSE FLOOR UPS FEEDER FROM MCR WILL BE INTERCEPTED ON 4th FLOOR AND SPLICED INTO NEW UPS FEEDER FROM MCR.

C. THE NEW EMERGENCY POWER DISTRIBUTION PANEL, EBEM095CA FED FROM THE NEW MCR, WILL BE LOCATED IN PENTHOUSE TO FEED THE EXISTING TR ROOMS.

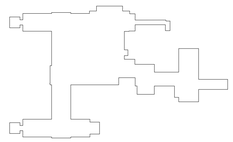
⟨X⟩ ELECTRICAL KEY NOTES

1. INSTALL NEW PANEL EBEM-095CA.

RATED PARTITION LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEY PLAN

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title: ELECTRICAL - OVERALL FIFTH FLOOR PLAN	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
			Building Number: 1-9-46
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Drawing Number: EP-B1-151
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	

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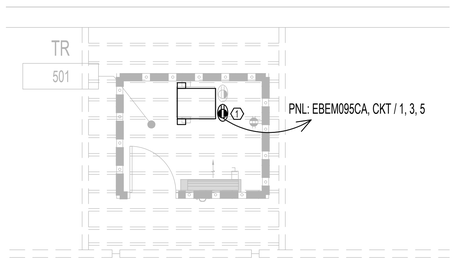
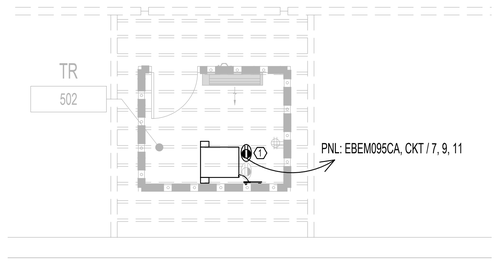
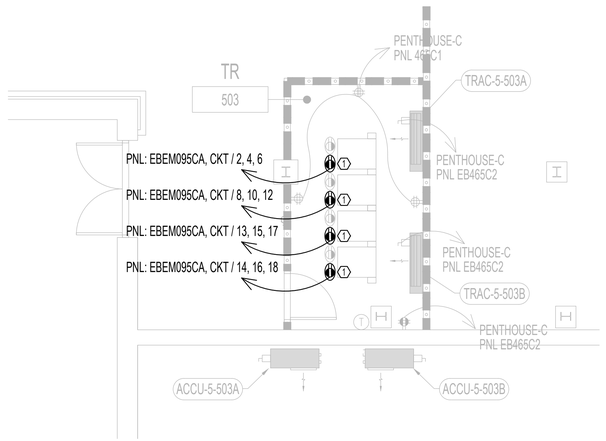


1 ENLARGED POWER PLAN RM 501
1/4"=1'-0"



2 ENLARGED POWER PLAN RM 502
1/4"=1'-0"



3 ENLARGED POWER PLAN RM 503
1/4"=1'-0"

ELECTRICAL GENERAL NOTES

A. CONTACT VA IT PRIOR TO WORKING IN DATA CENTER OR IT CLOSET.

B. ALL RACKS ARE IN OPERATION ON UPS POWER. REMAINING WORK IS TO INSTALL EMERGENCY POWER ABOVE EACH RACK.

C. USE PRECAUTIONS TO AVOID SNAGGING, WIRING OR DAMAGING EQUIPMENT.

D. PROTECT IT EQUIPMENT FROM DUST DURING WORK THAT CREATES DUST.

E. SEE PANEL SCHEDULES ON DRAWING SERIES E600 FOR EMERGENCY POWER (EM) PANEL SCHEDULES AND EM CIRCUIT NUMBERS. CABLE LENGTHS ARE FOR INFORMATION ONLY. CONTRACTOR TO DETERMINE CORRECT LENGTHS BASED ON FIELD CONDITIONS.

F. SEE DRAWING SERIES E700 FOR SINGLE LINE DRAWINGS.

G. EM POWER TO RACKS / CABINETS IN NEW TR's MUST BE PROVIDED TO THE TOP OF THE RACKS / CABINETS. NO POWER WIRING ON FLOORS!

H. RECEPTACLES ABOVE RACKS MUST BE NEMA L21-20R, LOCKING RECEPTACLES.

I. PANEL CIRCUIT NUMBERS ARE SUGGESTIONS, CONTRACTOR TO SELECT BREAKERS AND CIRCUIT NUMBERS BASED ON FIELD CONDITIONS AT TIME OF INSTALLATION.

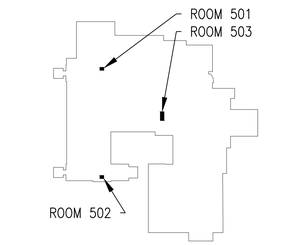
(X) ELECTRICAL KEY NOTES

1. EMERGENCY POWER TO RACK.

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



KEY PLAN

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL - BLDG-1-9-46 - ENLARGED PLANS - PENTHOUSE
Approved: Project Director	
Phase	ISSUE FOR BID
	BUILDING FULLY SPRINKLERED
Project Title	EHRM INFRASTRUCTURE UPGRADES - TIER 2
Location	FARGO VA HEALTH CARE SYSTEM
Issue Date	01/16/2024
Checked	WG
Drawn	BX
Project Number	437-21-210
Building Number	01, 09, 46
Drawing Number	EP-B1-451

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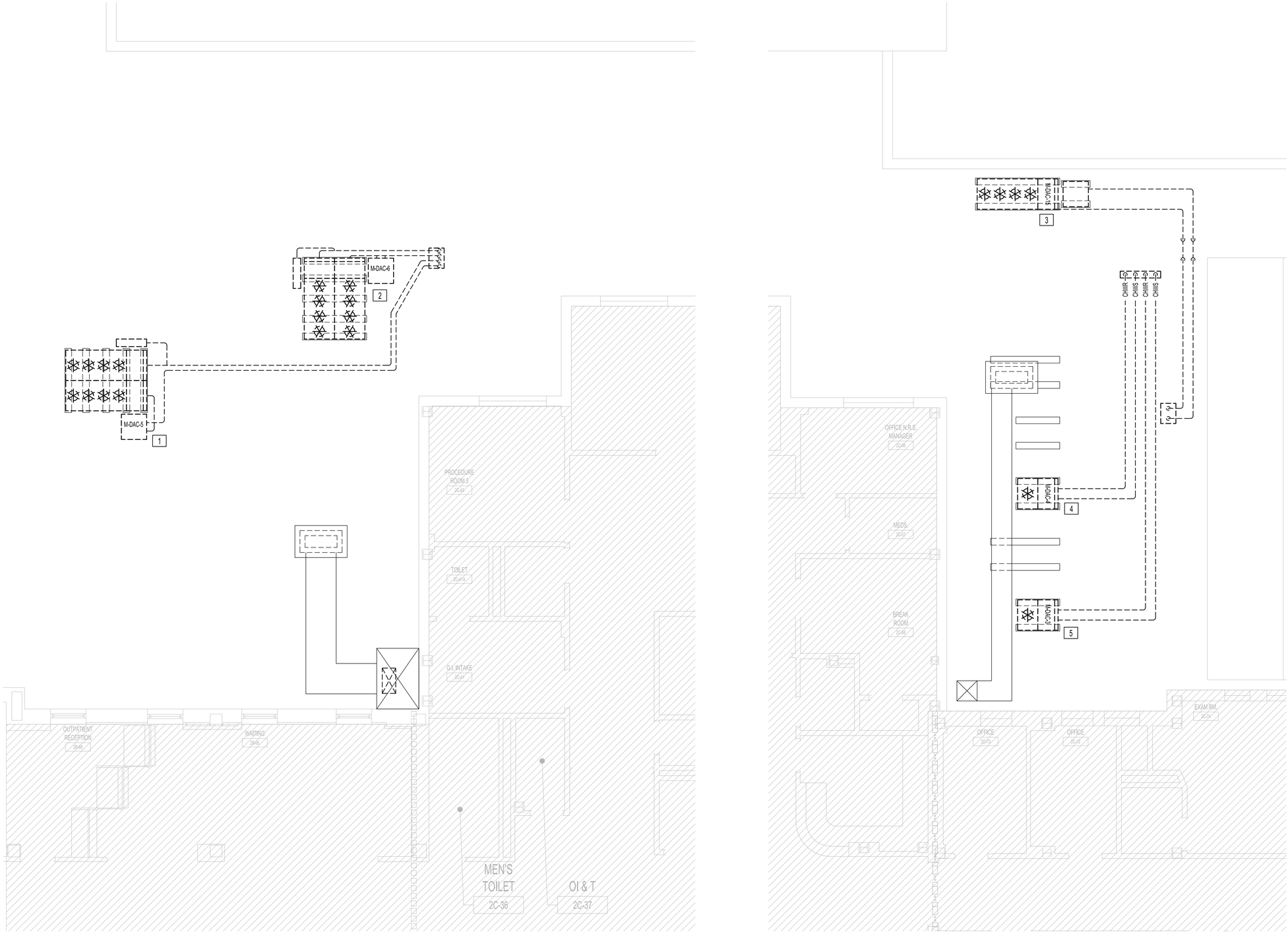


ELECTRICAL GENERAL NOTES

A. CONTRACTOR TO FOLLOW VA LOCK-OUT-TAGOUT PROCEDURE.

B. COORDINATE WITH COR TWO WEEKS PRIOR TO SCHEDULE ANY SHUTDOWNS.

C. COORDINATE WITH MECHANICAL CONTRACTOR.

D. CONTRACTOR TO REMOVE ALL WIRING, CONDUIT, SUPPORTS AND RELATED APPURTENANCES BACK TO SOURCE. PATCH AND SEAL ALL OPENINGS THAT WILL NOT BE USED. UPDATE PANEL SCHEDULES FOR ALL REMOVED CIRCUITS.

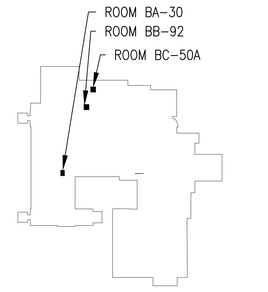
X ELECTRICAL KEY NOTES

1. REMOVE POWER AND CONTROL WIRING AND CONDUITS FOR MDAC-5 BACK TO SOURCE. PATCH ALL OPENINGS PER SPECIFICATIONS.
2. REMOVE POWER AND CONTROL WIRING AND CONDUITS FOR MDAC-6 BACK TO SOURCE. PATCH ALL OPENINGS PER SPECIFICATIONS.
3. REMOVE POWER AND CONTROL WIRING AND CONDUITS FOR MDAC-15 BACK TO SOURCE. PATCH ALL OPENINGS PER SPECIFICATIONS.
4. REMOVE POWER AND CONTROL WIRING AND CONDUITS FOR MDAC-4 BACK TO SOURCE. PATCH ALL OPENINGS PER SPECIFICATIONS.
5. REMOVE POWER AND CONTROL WIRING AND CONDUITS FOR MDAC-3 BACK TO SOURCE. PATCH ALL OPENINGS PER SPECIFICATIONS.

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEY PLAN

N

1 ELECTRICAL - DEMOLITION PLAN - BUILDING 46 - SECOND FLOOR - ROOF

1/4"=1'-0"

0 1" 2" 4" 8"

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BUILDING 46 SECOND FLOOR ROOF DEMOLITION

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 46

Drawing Number: EPD-B46-402

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ELECTRICAL GENERAL NOTES

A. CONTRACTOR TO FOLLOW VA LOCK-OUT-TAGOUT PROCEDURE.

B. COORDINATE WITH COR TWO WEEKS PRIOR TO SCHEDULE ANY SHUTDOWNS.

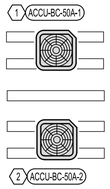
C. COORDINATE WITH MECHANICAL CONTRACTOR.

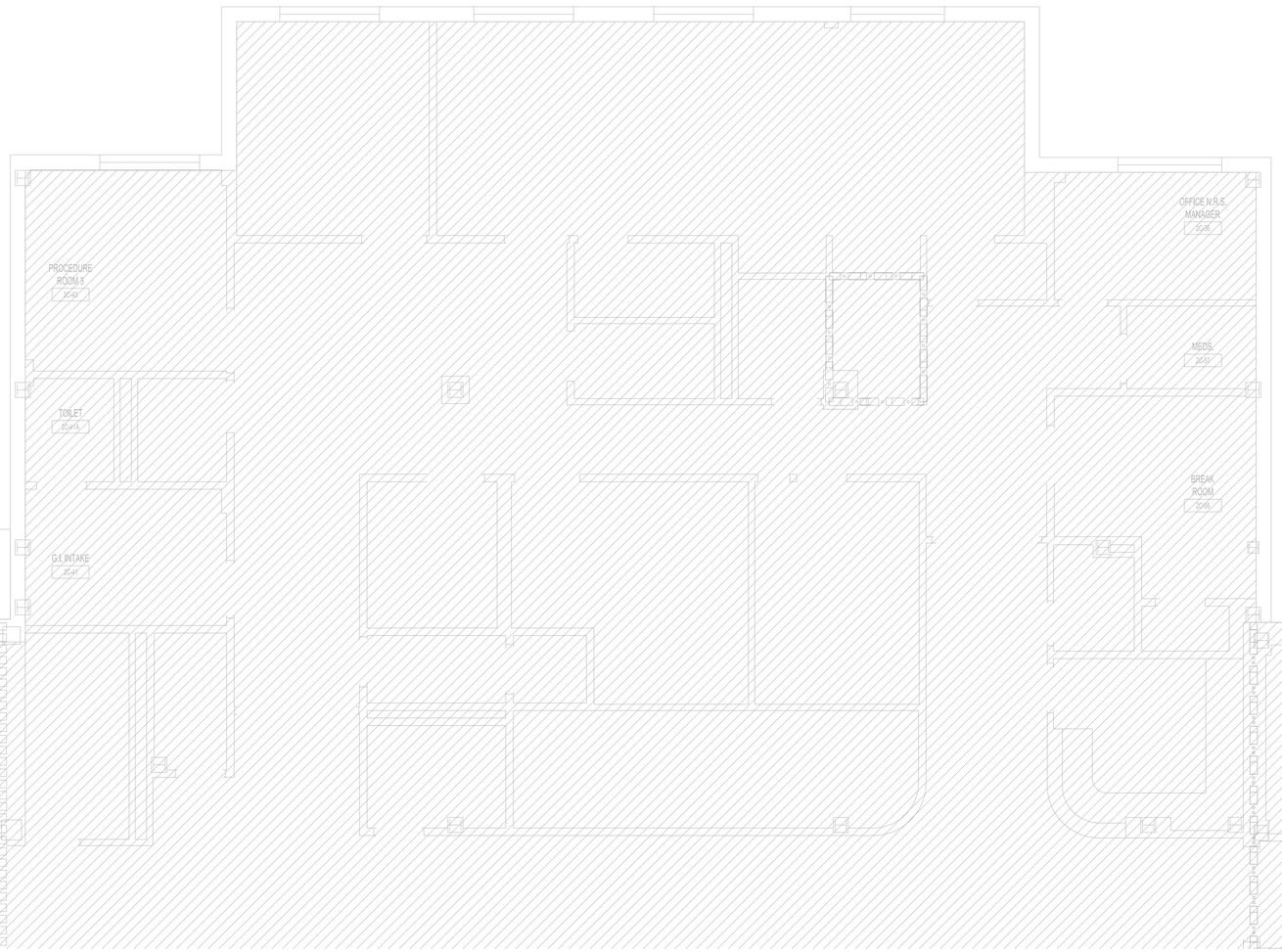
D. CONTRACTOR TO UTILIZE SPLIT UNIT WIRING DETAIL ON SERIES 500 DETAIL DRAWINGS AS A GUIDE FOR ROUTING POWER AND CONTROL CONDUITS AND WIRING FROM POWER PANEL, TO EVAPORATOR AND THEN TO CONDENSER UNIT. INSTALL 20A DISCONNECT AT EVAPORATOR AND NEMA 3 20A DISCONNECT AT CONDENSER.

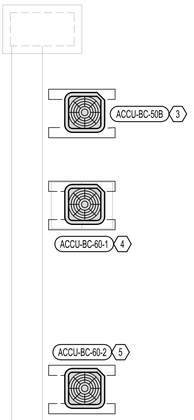
E. CONTRACTOR TO INSTALL 20A BREAKERS ON PANEL, AND SELECT CIRCUITS ON POWER PANEL TO BALANCE PANEL.

⟨X⟩ ELECTRICAL KEY NOTES

1. FOR ACCU-BC-50A-1 ROUTE CONDUITS AND 25A CABLES FROM PANEL EBUPS-90N1. CONTRACTOR TO SELECT CIRCUITS TO BALANCE PANEL.
2. FOR ACCU-BC-50A-2 ROUTE CONDUITS AND 25A CABLES FROM PANEL EBUPS-90N1. CONTRACTOR TO SELECT CIRCUITS TO BALANCE PANEL.
3. FOR ACCU-BC-50B ROUTE CONDUITS AND 25A CABLES FROM PANEL EBUPS-90N1. CONTRACTOR TO SELECT CIRCUITS TO BALANCE PANEL.
4. FOR ACCU-BC-60-1 ROUTE CONDUITS AND 25A CABLES FROM PANEL EBUPS-90N1. CONTRACTOR TO SELECT CIRCUITS TO BALANCE PANEL.
5. FOR ACCU-BC-60-2 ROUTE CONDUITS AND 25A CABLES FROM PANEL EBUPS-90N1. CONTRACTOR TO SELECT CIRCUITS TO BALANCE PANEL.



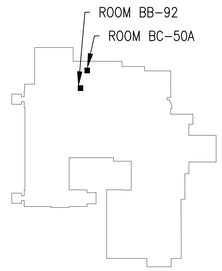




RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

1 HR FIRE BARRIER	1 HR FIRE BARRIER (EXISTING)
2 HR FIRE BARRIER	2 HR FIRE BARRIER (EXISTING)
SMOKE BARRIER	SMOKE BARRIER (EXISTING)



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KEY PLAN

1 ELECTRICAL PLAN - BUILDING 46 - SECOND FLOOR - ROOF

1/4"=1'-0"

0 1' 2' 4' 8'

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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1/16/24
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BUILDING 46 SECOND FLOOR ROOF	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Building Number: 46
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	Drawing Number: EP-B46-402

VA FORM 08 - 6231

1/16/2024 9:40:16 AM

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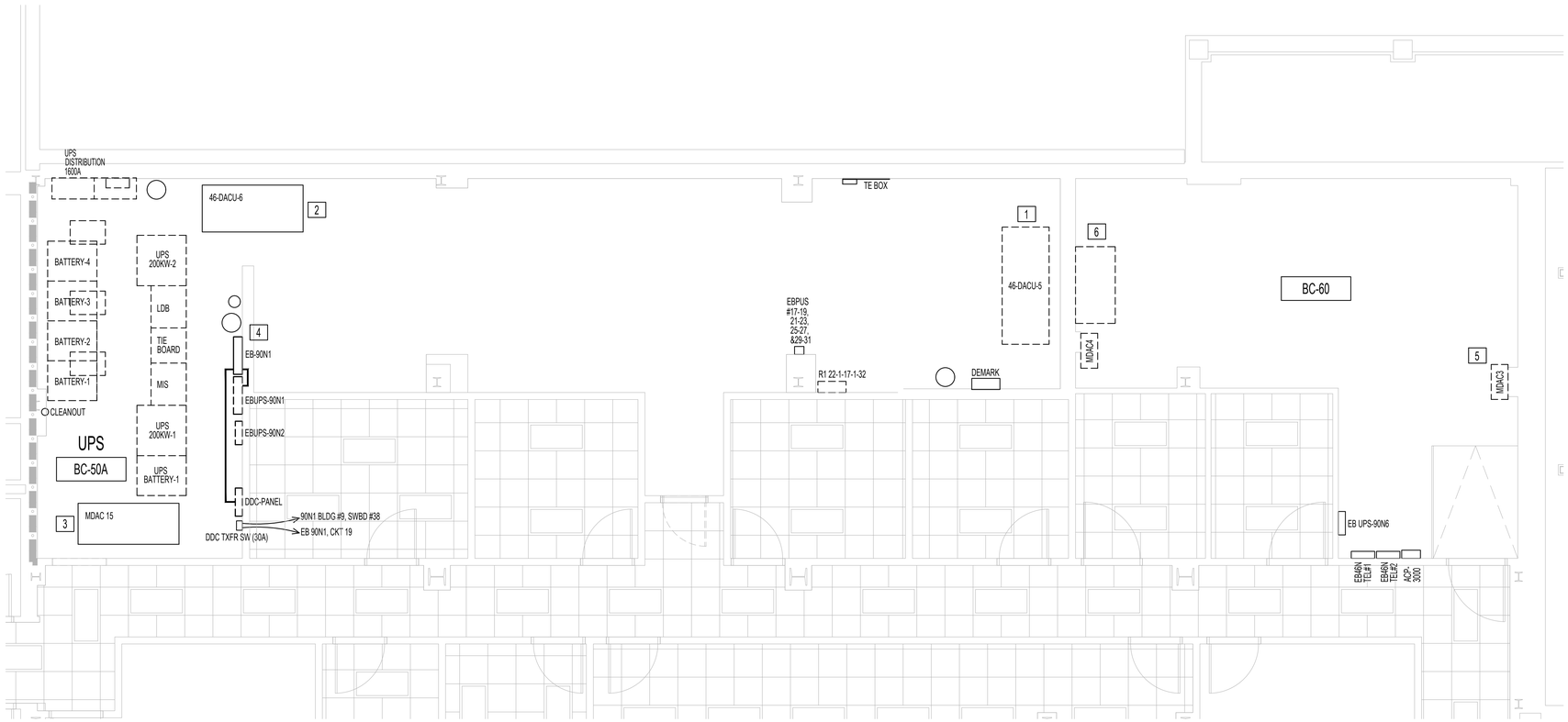

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1 ELECTRICAL - ENLARGED DEMOLITION PLAN RM BC-50A AND BC60

1/4"=1'-0"

0 1' 2' 4' 8'

ELECTRICAL GENERAL NOTES

A. DISCONNECT POWER AND CONDUITS TO CRAC UNITS IN BC-50: MDAC15, 46-DACU-6 AND 46-DACU-5.

B. AFTER NEW MCR IS COMPLETED, AND ALL IT EQUIPMENT HAS BEEN MOVED/MIGRATED TO NEW MCR, AND UPS-B IN MCR IS OPERATIONAL, AND EMERGENCY POWER IS SUPPORTING ALL TR ROOMS, UPS A WILL BE DISMANTLED AND RELOCATED INTO NEW MCR.

C. CONTRACTOR TO OBTAIN PERMISSION FROM VA COR TO SHUT DOWN MONOLITHIC UPS A.

D. CONTRACTOR TO DEVELOP A "METHOD OF PROCEDURE" / LOCKOUT-TAGOUT PROCEDURE TO COMPLETELY SHUTDOWN AND DE-ENERGIZE ALL POWER TO OLD UPS AND BYPASS SYSTEM.

E. CONTRACTOR TO FOLLOW PROCEDURE FOR SHUTTING DOWN MONOLITHIC UPS A, AND THEN OPENING ALL REQUIRED BREAKERS TO COMPLETELY DE-ENERGIZE ALL POWER TO UPS AND BYPASS BREAKERS.

F. HIRE UPS VENDOR TO DECOMMISSION UPS-A AND CONFIGURE THE UPS INTO SECTIONS FOR MOVING TO NEW MCR.

   a. MONOLITHIC UPS AND BATTERIES WILL BE RELOCATED INTO UPS ROOM BE-97.

   b. THE THREE TIE CABINETS WILL BE RELOCATED TO UPS ROOM BE-97.

   c. THEN FOLLOW DIRECTIONS ON NEW DRAWING EP-B1-203 FOR ROOM BE-97.

G. VERIFY THAT ALL EQUIPMENT HAS BEEN DISCONNECTED FROM OLD LOCATION OF MONOLITHIC UPS A.

H. VERIFY THAT BOTH MONOLITHIC UPS A AND NORMAL UPS B ARE OPERATIONAL.

I. VERIFY THAT NEW BLGD. 1, 1,560KVA EMERGENCY GENERATOR IS FULLY OPERATIONAL.

J. VERIFY THAT NEW CIRCUITS HAVE BEEN PROVIDED TO THE TWO DEMARKS (SEE DRAWING EP-B1-101).

K. REUSE FORMER PANEL EPUPS-90N1, 400A AND RENAME PANEL AS PANEL 90N1. EXTEND CONDUIT THAT PREVIOUSLY FED MTS EB90N3 TO FEED RENAMED PANEL 90N1.

L. THE FOLLOWING PANELS (AND CONDUITS AND WIRING) THAT USED TO SERVE THE OLD DATA CENTER CAN NOW BE REMOVED:

   a. MTS EB90N1 - FED FROM BLDG 9 SWGR EB, AND FROM BLDG 9 NORMAL SWGR.

   b. PANEL EB90N1.

   c. MTS EB90N3 FED FROM BLDG 9 EB SWGR AND FROM BLDG 9 NORMAL SWGR.

   d. PANEL EB90N3.

   e. PARALLEL TIE CABINET.

   f. PANEL EBUPS90N1.

   g. ALL OTHER PANELS THAT HAVE UPS IN THEIR NAME.

