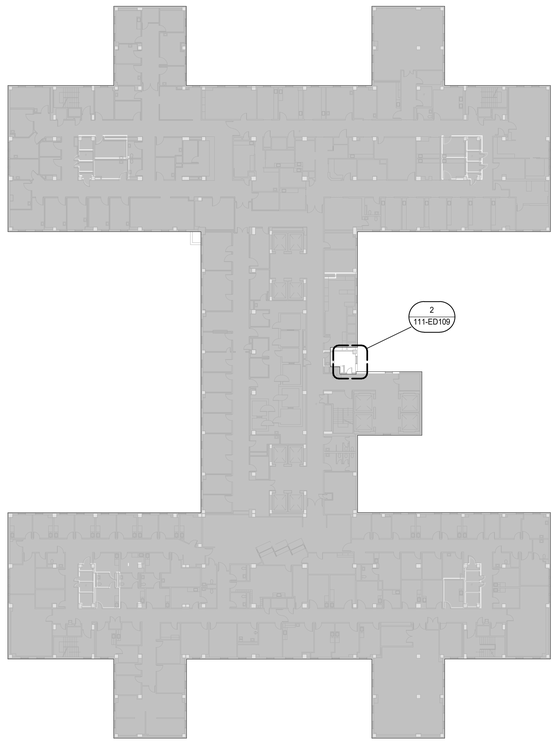
ELEC. DEMO GENERAL NOTES

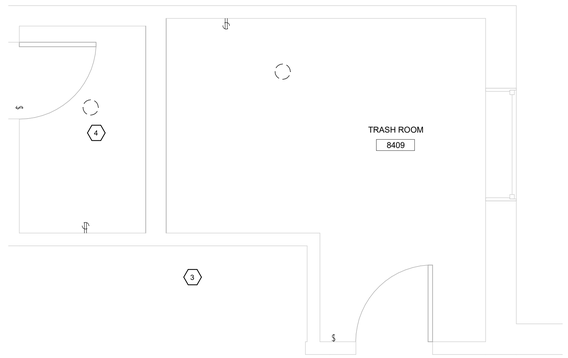
1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED. PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.



1 BLDG 111 - EIGHTH FLOOR - OVERALL ELECTRICAL DEMOLITION
1" = 30'-0"



2 BLDG 111 - EIGHTH FLOOR - ENLARGED ELECTRICAL DEMOLITION - 8409
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale : 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale : 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale : 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale : 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale : 3/16" = 1'-0" (0' 3" 6" 1' 1'6")
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Graphic Scale : 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale : 1 1/2" = 1'-0" (0' 3" 6" 1' 1'6")

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - EIGHTH FLOOR OVERALL & ENLARGED - ELECTRICAL DEMOLITION
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-ED109

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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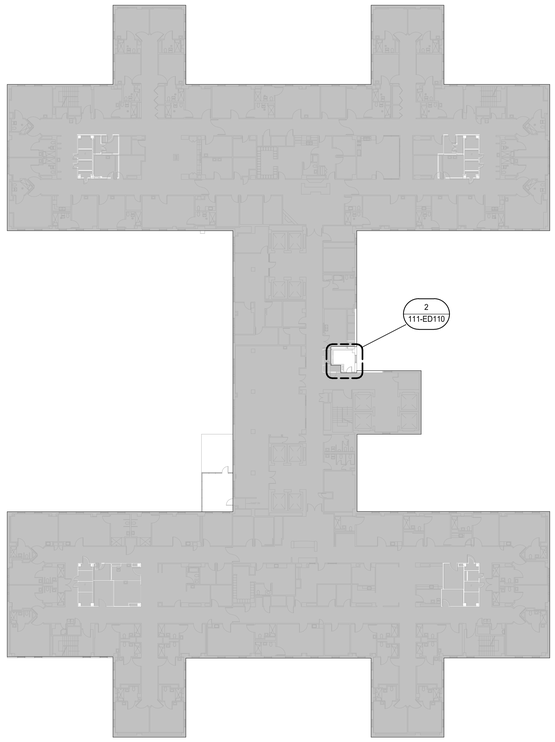
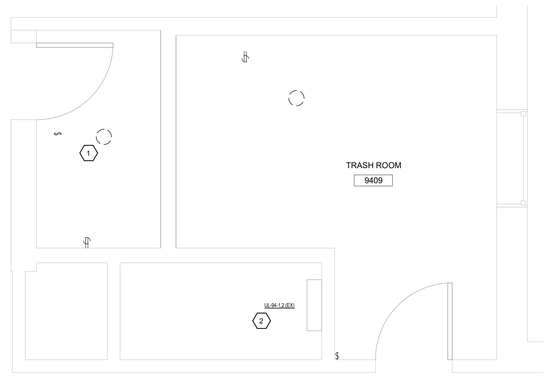