M. TURNOVER PANELS AND SWITCHES TO COR.

N. PROPERLY DISCARD ALL OLD CONDUITS, WIRING, CABLING, OLD NETWORK CABLING FROM ABOVE AND BELOW THE RAISED FLOOR TO LEAVE AREA AS A CLEAN STORAGE FACILITY.

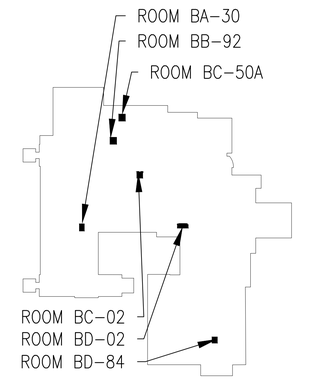
[X] ELECTRICAL KEY NOTES

1. REMOVE ALL CONDUIT AND WIRING FROM CRAC 46-DACU-5.
2. REMOVE ALL CONDUIT AND WIRING FROM CRAC 46-DACU-6.
3. REMOVE ALL CONDUIT AND WIRING FROM CRAC MDAC-15.
4. LEAVE PANEL EB-90N1 IN PLACE. THIS PANEL WILL REMAIL TO FEED EQUIPMENT THAT REMAINS IN AREA.
5. REMOVE ALL CONDUIT AND WIRING FROM CRAC MDCA3.
6. REMOVE ALL CONDUIT AND WIRING FROM CRAC.

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEY PLAN

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - UPS SYSTEM A ROOM BC-50A AND BC-60 DEMOLITION

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 46

Drawing Number: EPD-B46-403

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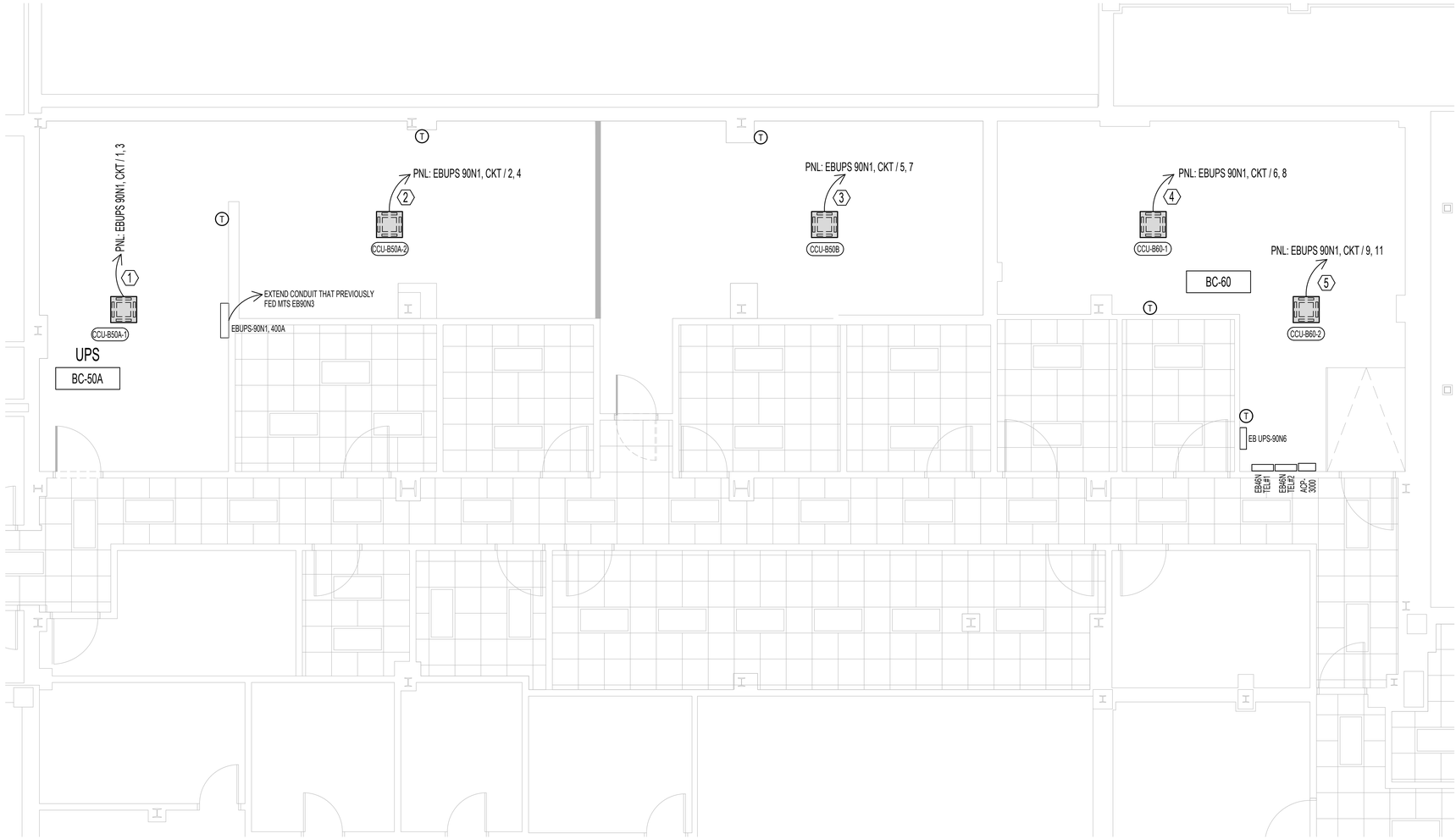

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1 ELECTRICAL - ENLARGED PLAN RM BC-50A AND BC60

1/4"=1'-0"

0 1' 2' 4' 8'

ELECTRICAL GENERAL NOTES

A. REUSE FORMER PANEL EPUPS-90N1, 400A AND RENAME PANEL AS PANEL 90N1. EXTEND CONDUIT THAT PREVIOUSLY FED MTS EB90N3 TO FEED RENAMES PANEL 90N1.

B. SEE DETAILS ON THIS DRAWING FOR WIRING SPLIT COOLING UNITS.

C. CONTRACTOR TO SELECT CIRCUITS ON PANEL AND BALANCE PANEL, AND UPDATE INDEX CARD.

D. SEE DETAIL 8 ON DRAWING E501 FOR WIRING SPLIT UNITS.

E. CONTRACTOR TO SELECT ELECTRICAL CIRCUITS AND BALANCE PANEL LOAD.

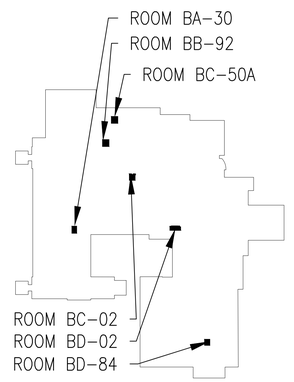
(X) ELECTRICAL KEY NOTES

1. PROVIDE POWER FOR SPLIT COOLING UNIT CCU-B50A-1 FROM PANEL EBUPS-90N1, CKT 1, 3
2. PROVIDE POWER FOR SPLIT COOLING UNIT CCU-B50A-2 FROM PANEL EBUPS-90N1, CKT 2, 4
3. PROVIDE POWER FOR SPLIT COOLING UNIT CCU-B50B FROM PANEL EBUPS-90N1, CKT 5, 7
4. PROVIDE POWER FOR SPLIT COOLING UNIT CCU-B60-1 FROM PANEL EBUPS-90N1, CKT 6, 8
5. PROVIDE POWER FOR SPLIT COOLING UNIT CCU-B60-2 FROM PANEL EBUPS-90N1, CKT 9, 11

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEY PLAN

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - UPS SYSTEM A ROOM BC-50A AND BC-60

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

ISSUE FOR BID - 01/16/2024

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

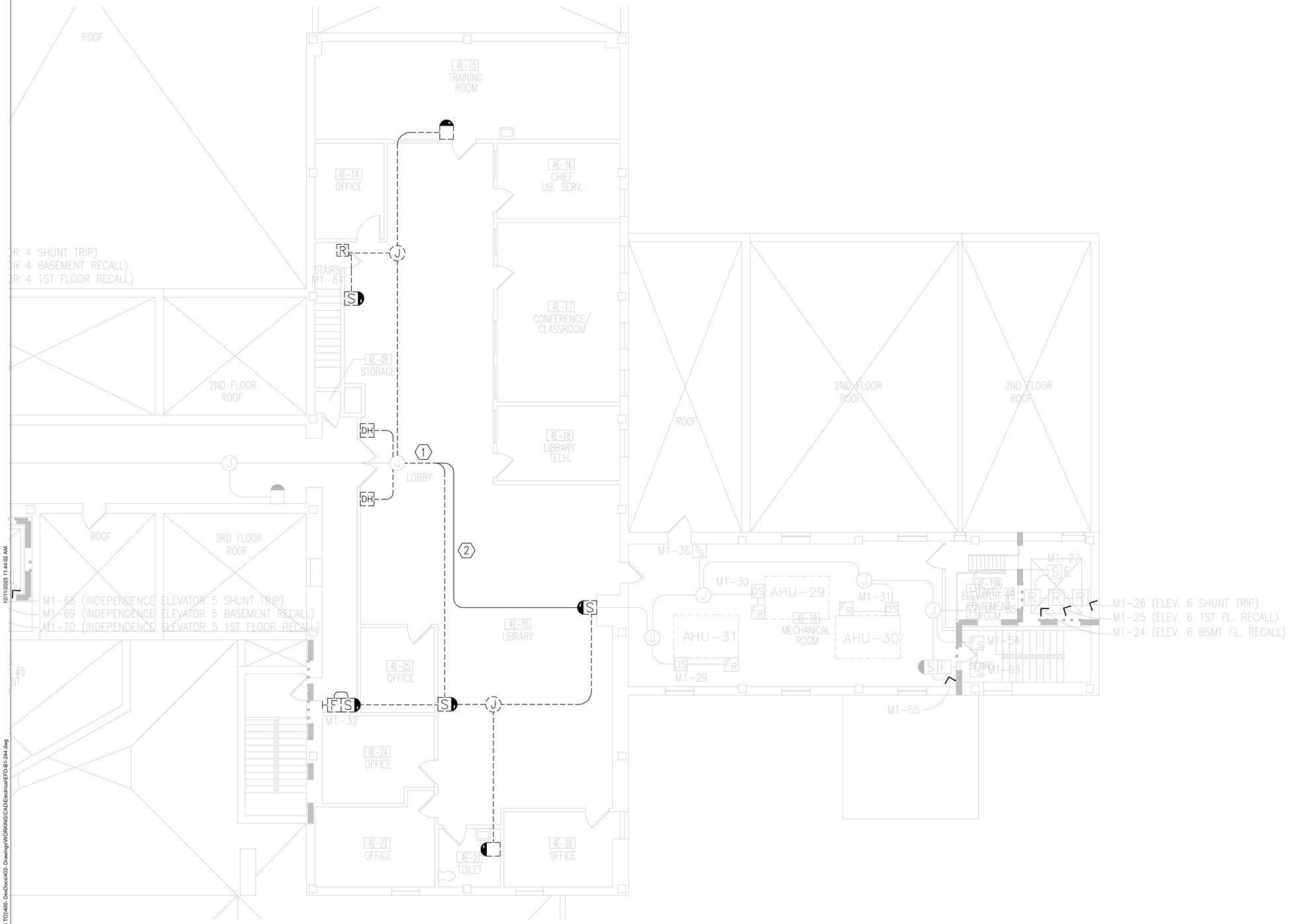
Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 46

Drawing Number: EP-B46-403



NORTH

1 FIRE ALARM - BUILDING 1 - FOURTH FLOOR FIRE ALARM PLAN

3/16"=1'-0"

0 2" 4" 8" 12"

FIRE ALARM GENERAL NOTES

A. CERTIFIED FIRE PROTECTION CONTRACTOR TO PERFORM THIS WORK.

NOTE: DURING CONSTRUCTION, THE FIRE ALARM SYSTEM EAST OF THE DATA CENTER NEEDS TO REMAIN OPERATIONAL. A JUMPER NEEDS TO BE INSTALLED TO MAINTAIN OPERABILITY OF FIRE ALARM EAST OF DATA CENTER, PRIOR TO PERFORMING ANY DEMOLITION.

B. CONTRACTOR TO TEST THIS PORTION OF THE SYSTEM TO VERIFY EVERYTHING IS OPERABLE.

C. COORDINATE WITH COR IF FIRE WATCH IS REQUIRED DURING CONSTRUCTION. **ALTERNATELY, CONTRACTOR MAY INSTALL TEMPORARY SMOKE DETECTORS IN CONSTRUCTION AREA IF VA PROVIDES APPROVAL.**

D. CONTRACTOR TO CONTACT VA SECURITY / OPERATIONS WHENEVER THE FIRE ALARM SYSTEM IS TAKEN DOWN.

E. TEST FIRE ALARM SYSTEM AFTER "JUMPER" HAS BEEN INSTALLED TO MAINTAIN OPERABILITY OF FIRE ALARM EAST OF DATA CENTER.

F. REMOVE FIRE ALARM / FIRE DETECTION COMPONENTS IN PROJECT AREA.

X FIRE ALARM KEY NOTES

1. INSTALL JUNCTION BOX ON EXISTING FIRE ALARM CONDUIT TO SERVE TWO PURPOSES:
   a. INSTALL A "JUMPER" ACROSS CONSTRUCTION AREA TO MAINTAIN OPERABILITY OF FIRE ALARM EAST OF DATA CENTER.
   b. UTILIZE THIS SAME JUNCTION BOX TO CONNECT NEW FIRE ALARM COMPONENTS IN THE DATA CENTER PROJECT.
2. INSTALL NEW CONDUIT AND WIRING TO MAINTAIN OPERABILITY OF FIRE ALARM EAST OF DATA CENTER.

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - FIRE ALARM DEMOLITION PLAN

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

ISSUE FOR BID - 01/16/2024

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 1

Drawing Number: EFD-B1-244

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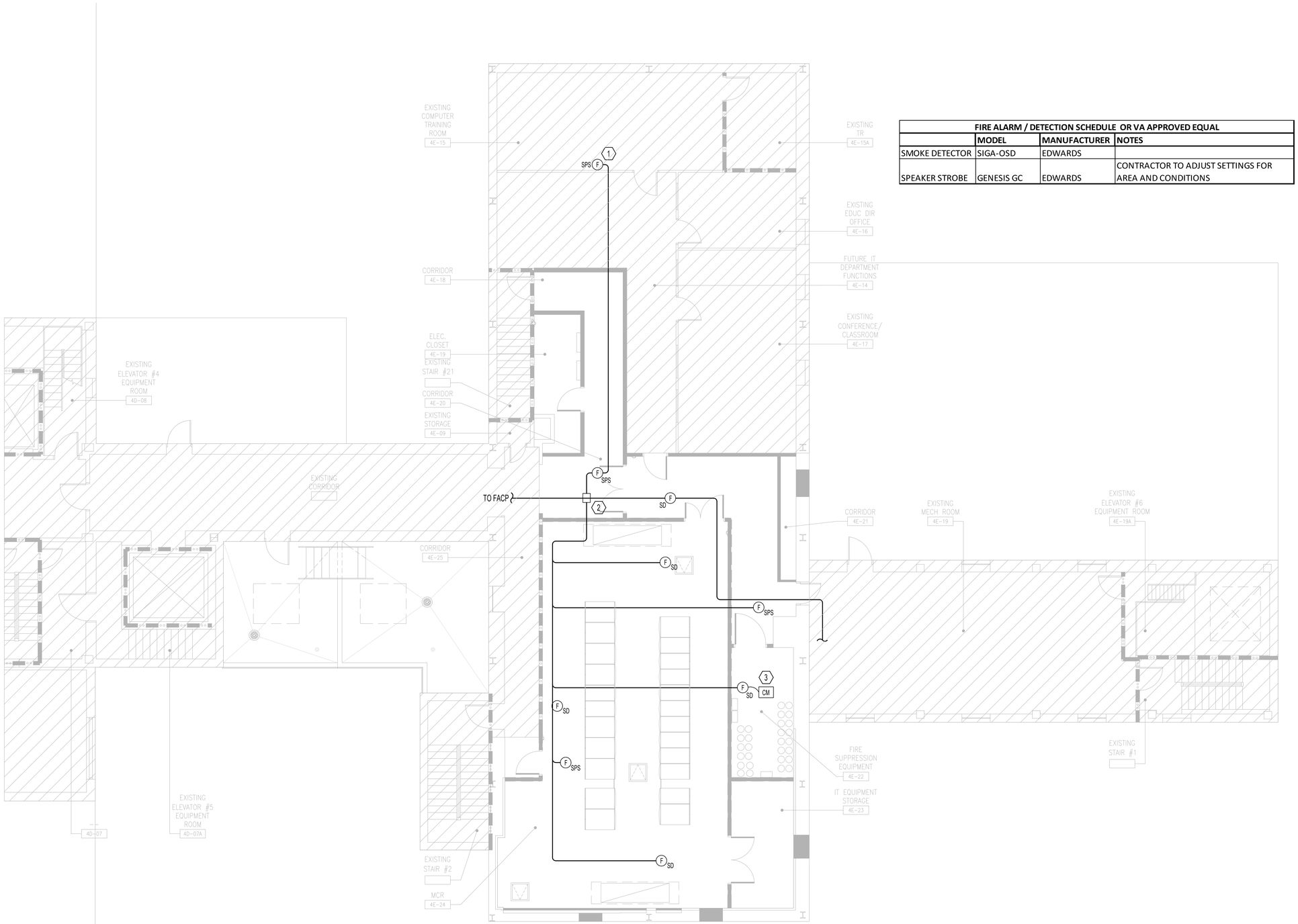


NORTH

1 ELECTRICAL - BUILDING 1 - FOURTH FLOOR FIRE ALARM PLAN - DATA CENTER

3/16"=1'-0"

FIRE ALARM / DETECTION SCHEDULE OR VA APPROVED EQUAL			
	MODEL	MANUFACTURER	NOTES
SMOKE DETECTOR	SIGA-OSD	EDWARDS	
SPEAKER STROBE	GENESIS GC	EDWARDS	CONTRACTOR TO ADJUST SETTINGS FOR AREA AND CONDITIONS

ELECTRICAL GENERAL NOTES

A. CERTIFIED FIRE PROTECTION CONTRACTOR TO PERFORM THIS WORK.

B. DURING CONSTRUCTION, THE FIRE ALARM SYSTEM EAST OF THE DATA CENTER NEEDS TO REMAIN OPERATIONAL.

C. CONTRACTOR TO CONTACT VA SECURITY / OPERATIONS WHENEVER THE FIRE ALARM SYSTEM IS TAKEN DOWN.

D. COORDINATE WITH COR IF FIRE WATCH IS REQUIRED DURING CONSTRUCTION.

E. CONTRACTOR TO TEST SYSTEM AFTER ADDITION OF NEW COMPONENTS.

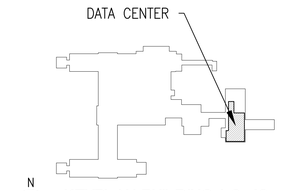
(X) ELECTRICAL KEY NOTES

1. RECONNECT SPEAKER STROBE IN ROOM 4E-15 THAT WAS DISCONNECTED DURING CONSTRUCTION.
2. CONNECT NEW FIRE ALARM COMPONENTS TO JUNCTION BOX, OR WHERE CERTIFIED FIRE PROTECTION CONTRACTO DETERMINES.
3. CONNECT TO INERGEN GAS SYSTEM IN ROOM 4E-22.

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)



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KEYPLAN BUILDING 1-9-46

NTS

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-1 - FOURTH FLOOR FIRE ALARM PLAN - DATA CENTER

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 1

Drawing Number: EF-B1-244

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ELECTRICAL GENERAL NOTES

A. CONTACT VA IT PRIOR TO WORKING IN DATA CENTER OR IT CLOSET.

B. ALL RACKS ARE IN OPERATION ON UPS POWER. REMAINING WORK IS TO INSTALL EMERGENCY POWER ABOVE EACH RACK.

C. USE PRECAUTIONS TO AVOID SNAGGING, WIRING OR DAMAGING EQUIPMENT.

D. PROTECT IT EQUIPMENT FROM DUST DURING WORK THAT CREATES DUST.

E. SEE PANEL SCHEDULES ON DRAWING SERIES E600 FOR EMERGENCY POWER (EM) PANEL SCHEDULES AND EM CIRCUIT NUMBERS. CABLE LENGTHS ARE FOR INFORMATION ONLY. CONTRACTOR TO DETERMINE CORRECT LENGTHS BASED ON FIELD CONDITIONS.

F. SEE DRAWING SERIES E700 FOR SINGLE LINE DRAWINGS.

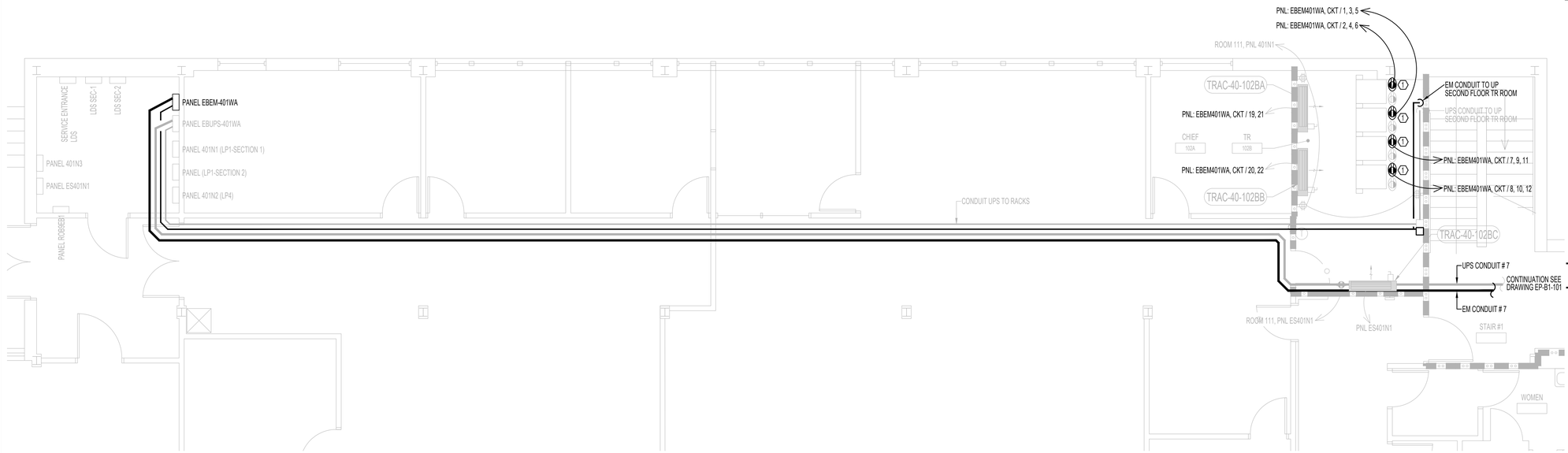
G. EM POWER TO RACKS / CABINETS IN NEW TR's MUST BE PROVIDED TO THE TOP OF THE RACKS / CABINETS. NO POWER WIRING ON FLOORS!

H. RECEPTACLES ABOVE RACKS MUST BE NEMA L21-20R, LOCKING RECEPTACLES.

I. PANEL CIRCUIT NUMBERS ARE SUGGESTIONS, CONTRACTOR TO SELECT BREAKERS AND CIRCUIT NUMBERS BASED ON FIELD CONDITIONS AT TIME OF INSTALLATION.

(X) ELECTRICAL KEY NOTES

1. EMERGENCY POWER TO RACK.



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1 ELECTRICAL - ENLARGED POWER PLAN BLDG-40 RM 102B

1/4"=1'-0"

0 1' 2' 4' 8'

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)

N

KEY PLAN

ISSUE FOR BID - 01/16/2024

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Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-40 - ENLARGED POWER PLAN - FIRST FLOOR

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 40

Drawing Number: EP-B40-101

12/18/2023 8:46:13 PM

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ELECTRICAL GENERAL NOTES

A. CONTACT VA IT PRIOR TO WORKING IN DATA CENTER OR IT CLOSET.

B. ALL RACKS ARE IN OPERATION ON UPS POWER. REMAINING WORK IS TO INSTALL EMERGENCY POWER ABOVE EACH RACK.

C. USE PRECAUTIONS TO AVOID SNAGGING, WIRING OR DAMAGING EQUIPMENT.

D. PROTECT IT EQUIPMENT FROM DUST DURING WORK THAT CREATES DUST.

E. SEE PANEL SCHEDULES ON DRAWING SERIES E600 FOR EMERGENCY POWER (EM) PANEL SCHEDULES AND EM CIRCUIT NUMBERS. CABLE LENGTHS ARE FOR INFORMATION ONLY. CONTRACTOR TO DETERMINE CORRECT LENGTHS BASED ON FIELD CONDITIONS.

F. SEE DRAWING SERIES E700 FOR SINGLE LINE DRAWINGS.

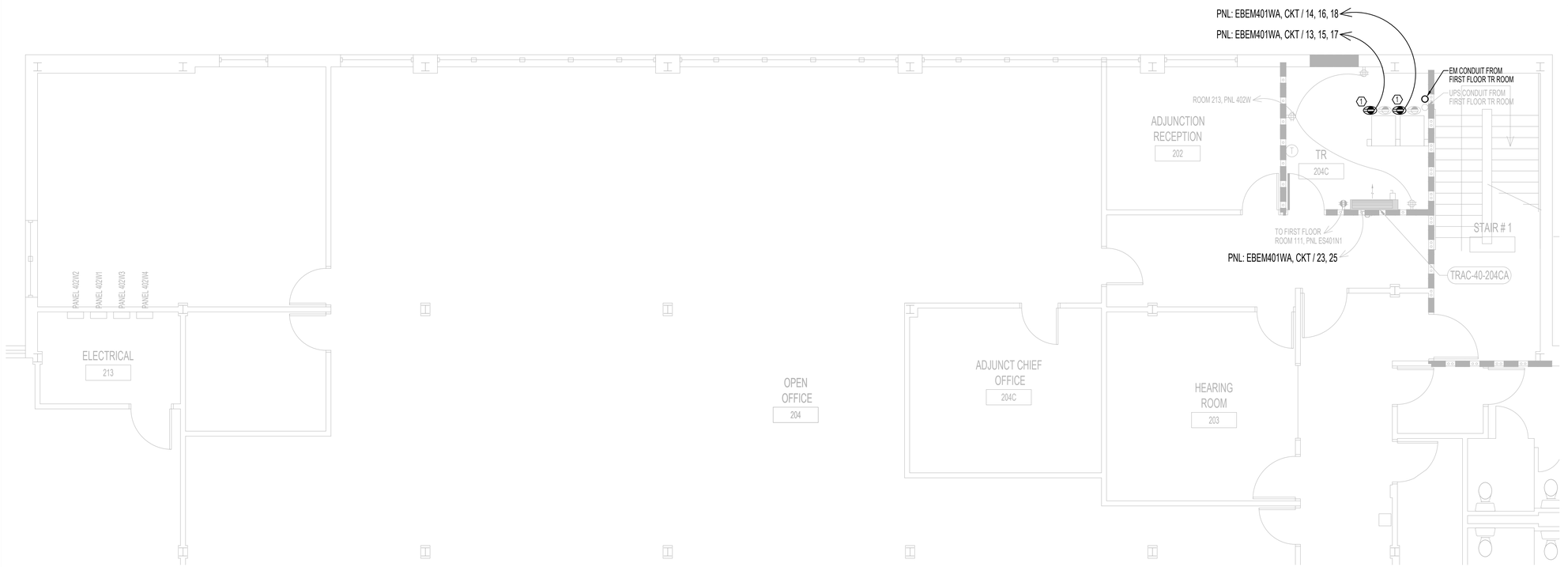
G. EM POWER TO RACKS / CABINETS IN NEW TR's MUST BE PROVIDED TO THE TOP OF THE RACKS / CABINETS. NO POWER WIRING ON FLOORS!

H. RECEPTACLES ABOVE RACKS MUST BE NEMA L21-20R, LOCKING RECEPTACLES.

I. PANEL CIRCUIT NUMBERS ARE SUGGESTIONS, CONTRACTOR TO SELECT BREAKERS AND CIRCUIT NUMBERS BASED ON FIELD CONDITIONS AT TIME OF INSTALLATION.

⟨X⟩ ELECTRICAL KEY NOTES

1. EMERGENCY POWER TO RACK.



N

1 ELECTRICAL - ENLARGED POWER PLAN RM 204C

1/4"=1'-0"

RATED WALL LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.

- 1 HR FIRE BARRIER
- 1 HR FIRE BARRIER (EXISTING)
- 2 HR FIRE BARRIER
- 2 HR FIRE BARRIER (EXISTING)
- SMOKE BARRIER
- SMOKE BARRIER (EXISTING)

N

KEY PLAN

ISSUE FOR BID - 01/16/2024

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1/16/24
STATE OF ILLINOIS

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - BLDG-40 - ENLARGED POWER PLAN - SECOND FLOOR

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: 40

Drawing Number: EP-B40-102

VA FORM 08 - 6231

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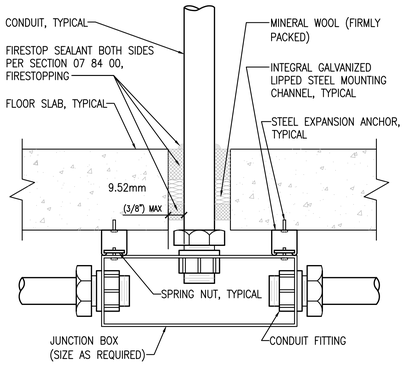
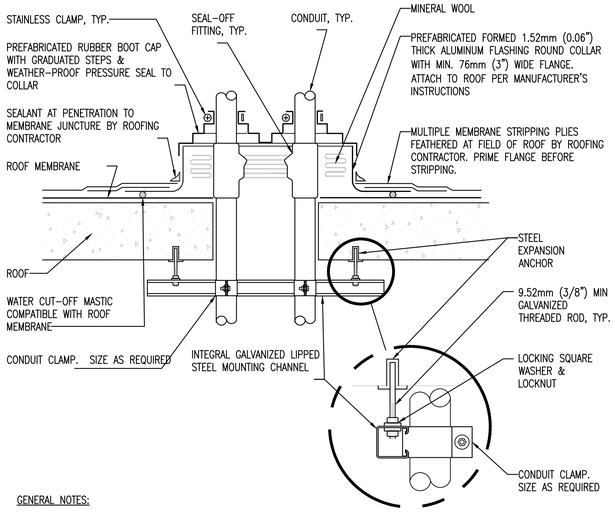


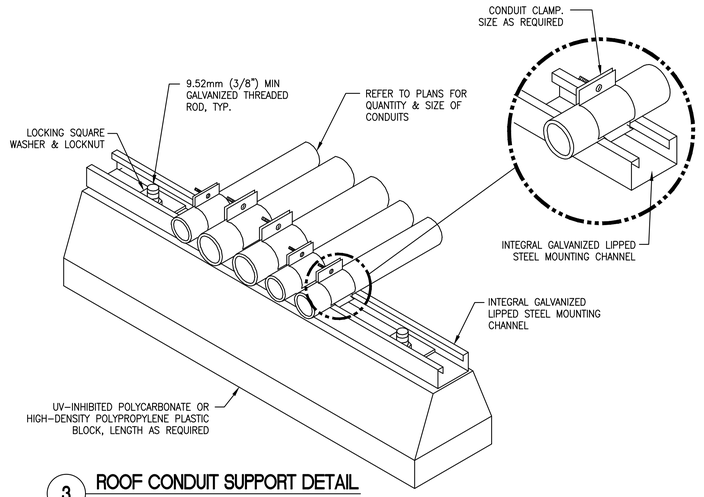
1 FLOOR SLAB PENETRATION DETAIL
NTS



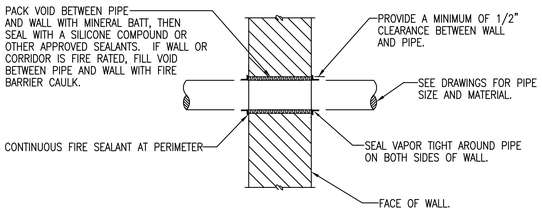
GENERAL NOTES:

1. MAINTAIN A MINIMUM CLEARANCE OF 305mm (12") ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

2 CONDUIT ROOF PENETRATION DETAIL
NTS



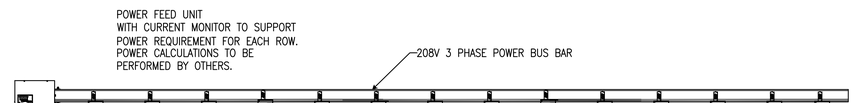
3 ROOF CONDUIT SUPPORT DETAIL
NTS



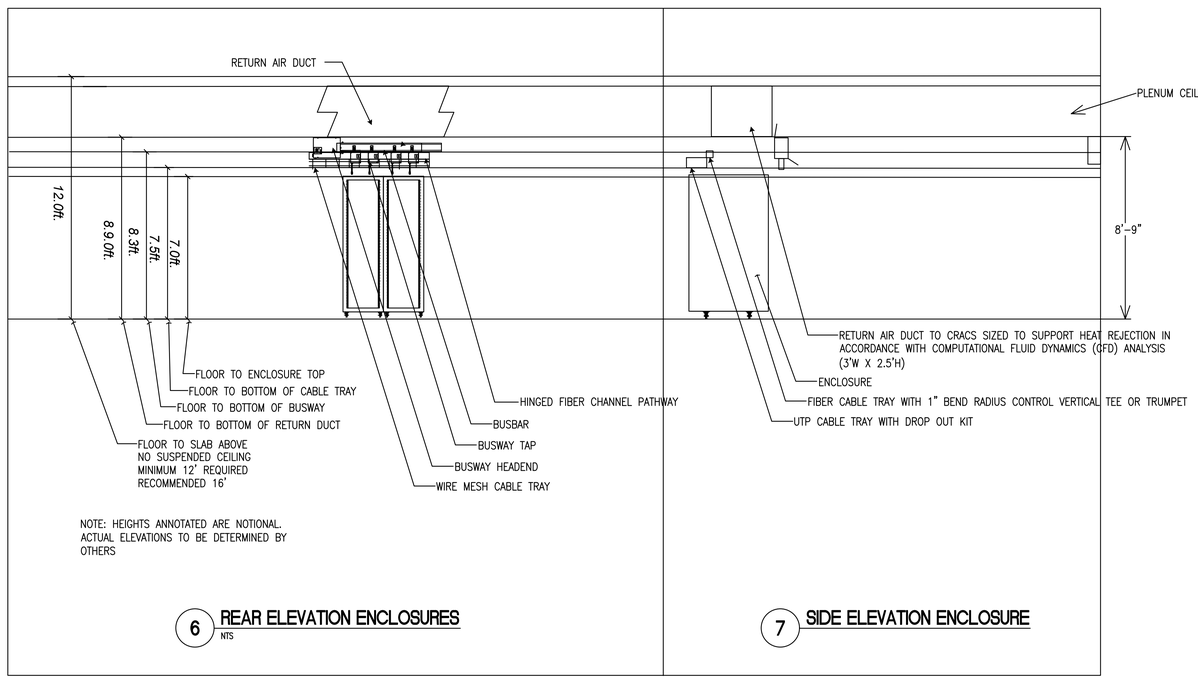
NOTES:

1. I.D. OF WALL OPENING TO BE A MIN. OF 1/2" LARGER THAN O.D. OF PIPE OR INSULATION PASSING THROUGH WALL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR WALL OPENINGS WITH OTHER TRADES AND/OR CONTRACTORS.
3. PIPE PENETRATIONS OF SMOKE OR FIRE WALLS SHALL BE IN COMPLIANCE WITH NFPA-90A.

4 PIPE PENETRATION OF WALL DETAIL
NTS



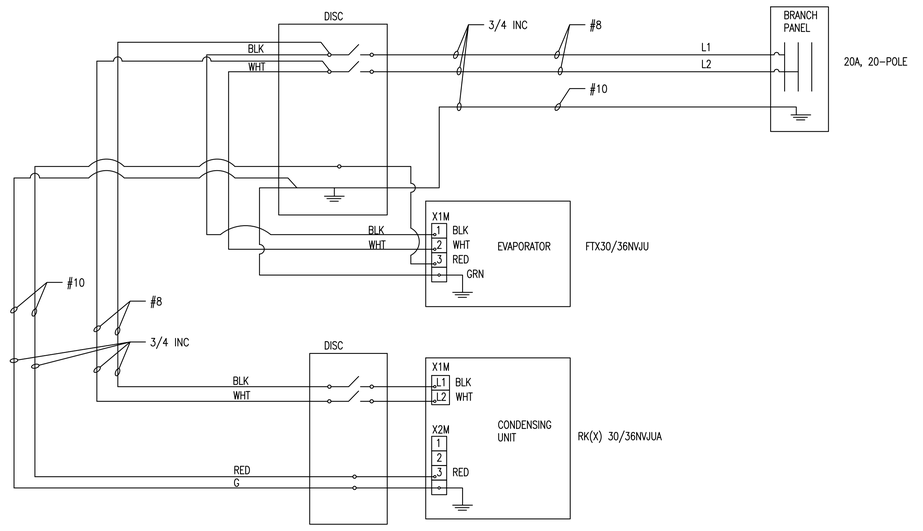
5 TYPICAL POWER BUSWAY COMPONENTS
NTS



NOTE: HEIGHTS ANNOTATED ARE NOTIONAL. ACTUAL ELEVATIONS TO BE DETERMINED BY OTHERS

6 REAR ELEVATION ENCLOSURES
NTS

7 SIDE ELEVATION ENCLOSURE



8 EVAPORATOR / CONDENSING UNIT WIRING DIAGRAM
NTS

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Bancroft Project No: 22-113

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - DETAILS	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Building Number: -
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	Drawing Number: E501

K:\CCG_PROJECTS\200\2322-113_437-21-210_Fargo, ND_EHRM Tier 2 (VISN 23 TO)\400- DesDocs\402- Drawings\WORKING\CAD\Electrical\E501.dwg
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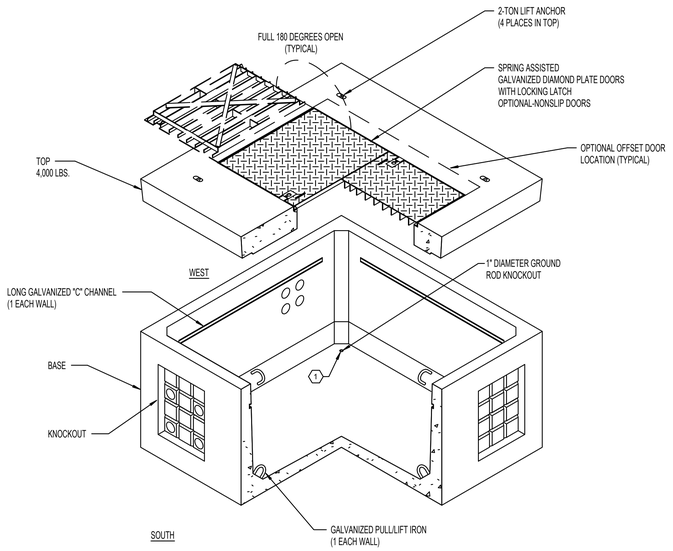
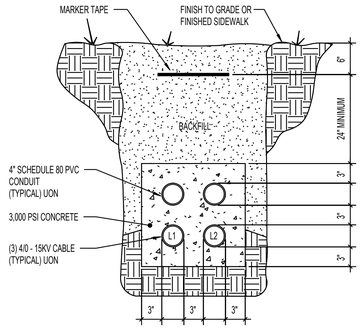
VA FORM 08 - 6231

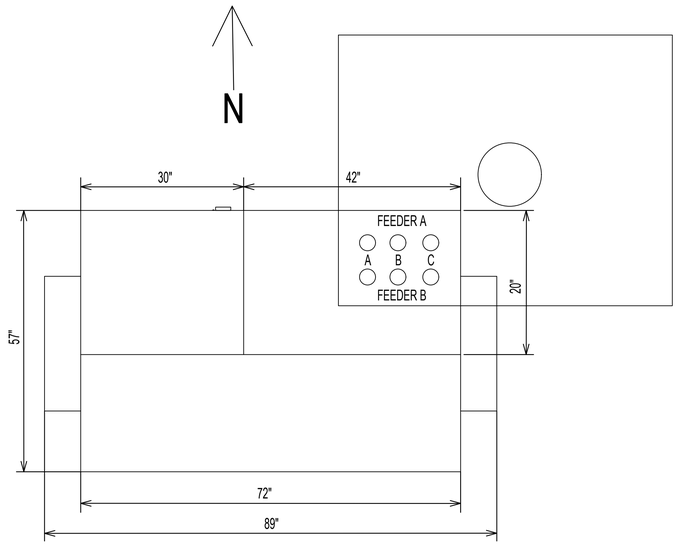


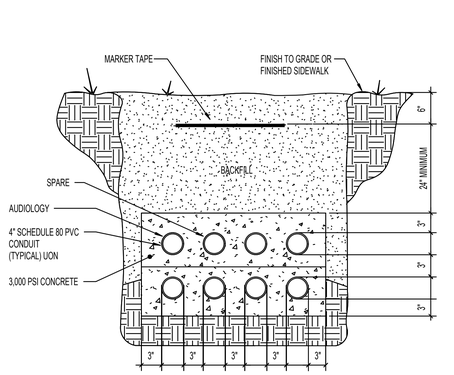
1 VAULT
NTS



GENERAL NOTES:
1. USE THIS DETAIL FOR DUCTBANKS NOT LOCATED UNDER PAVED AREAS OF PARKING LOTS.
2. MINIMUM COVER TO TOP OF ENVELOPE SHALL BE 24" OR AS OTHERWISE SPECIFIED IN SECTION 26 05 41.
3. PROVIDE PULLSTRINGS IN ALL UNDERGROUND CONDUIT FOR FUTURE CABLE PULLS.

2 CONCRETE ENCASED 4.16 KV DUCTBANK
NTS





GENERAL NOTES:
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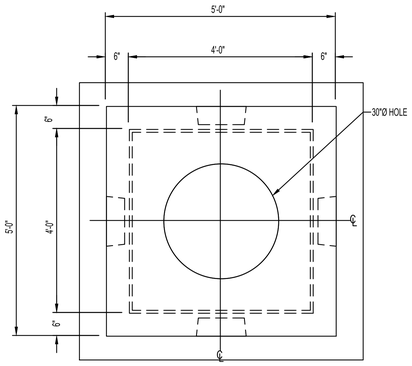
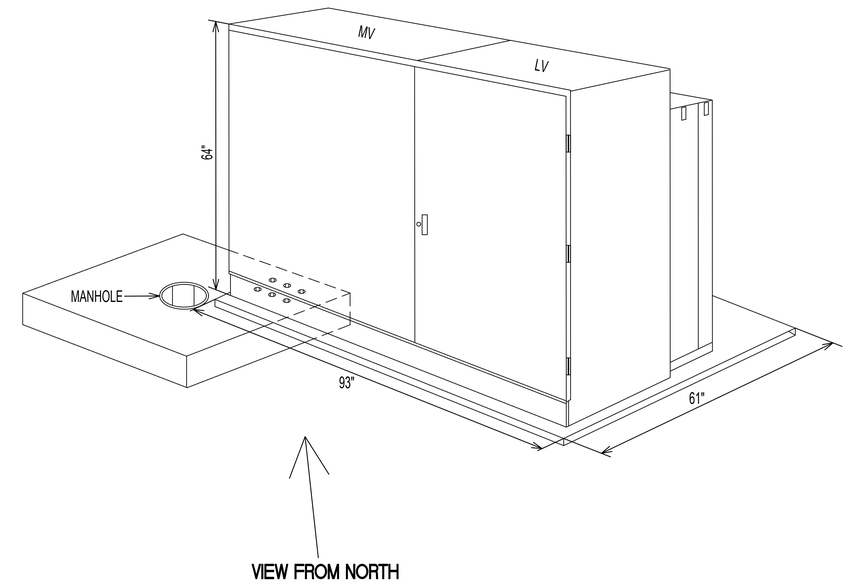
2. MINIMUM COVER TO TOP OF ENVELOPE SHALL BE 24" OR AS OTHERWISE SPECIFIED IN SECTION 26 05 41.
3. PROVIDE PULLSTRINGS IN ALL UNDERGROUND CONDUIT FOR FUTURE CABLE PULLS.

3 CONCRETE ENCASED 208V DUCTBANK
NTS



4 480V PULL BOX
NTS



VIEW FROM NORTH

5 TRANSFORMER AND PAD OVER ELECTRIC VAULT DETAILS
NTS

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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1/16/24
STATE OF ILLINOIS

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - DETAILS

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: -

Drawing Number: E502

VA FORM 08 - 6231

FARGO MCR ELECTRICAL LOAD SCENARIOS 10% Schematic Design

	NORMAL OPERATION ON UTILITY				ON EMERGENCY, UTILITY FAILED NON UPS LOADS SEE 10 SEC. POWER LOSS				UPS A FAILED OR IN MAINTENANCE NO DISRUPTION TO POWER				UPS B FAILED OR IN MAINTENANCE NO DISRUPTION TO POWER			
	MONOLITHIC UPS A	UPS B	PANEL PP-EM	PANEL PP 2-EM	MONOLITHIC UPS A	UPS B	PANEL PP-EM	PANEL PP 2-EM	MONOLITHIC UPS A	UPS B	PANEL PP-EM	PANEL PP 2-EM	MONOLITHIC UPS A	UPS B	PANEL PP-EM	PANEL PP 2-EM
MCR CABINETS ROWS A & B	40,000	40,000			40,000	40,000				80,000			80,000			
MCR SERV. ENT A	2,500		2,500		2,500		2,500				5,000		2,500		2,500	
BASEMENT TR'S	16,250		16,250		16,250		16,250				32,500		16,250		16,250	
1ST FLOOR TR'S	22,500		22,500		22,500		22,500				45,000		22,500		22,500	
2ND FLOOR TR'S	21,250		21,250		21,250		21,250				42,500		21,250		21,250	
3RD FLOOR TR'S	11,250		11,250		11,250		11,250				22,500		11,250		11,250	
4TH FLOOR TR'S	7,500		7,500		7,500		7,500				15,000		7,500		7,500	
PENTHOUSE TR'S	7,500		7,500		7,500		7,500				15,000		7,500		7,500	
BLDG 40 TR'S	8,750		8,750		8,750		8,750				17,500		8,750		8,750	
BLDG 40 SERV. ENT B	2,500		2,500		2,500		2,500				5,000		2,500		2,500	
EQUIPMENT & LIGHTS				174,320				174,320				174,320				174,320
	140,000	40,000	100,000	174,320	140,000	40,000	100,000	174,320	0	80,000	200,000	174,320	180,000	0	100,000	174,320
TOTAL POWER TO MCR				454,320 VA				454,320 VA				454,320 VA				454,320 VA

NOTE: ALL POWER IS 208/120V

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VA FORM 08 - 6231

ISSUE FOR BID	01-16-24
Revisions:	Date:

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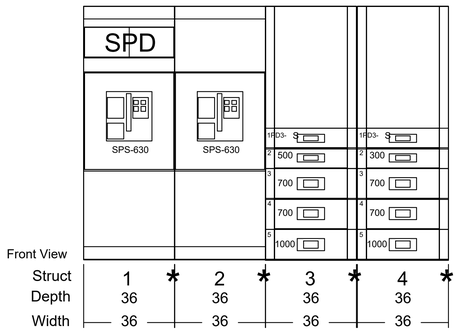
1/16/24

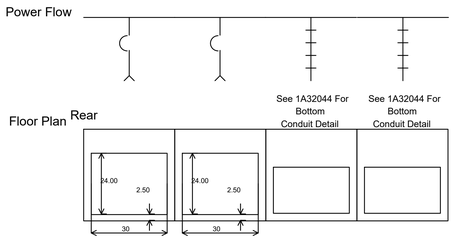
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

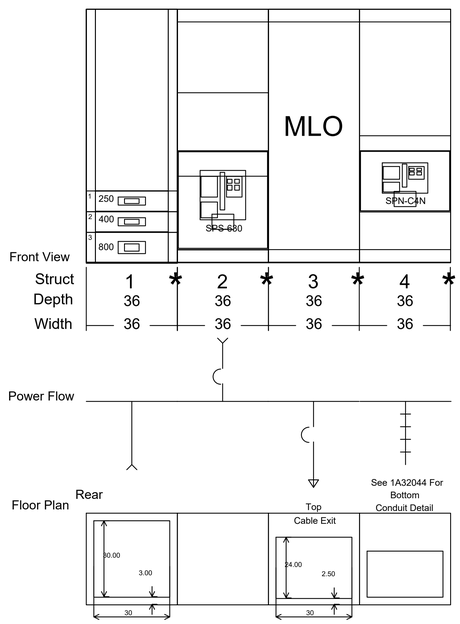
ISSUE FOR BID - 01/16/2024

Drawing Title: ELECTRICAL - UPS EM POWER FAILOVER SCENARIOS	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Building Number: -
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	Drawing Number: EP500





1SWBD EQ MCR



1SWBD EM GEN

Switchboard EQ MCR General Information

Pow-R-Line Xpert -Specifications
Quantity: 1
Alignment: Front Access/ Front and Rear Align
Service: 480Y/277V 3-Phase 4-Wire — **Minimum Interrupt Rating: 65 kA**

Bus Specifications
Bus Amps: 3000 — **Bus Bracing Rating: 65kA**
Neutral Amps: 3000
Bus Material: Copper — **Heat Test**
Ground Bus Material: Copper Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming Information
Incoming Qty & Size: Terminals, Mechanical, (8) #4-500 kcmil Bottom and Top

Structure Specifications
Non Service Entrance
Enclosure Type: Type 1

Special Notes

Qty	Description	Catalog Number
1	Automatic Transfer Controller; ATC-900 -	Catalog Number CN63

Enclosure properties

Struct #	Description/Modifications
1	Bottom incoming main device (Incoming Main Device/MLO Section)
2	Top incoming main device (Incoming Main Device/MLO Section)
3	50x chassis mounted feeders (Feeder Structure)
4	50x chassis mounted feeders (Feeder Structure)