1 BLDG 111 - NINTH FLOOR - OVERALL ELECTRICAL DEMOLITION
1" = 30'-0"



2 BLDG 111 - NINTH FLOOR - ENLARGED ELECTRICAL DEMOLITION - 9409
1/2" = 1'-0"

ELEC. DEMO GENERAL NOTES

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ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
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12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.

Graphic Scale : 1/16" = 1'-0" (0' 8' 16' 32')
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Graphic Scale : 3/16" = 1'-0" (0' 3' 6' 12')
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TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Revisions:	Date:

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STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title BLDG 111 - NINTH FLOOR OVERALL & ENLARGED - ELECTRICAL DEMOLITION

Approved:

Phase FINAL BID DOCUMENTS

Sprinklered FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI

Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM

Project Number 695-21-700

Building Number 111

Drawing Number 111-ED110

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ELEC. DEMO GENERAL NOTES

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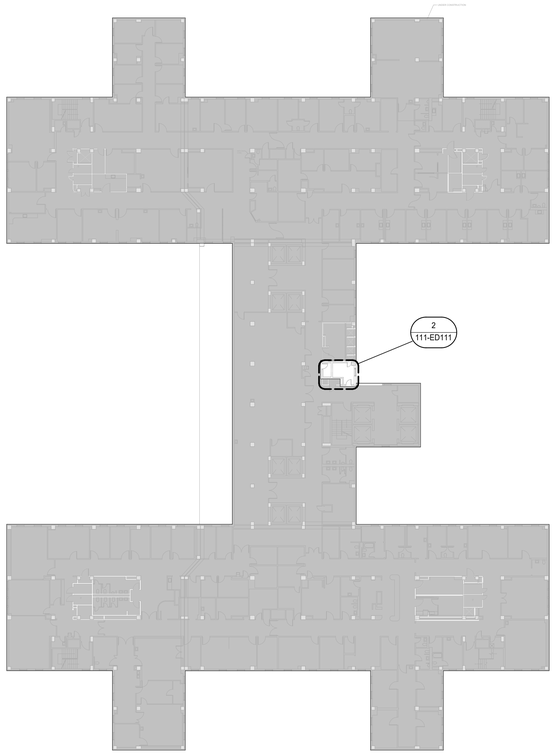
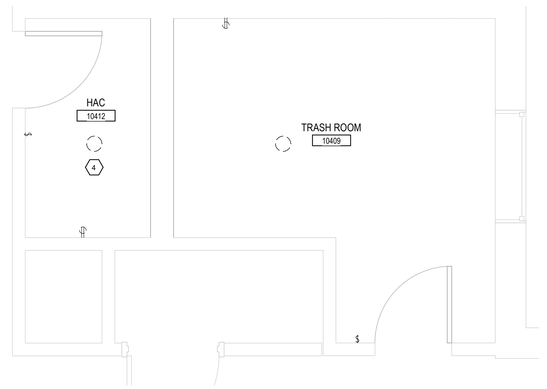


1 BLDG 111 - TENTH FLOOR - OVERALL ELECTRICAL DEMOLITION
1" = 30'-0"



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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title BLDG 111 - TENTH FLOOR OVERALL & ENLARGED - ELECTRICAL DEMOLITION	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
Approved:	**Sprinklered** FULLY SPRINKLERED	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Building Number** 111
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	**Drawing Number** 111-ED111

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1 BUILDING 111 - ELECTRICAL SITE PLAN
NTS

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1)#10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

Graphic Scale - 1/16" = 1'-0" (32' 16' 8' 0')
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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title BLDG 111 - SITE - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP100

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ELEC. NEW WORK GENERAL NOTES