Switchboard EQ MCR BLDG-1 EATON OR VA APPROVED EQUAL

Str#	Unit	Description/Modifications	Nameplate
1		BOTTOM FEED FROM TRANSFORMER - Main Breaker -Ind Mtd-3000A 3P Power Defense SB Brkr SPS-630 [Fixed-Electric], Trip(Ir) 3000A., PXR25 LSIG w/ARMS and Modbus RTU, 100 % rated ARMS Operation -Local using breaker interface Terminals, Mechanical, (8) #4-500 kcmil, Bottom Shunt Trip: 100-127Vac/Vdc Auxiliary Switch: 4 Form C Control switch w/ indicating lights for electrically operated breaker Mech OC Trip Indicator (1A/1B Contact) Neutral Terminal, (8) #4-500 kcmil PXM3000 Meter, 3000 Amp CTs, Comm. Exp Card, with Display SPD Series 250kA SPD, Standard w/ Surge Counter, w/ Fusible Disconnect	
2		TOP FEED FROM GENERATOR SWBD - Main Breaker -Ind Mtd-3000A 3P Power Defense SB Brkr SPS-630 [Fixed-Electric], Trip(Ir) 3000A., PXR25 LSIG w/ARMS and Modbus RTU, 100 % rated ARMS Operation -Local using breaker interface Terminals, Mechanical, (8) #4-500 kcmil, Bottom Shunt Trip: 100-127Vac/Vdc Auxiliary Switch: 4 Form C Control switch w/ indicating lights for electrically operated breaker Mech OC Trip Indicator (1A/1B Contact) Neutral Terminal, (8) #4-500 kcmil	
3	1	Feeder Breaker -Chassis Mtd-3P Frame 3 Space	
	2	Feeder Breaker -Chassis Mtd-500A, 3P PDG33G Breaker [600A Frame], Trip(Ir) 500A., PXR20 LSI, None , Trip Unit Sensor Rating(In): 600A Terminals, Mechanical, (2) #2-500 kcmil, Top Neutral Terminal, (2) #4-500 kcmil	
	3	Feeder Breaker -Chassis Mtd-700A, 3P PDG43G Breaker [800A Frame], Trip(Ir) 700A., PXR20 LSI, None , Trip Unit Sensor Rating(In): 800A Terminals, Mechanical, (2) 500-750 kcmil, Top Neutral Terminal, (2) 3/0-750 kcmil	
	4	Feeder Breaker -Chassis Mtd-700A, 3P PDG43G Breaker [800A Frame], Trip(Ir) 700A., PXR20 LSI, None , Trip Unit Sensor Rating(In): 800A Terminals, Mechanical, (2) 500-750 kcmil, Top Neutral Terminal, (2) 3/0-750 kcmil	
	5	Feeder Breaker -Chassis Mtd-1000A, 3P PDG53M Breaker, [1200A Frame], Trip(Ir) 1000A., PXR20 LSI w/ ARMS, None , Trip Unit Sensor Rating(In): 1200A Terminals, Mechanical, (4) 4/0-500 kcmil, Top Neutral Terminal, (4) #4-500 kcmil	
4	1	Feeder Breaker -Chassis Mtd-3P Frame 3 Space	
	2	Feeder Breaker -Chassis Mtd-300A, 3P PDG33G Breaker [400A Frame], Trip(Ir) 300A., PXR20 LSI, None , Trip Unit Sensor Rating(In): 400A Terminals, Mechanical, (1) 2/0-500 kcmil, Top Neutral Terminal, (1) #4-500 kcmil	
	3	Feeder Breaker -Chassis Mtd-700A, 3P PDG43G Breaker [800A Frame], Trip(Ir) 700A., PXR20 LSI, None , Trip Unit Sensor Rating(In): 800A Terminals, Mechanical, (2) 500-750 kcmil, Top Neutral Terminal, (2) 3/0-750 kcmil	
	4	Feeder Breaker -Chassis Mtd-700A, 3P PDG43G Breaker [800A Frame], Trip(Ir) 700A., PXR20 LSI, None , Trip Unit Sensor Rating(In): 800A Terminals, Mechanical, (2) 500-750 kcmil, Top Neutral Terminal, (2) 3/0-750 kcmil	
	5	SPACE	

ELECTRICAL GENERAL NOTES

A. WHEN ORDERING SWITCHBOARDS PROVIDE SINGLE LINE DRAWING, WIRING DRAWING AND PLAN DRAWING TO MANUFACTURER. MANUFACTURER NEEDA TO KNOW HOW THE SWITCHBOARD STRUCTURES ARE SPLIT AND HOW THE CABLING WILL ENTER THE SWITCHBOARD STRUCTURES.

B. WHEN ORDERING UPS'S ALSO PROVIDE DRAWING E708 TO MANUFACTURER TO IDENTIFY PROPER BREAKERS IN THE UPS DISTRIBUTION PANELS.

Switchboard EM GEN General Information

Pow-R-Line Xpert -Specifications
Quantity: 1
Alignment: Front Access/ Front and Rear Align
Service: 480Y/277V 3-Phase 4-Wire — **Minimum Interrupt Rating: 65 kA**

Bus Specifications
Bus Amps: 4000 — **Bus Bracing Rating: 65kA**
Neutral Amps: 4000
Bus Material: Copper — **Heat Test**
Ground Bus Material: Copper Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming Information
Incoming Qty & Size: Terminals, Mechanical, Top (11) #4-500 kcmil,

Structure Specifications
Non Service Entrance
Enclosure Type: Type 1

Switchboard EM GEN BLDG-1 EATON OR VA APPROVED EQUAL

Str#	Unit	Description/Modifications	Nameplate
1			
	1	Feeder Breaker ATS-LS BLDG-1 - Chassis Mtd-250A, 3P PDG33M Breaker [400A Frame], Trip(Ir) 250A., Thermal Mag Terminals, Mechanical, (1) 2/0-500 kcmil, Top Neutral Terminal, (1) #4-500 kcmil	
	2	Feeder Breaker ATS-CR BLDG-1 -Chassis Mtd-400A, 3P PDG33M Breaker [400A Frame], Trip(Ir) 400A., Thermal Mag Terminals, Mechanical, (1) 2/0-500 kcmil, Top Neutral Terminal, (1) #4-500 kcmil	
	3	Feeder Breaker ATS-EQ BLDG-1 -Chassis Mtd-800A, 3P PDG53M Breaker, [800A Frame], Trip(Ir) 800A., PXR20 LSI, None , Trip Unit Sensor Rating(In): 800A Terminals, Mechanical, (4) 4/0-500 kcmil, Top Neutral Terminal, (4) #4-500 kcmil	
2		Roll up Breaker - Ind Mtd-4000A 3P Power Defense SB Brkr SPN-C4N [Fixed-Manual], Trip(Ir) 4000A., PXR25 LSI w/ARMS and Modbus RTU, 100 % rated ARMS Operation -Local using breaker interface Terminals, Mechanical, (11) #4-500 kcmil, Top Auxiliary Switch: 4 Form C	
3		Incoming Lugs from Generator	
4		Feeder Breaker SWBD EQ MCR BLDG-1 - Ind Mtd-3000A 3P Power Defense SB Brkr SPS-630 [Fixed-Manual], Trip(Ir) 3000A., PXR25 LSI w/ARMS and Modbus RTU, 100 % rated ARMS Operation -Local using breaker interface Terminals, Mechanical, (8) #4-500 kcmil, Top Auxiliary Switch: 4 Form C Neutral Terminal, (8) #4-500 kcmil	

ISSUE FOR BID - 01/16/2024

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Revisions:	Date:

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STATE OF ILLINOIS

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - EQ MCR AND EM GEN SWITCHBOARD SCHEDULES

Phase: ISSUE FOR BID

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Project Number: 437-21-210

Building Number: -

Approved: Project Director

BUILDING FULLY SPRINKLERED

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Drawing Number: E601

EATON UPS B SYSTEM SCHEDULE OR VA APPROVED EQUAL

EQUIPMENT TAG	QUANTITY	KW, A	VOLTAGE	EFFICIENCY	UPS BATTERY UPTIME	CAT. NO.	KAISC	BASIS OF DESIGN	NOTES
UPS MODULE B, GC341027X1K1	1	80 KW	208V, 4-W IN 208V, 4-W OUT	99% w ESS	N/A	# 9GK040A025A00R0 93PM UPS 208V, 4 wire in, 208 or 220V 3 or 4 wire out	65kaic	EATON	WITH ENGRAVED OPERATING INSTRUCTIONS
BATTERY CABINET B	1	50 KW HR	452 A DC	N/A	14 MIN.	# 9PZTJBE39020000 93PM IBC-LW Battery Cabinet, Qty 2/2 Cabinets/Strings	N/A	EATON	VRL BATTERY, 14 MIN. INITIAL, AND 10 MIN AT END OF BATTERY LIFE AT 80KW. NOTE THAT REMAINING BATTERIES WILL BE PURCHASED WHEN UPS #2 IS ENERGIZED. NOTE THAT YEAR 2 BATTERIES SHOULD BE ON BATTERY RACK TO FIT IN 2 HR FIRE RATED ROOM.
3 C/B MAINTENANCE BYPASS CABINET B	1	1600A	208V	N/A	N/A	9PZRDB100010000 93PM IAC-B 200kW, 3 Breaker 65kAIC, Key Interlock, Top Air Exhaust	65kaic	EATON	208Y / 120V, 3 PH, 4 W. 2-KEY INTERLOCK BETWEEN MIS/MBP BREAKERS WITH SOLENOID KEY RELEASE UNIT & INDICATOR LAMP, MAKE BEFORE BREAK.
UPS CONTROL BOARD	1	N/A	N/A	N/A	N/A	93PM 208V PREDICTPULSE	N/A	EATON	
UPS MODULE A	1	N/A	N/A	N/A	N/A	N/A N/A	N/A		WITH ENGRAVED OPERATING INSTRUCTIONS

ELECTRICAL EQUIPMENT SCHEDULE OR VA APPROVED EQUAL

EQUIPMENT TAG	QUANTITY	SINGLE LINE DWG	PANEL SCHEDULE	MODEL / TYPE	ELECTRIC CLOSET	VOLTS	AMPS		NEUTRAL	POLES	SHORT CIRCUIT RATING	BASIS OF DESIGN	NOTES
							BUS	MAIN			KAISC		
PNL BUSWAY UPS A (SEE NOTE)	1	E707	E600 SERIES	Pow-R-Line 4B	MCR	208/120V	250	250	200%	18	22	EATON	PURCHASE MAIN BREAKER WITH 120V SHUNT TRIP FROM EPO BUTTON
PNL BUSWAY UPS B (SEE NOTE)	1	E707	E600 SERIES	Pow-R-Line 4B	MCR	208/120V	250	250	200%	18	22	EATON	PURCHASE MAIN BREAKER WITH 120V SHUNT TRIP FROM EPO BUTTON
PP-1-EM	1	E707	E600 SERIES	Pow-R-Line 4B	MCR	208/120V	1,000	1000	200%	60	22	EATON	WITH SURGE PROTECTION
PP-2-EM MCR	1	E707	E600 SERIES	Pow-R-Line 4B	EM GEN ROOM	208/120V	750	750	100%	60	22	EATON	
PP-3-EM MCR	1	E707	E600 SERIES	Pow-R-Line 4B	MCR	208/120V	500	500	100%	42	22	EATON	
PP-EL-MCR	1	E707	E600 SERIES	Pow-R-Line 1a	MCR	208/120V	100	100	100%	42	22	EATON	LIGHTING AND RECEPTACLES
BASEMENT EM	1	E707	E600 SERIES	Pow-R-Line 1a		208/120V	150	150	200%	42	22	EATON	BSMNT TR'S & (2) DEMARKS
EBEM461NA	1	E707	E600 SERIES	Pow-R-Line 1a	1B-121	208/120V	150	150	200%	42	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
EBEM011CB	1	E707	E600 SERIES	Pow-R-Line 1a	1D-01	208/120V	150	150	200%	42	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
EBEM092NA	1	E707	E600 SERIES	Pow-R-Line 1a	2B-32	208/120V	150	150	200%	42	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
EBEM012CB	1	E707	E600 SERIES	Pow-R-Line 1a	2C-91	208/120V	150	150	200%	42	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
EBEM463CA	1	E707	E600 SERIES	Pow-R-Line 1a	3C-38	208/120V	150	150	200%	42	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
EBEM014CA	1	E707	E600 SERIES	Pow-R-Line 1a	4D-06	208/120V	250	250	200%	60	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
EBEM095CA	1	E707	E600 SERIES	Pow-R-Line 1a	PENTHOUSE A	208/120V	150	150	200%	42	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
EBEM401WA	1	E707	E600 SERIES	Pow-R-Line 1a	BLDG 40, RM 102B	208/120V	150	150	200%	42	22	EATON	with EZ TRIM DOOR IN DOOR CONSTRUCTION
100A, 3-POLE BRKR	1	E707	N/A	HFD 100AT/100AF	UPS A DIST. PNL	208/120	N/A	100	N/A	3	22	EATON	INSTALL IN UPS A DISTRIBUTION PANEL

EMERGENCY GENERATOR EQUIPMENT SCHEDULE OR VA APPROVED EQUAL

*******FOLLOW VA SPECIFICATION 26-32-13 ENGINE GENERATOR FOR DETAILS ON THIS SCHEDULE******

EQUIPMENT TAG	EQUIPMENT NAME	LOCATION	VOLTAGE	KW	KVA	AMPS	Pf		REMARKS	PROJECT ITEM NO	BASIS OF DESIGN
01-GEN 1	BLDG 1 EM GENERATOR	ROOM EM-97	120/208V	1250	1560	4333	0.8	CAT C32	STANDBY GENERATOR	437-21-210 | 36C26319D0044	CATERPILLAR

MECHANICAL FEATURES / DETAILS	DESIGN	REMARKS	PROJECT ITEM NO	BASIS OF DESIGN
EMMISIONS		EPA Stationary Emergency (Tier 2)		CATERPILLAR
ENGINE POWER (BHP	1,829			
GEN POWER WITH FAN (EKW):	1,250			
COMPRESSION RATIO	14			
RATING LEVEL	STANDBY			
PUMP QUANTITY	1			
FUEL TYPE	DIESEL			
MANIFOLD TYPE	DRY			
GOVERNOR TYPE	ADEM4			
ELECTRONICS TYPE	ADEM4			
IGNITION TYPE	CI			
INJECTOR TYPE	EUI			
REF EXH STACK DIAMETER (IN):	6			
MAX OPERATING ALTITUDE (FT):	5,400			
COMBUSTION:	DIRECT INJECTION			
ENGINE SPEED (RPM):	1,800			
HERTZ:	60			
FAN POWER (HP):	60.3			
ASPIRATION	TA			
AFTERCOOLER TYPE:	ATAAC			
AFTERCOOLER CIRCUIT TYPE:	JW+OC, AC			
INLET MANIFOLD AIR TEMP (F):	120			
JACKET WATER TEMP (F):	210.2			
TURBO CONFIGURATION	PARALLEL			
TURBO QUANTITY	2			
TURBOCHARGER MODEL	GT5733-1.6A/R			
CERTIFICATION YEAR	2017			
PISTON SPD @ RATED ENG SPD (FT/MIN):	1,913.40			

DT-1	DAY TANK	ROOM EM-97	120/208V					STS200	SIMPLEX DRAWING # ACD-00035296, REV E		SIMPLEX
JACKET WATER PUMP	JACKET WATER PUMP	ROOM EM-97	120/208V					CAT	JACKET WATER PUMP FOR C32 ACERT IND/PETROLEUM		CATERPILLAR
JACKET WATER HEATER	JACKET WATER HEATER	ROOM EM-97	120/208V	9		41		CAT	Jacket Water Heater with Pump Diesel Genset: C32	CAT DOC # LEHE1310-02	CATERPILLAR
BTC 20A2	BATTERY CHARGER	ROOM EM-97	110-120V / 24VDC			20		CAT	AC AND DC FUSES, 20A, 60 HZ, 124 DEG F TO 140 DEG F	CAT DOC # LEHE0140-01, 20A	CATERPILLAR
GEN HEATER	GENERATOR SPACE HEATER	ROOM EM-97	120/208V	500W				CAT	FOR 1400 GEN FRAME	CAT DOC # LEHE1268-01	CATERPILLAR

LIGHTING FIXTURE SCHEDULE - BASIS OF DESIGN OR VA APPROVE EQUAL

TYPE	DESCRIPTION	LIGHTING FIXTURE BASIS OF DESIGN MANUFACTURER	CATALOG NUMBER	LAMPS	FIXTURE		MOUNTING	REMARKS
				TYPE	WATTS	VOLTS		
CLX	4' STRIP LIGHT	LITHONIA LIGHTING OR VA APPROVED EQUAL	CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH	LED	46	MVOLT	SURFACE CEILING	
WALL	4' LINEAR LED	LITHONIA LIGHTING OR VA APPROVED EQUAL	FML4W 4ft 5000LM ZT MVOLT 5089 LUMENS	LED	53.4	MVOLT	SURFACE WALL	INSTALL FLUSH AGAINST WALL, TOP OF FIXTURE 10' AFF, nLight DIMMING
TROFFER	2 FT x 4 FT	VOLUMETRIC LED TROFFER	2VTL4 30L ADP MVOLT EZ2 LP835N80 NES7	LED	40	MVOLT	RECESSED	TROFFER HAS INTEGRATED OCCUPANCY SENSOR
EXIT	RED EXIT LIGHT	LITHONIA LIGHTING OR VA APPROVED EQUAL	LQM S W 3 R 120/277 M6	LED	0.62	120/277	CEILING	CONTRACTOR TO SELECT DIRECTIONAL ARROWS FOR EACH LOCATION

GENERAL NOTES:

1. FOR EXACT LOCATIONS OF ALL LIGHTING FIXTURES REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS.
2. LAMP TYPE DESIGNATIONS FOLLOW NEMA DESIGNATION GUIDELINES. VERIFY AND COORDINATE REQUIRED TRIM KITS, MOUNTING.
3. VERIFY AND COORDINATE REQUIRED TRIM KITS, AND MOUNTING.
4. SEE nLight DETAIL FOR POWER AND CONTROL WIRING.
5. LAMPS FOR ALL FIXTURES SHALL HAVE THE SAME COLOR TEMPERATURE PER SPECIFICATIONS.
6. FOLLOW ADDITIONAL GENERAL AND KEY NOTES ON LIGHTING DRAWINGS.

ACCUITY / LITHONIA LIGHT SWITCHES AND SENSORS BASIS OF DESIGN OR VA APPROVED EQUAL

ITEM	DESCRIPTION	FUNCTION	CATALOG NUMBER	NOTES
N/A	SWITCH - S	ON\OFF, WALL POD	nPODMA DX	
N/A	OCCUPANCY SENSOR	CEILING OCCUPANCY SENSOR, HIGH MOUNT	nCM PDT 9 RJB	

EATON COOPER OR VA APPROVED EQUAL

THREE-PHASE PAD-MOUNTED COMPARTMENTAL TYPE TRANSFORMER

Table 1	Product Scope
Type	Three Phase, Degree Celsius Rise, 60 Degree Celsius
Fluid Type	Mineral oil
Size	750 KVA
Primary Voltage	4160 V
Secondary Voltage	208Y/120V
Speciality Design	UL Listed & Labeled and Classified Factory Mutual (FM) Approved
Impedance Voltage	5.75 Ω
Unit Rating (Temperature Rise Winding)	65 Degree Celsius
Dead Front	

STARLINE UPS BUSWAY OR VA APPROVED EQUAL

Item No.	Qty	Product	Description
	56	LV Busway	TOB with (2) L21-20R Receptacles 22kAIC rated breakers Include strain relief

Designation TOB with (2) L21-20R Receptacles

Item No.	Qty	Product	Description
	4	LV Busway	30' 250A 208/120V Busway Run 150% Neutral and housing ground Includes end feed, starter rail, end cap, couplers and all hangers needed to install busway

Designation 30' 250A Busway Run

ISSUE FOR BID	01-16-24
Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

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Bancroft Project No: 22-113

STAMP

LICENSED PROFESSIONAL ENGINEER
WALTER J. GROSZKO
062-039201
1/16/24
STATE OF ILLINOIS

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title: ELECTRICAL - EQUIPMENT, LIGHTING AND UPS SYSTEM SCHEDULES	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
			Building Number: -
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Drawing Number: E602
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	

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VA FORM 08 - 6231

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
BASEMENTEM		FLOOR	EP-1-EM IN MCR	120/208V. 3PH, 4W		

CKT	LOAD DESCRIPTION	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	BD-02 RACK1		1200		E	3		30	3	E		1200		BD-02 RACK2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	BB-92 RACK1		1200		E	3		30	3	E		1200		BB-92 RACK2	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	BB-92 RACK3		1200		E	3	30	30	3	E		1200		BD-84 RACK1	16
17				1200	E					E			1200		18
19		1200			E					E	1200				20
21	BD-84 RACK2		1200		E	3	30	30	3	E		1200		BA-30 RACK1	22
23				1200	E					E			1200		24
25		1200			E					E	1200				26
27	BA-30 RACK2		1200		E	3	30	30	3	E		1200		BA-30 RACK3	28
29				1200	E					E			1200		30
31		1200			E					E	1200				32
33	BC-02 RACK1		1200		E	3	30	30	3	E		1200		BC-02 RACK2	34
35				1200	E					E			1200		36
37		1200			E			30	2	H	1768			TRAC-BA30A	38
39	BC-02 RACK3		1200		E	3	30			H		1768			40
41				1200	E			20	1					SPARE	42
43	TRAC-BA30B	1768			H	2	30								44
45			1768		H			30	3					SPARE	46
47	SPARE					1	20								48
49															50
51	SPACE													SPACE	52
53															54
55															56
57	SPACE													SPACE	58
59															60

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.1	1.00	0.1	LIGHTING	0.1	PH A	19136	
RECEPT (FIRST 10 KW)	0.2	1.00	0.2	RECEPT	0.2	PH B	19136	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.3	PH C	15600	
MOTORS	0.3	1.00	0.3	EQUIP	0.4			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.5	TOTAL	KVA	AMPS
EQUIPMENT	47.2	1.00	47.2			CONNECTED	53.9	149.5
HEATING	7.6	1.00	7.572			DEMAND	55.4	153.7
TOTAL	55.4		55.4			DESIGN		

UND BUS
LATED GROUND BUS
L BUS
L BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM092NA	2B 32	SURFACE	MCR EP-1-EM	120/208V. 3PH, 4W	150A	150A. 3P. M.C.B.

CKT	LOAD DESCRIPTION	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	2A-24 RACK 1		1200		E	3	30	30	3	E		1200		2A-24 RACK 2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	2A-24 RACK 3		1200		E	3	30	30	3	E		1200		2A-24 RACK 4	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	2A-24 RACK 5		1200		E	3	30	30	3	E		1200		2A-24 RACK 6	16
17				1200	E					E			1200		18
19		1200			E					E	1200				20
21	2C-33 RACK 1		1200		E	3	30	30	3	E		1200		2C-33 RACK 2	22
23				1200	E					E			1200		24
25		1200			E			30	2	H	2007			TRAC-2A24A	26
27	2C-33 RACK 3		1200		E	3	30			H		2007			28
29				1200	E			30	2	H			2007	TRAC-2A24B	30
31	SPACE									H	2007				32
33	SPACE													SPACE	34
35	SPACE													SPACE	36
37	SPACE													SPACE	38
39	SPACE													SPACE	40
41	SPACE													SPACE	42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	14814	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	12807	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	12807	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	32.4	1.00	32.4			CONNECTED	40.4	112.2
HEATING	8.0	1.00	8.028			DEMAND	40.4	112.2
TOTAL	40.4		40.4			DESIGN		

GROUND BUS
ISOLATED GROUND BUS
100% NEUTRAL BUS
200% NEUTRAL BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM401WA	ROOM 40 102B	SURFACE	PP-1-EM IN MCR	120/208V. 3PH, 4W	200A	200A. 3P. M.C.B.

CKT	LOAD DESCRIPTION	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	40 102B RACK1		1200		E	3	30	30	3	E		1200		40 102B RACK2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	40 102B RACK3		1200		E	3	30	30	3	E		1200		40 102B RACK4	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	40 204C RACK1		1200		E	3	30	30	3	E		1200		40 204C RACK2	16
17				1200	E					E			1200		18
19	TRAC-40-102BA	1768			H	2	30	30	2	H	1768			TRAC-40-102BB	20
21			1768		H					H		1768			22
23	TRAC-40-204CA			2028	H	2	30							SPACE	24
25		2028			H									SPACE	26
27	SPACE													SPACE	28
29	SPACE													SPACE	30
31	SPACE													SPACE	32
33	SPACE													SPACE	34
35	SPACE													SPACE	36
37	SPACE													SPACE	38
39	SPACE													SPACE	40
41	SPACE													SPACE	42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	12764	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	10736	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	9228	
ORS	0.0	1.00	0.0	EQUIP	0.0			
GEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	21.6	1.00	21.6			CONNECTED	32.7	90.8
HEATING	11.1	1.00	11.128			DEMAND	32.7	90.8
TOTAL	32.7		32.7			DESIGN		

GROUND BUS
ISOLATED GROUND BUS
100% NEUTRAL BUS
200% NEUTRAL BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM461NA		SURFACE	MCR PP-10EM	120/208V. 3PH, 4W	150A	150A. 3P. M.C.B.

CKT	LOAD DESCRIPTION	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	1B-121 RACK 1		1200		E	3	30	30	3	E		1200		1B-121 RACK 2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	1A-54 RACK 1		1200		E	3	30	30	3	E		1200		1A-54 RACK 2	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	1A-54 RACK 3		1200		E	3	30	30	3	E		1200		1A-54 RACK 4	16
17				1200	E					E			1200		18
19		1200			E					E	1200				20
21	1A-54 RACK 5		1200		E	3	30	30	3	E		1200		1A-54 RACK 6	22
23				1200	E					E			1200		24
25	TRAC-1A54A	2028			H	2	30	30	2	H	2028			TRAC-1A54B	26
27			2028		H					H		2028			28
29	BLANK													BLANK	30
31	BLANK													BLANK	32
33	BLANK													BLANK	34
35	BLANK													BLANK	36
37	BLANK													BLANK	38
39	BLANK													BLANK	40
41	BLANK													BLANK	42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	13656	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	13656	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	9600	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	28.8	1.00	28.8			CONNECTED	36.9	102.5
HEATING	8.1	1.00	8.112			DEMAND	36.9	102.5
TOTAL	36.9		36.9			DESIGN		

GROUND BUS
ISOLATED GROUND BUS
100% NEUTRAL BUS
200% NEUTRAL BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM012CB	2C 91	SURFACE	PP-1-EM	120/208V. 3PH, 4W	150A	150A. 3P. M.C.B.

CKT	LOAD DESCRIPTIO	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	2C-90 RACK 1		1200		E	3	30	30	3	E		1200		2C-90 RACK 2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	2C-90 RACK 3		1200		E	3	30	30	3	E		1200		2C-90 RACK 4	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	2D-18 RACK 1		1200		E	3	30	30	3	E		1200		2D-18 RACK 2	16
17				1200	E					E			1200		18
19		1200			E					E	1200				20
21	2D-18 RACK 3		1200		E	3	30	30	3	E		1200		2D-18 RACK 4	22
23				1200	E					E			1200		24
25															26
27	SPARE					3	30	30	3					SPARE	28
29															30
31	SPACE													SPACE	32
33	SPACE													SPACE	34
35	SPACE													SPACE	36
37	SPACE													SPACE	38
39	SPACE													SPACE	40
41	SPACE													SPACE	42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	9600	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	9600	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	9600	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	28.8	1.00	28.8			CONNECTED	28.8	79.9
HEATING	0.0	1.00	0			DEMAND	28.8	79.9
TOTAL	28.8		28.8			DESIGN		

GROUND BUS
ISOLATED GROUND BUS
100% NEUTRAL BUS
200% NEUTRAL BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM014CA		SURFACE	EP-1-EM IN MCR	120/208V. 3PH, 4W	250	250

CKT	LOAD DESCRIPTION	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	4B-23 RACK 1		1200		E	3	30	30	3	E		1200		4B-23 RACK 2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	4B-23 RACK 3		1200		E	3	30	30	3	E		1200		4B-23 RACK 4	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	4E-15A RACK 1		1200		E	3	30	30	3	E		1200		4E-15A RACK 2	16
17				1200	E					E			1200		18
19	TRAC-4B23A	1768			H	2	30			E	1200				20
21			1768		H			30	3	E		1200		4B-23 RACK 4	22
23	TRAC-4B23B			1768	H	2	30			E			1200		24
25		1768			H										26
27	SPACE					1	20	30	3					SPARE	28
29	SPACE					1	20								30
31	SPACE					1	20	20	1					SPACE	32
33	SPACE					1	20	20	1					SPACE	34
35	SPACE					1	20	20	1					SPACE	36
37	SPACE					1	20	20	1					SPACE	38
39	SPACE					1	20	20	1					SPACE	40
41	SPACE					1	20	20	1					SPACE	42
43	SPACE					1	20	20	1					SPACE	44
45	SPACE					1	20	20	1					SPACE	46
47	SPACE					1	20	20	1					SPACE	48
49	SPACE					1	20	20	1					SPACE	50
51	SPACE					1	20	20	1					SPACE	52
53	SPACE					1	20	20	1					SPACE	54
55	SPACE					1	20	20	1					SPACE	56
57	SPACE					1	20	20	1					SPACE	58
59	SPACE					1	20	20	1					SPACE	60

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.1	1.00	0.1	LIGHTING	0.1	PH A	11936	
RECEPT (FIRST 10 KW)	0.2	1.00	0.2	RECEPT	0.2	PH B	10168	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.3	PH C	10168	
MOTORS	0.3	1.00	0.3	EQUIP	0.4			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.5	TOTAL	KVA	AMPS
EQUIPMENT	25.6	1.00	25.6			CONNECTED	32.3	89.6
HEATING	7.6	1.00	7.572			DEMAND	33.8	93.7
TOTAL	33.8		33.8			DESIGN		

JND BUS
ATED GROUND BUS
L BUS
L BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM011CB	1D 01	SURFACE	EP-1-EM IN MCR	120/208V. 3PH, 4W	150A	150A. 3P. M.C.B.

CKT	LOAD DESCRIPTION	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	1C-99 RACK 1		1200		E	3	30	30	3	E		1200		1C-99 RACK 2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	1C-99 RACK 3		1200		E	3	30	30	3	E		1200		1C-99 RACK 4	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	1C-99 RACK 5		1200		E	3	30	30	3	E		1200		1D-158 RACK 1	16
17				1200	E					E			1200		18
19		1200			E					E	1200				20
21	1D-64A RACK 1		1200		E	3	30	30	3	E		1200		1D-64A RACK 2	22
23				1200	E					E			1200		24
25		1200			E					E	1200				26
27	1D-64A RACK 3		1200		E	3	30	30	3	E		1200		1D-64A RACK 4	28
29				1200	E					E			1200		30
31	BLANK													BLANK	32
33	BLANK													BLANK	34
35	BLANK													BLANK	36
37	BLANK													BLANK	38
39	BLANK													BLANK	40
41	BLANK													BLANK	42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	12000	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	12000	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	12000	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	36.0	1.00	36			CONNECTED	36.0	99.9
HEATING	0.0	1.00	0			DEMAND	36.0	99.9
TOTAL	36.0		36.0			DESIGN		

GROUND BUS
ISOLATED GROUND BUS
100% NEUTRAL BUS
200% NEUTRAL BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM463CA	3C 38	SURFACE	PP 1-EM IN MCR	120/208V. 3PH, 4W	150A	150A. 3P. M.C.B.

CKT	LOAD DESCRIPTIC	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1		1200			E					E	1200				2
3	3D 10 RACK 1		1200		E	3	30	30	3	E		1200		3D 10 RACK 2	4
5				1200	E					E			1200		6
7		1200			E					E	1200				8
9	3D 10 RACK 3		1200		E	3	30	30	3	E		1200		3D 10 RACK 4	10
11				1200	E					E			1200		12
13		1200			E					E	1200				14
15	3B 23 RACK 5		1200		E	3	30	30	3	E		1200		3B 23 RACK 1	16
17				1200	E					E			1200		18
19		1200			E					E	1200				20
21	3B 23 RACK 2		1200		E	3	30	30	3	E		1200		3B 23 RACK 3	22
23				1200	E					E			1200		24
25		1200			E										26
27	3B 23 RACK 4		1200		E	3	30	30	3					SPARE	28
29				1200	E										30
31														SPACE	32
33	SPARE					3	30							SPACE	34
35														SPACE	36
37	SPACE													SPACE	38
39	SPACE													SPACE	40
41	SPACE													SPACE	42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	10800	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	10800	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	10800	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	32.4	1.00	32.4			CONNECTED	32.4	89.9
HEATING	0.0	1.00	0			DEMAND	32.4	89.9
TOTAL	32.4		32.4			DESIGN		

GROUND BUS
ISOLATED GROUND BUS
100% NEUTRAL BUS
200% NEUTRAL BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBEM095CA	4D 06	SURFACE	EP-1-EM IN MCR	120/208V. 3PH, 4W	250	250

CKT	LOAD DESCRIPTION	VA LOAD				CB		CB			VA LOAD			LOAD DESCRIPTION	CKT
NO		PH A	PH B	PH C	CODE	P	TR	TR	P	CODE	PH A	PH B	PH C		NO
1	PENTHOUSE TR 501 RACK 1	1200			E					E	1200			PENTHOUSE TR 503 RACK 1	2
3			1200		E	3	30	30	3	E		1200			4
5				1200	E					E			1200		6
7	PENTHOUSE TR 502 RACK 1	1200			E					E	1200			PENTHOUSE TR 503 RACK 2	8
9			1200		E	3	30	30	3	E		1200			10
11				1200	E					E			1200		12
13	PENTHOUSE TR 503 RACK 3	1200			E					E	1200			PENTHOUSE TR 503 RACK 4	14
15			1200		E	3	30	30	3	E		1200			16
17				1200	E					E			1200		18
19					E					E					20
21	SPARE				E	3	30	30	3	E				SPARE	22
23					E					E					24
25	SPACE					1	20	20	1					SPACE	26
27	SPACE					1	20	20	1					SPACE	28
29	SPACE					1	20	20	1					SPACE	30
31	SPACE					1	20	20	1					SPACE	32
33	SPACE					1	20	20	1					SPACE	34
35	SPACE					1	20	20	1					SPACE	36
37	SPACE					1	20	20	1					SPACE	38
39	SPACE					1	20	20	1					SPACE	40
41	SPACE					1	20	20	1					SPACE	42
43	SPACE					1	20	20	1					SPACE	44
45	SPACE					1	20	20	1					SPACE	46
47	SPACE					1	20	20	1					SPACE	48
49	SPACE					1	20	20	1					SPACE	50
51	SPACE					1	20	20	1					SPACE	52
53	SPACE					1	20	20	1					SPACE	54
55	SPACE					1	20	20	1					SPACE	56
57	SPACE					1	20	20	1					SPACE	58
59	SPACE					1	20	20	1					SPACE	60

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.1	1.00	0.1	LIGHTING	0.1	PH A	7200	
RECEPT (FIRST 10 KW)	0.2	1.00	0.2	RECEPT	0.2	PH B	7200	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.3	PH C	7200	
MOTORS	0.3	1.00	0.3	EQUIP	0.4			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.5	TOTAL	KVA	AMPS
EQUIPMENT	22.0	1.00	22			CONNECTED	21.6	60.0
HEATING	0.5	1.00	0.5			DEMAND	23.1	64.1
TOTAL	23.1		23.1			DESIGN		

OUND BUS
OLATED GROUND BUS
BUS
BUS
INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL - EMERGENCY PANEL SCHEDULES

Approved: Project Director

Phase
ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title
EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location
FARGO VA HEALTH CARE SYSTEM

Issue Date 01/16/2024
Checked WG
Drawn BX

Project Number
437-21-210

Building Number
-

Drawing Number
E603

11/22/2023 1:33:43 PM
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UPS A DISTRIBUTION WIRING SCHEDULE TO SPLICE NEW UPS WIRING INTO EXISTING UPS WIRING														
FROM								TO						
NEW FEEDER CABLE	ROOM	ITEM	LOAD	BREAKER SIZE TRIP SETTING	NEW CABLE	LENGTH OF NEW CABLE	NEW V DROP	EXISTING FEEDER CABLE	EXISTING CONDUIT / CABLE	MAX AMPS	EXISTING LENGTH	EXISTING V DROP	EXISTING UPS PANEL	NOTES
1.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	78	150	4#4/0&1#4G, 2 1/2 IN C	420	4.2	1	4#1/0&#6G, 2 IN C	150	140	2.5	EBUPS461NA	
2.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	78	150	4#1/0&#6G, 2 IN C	160	3.4	2	4#4/0&#2G, 2 1/2 IN C	230	35	0.35	EBUPS011CB	SPLICE NEW CABLE TO EXISTING CABLE IN SPLICE BOX NEAR LOCATION WHERE CONDUIT CONTINUES TO UPPER FLOORS.
3.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	78	150	4#4/0&1#4G, 2 1/2 IN C	420	4.3	3	4#3/0&1#6G, 2 IN C	200	140	1.6	EBUPS092NA	
4.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	78	150	4#1/0&#6G, 2 IN C	160	2.9	4	4#4/0&1#4G, 2 1/2 IN C	230	60	0.6	EBUPS012CB	
5.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	40	100	4#1&#6G, 1 1/2 IN C	160	1.8	5	4#3/0&1#6G, 2 IN C	200	130	0.8	EBUPS463CA	
6.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	100	150	4#1/0&#6G, 2 IN C	160	4.5	6	4#3/0&1#6G, 2 IN C	200	95	1.4	EBUPS014CA	
7.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	78	150	4#250&#4G, 2 1/2 IN C	310	2.6	7	4#4/0&#4G, 2 1/2 IN C	230	430	4.3	EBUPS401WA	
8.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	40	100	4#1&#6G, 1 1/2 IN C	160	1.8	8	4#250&#4G, 2 1/2 IN C	255	235	1	EBUPS095CA	
9.1	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	203	400	4#250&#4G, 2 1/2 IN C	150	5.6	N/A	N/A		N/A	N/A	BASEMENT UPS	NEW UPS PANEL IN TR BD-02
⑲	BE-97	UPS A DISTRIBUTION (OUTGOING MLO)	225	225	SEE EP-B1-201	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	CABLE TO 4TH FLOOR MCR

NOTE: MATCH PROPER BREAKER SIZE IN UPS A DISTRIBUTION PANEL TO FEEDER CABLE.

NOTE: NEW UPS FEEDER CABLES WILL SPLICE TO EXISTING UPS CABLES IN SPLICE BOXES NEAR LOCATIONS IN BASEMENT WHERE EXISTING UPS CABLES ARE ROUTED UP INTO UPPER FLOORS.

NOTE: ONLY NEW CABLES AND CONDUIT NEED TO BE INSTALLED.

NOTE: REPLACE THE 500A BREAKER ON UPS A DISTRIBUTION PANEL WITH 250A BREAKER

1 UPS A DISTRIBUTION WIRING SCHEDULE FOR TR RACKS
NTS

ISSUE FOR BID	01-16-24
Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title: ELECTRICAL - UPS-A PANELS WIRING SCHEDULE	Phase: ISSUE FOR BID	Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2	Project Number: 437-21-210
			Building Number: -
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Drawing Number: E604
		Issue Date: 01/16/2024 / Checked: WG / Drawn: BX	

VA FORM 08 - 6231

TR RACK EM POWER WIRING SCHEDULE

BASEMENT BLDG 1, 9, 46 EM WIRING

CONDUIT NUMBER	FROM ROOM	FROM PNL	TO ROOM	TO RACK	WIRING / CONDUIT	LENGTH
	MCR	PP EM		BASEMENT	203A	
9EM		BASEMENT	BD-02	1	4#2/0&1#6G, 2 IN C	145
		BASEMENT	BD-02	2	4#8&1#10G, 3/4 IN C	
		BASEMENT	BB-92	1	4#10&1#10G, 3/4 IN C	
		BASEMENT	BB-92	2	4#10&1#10G, 3/4 IN C	
		BASEMENT	BB-92	3	4#10&1#10G, 3/4 IN C	
		BASEMENT	BD-84	1	4#6&1#10G, 1 IN C	
		BASEMENT	BD-84	2	4#6&1#10G, 1 IN C	
		BASEMENT	BA-30	1	4#10&1#10G, 3/4 IN C	
		BASEMENT	BA-30	2	4#10&1#10G, 3/4 IN C	
		BASEMENT	BA-30	3	4#10&1#10G, 3/4 IN C	
		BASEMENT	BC-02	1	4#10&1#10G, 3/4 IN C	
		BASEMENT	BC-02	2	4#10&1#10G, 3/4 IN C	
		BASEMENT	BC-02	3	4#10&1#10G, 3/4 IN C	

78A, 78A

1ST FLOOR BLDG 1, 9, 46 EM WIRING

CONDUIT NUMBER	FROM ROOM	FROM PNL	TO ROOM	TO RACK	WIRING / CONDUIT	LENGTH
1EM	MCR	PP EM	1B121	EBEM461NA	4#250&#1#2G, 2 1/2 IN C	585
	1B121	EBEM461NA	1A-54	1	4#10&1#10G, 3/4 IN C	260
	1B121	EBEM461NA	1A-54	2	4#10&1#10G, 3/4 IN C	260
	1B121	EBEM461NA	1A-54	3	4#10&1#10G, 3/4 IN C	260
	1B121	EBEM461NA	1A-54	4	4#10&1#10G, 3/4 IN C	260
	1B121	EBEM461NA	1A-54	5	4#10&1#10G, 3/4 IN C	260
	1B121	EBEM461NA	1A-54	6	4#10&1#10G, 3/4 IN C	260
	1B121	EBEM461NA	1B-121	1	4#10&1#10G, 3/4 IN C	10
	1B121	EBEM461NA	1B-121	2	4#10&1#10G, 3/4 IN C	10
2EM	MCR	PP EM	1D-01	EBEM011CB	4#1/0&#6G, 2 IN C	220
	1D-01	EBEM011CB	1D-158	1	4#10&1#10G, 3/4 IN C	160
	1D-01	EBEM011CB	1C-99	1	4#10&1#10G, 3/4 IN C	10
	1D-01	EBEM011CB	1C-99	2	4#10&1#10G, 3/4 IN C	10
	1D-01	EBEM011CB	1C-99	3	4#10&1#10G, 3/4 IN C	10
	1D-01	EBEM011CB	1C-99	4	4#10&1#10G, 3/4 IN C	10
	1D-01	EBEM011CB	1C-99	5	4#10&1#10G, 3/4 IN C	10
	1D-01	EBEM011CB	1D-64A	1	4#10&1#10G, 3/4 IN C	240
	1D-01	EBEM011CB	1D-64A	2	4#10&1#10G, 3/4 IN C	240
	1D-01	EBEM011CB	1D-64A	3	4#10&1#10G, 3/4 IN C	240
	1D-01	EBEM011CB	1D-64A	4	4#10&1#10G, 3/4 IN C	240

78A, 78A

2ND FLOOR BLDG 1, 9, 46 EM WIRING

CONDUIT NUMBER	FROM ROOM	FROM PNL	TO ROOM	TO RACK	WIRING / CONDUIT	LENGTH
3EM	MCR	PP EM	2B-32	EBEM092NA	4#4/0&1#2G, 2 1/2 IN C	475
	2B-32	EBEM092NA	2A-24	1	4#10&1#10G, 3/4 IN C	110
	2B-32	EBEM092NA	2A-24	2	4#10&1#10G, 3/4 IN C	110
	2B-32	EBEM092NA	2A-24	3	4#10&1#10G, 3/4 IN C	110
	2B-32	EBEM092NA	2A-24	4	4#10&1#10G, 3/4 IN C	110
	2B-32	EBEM092NA	2A-24	5	4#10&1#10G, 3/4 IN C	110
	2B-32	EBEM092NA	2A-24	6	4#10&1#10G, 3/4 IN C	110
	2B-32	EBEM092NA	2C-33	1	4#10&1#10G, 3/4 IN C	100
	2B-32	EBEM092NA	2C-33	2	4#10&1#10G, 3/4 IN C	100
	2B-32	EBEM092NA	2C-33	3	4#10&1#10G, 3/4 IN C	100
4EM	MCR	PP EM	2C-91	EBEM012CB	4#1/0&1#6G, 2 IN C	255
	2C-91	EBEM012CB	2C-90A	1	4#10&1#10G, 3/4 IN C	10
	2C-91	EBEM012CB	2C-90A	2	4#10&1#10G, 3/4 IN C	10
	2C-91	EBEM012CB	2C-90A	3	4#10&1#10G, 3/4 IN C	10
	2C-91	EBEM012CB	2C-90A	4	4#10&1#10G, 3/4 IN C	10
	2C-91	EBEM012CB	2D-18	1	4#10&1#10G, 3/4 IN C	120
	2C-91	EBEM012CB	2D-18	2	4#10&1#10G, 3/4 IN C	120
	2C-91	EBEM012CB	2D-18	3	4#10&1#10G, 3/4 IN C	120
	2C-91	EBEM012CB	2D-18	4	4#10&1#10G, 3/4 IN C	120

40A

3RD FLOOR BLDG 1, 9, 46 EM WIRING

CONDUIT NUMBER	FROM ROOM	FROM PNL	TO ROOM	TO RACK	WIRING / CONDUIT	LENGTH
5EM	MCR	PP EM	3C-38	EBEM463CA	4#2&1#8G, 1 1/4 IN C	265
	3C-38	EBEM463CA	3D-12	1	4#10&1#10G, 3/4 IN C	70
	3C-38	EBEM463CA	3D-12	2	4#10&1#10G, 3/4 IN C	70
	3C-38	EBEM463CA	3D-12	3	4#10&1#10G, 3/4 IN C	70
	3C-38	EBEM463CA	3D-12	4	4#10&1#10G, 3/4 IN C	70
	3C-38	EBEM463CA	3B-23	1	4#10&1#10G, 3/4 IN C	250
	3C-38	EBEM463CA	3B-23	2	4#10&1#10G, 3/4 IN C	250
	3C-38	EBEM463CA	3B-23	3	4#10&1#10G, 3/4 IN C	250
	3C-38	EBEM463CA	3B-23	4	4#10&1#10G, 3/4 IN C	250
	3C-38	EBEM463CA	3B-23	5	4#10&1#10G, 3/4 IN C	250

100A

4TH FLOOR BLDG 1, 9, 46 EM WIRING

CONDUIT NUMBER	FROM ROOM	FROM PNL	TO ROOM	TO RACK	WIRING / CONDUIT	LENGTH
6EM	MCR	PP EM	4D-06	EBEM014CA	(2) 4#2/0&1#8G, 2 IN C	305
	4D-06	EBEM014CA	4B-23	1	4#8&1#10G, 3/4 IN C	230
	4D-06	EBEM014CA	4B-23	2	4#8&1#10G, 3/4 IN C	230
	4D-06	EBEM014CA	4B-23	3	4#8&1#10G, 3/4 IN C	230
	4D-06	EBEM014CA	4B-23	4	4#8&1#10G, 3/4 IN C	230
	4D-06	EBEM014CA	4E-15	1	4#8&1#10G, 3/4 IN C	170
	4D-06	EBEM014CA	4E-15	2	4#8&1#10G, 3/4 IN C	170

100A

1ST FLOOR BLDG 1 TO BLDG 40 EM WIRING

CONDUIT NUMBER	FROM ROOM	FROM PNL	TO BLDG ROOM	TO RACK	WIRING / CONDUIT	LENGTH
7EM	MCR	PP-10EM	40 102B	EBEM401WA	4#350&#3G, 3 IN C	730
	40 102B	EBEM401WA	40 102B	1	4#8&1#10G, 3/4 IN C	10
	40 102B	EBEM401WA	40 102B	2	4#8&1#10G, 3/4 IN C	10
	40 102B	EBEM401WA	40 102B	3	4#8&1#10G, 3/4 IN C	10
	40 102B	EBEM401WA	40 102B	4	4#8&1#10G, 3/4 IN C	10
	40 102B	EBEM401WA	40 204C	1	4#8&1#10G, 3/4 IN C	30
	40 102B	EBEM401WA	40 204C	2	4#8&1#10G, 3/4 IN C	30

40A

5TH FLOOR PENTHOUSE BLDG 1, 9, 46 EM WIRING

CONDUIT NUMBER	FROM ROOM	FROM PNL	TO ROOM	TO RACK	WIRING / CONDUIT	LENGTH
8EM	MCR	PP-1-EM	PENTHOUSE A	EBEM095CA	4#1&#6G, 1 1/2 IN C	405
	4D-06	EBEM095CA	PENT TR 501	1	4#8&1#10G, 3/4 IN C	200
	4D-06	EBEM095CA	PENT TR 502	1	4#8&1#10G, 3/4 IN C	200
	4D-06	EBEM095CA	PENT TR 503	1	4#8&1#10G, 3/4 IN C	130
	4D-06	EBEM095CA	PENT TR 503	2	4#8&1#10G, 3/4 IN C	130
	4D-06	EBEM095CA	PENT TR 503	3	4#8&1#10G, 3/4 IN C	130
	4D-06	EBEM095CA	PENT TR 503	4	4#8&1#10G, 3/4 IN C	130

1 EMERGENCY PANELS WIRING SCHEDULE FOR TR RACKS
NTS

ISSUE FOR BID	01-16-24
Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title: ELECTRICAL - EMERGENCY PANELS WIRING SCHEDULE

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: -

Drawing Number: E605

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VA FORM 08 - 6231

VA TO IDENTIFY CIRCUITS TO BE REMOVED

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBUPS-90N1		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	DDC							X									EBUPS 90N2	2
3	IT ROOM 1ST								X								EBUPS 90N2	4
5	IT ROOM 1ST									X							EBUPS 90N2	6
7	VISTA IMAGING							X									EBUPS 90N3	8
9	VISTA IMAGING								X								EBUPS 90N3	10
11	VISTA IMAGING									X							EBUPS 90N3	12
13	VISTA IMAGING							X									EBUPS 90N5	14
15	VISTA IMAGING								X								EBUPS 90N5	16
17	VISTA IMAGING									X							EBUPS 90N5	18
19	SPARE							X									EBUPS 90N6	20
21	SPARE								X								EBUPS 90N6	22
23	SPARE									X							EBUPS 90N6	24
25	SPARE							X									EBUPS 10S1	26
27	SPARE								X								EBUPS 10S1	28
29	SPARE									X							EBUPS 10S1	30
31	SPARE							X									SPARE	32
33	SPARE								X								SPARE	34
35	SPARE									X							SPARE	36
37	EHRM RACKS							X									SPARE	38
39	EHRM RACKS								X								SPARE	40
41	EHRM RACKS									X							SPARE	42

NEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBUPS 90N2		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	BIO-MED - 05							X									BIO-MED - 05	2
3	BIO-MED - 05								X								BIO-MED - 05	4
5	BIO-MED - 05									X							BIO-MED - 05	6
7	BIO - MED #1							X									SPARE	8
9	BIO - MED #1								X								SPARE	10
11	BIO - MED #1									X							SPARE	12
13	SPARE							X									SPARE	14
15	SPARE								X								SPARE	16
17	SPARE									X							WIRELESS CONTROLER	18
19	SPARE							X									WIRELESS CONTROLER	20
21	SPARE								X								SPARE	22
23	SPARE									X							SPARE	24
25	2C-33 IRM OUTLET							X									1B-121B RCPT	26
27	2C-33 IRM OUTLET								X								1B-121B RCPT	28
29	SPARE									X							1B-121B RCPT	30
31	BC-02 IRM							X									BB-92 RCPT	32
33	BC-02 IRM								X								BB-92 RCPT	34
35	BC-02 IRM									X							BB-92 RCPT	36
37	BC-02 IRM RCPT							X									RESERVED FOR FUTURE	38
39	SPARE								X								RESERVED FOR FUTURE	40
41	SPARE									X							RESERVED FOR FUTURE	42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBUPS 90N3		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	PHARMACY OPTIPILL							X									OUTLET NEWQ PROCESSOR	2
3	PHARMACY OPTIPILL								X								OUTLET NEWQ PROCESSOR	4
5	PHARMACY OPTIPILL									X							OUTLET PHARMACY	6
7	PNL EBUPS 90N4							X									DCPU	8
9	PNL EBUPS 90N4								X								DISK DRIVES	10
11	PNL EBUPS 90N4									X							OUTLET	12
13	OUTLET WIREMOLD PHARMACY							X									OUTLET VADAT DESIGNATED	14
15	OUTLET WIREMOLD OPIPILL								X								OUTLET MICOM	16
17	OUTLET UNDER FLOOR (TERMINAL)									X							SPARE	18
19	OUTLET UNDER FLOOR (TERMINAL)							X									20 AMP T.L.	20
21	LIGHTS COMPUTER ROOM								X								20 AMP T.L.	22
23	ADMIN OFFICE UTLET									X							20 AMP T.L.	24
25	COMPUTER							X									SHUNT TRIP	26
27	ADMIN OFFICE UTLET								X								SHUNT TRIP	28
29	COMPUTER									X							SHUNT TRIP	30
31	SYST. D TAPE DRIVE							X									SHUNT TRIP	32
33	COMPUTER								X								SHUNT TRIP	34
35	COMPUTER									X							SHUNT TRIP	36
37	COMPUTER							X									SHUNT TRIP	38
39	COMPUTER								X								SHUNT TRIP	40
41	COMPUTER									X							SHUNT TRIP	42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBUPS 90N4		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	4A-16							X									2C-90	2
3	3051								X								BD-02	4
5	2A-24									X							BA-30	6
7	2C-37							X									3C-94	8
9	1B-47								X								4E-19	10
11	VISTA IMG									X							1C-98	12
13	VISTA IMG							X									1C-06	14
15	RCPT BB-76, BC-46								X								3C-48	16
17	208V UNDERFLOOR VISTA IMG									X							208V UNDERFLOOR VISTA IMG	18
19	208V UNDERFLOOR VISTA IMG							X									208V UNDERFLOOR VISTA IMG	20
21									X									22
23										X								24
25								X										26
27									X									28
29										X								30
31								X										32
33									X									34
35										X								36
37								X										38
39									X									40
41										X								42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBUPS90N5		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	RCPT RM 1B-65							X									VBA	2
3	RCPT RM 1B-65, 1A-54								X								VBA	4
5	RCPT SERVER									X							VBA	6
7	RCPT SERVER							X									VBA	8
9	RCPT SERVER VISTA IMG								X								RCPT SERVER	10
11	RCPT SERVER VISTA IMG									X							RCPT SERVER	12
13	RCPT SERVER							X									RCPT SERVER	14
15	RCPT SERVER								X								RCPT SERVER	16
17	CORE SWITCHES 6509									X							RCPT SERVER	18
19	CORE SWITCHES 6509							X									RCPT SERVER	20
21	CORE SWITCHES 6509								X								RCPT SERVER	22
23	CORE SWITCHES 6509									X							RCPT SERVER	24
25	CORE SWITCHES 6509							X									RCPT SERVER	26
27	CORE SWITCHES 6509								X								RCPT SERVER	28
29	CORE SWITCHES 6509									X							RCPT 4D-02, 1A-54	30
31	CORE SWITCHES 6509							X									RCPT 4D-02	32
33	RCPT RM 2A-24								X								RCPT 4D-02	34
35	RCPT RM 2A-24									X							RCPT 2A-24	36
37	VBA							X									VBA	38
39	VBA								X								VBA	40
41	VBA									X							VBA	42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FRO	VOLTAGE	BUS	MAIN
EBUPS 90N6		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	SPARE							X									SPARE	2
3	SPARE								X								SPARE	4
5	SPARE									X							SPARE	6
7	SPARE							X									SPARE	8
9	SPARE								X								SPARE	10
11	SPARE									X							SPARE	12
13	SPARE							X									SPARE	14
15	SPARE								X								EAST RACK	16
17	SPARE									X							EAST RACK	18
19	RCPT UNDER PNL							X									QUEST LINE + PAGING	20
21	CISCO PHONE RACK								X								WEST RACK	22
23	CISCO PHONE RACK									X							WEST RACK	24
25	SPARE							X									SPARE	26
27	SPARE								X								SPARE	28
29	SPARE									X							SPARE	30
31	SPARE							X									SPARE	32
33	SPARE								X								SPARE	34
35	SPARE									X							SPARE	36
37	SPARE							X									SPARE	38
39	SPARE								X								SPARE	40
41	SPARE									X							SPARE	42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FRO	VOLTAGE	BUS	MAIN
EB90N1		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	UPS#1							X									SPARE	2
3	UPS#1								X								SPARE	4
5	UPS#1									X							SPARE	6
7	UPS#2							X									SPARE	8
9	UPS#2								X								SPARE	10
11	UPS#2									X							SPARE	12
13	UPS#3							X									SPARE	14
15	UPS#3								X								SPARE	16
17	UPS#3									X							SPARE	18
19	DDC TXFR SWITCH							X									SPARE	20
21	SPARE								X								SPARE	22
23	SPARE									X							SPARE	24
25	SPARE							X									SPARE	26
27	SPARE								X								SPARE	28
29	SPARE									X							SPARE	30
31	SPARE							X									SPARE	32
33	SPARE								X								SPARE	34
35	SPARE									X							SPARE	36
37	SPARE							X									SPARE	38
39	SPARE								X								SPARE	40
41	SPARE									X							SPARE	42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EB90N3		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	SPARE							X									ROOF TEL RM DACU-46-3	2
3	SPARE								X								ROOF TEL RM DACU-46-3	4
5	SPARE									X							ROOF TEL RM DACU-46-3	6
7	UPS BYPASS							X									SPARE	8
9	UPS BYPASS								X								SPARE	10
11	UPS BYPASS									X							SPARE	12
13	TEL SERVER RM DACU-46-3							X									DACU-IS OUTDOOR UPS A/C	14
15	TEL SERVER RM DACU-46-3								X								DACU-IS OUTDOOR UPS A/C	16
17	TEL SERVER RM DACU-46-3									X							DACU-IS OUTDOOR UPS A/C	18
19	SPARE							X									DACU-IS INDOOR UPS A/C	20
21	SPARE								X								DACU-IS INDOOR UPS A/C	22
23	SPARE									X							DACU-IS INDOOR UPS A/C	24
25	?							X									SPARE	26
27	?								X								SPARE	28
29	WALL RCPT									X							BIO MED	30
31	WALL RCPT							X									BIO MED	32
33	SPARE								X								BIO MED	34
35	SPARE									X							EHRM RACKS	36
37	EHRM RACKS							X									EHRM RACKS	38
39	EHRM RACKS								X								EHRM RACKS	40
41	EHRM RACKS									X							EHRM RACKS	42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EB46NTEL #1		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	A/C UNIT E							X									SPARE IN J-BOX CEILING	2
3	A/C UNIT E								X								SPARE IN J-BOX CEILING	4
5	A/C UNIT E									X							A/C UNIT W	6
7	CONDENSING UNIT OUTSIDE							X									A/C UNIT W	8
9	CONDENSING UNIT OUTSIDE								X								A/C UNIT W	10
11	CONDENSING UNIT OUTSIDE									X							A/C UNIT W	12
13	LIGHTS							X									RCPT	14
15	LIGHTS								X								RCPT	16
17	LIGHTS									X							FAN	18
19	LIGHTS							X									PYROTRONICS	20
21	LIGHTS								X								PYROTRONICS	22
23	LIGHTS									X							N.E. BUTT HUT	24
25	LIGHTS							X									N.E. BUTT HUT	26
27	PAGING RCPT								X									28
29	PAGING RCPT									X								30
31								X										32
33									X									34
35										X								36
37								X										38
39									X									40
41										X								42

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EB46NTEL #2		SURFACE		120/208V. 3PH, 4W		

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	TRANSTECTOR							X									HALON	2
3	TRANSTECTOR								X									4
5	TRANSTECTOR									X							HALON	6
7	SPARE							X										8
9	SPARE								X								SURGE PROTECTION	10
11	SPARE									X							SURGE PROTECTION	12
13	TRANSTECTOR							X									SURGE PROTECTION	14
15	TRANSTECTOR								X								BATTERY CHARGER #1A	16
17	TRANSTECTOR									X							BATTERY CHARGER #1A	18
19	TRANSTECTOR							X									BATTERY CHARGER #1A	20
21	TRANSTECTOR								X								BATTERY CHARGER #2A	22
23	TRANSTECTOR									X							BATTERY CHARGER #2A	24
25	ROOF A/C #4							X									BATTERY CHARGER #2A	26
27	ROOF A/C #4								X								CAB. OIR A CORE	28
29	ROOF A/C #4									X							CAB. OIR B CORE	30
31								X										32
33									X									34
35										X								36
37								X										38
39									X									40
41										X								42

ISSUE FOR BID	**01-16-24**
Revisions:	**Date:**

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Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title	ELECTRICAL - BC-50 DATA CENTER PANEL SCHEDULES DEMO
Approved: Project Director	
Phase	ISSUE FOR BID
	BUILDING FULLY SPRINKLERED
Project Title	EHRM INFRASTRUCTURE UPGRADES - TIER 2
Location	FARGO VA HEALTH CARE SYSTEM
Issue Date	01/16/2024
Checked	WG
Drawn	BX
Project Number	437-21-210
Building Number	1-9-46
Drawing Number	ED606

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VA FORM 08 - 6231

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
SWBD EM GEN BLDG1	BLDG 1 BE-98	FLOOR ON PAD	EM GEN 1	120/208V. 3PH, 4W	4000A	4000A. 3P. MAIN LUG

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		9996			E			X					E	16560				2
3	STR1-BLDG1 ATS-LS		9996		E	3	250		X		400	3	E		16560		STR1-BLDG1 ATS-CR	4
5				9996	E					X			E			16560		6
7		32400			E			X					N/A	0				8
9	STR1-BLDG1 ATS-EQ		32400		E	3	800		X		4000	3	N/A		0		STR2-ROLL UP GENERATOR BREAKER	10
11				32400	E					X			N/A			0		12
13		0			N/A			X					E	319893				14
15	STR3- INCOMING FROM GENERATOR		0		N/A	3	LUGS		X		3000	3	E		317488		STR4-SWBD EQ MCR	16
17				0	N/A					X			E			323912		18
19						1	20	X			20	1						20
21						1	20		X		20	1						22
23						1	20			X	20	1						24
25						1	20	X			20	1						26
27						1	20		X		20	1						28
29						1	20			X	20	1						30

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	378849	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	376444	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	382868	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	1138.2	1.00	1138.161			CONNECTED	1138.2	3159.3
HEATING	0.0	1.00	0			DEMAND	1138.2	3159.3
TOTAL	1138.2		1138.2			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

SWBD NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
SWBD EQ MCR	BLDG 1 UPS RM BE-97	SURFACE	EM GEN & UTILITY	120/208V. 3PH, 4W	3000A	3000A. 3P. MAIN LUGS

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		0						X						0				2
3	STR1-TRANSFORMER MCR FEEDER		0			3	3000		X		3000	3			0		STR2-EM GENERATOR FEEDER	4
5				0						X						0		6
7		83133			E			X					E					8
9	STR3-PP 2 EM MCR		80728		E	3	500		X		300	3	E				STR4-UPS B MAINT BYPASS - SET AT 0A UNDER NORMAL CONDITIONS	10
11				87152	E					X			E					12
13		34000			E			X					E	55000				14
15	STR3-UPS B		34000		E	3	700		X		700	3	E		55000		STR4-MONOLYTHIC UPS A MOD1	16
17				34000	E					X			E			55000		18
19		55000			E			X						0				20
21	STR3-MONOLYTHIC UPS A MOD2		55000		E	3	700		X		700	3			0		STR4-UPS A MAINT BYPASS - SET AT 0A UNDER NORMAL CONDITIONS	22
23				55000	E					X						0		24
25		92760			E			X			20	1						26
27	STR3-PP EM		92760		E	3	1000		X		20	1						28
29				92760	E					X	20	1						30
31						1	20	X			20	1						32
33						1	20		X		20	1						34
35						1	20			X	20	1						36
37						1	20	X			20	1						38
39						1	20		X		20	1						40
41						1	20			X	20	1						42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	319893	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	317488	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	323912	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	961.3	1.00	961.293			CONNECTED	961.3	2668.4
HEATING	0.0	1.00	0			DEMAND	961.3	2668.4
TOTAL	961.3		961.3			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
PP2 EM MCR	EM GEN ROOM BE-98	SURFACE	SWBD EQ MCR	120/208V. 3PH, 4W	750A	750A 3P CB

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		30815			E			X			25	1	M	1656			FPS-1, POLISHER	2
3	PP 3 EM MCR		31300		E	3	500		X				M		440			4
5				30880	E					X	15	3	M			440	CACP-1, CHARGE AIR COOLER	6
7		14400			M			X					M	440				8
9	GR-1, OUTDOOR RADIATOR		14400		M	3	175		X		25	1	M		1656		DT-1 P1 DAY TANK	10
11				14400	M					X	25	1	M			0	DT-1 P2 DAY TANK	12
13		6666			H			X			30	1	M	1920			DT-1 RETURN PUMP	14
15	EUH-1		6666		H	3	60		X						6666			16
17				6666	H					X	60	3	H			6666	EUH-2	18
19		2100			M			X					H	6666				20
21	EF-G1		2100		M	3	35		X				M		2100			22
23				2100	M					X	35	3	M			2100	EF-G2	24
25		3000			M			X					M	2100				26
27	SF-G1		3000		M	3	50		X				M		2940			28
29				3000	M					X	70	3	M			2940	CRAC-3 UPS ROOM (50%)	30
31		2640			M			X					M	2940				32
33	ACCU-3 UPS ROOM (50%)		2640		M	3	60		X				M		2940			34
35				2640	M					X	70	3	M			2940	CRAC-4 UPS ROOM (50%)	36
37		2640			M			X					M	2940				38
39	ACCU-4 UPS ROOM (50%)		2640		M	3	60		X		20	1	H		500		GENERATOR SPACE HEATER	40
41				2640	M					X	20	1	H			9000	GEN JACKET WATER HEATER	42
43	BATTERY CHARGER	1920			E	1	20	X			20	1	M	90			GEN JACKET PUMP	44
45	RM BE-31A LIGHTS		200		L	1	20		X		20	1	L		180		RM BE-97 LIGHTS	46
47	RM-BE-31A RCPT			180	R	1	20			X	20	1	L			200	RM BE-98 LIGHTS	48
49	FUEL CONTROL PNL	200			E	1	20	X			20	1	R	180-			RM BE-97 RCPT	50
51	RCPT RADIATOR, FUEL TANK		180		R	1	20		X		20	1	R		180		RM BE-98 RCPT	52
53	RCPT ACCU1, 2			180	R	1	20			X	20	1	R			180	RCPT, ACCU-3, 4	54
55						1	20	X			20	1						56
57						1	20		X		20	1						58
59						1	20			X	20	1						60

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.7	1.00	0.7	LIGHTING	0.1	PH A	83133	
RECEPT (FIRST 10 KW)	1.1	1.00	1.1	RECEPT	0.2	PH B	80728	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.3	PH C	87152	
MOTORS	105.2	1.00	105.2	EQUIP	0.4			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.5	TOTAL	KVA	AMPS
EQUIPMENT	95.5	1.00	95.515			CONNECTED	251.0	696.8
HEATING	50.0	1.00	49.996			DEMAND	252.5	700.9
TOTAL	252.5		252.5			DESIGN		

UND BUS
.ATED GROUND BUS

L BUS
L BUS

INTEGRAL TVSS
ISC = 35KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
PP3 EM MCR	MCR 4E-19	SURFACE	PP-2 EM MCR	120/208V. 3PH, 4W	500A	500A. 3P. M.C.B.

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		155			E			X					M	7980				2
3	PP ELMCR		820		E	3	200		X		175	3	M		7980		CRAC-2(50%)	4
5				400	E					X			M			7980		6
7		7260			M			X					M	7260				8
9	ACCU-1(50%)		7260		M	3	175		X		175	3	M		7260		ACCU-2(50%)	10
11				7260	M					X			M			7260		12
13		7980			M			X			20	1	R	180			RCPT ACCU1, 2	14
15	CRAC-1 (50%)		7980		M	3	175		X		20	1						16
17				7980	M					X	20	1						18
19						1	20	X			20	1						20
21						1	20		X		20	1						22
23						1	20			X	20	1						24
25						1	20	X			20	1						26
27						1	20		X		20	1						28
29						1	20			X	20	1						30
31						1	20	X			20	1						32
33						1	20		X		20	1						34
35						1	20			X	20	1						36
37						1	20	X			20	1						38
39						1	20		X		20	1						40
41						1	20			X	20	1						42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	30815	
RECEPT (FIRST 10 KW)	0.2	1.00	0.2	RECEPT	0.0	PH B	31300	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	30880	
MOTORS	91.4	1.00	91.4	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	1.4	1.00	1.375			CONNECTED	93.0	258.1
HEATING	0.0	1.00	0			DEMAND	93.0	258.1
TOTAL	93.0		93.0			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
PP EL MCR		SURFACE		120/208V. 3PH, 4W	100A	100A. 3P. M.C.B.

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1	INERGEN PNL RM 4E-22	15			E	1	20	X			20	1	L	20			RM 4E-22 LIGHTS, RCPT	2
3	RM 4E-23 LIGHTS		20		L	1	20		X		20	1	L		800		DATA CENTER LIGHTS	4
5	CORR 4E-20, 21 LIGHTS			320	L	1	20			X	20	1	L			80	ELECTRIC CLOSET 4E-19 LIGHTS	6
7	EPO DATA CENTER	40			E	1	15	X			20	1	E	60			VAV POWER SUPPLY	8
9						1	20		X		20	1						10
11						1	20			X	20	1						12
13						1	20	X			20	1						14
15						1	20		X		20	1						16
17						1	20			X	20	1						18
19						1	20	X			20	1						20
21						1	20		X		20	1						22
23						1	20			X	20	1						24
25						1	20	X			20	1						26
27						1	20		X		20	1						28
29						1	20			X	20	1						30
31						1	20	X			20	1						32
33						1	20		X		20	1						34
35						1	20			X	20	1						36
37						1	20	X			20	1						38
39						1	20		X		20	1						40
41						1	20			X	20	1						42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	1.2	1.00	1.2	LIGHTING	0.0	PH A	155	
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	820	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	400	
MOTORS	0.0	1.00	0.0	EQUIP	0.0			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	0.1	1.00	0.135			CONNECTED	1.4	3.8
HEATING	0.0	1.00	0			DEMAND	1.4	3.8
TOTAL	1.4		1.4			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
PP EM	MCR BE-31B	SURFACE	PP3 EM MCR	120/208V. 3PH, 4W	1000A	1000A, 3P, 4W

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		4800			E			X					E	12000				2
3	PNL EBEM095CA		4800		E	3	100		X		150	3	E		12000		PNL EBEM014CA	4
5				4800	E					X			E			12000		6
7		4800			E			X					E	9360				8
9	PNL EBEM463CA		4800		E	3	100		X		150	3	E		9360		PNL EBEM012CB	10
11				4800	E					X			E			9360		12
13		9360			E			X					E	9360				14
15	PNL EBEM092NA		9360		E	3	150		X		150	3	E		9360		PNL EBEM011CB	16
17				9360	E					X			E			9360		18
19		9360			E			X					E	9360				20
21	PNL EB461NA		9360		E	3	150		X		150	3	E		9360		PNL EBEM401WA	22
23				9360	E					X			E			9360		24
25		24360			E			X			20	1						26
27	PNL. BASEMENTEM		24360		E	3	400		X		20	1						28
29				24360	E					X	20	1						30
31						1	20	X			20	1						32
33						1	20		X		20	1						34
35						1	20			X	20	1						36
37						1	20	X			20	1						38
39						1	20		X		20	1						40
41						1	20			X	20	1						42
43						1	20	X			20	1						44
45						1	20		X		20	1						46
47						1	20			X	20	1						48
49						1	20	X			20	1						50
51						1	20		X		20	1						52
53						1	20			X	20	1						54
55						1	20	X					E					56
57						1	20		X		20	1	E				SPD	58
59						1	20			X			E					60

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA	
LIGHTING	0.1	1.00	0.1	LIGHTING	0.1	PH A	92760	
RECEPT (FIRST 10 KW)	0.2	1.00	0.2	RECEPT	0.2	PH B	92760	
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.3	PH C	92760	
MOTORS	0.3	1.00	0.3	EQUIP	0.4			
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.5	TOTAL	KVA	AMPS
EQUIPMENT	278.7	1.00	278.68			CONNECTED	278.3	772.5
HEATING	0.5	1.00	0.5			DEMAND	279.8	776.6
TOTAL	279.8		279.8			DESIGN		

JND BUS
.ATED GROUND BUS

\L BUS
\L BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

ISSUE FOR BID	01-16-24
Revisions:	Date:

CONSULTANT

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1/16/24
STATE OF ILLINOIS

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - DATA CENTER PANEL SCHEDULES

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

ISSUE FOR BID - 01/16/2024

Project Number: 437-21-210

Building Number: 1-9-46

Drawing Number: E606

1/16/2024 11:38:24 AM

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VA FORM 08 - 6231

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
PNL BUSSWAY A	DATA CENTER RM	SURFACE	UPS A RM BE-97	120/208V. 3PH, 4W	250	250A. 3P. M.C.B.

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		13333			E			X					E	13333				2
3	ROW 1 UPS BUSWAY A		13333		E	3	150		X		150	3	E		13333		ROW 2 UPS BUSWAY A	4
5				13333	E					X			E			13333		6
7						1	20	X			20	1						8
9						1	20		X		20	1						10
11						1	20			X	20	1						12
13						1	20	X			20	1						14
15						1	20		X		20	1						16
17						1	20			X	20	1						18

LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	80.0	1.00	79.998			CONNECTED	80.0	222.1
HEATING	0.0	1.00	0			DEMAND	80.0	222.1
TOTAL	80.0		80.0			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
UPS B	UPS RM BE-97	FLOOR	SWBD EQ MCR	120/208V. 3PH, 4W	N/A	N/A

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		26666			E			X										2
3	UPS BUSWAY B, DATA CENTER		26666		E	3	250		X									4
5				26666	E					X								6
7								X										8
9									X									10
11										X								12
13								X										14
15									X									16
17										X								18

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	26666
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	26666
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	26666
MOTORS	0.0	1.00	0.0	EQUIP	0.0		
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	80.0	1.00	79.998			CONNECTED	80.0	222.1
HEATING	0.0	1.00	0			DEMAND	80.0	222.1
TOTAL	80.0		80.0			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
BUSSWAY B	DATA CENTER RM	SURFACE	UPS B RM BE-97	120/208V. 3PH, 4W	250	250A. 3P. M.C.B.