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2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
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9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-B04-1 - CRITICAL POWER
EUL-TR-B04-2 - CRITICAL POWER
EUL-TR-B06-1 - CRITICAL POWER
EUL-TR-B06-2 - CRITICAL POWER
EUL-TR-B06-3 - CRITICAL POWER
EUL-TR-B06-4 - CRITICAL POWER
111-HM-1-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES

1. NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2. NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3. SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4. FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5. J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6. MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7. NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8. CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9. CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10. RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11. PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12. INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15. 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16. 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20. NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21. NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22. ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23. STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24. L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25. NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26. SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27. UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28. NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29. MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
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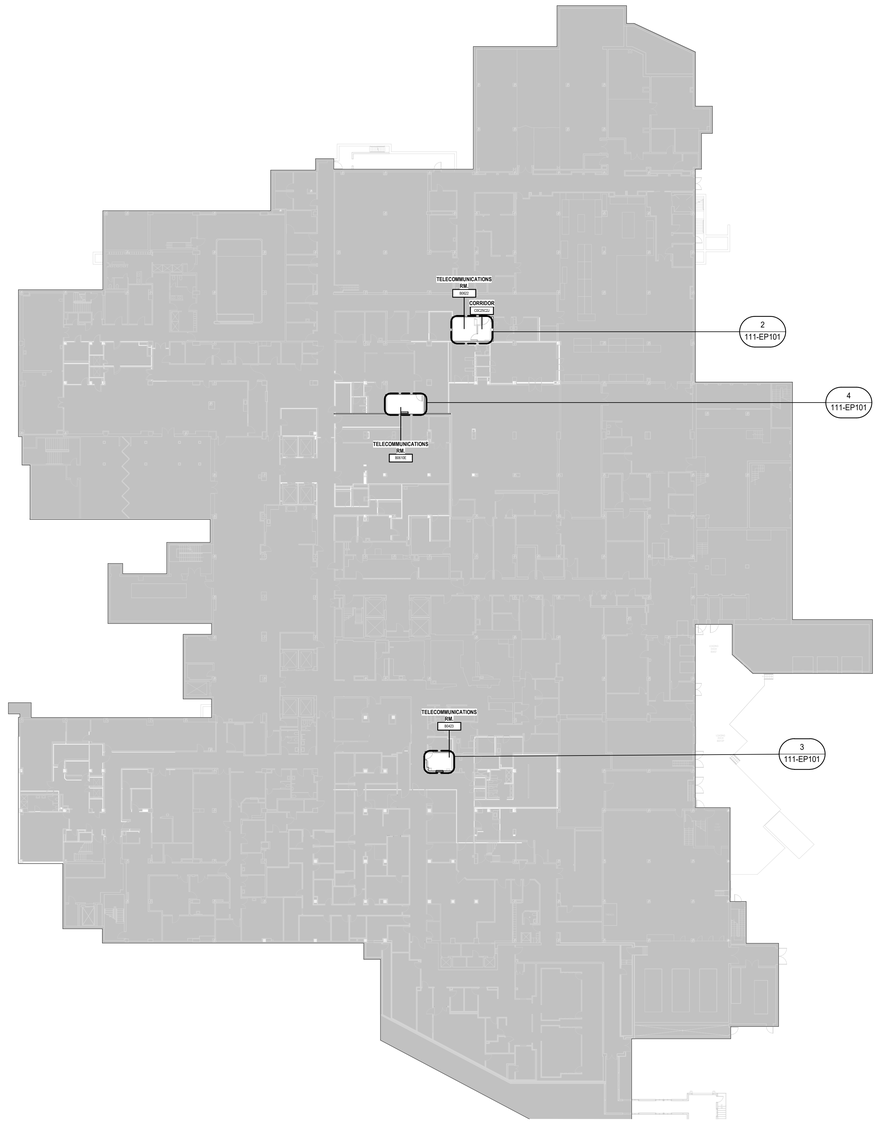
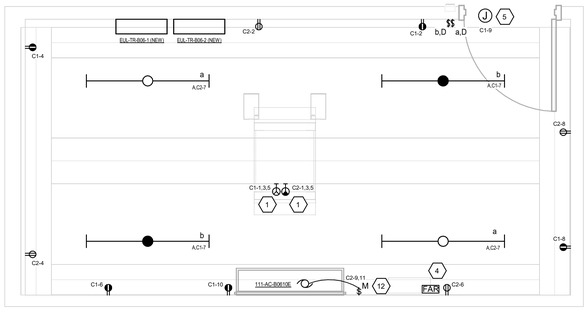
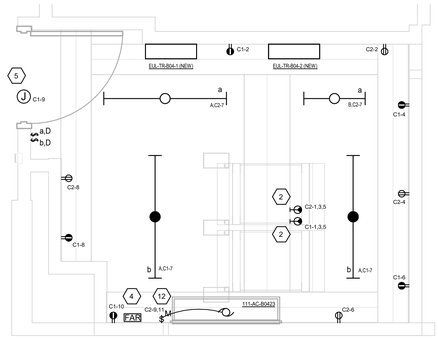
34. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35. RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36. ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39. CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40. MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41. PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44. INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45. PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46. CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47. CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49. ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50. STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51. CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52. ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53. CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.