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		13333			E			X					E	13333				2
3	ROW 1 UPS BUSWAY B		13333		E	3	150		X		150	3	E		13333		ROW 2 UPS BUSWAY B	4
5				13333	E					X			E			13333		6
7						1	20	X			20	1						8
9						1	20		X		20	1						10
11						1	20			X	20	1						12
13						1	20	X			20	1						14
15						1	20		X		20	1						16
17						1	20			X	20	1						18

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	26666
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	26666
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	26666
MOTORS	0.0	1.00	0.0	EQUIP	0.0		
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	80.0	1.00	79.998			CONNECTED	80.0	222.1
HEATING	0.0	1.00	0			DEMAND	80.0	222.1
TOTAL	80.0		80.0			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
UPS A DISTRIBUTION	UPS RM BE-97	FLOOR	SWGR EQ MCR	120/208V. 3PH, 4W	N/A	N/A

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		2400			E			X					E	26640				2
3	PNL ENTR. A, B		2400		E	3	100		X		250	3	E		26640		PNL BUSWAY A	4
5				2400	E					X			E			26640		6
7		24360			E			X					E	9360				8
9	PNL BSMNTUPS		24360		E	3	400		X		150	3	E		9360		PNL EBUPS011CB	10
11				24360	E					X			E			9360		12
13		9360			E			X					E	9360				14
15	PNL EBUPS401WA		9360		E	3	150		X		150	3	E		9360		PNL EBUPS012CB	16
17				9360	E					X			E			9360		18
19		9360			E			X					E	12000				20
21	PNL EBUPS461NA		9360		E	3	150		X		150	3	E		1200		PNL EBUPS014CA	22
23				9360	E					X			E			1200		24
25		9360			E			X					E	4800				26
27	PNL EBUPS092NA		9360		E	3	150		X		100	3	E		4800		PNL EBUPS463CA	28
29				9360	E					X			E			4800		30
31		4800			E			X										32
33	PNL EBUPS095CA		4800		E	3	100		X		20	1						34
35				4800	E					X	20	1						36
37						1	20	X			20	1						38
39						1	20		X		20	1						40
41						1	20			X	20	1						42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F.	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	121800
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	111000
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	111000
MOTORS	0.0	1.00	0.0	EQUIP	0.0		
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	343.8	1.00	343.8			CONNECTED	343.8	954.3
HEATING	0.0	1.00	0			DEMAND	343.8	954.3
TOTAL	343.8		343.8			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

PANEL NAME	LOCATION	MOUNTING	SUPPLIED FROM	VOLTAGE	BUS	MAIN
EBUPS 90N1 - REUSE	BC-50A	SURFACE		120/208V. 3PH, 4W	400A	400A. 3P. M.C.B.

CKT NO	LOAD DESCRIPTION	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	CB CODE	CB P	CB TR	BUS A	BUS B	BUS C	CB TR	CB P	CB CODE	VA LOAD PH A	VA LOAD PH B	VA LOAD PH C	LOAD DESCRIPTION	CKT NO
1		960			H			X					H	960				2
3	ACCU-BC-50A-1 / CCU-B50A-1		960		H	2	20		X		20	2	H		960		ACCU-BC-50A-2 / CCU-B50A-2	4
5				960	H					X			H			960		6
7	ACCU-BC-50B / CCU-B50B	960			H	2	20	X			20	2	H	960			ACCU-BC-60-1 / CCU-B60-1	8
9			960		H				X		20	1						10
11	ACCU-BC-60-2 / CCU-B60-2			960	H	2	20			X	20	1						12
13						1	20	X			20	1						14
15						1	20		X		20	1						16
17						1	20			X	20	1						18
19						1	20	X			20	1						20
21						1	20		X		20	1						22
23						1	20			X	20	1						24
25						1	20	X			20	1						26
27						1	20		X		20	1						28
29						1	20			X	20	1						30
31						1	20	X			20	1						32
33						1	20		X		20	1						34
35						1	20			X	20	1						36
37						1	20	X			20	1						38
39						1	20		X		20	1						40
41						1	20			X	20	1						42

LOAD DESCRIPTION	CONNECTED (KVA)	D.F	DEMAND (KVA)	SUBFED LOADS	(KVA)	CONNECTED	VA
LIGHTING	0.0	1.00	0.0	LIGHTING	0.0	PH A	3840
RECEPT (FIRST 10 KW)	0.0	1.00	0.0	RECEPT	0.0	PH B	2880
RECEPT (REMAINDER)	0.0	0.50	0.0	MOTORS	0.0	PH C	2880
MOTORS	0.0	1.00	0.0	EQUIP	0.0		
LARGEST MOTOR	0.0	1.25	0.0	HEATING	0.0	TOTAL	KVA	AMPS
EQUIPMENT	0.0	1.00	0			CONNECTED	9.6	26.6
HEATING	9.6	1.00	9.6			DEMAND	9.6	26.6
TOTAL	9.6		9.6			DESIGN		

GROUND BUS
ISOLATED GROUND BUS

100% NEUTRAL BUS
200% NEUTRAL BUS

INTEGRAL TVSS
ISC = 14KAIC

L	LIGHTING	M	MOTORS	E	EQUIPMENT	S	SUBFED
R	RECEPTACLE	LM	LARGEST MOTOR	H	HEATING	T	TRANSFORMER

ISSUE FOR BID	01-16-24
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Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title: ELECTRICAL - DATA CENTER PANEL SCHEDULES

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Project Number: 437-21-210

Building Number: 1-9-46

Drawing Number: E607

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

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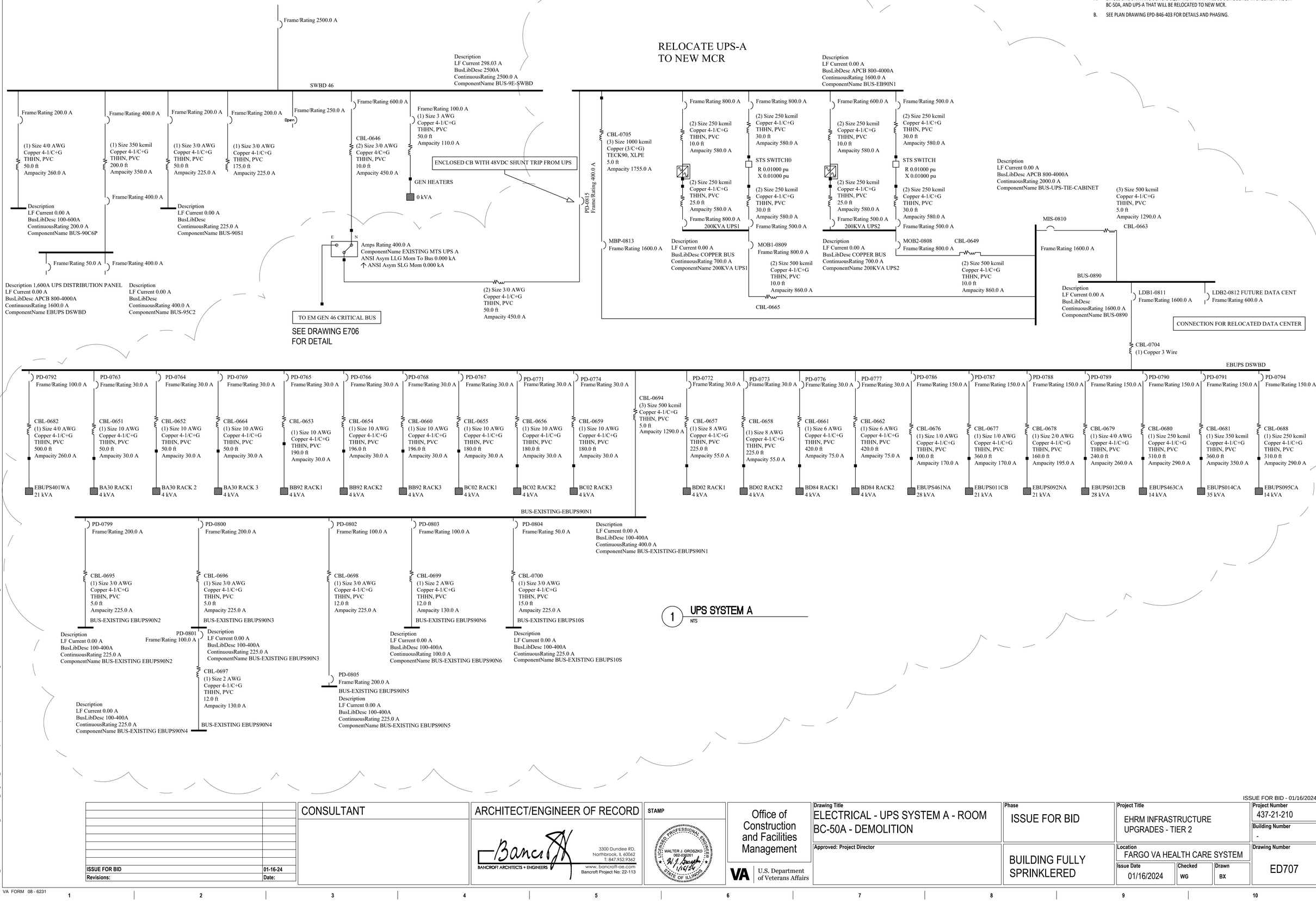
VA FORM 08 - 6231

ELECTRICAL GENERAL NOTES

A. SINGLE LINE DRAWING DEPICTS EQUIPMENT THAT WILL BE DEMOLISHED IN BASEMENT ROOM BC-50A, AND UPS-A THAT WILL BE RELOCATED TO NEW MCR.

B. SEE PLAN DRAWING EPD-B46-403 FOR DETAILS AND PHASING.



1 UPS SYSTEM A

NTS

ISSUE FOR BID	**01-16-24**
Revisions:	**Date:**

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title ELECTRICAL - UPS SYSTEM A - ROOM BC-50A - DEMOLITION	**Phase** ISSUE FOR BID	**Project Title** EHRM INFRASTRUCTURE UPGRADES - TIER 2	**Project Number** 437-21-210
			Building Number -
Approved: Project Director	BUILDING FULLY SPRINKLERED	**Location** FARGO VA HEALTH CARE SYSTEM	**Drawing Number** ED707
		Issue Date 01/16/2024 / **Checked** WG / **Drawn** BX	

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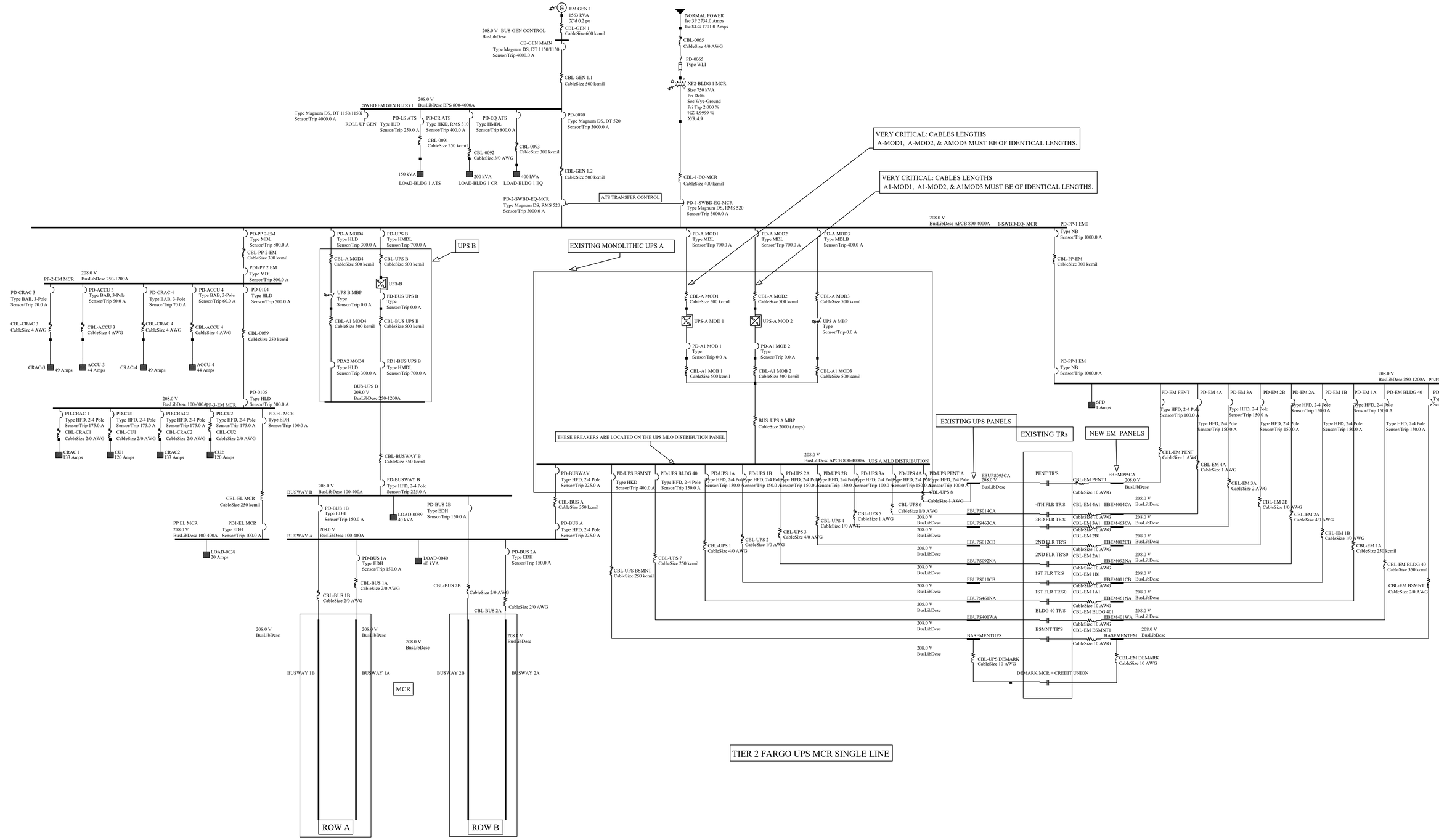
VA FORM 08 - 6231



TIER 2 FARGO UPS MCR SINGLE LINE

ISSUE FOR BID - 01/16/2024

ISSUE FOR BID	01-16-24
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL - MCR MONOLITHIC UPS-A & UPS-B BLOCK DIAGRAM

Approved: Project Director

Phase
ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title
EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location
FARGO VA HEALTH CARE SYSTEM

Issue Date 01/16/2024 | **Checked** WG | **Drawn** BX

Project Number 437-21-210

Building Number -

Drawing Number E707

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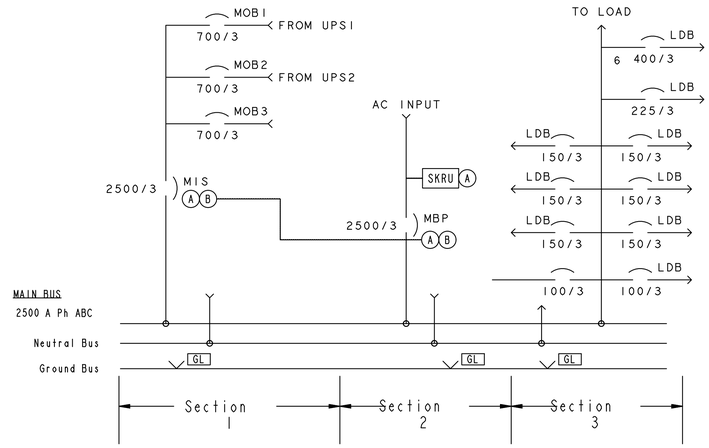
ELECTRICAL GENERAL NOTES

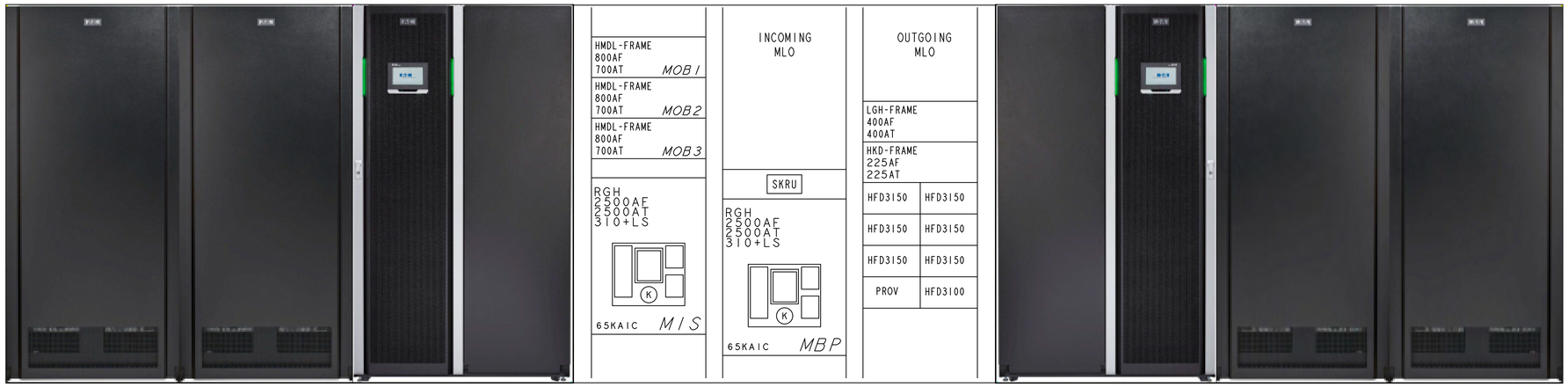
A. SEE DRAWING EP-01-404 FOR EQUIPMENT CONFIGURATIONS.

1 2

UPS-B



ELECTRICAL ONE LINE DIAGRAM
UPS-A - MONOLITICH



1 2 UPS-A - MONOLITHIC 2 1

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL - EM GEN 46 SWBD 46EE-SWBD, UPS-A AND UPS-B

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

ISSUE FOR BID - 01/16/2024

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: WG | Drawn: BX

Project Number: 437-21-210

Building Number: -

Drawing Number: E708

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VA FORM 08 - 6231

COMMUNICATION SYMBOLS

Symbol	Description
P# +H	WALL MOUNTED - TELEPHONE OUTLET P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 1 PORTS + H =INSTALLATION HEIGHT IN INCHES AT CENTER OF OUTLET, IF NOT SHOWN INSTALL AT TYPICAL 18" RECEPTACLE HEIGHT. COORDINATE WITH ELECTRICAL
P# +H	WALL MOUNTED - VOICE / DATA OUTLET P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 4 PORTS
P#	CEILING MOUNTED - VOICE / DATA OUTLET P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 4 PORTS
P#	FLOOR MOUNTED-TELEPHONE/DATA OUTLET P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 4 PORTS
P# +H	WALL MOUNTED - GETWELL NETWORK DATA OUTLET P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 1 PORTS + H =INSTALLATION HEIGHT IN INCHES AT CENTER OF OUTLET, IF NOT SHOWN INSTALL AT TYPICAL 72" RECEPTACLE HEIGHT. COORDINATE WITH ELECTRICAL
WAP	CEILING MOUNTED - OUTLET FOR WIRELESS ACCESS POINT P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 2 PORTS
E P#	FLOOR BOX- VOICE / DATA OUTLETS P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 4 PORTS E= POWER OUTLET- REFER TO ELECTRICAL PLANS FOR DETAILS
E P#	POKE THRU- VOICE / DATA OUTLETS P# = NUMBER OF VOICE / DATA PORTS IN FACEPLATE, IF NOT SHOWN PROVIDE 4 PORTS E= POWER OUTLET- REFER TO ELECTRICAL PLANS FOR DETAILS
TV T# + H	WALL MOUNTED TV OUTLET PROVIDE 1 DATA PORT AND 1 COAX PORT UNLESS OTHERWISE NOTED T# = TYPE OF OUTLET SEE TELECOMMUNICATION DETAILS + H =INSTALLATION HEIGHT IN INCHES AT CENTER OF OUTLET, IF NOT SHOWN INSTALL AT TYPICAL 72" RECEPTACLE HEIGHT. COORDINATE WITH ELECTRICAL
TV T# + H	CEILING MOUNTED TV OUTLET PROVIDE 1 DATA PORT AND 1 COAX PORT UNLESS OTHERWISE NOTED T# = TYPE OF OUTLET SEE TELECOMMUNICATION DETAILS + H =INSTALLATION HEIGHT IN INCHES AT CENTER OF OUTLET, IF NOT SHOWN INSTALL AT TYPICAL 72" RECEPTACLE HEIGHT. COORDINATE WITH ELECTRICAL.

ELECTRONIC SAFETY AND SECURITY SYMBOLS

Symbol	Description
	REMOTE DICTATING OUTLET MTD 1'-6" (457 mm) AFF. UNLESS OTHERWISE NOTED
P A	SECURITY / DURESS-ALARM BUTTON MOUNTED 3" ABOVE COUNTER TOP / COUNTER TOP BACK SPLAH.
X	CEILING MOUNTED SECURITY CAMERA, X REPERSENTS VIEW RANGE OF CAMERA
X	WALL MOUNTED SECURITY CAMERA, X REPERSENTS VIEW RANGE OF CAMERA
CR	WALL MOUNTED CARD READER
CR/K	WALL MOUNTED CARD READER WITH KEYPAD
RFID	WALL MOUNTED PATIENT WRISTBAND READER
AIP	AIPHONE
ADO	Automatic Door Opener
REX	REQUEST TO EXIT PUSH BUTTON
ACP	ACCESS CONTROL PANEL
ACPS	ACCESS CONTROL POWER SUPPLY
KP	KEYPAD LOCK
RX	REQUEST TO EXIT MOTION
ES	DOOR LOCKING MECHANISM/ELECT STRIKE
ML	DOOR LOCKING MECHANISM/MAG LOCK
	ROOF POLE MOUNTED SECURITY CAMERA
CCP	CAMERA CONTROL PANEL
MID	MOTION INTRUSION DETECTOR
GB	GLASS BREAK SENSOR
DC	DOOR CONTACT
WS	DOOR OPENER WAVE SENSOR FOR MOTORIZED DOOR
	INTERCOM STATION
S	INTERCOM STAFF STATION.
R	RADIO CHANNEL SELECTOR FACILITIES
R M	SPEAKER PROGRAM SELECTOR SWITCH & VOLUME CONTROL MTD.
DB	DURESS BUTTON
DAP	DIVERSITY PATCH ANTENNA
DAC	DAS ANTENNA CELLULAR
DS	OVER THE DOOR ALARM SENSOR PERVENTIVE
S PA	PUBLIC ADDRESS SYSTEM 2X2 RECESSED SPEAKER
S X	SPEAKER, WALL MOUNTED, "X" INDICATES THE TYPE, PROVIDE SCHEDULE ON LEGEND MTD. 7'-6" (2286mm) AFF UNLESS OTHERWISE NOTED
S PA	PUBLIC ADDRESS SYSTEM WALL MOUNTED SPEAKER
S EM	EMERGENCY MANAGEMENT SYSTEM TEXT-TO-SPEECH WALL MOUNTED SPEAKER.
V	SOUND MASKING (WHITE NOISE) SYSTEM LOCAL KEYPAD STATION
S X	SPEAKER, CEILING MOUNTED, "X" INDICATES THE TYPE, PROVIDE SCHEDULE ON LEGEND
S PA	PUBLIC ADDRESS SYSTEM CEILING RECESSED ROUND SPEAKER
S IC	INTERCOM SYSTEM SPEAKER.
S SM	SOUND MASKING (WHITE NOISE) SYSTEM SPEAKER.

GENERAL SYMBOLS

Symbol	Description
CATV	CABLE TELEVISION LINE = CATV
CCTV	CLOSED CIRCUIT TELEVISION LINE = CCTV. MINIMUM 1" (25mm) CONDUIT
FO	FIBEROPTICS LINE = FO
T	TELEPHONE LINE = T
I	INTERCOM LINE = I. MINIMUM 3/4" (19mm) CONDUIT.
S	SOUND LINE = S
NC	NURSE CALL LINE = NC. MINIMUM 3/4" (19mm) CONDUIT.
R	RADIO CONDUIT RUN, MINIMUM 3/4" (19mm) CONDUIT.
C	TELECOMMUNICATIONS MANHOLE
	TELECOMMUNICATION TERMINAL CABINET
TTB	TELEPHONE BACKBOARD (WALL MOUNTED)
OR	WIRE MESH CABLE TRAY SIZE COMMENSURATE WITH REQUIREMENTS
	CONDUIT WITH BUSHING FIRESTOP AND INNERDUCT FOR FIBER
	SLEEVE WITH BUSHING FIRESTOP AND INNERDUCT FOR FIBER.
	SLEEVE OR CONDUIT WITH BUSHING FIRESTOP AND INNERDUCT FOR FIBER.
	TELECOMMUNICATIONS CHANNEL RACK, 19" RAILS, #12-24 TAPPED EIA HOLE PATTERN, 30" DEEP CHANNEL MINIMUM,7' HIGH, 45RU, WHITE
	VERTICAL CABLE MANAGER WITH DOOR, 6" WIDE MINIMUM (SIZED TO MEET REQUIREMENT.
	SERVER CABINET, 45U, 24" X 48" (NOMINAL), SQUARE PUNCHED RAIL, SINGLE PERFORATED FRONT DOOR, SOLID REAR DOOR (VERTICAL EXHAUST DUCT [VED] IMPLEMENTATION); DOUBLE PERFORATED REAR DOOR(NO VED), TWO-POINT KEYED LOCKS, WHITE, SOLID SIDE PANELS.
	TELECOMMUNICATIONS CABINET, 7' HIGH, 45U, 40" X 48' (NOMINAL), SQUARE PUNCHED RAIL, SINGLE PERFORATED FRONT DOOR, SOLID REAR DOOR(VERTICAL EXHAUST DUCT [VED] IMPLEMENTATION), DOUBLE PERFORATED REAR DOOR (NO VED), TWO-POINT KEYED LOCKS, WHITE, SOLID SIDE PANELS.

NURSE CALL SYMBOLS

Symbol	Description
N D	NURSE CALL, CEILING MOUNTED DOME LIGHT
N P	NURSE CALL, WALL MOUNTED PULL CORD
N D	NURSE CALL, WALL MOUNTED DOME LIGHT
N BI	NURSE CALL, WALL MOUNTED BED INTERFACE
N SA	NURSE CALL, WALL MOUNTED STAFF ASSIST
N DS	NURSE CALL, WALL MOUNTED DUTY STATION
N ST	NURSE CALL, WALL MOUNTED STAFF TERMINAL
N CB	NURSE CALL, WALL MOUNTED CODE BLUE
N MS	NURSE CALL, COUNTER MOUNTED MASTER STATION
N Z	NURSE CALL ZONE LIGHT - CEILING MOUNTED

ISSUE FOR BID - 01/16/2024

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Chris Carter
BICSI ID # 136803
EXPIRES 12-31-24
01/16/2024
RCDD

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

Drawing Title: ICT - GENERAL NOTES, SYMBOLS + ABBREVIATIONS
Approved: Project Director
Phase: ISSUE FOR BID
BUILDING FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2
Location: FARGO VA HEALTH CARE SYSTEM
Issue Date: 01/16/2024
Checked: CC
Drawn: JG
Project Number: 437-21-210
Building Number:
Drawing Number: TT-001

VA FORM 08 - 6231

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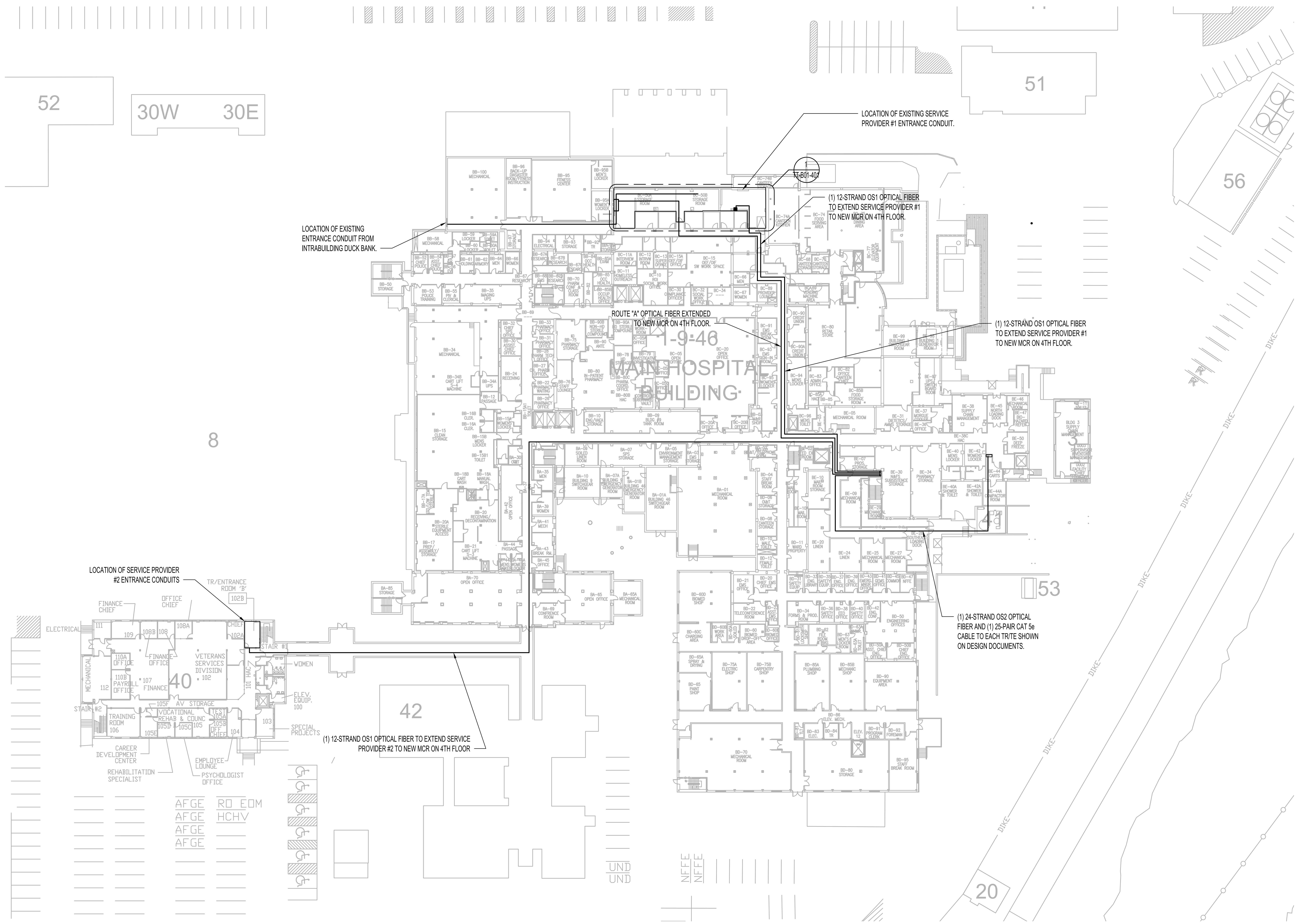
RATED PARTITION LEGEND

CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- SMOKE BARRIER



NORTH

1 GENERAL - CONSTRUCTION SEQUENCE OF WORK PLAN - BASEMENT

1/32"=1'-0"

ISSUE FOR BID	01-16-24
Revisions:	Date:

CONSULTANT

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Chris Carter
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

ISSUE FOR BID - 01/16/2024

Drawing Title: ICT CONTRUCTION SEQUENCE OF WORK - BASEMENT

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024

Checked: CC

Drawn: JG

Project Number: 437-21-210

Building Number: 1-9-46, 40

Drawing Number: TT- 202

VA FORM 08 - 6231

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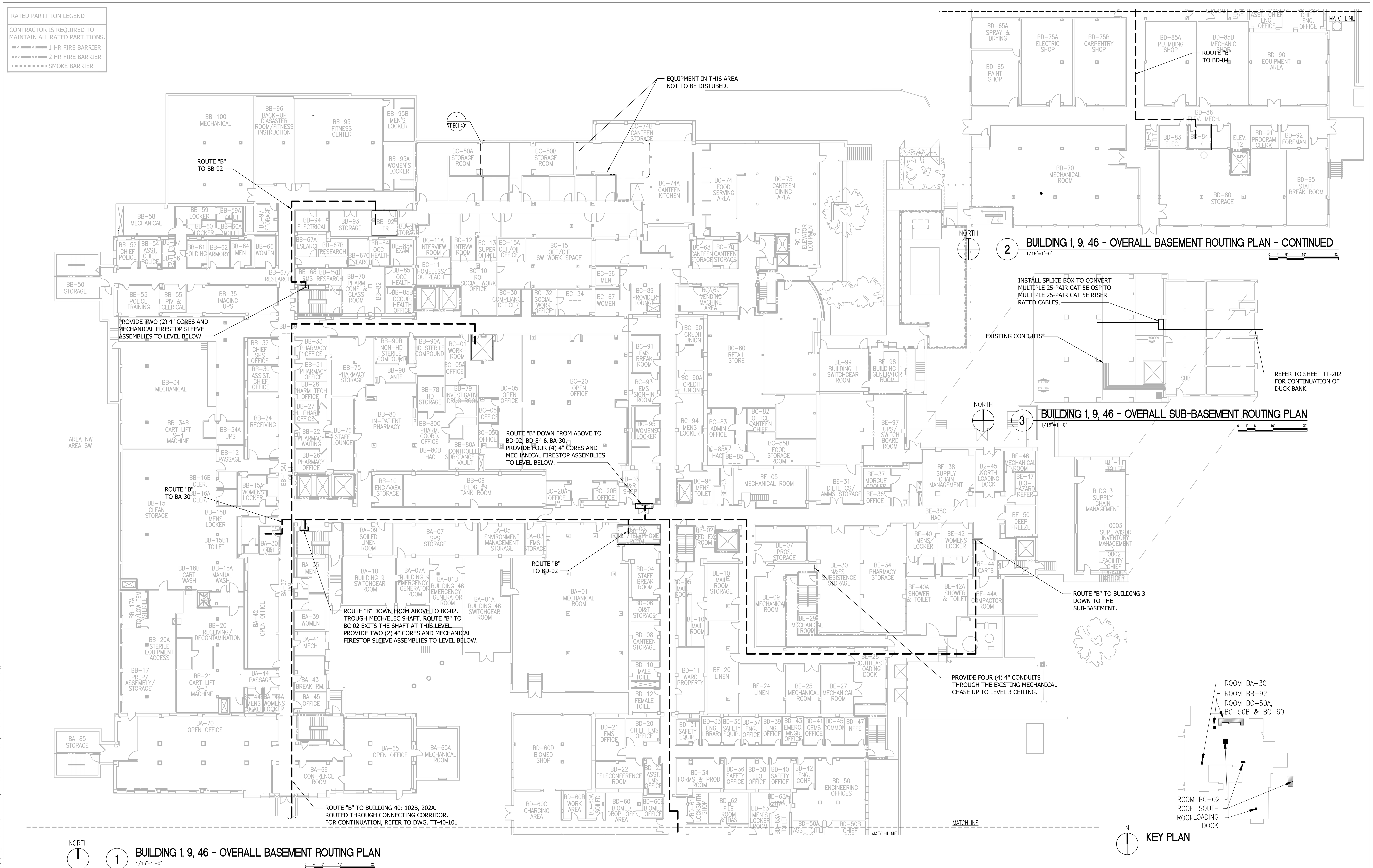

RATED PARTITION LEGEND
CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.
1 HR FIRE BARRIER
2 HR FIRE BARRIER
SMOKE BARRIER
EQUIPMENT IN THIS AREA NOT TO BE DISTUBED.
ROUTE "B" TO BB-92
PROVIDE TWO (2) 4" CORES AND MECHANICAL FIRESTOP SLEEVE ASSEMBLIES TO LEVEL BELOW.
ROUTE "B" DOWN FROM ABOVE TO BD-02, BD-84 & BA-30. PROVIDE FOUR (4) 4" CORES AND MECHANICAL FIRESTOP ASSEMBLIES TO LEVEL BELOW.
ROUTE "B" TO BA-30
ROUTE "B" TO BD-02
ROUTE "B" DOWN FROM ABOVE TO BC-02. TROUGH MECH/ELEC SHAFT. ROUTE "B" TO BC-02 EXITS THE SHAFT AT THIS LEVEL. PROVIDE TWO (2) 4" CORES AND MECHANICAL FIRESTOP SLEEVE ASSEMBLIES TO LEVEL BELOW.
ROUTE "B" TO BUILDING 40: 102B, 202A. ROUTED THROUGH CONNECTING CORRIDOR. FOR CONTINUATION, REFER TO DWG. TT-40-101
ROUTE "B" TO BD-84
INSTALL SPLICE BOX TO CONVERT MULTIPLE 25-PAIR CAT 5E OSP TO MULTIPLE 25-PAIR CAT 5E RISER RATED CABLES.
EXISTING CONDUITS
REFER TO SHEET TT-202 FOR CONTINUATION OF DUCK BANK.
ROUTE "B" TO BUILDING 3 DOWN TO THE SUB-BASEMENT.
PROVIDE FOUR (4) 4" CONDUITS THROUGH THE EXISTING MECHANICAL CHASE UP TO LEVEL 3 CEILING.
MATCHLINE
NORTH
2 BUILDING 1, 9, 46 - OVERALL BASEMENT ROUTING PLAN - CONTINUED
1/16"=1'-0"
3 BUILDING 1, 9, 46 - OVERALL SUB-BASEMENT ROUTING PLAN
1/16"=1'-0"
1 BUILDING 1, 9, 46 - OVERALL BASEMENT ROUTING PLAN
1/16"=1'-0"
KEY PLAN
ROOM BA-30
ROOM BB-92
ROOM BC-50A, BC-50B & BC-60
ROOM BC-02
ROOM SOUTH LOADING DOCK

ISSUE FOR BID - 01/16/2024

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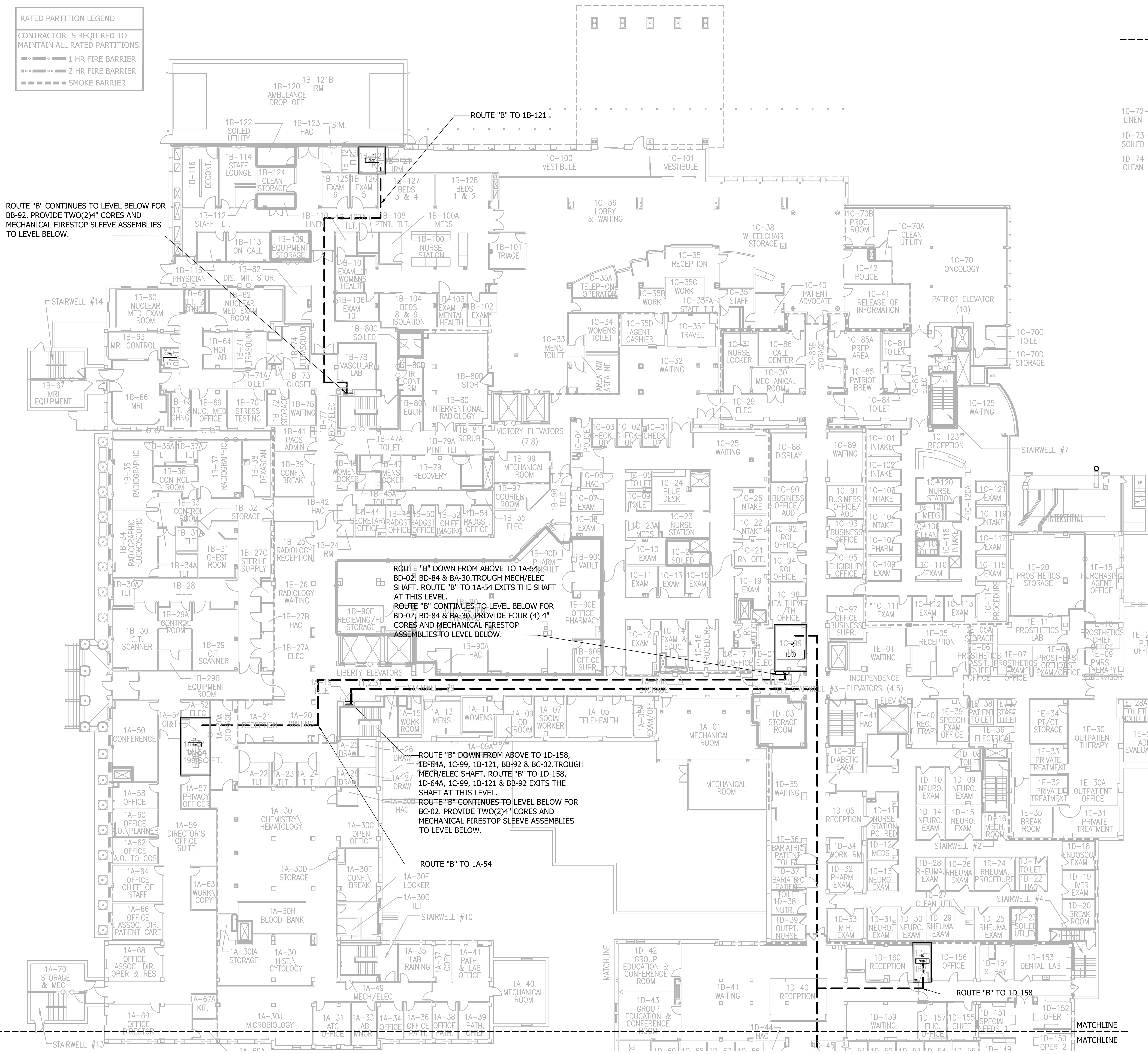
BICSI Chris Carter BICSI ID # 126981 RCDD

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ICT - BUILDING 1-9-46 - BASEMENT ROUTING PLAN	ISSUE FOR BID	EHRM INFRASTRUCTURE UPGRADES - TIER 2	437-21-210
Approved: Project Director	BUILDING FULLY SPRINKLERED	Location: FARGO VA HEALTH CARE SYSTEM	Building Number: 1-9-46
		Issue Date: 01/16/2024 · Checked: CC · Drawn: JCG	Drawing Number: TT-B01-101

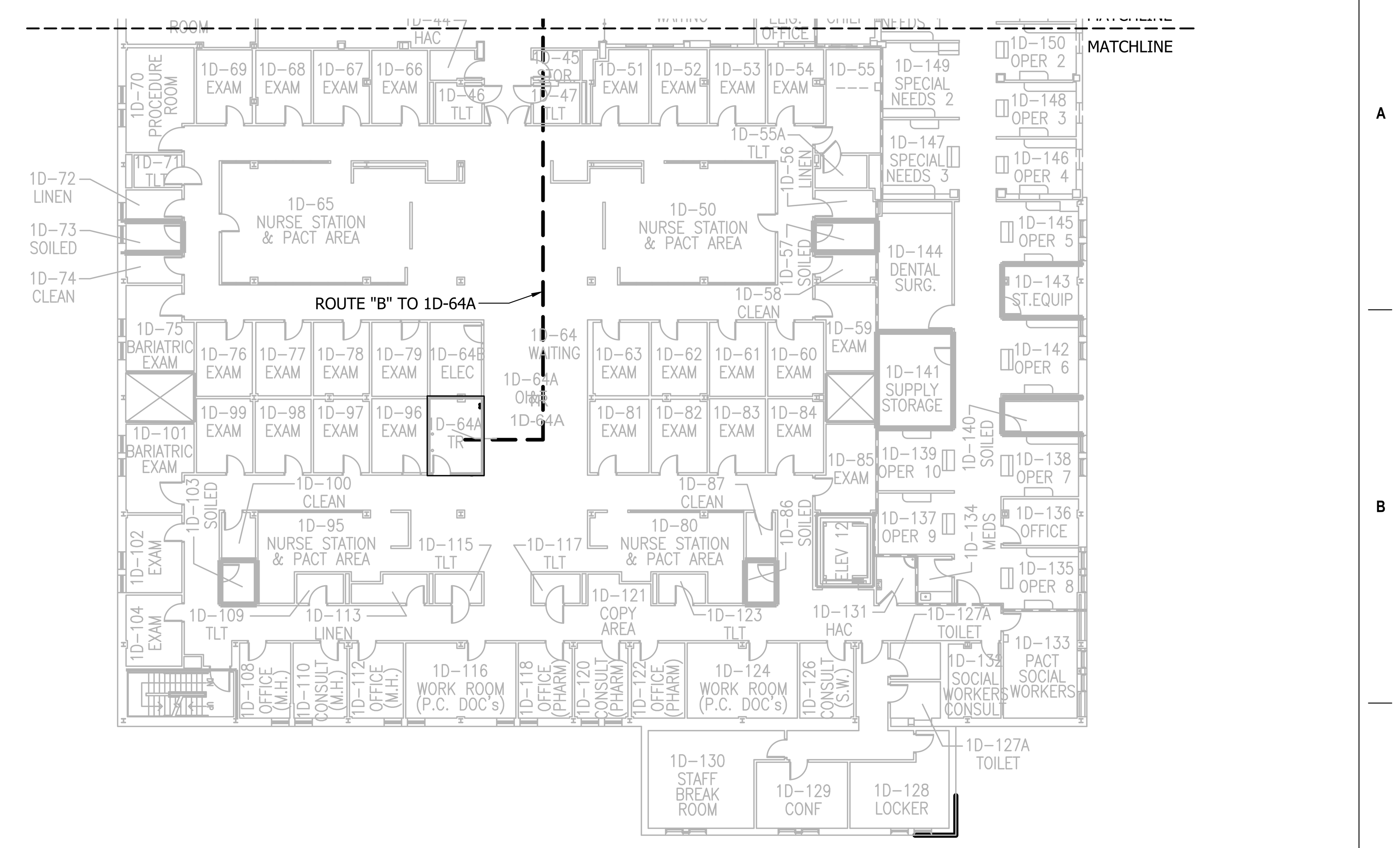
VA FORM 08 - 6231



RATED PARTITION LEGEND
CONTRACTOR IS REQUIRED TO MAINTAIN ALL RATED PARTITIONS.
1 HR FIRE BARRIER
2 HR FIRE BARRIER
SMOKE BARRIER
ROUTE "B" TO 1B-121
ROUTE "B" CONTINUES TO LEVEL BELOW FOR BB-92. PROVIDE TWO(2)4" CORES AND MECHANICAL FIRESTOP SLEEVE ASSEMBLIES TO LEVEL BELOW.
ROUTE "B" DOWN FROM ABOVE TO 1A-54, BD-02, BD-84 & BA-30.TROUGH MECH/ELEC SHAFT. ROUTE "B" TO 1A-54 EXITS THE SHAFT AT THIS LEVEL.
ROUTE "B" CONTINUES TO LEVEL BELOW FOR BD-02, BD-84 & BA-30. PROVIDE FOUR (4) 4" CORES AND MECHANICAL FIRESTOP ASSEMBLIES TO LEVEL BELOW.
ROUTE "B" DOWN FROM ABOVE TO 1D-158, 1D-64A, 1C-99, 1B-121, BB-92 & BC-02.TROUGH MECH/ELEC SHAFT. ROUTE "B" TO 1D-158, 1D-64A, 1C-99, 1B-121 & BB-92 EXITS THE SHAFT AT THIS LEVEL.
ROUTE "B" CONTINUES TO LEVEL BELOW FOR BC-02. PROVIDE TWO(2)4" CORES AND MECHANICAL FIRESTOP SLEEVE ASSEMBLIES TO LEVEL BELOW.
ROUTE "B" TO 1A-54
ROUTE "B" TO 1D-158
MATCHLINE
NORTH

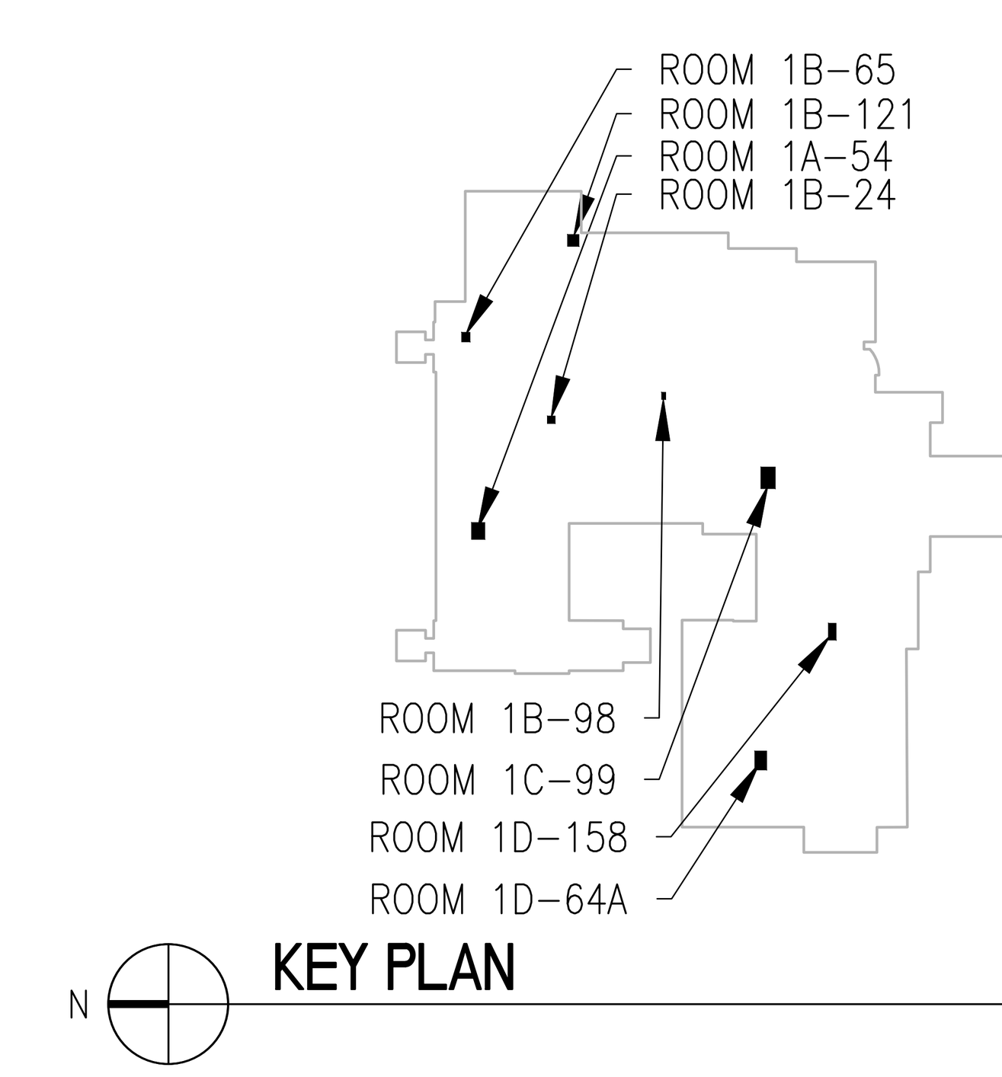
1 BUILDING 1, 9, 46 - OVERALL FIRST FLOOR ROUTING PLAN

1/16"=1'-0"



2 BUILDING 1, 9, 46 - OVERALL FIRST FLOOR ROUTING PLAN - CONTINUED

1/16"=1'-0"



KEY PLAN

ISSUE FOR BID - 01/16/2024

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Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ICT - BUILDING1-9-46 - FIRST ROUTING PLAN

Approved: Project Director

Phase: ISSUE FOR BID

BUILDING FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES - TIER 2

Location: FARGO VA HEALTH CARE SYSTEM

Issue Date: 01/16/2024 | Checked: CC | Drawn: JCG

Project Number: 437-21-210

Building Number: 1-9-46

Drawing Number: TT-B01-111

VA FORM 08 - 6231