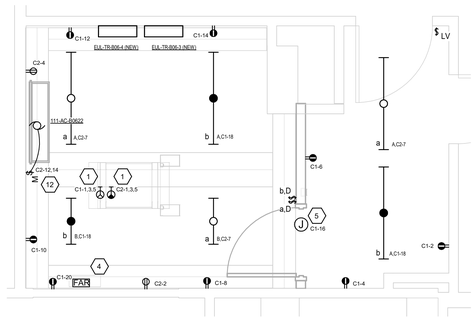
1 BLDG 111 - BASEMENT - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



4 BLDG 111 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM B0610E
1/2" = 1'-0"



3 BLDG 111 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM B0423
1/2" = 1'-0"



2 BLDG 111 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM B0622
3/8" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - BASEMENT OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
Approved:	**Sprinklered** FULLY SPRINKLERED	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Building Number** 111
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	**Drawing Number** 111-EP101

Graphic Scale: 1/16" = 1'-0"
Graphic Scale: 1/8" = 1'-0"
Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/4" = 1'-0"
Graphic Scale: 3/16" = 1'-0"
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Graphic Scale: 3/4" = 1'-0"
Graphic Scale: 1" = 1'-0"
Graphic Scale: 1 1/2" = 1'-0"

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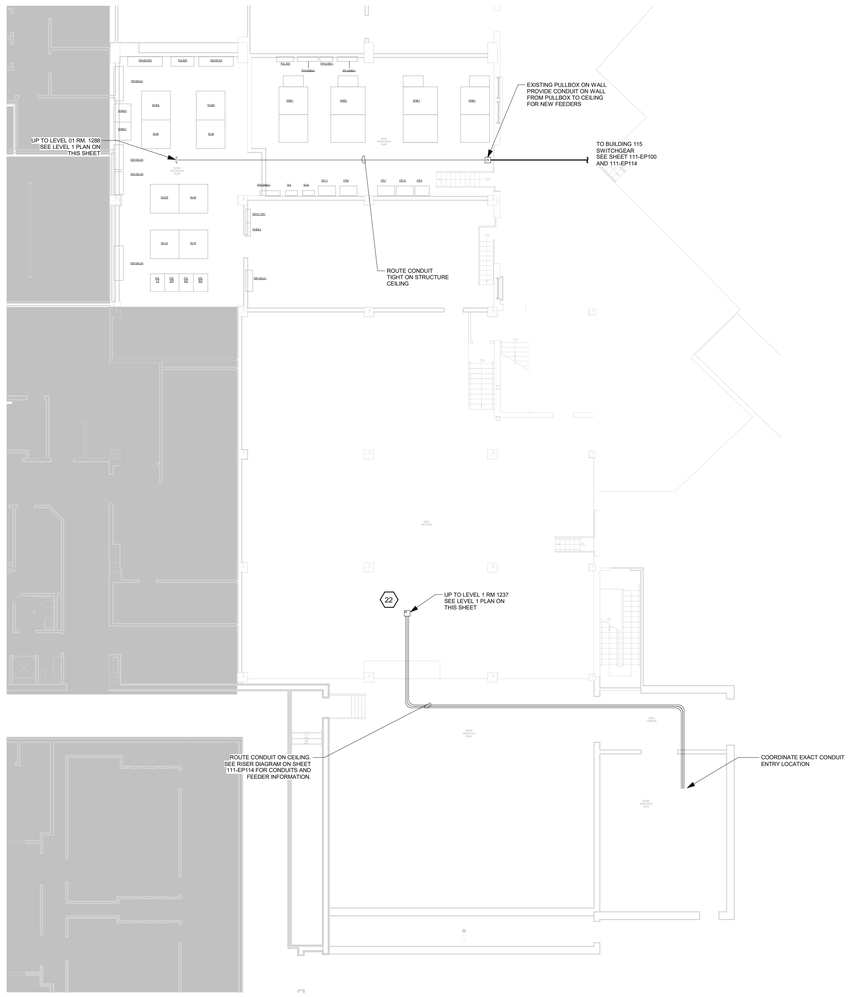
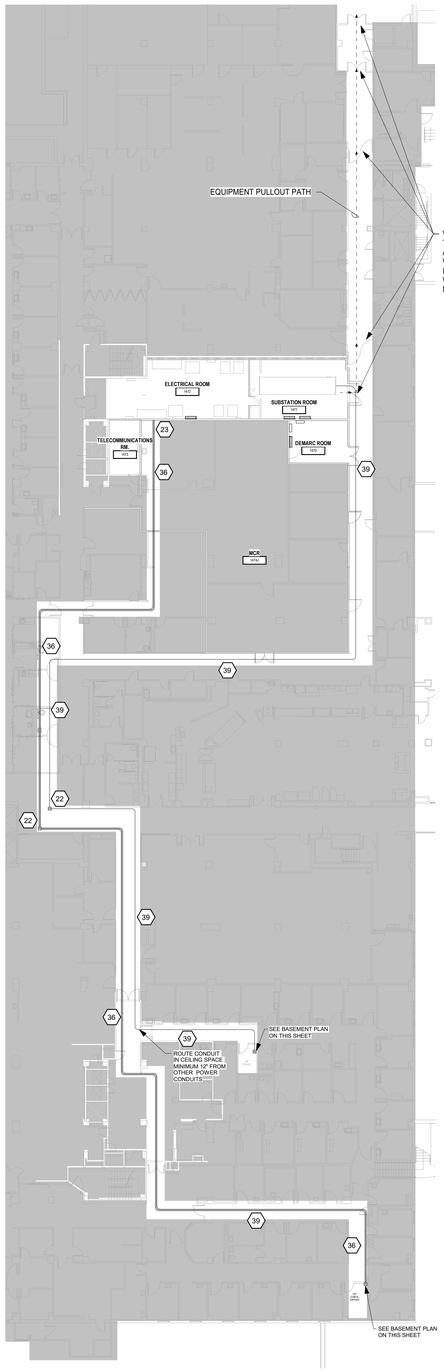


1 BLDG 111 - BASEMENT - OVERALL ELECTRICAL CONDUIT NEW WORK
3/32" = 1'-0"



2 BLDG 111 - FIRST FLOOR - OVERALL ELECTRICAL CONDUIT NEW WORK
1" = 20'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

ELEC. NEW WORK KEYNOTES

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#10N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#10N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
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8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
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10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
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12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
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18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
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22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
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35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
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45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
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53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

Graphic Scale: 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale: 1/8" = 1'-0" (16' 8' 4' 0')
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Graphic Scale: 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale: 3/16" = 1'-0" (12' 6' 3' 0')
Graphic Scale: 1/12" = 1'-0" (4' 2' 1' 0')
Graphic Scale: 3/64" = 1'-0" (2' 1' 6" 0')
Graphic Scale: 1" = 1'-0" (2' 1' 6" 0')
Graphic Scale: 1 1/2" = 1'-0" (1'6" 1' 6" 3" 0')

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - BASEMENT AND FIRST FLOOR - ELECTRICAL CONDUIT NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP102

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ELEC. NEW WORK GENERAL NOTES

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9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-11-1 - CRITICAL POWER
EUL-TR-11-2 - CRITICAL POWER
EUL-TR-15-1 - CRITICAL POWER
EUL-TR-15-2 - CRITICAL POWER
EUL-TR-16-1 - CRITICAL POWER
EUL-TR-16-2 - CRITICAL POWER
111-ICC-PDUA - CRITICAL POWER
111-ICC-PDUB - CRITICAL POWER
111-HM-B-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

1. NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
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5. J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
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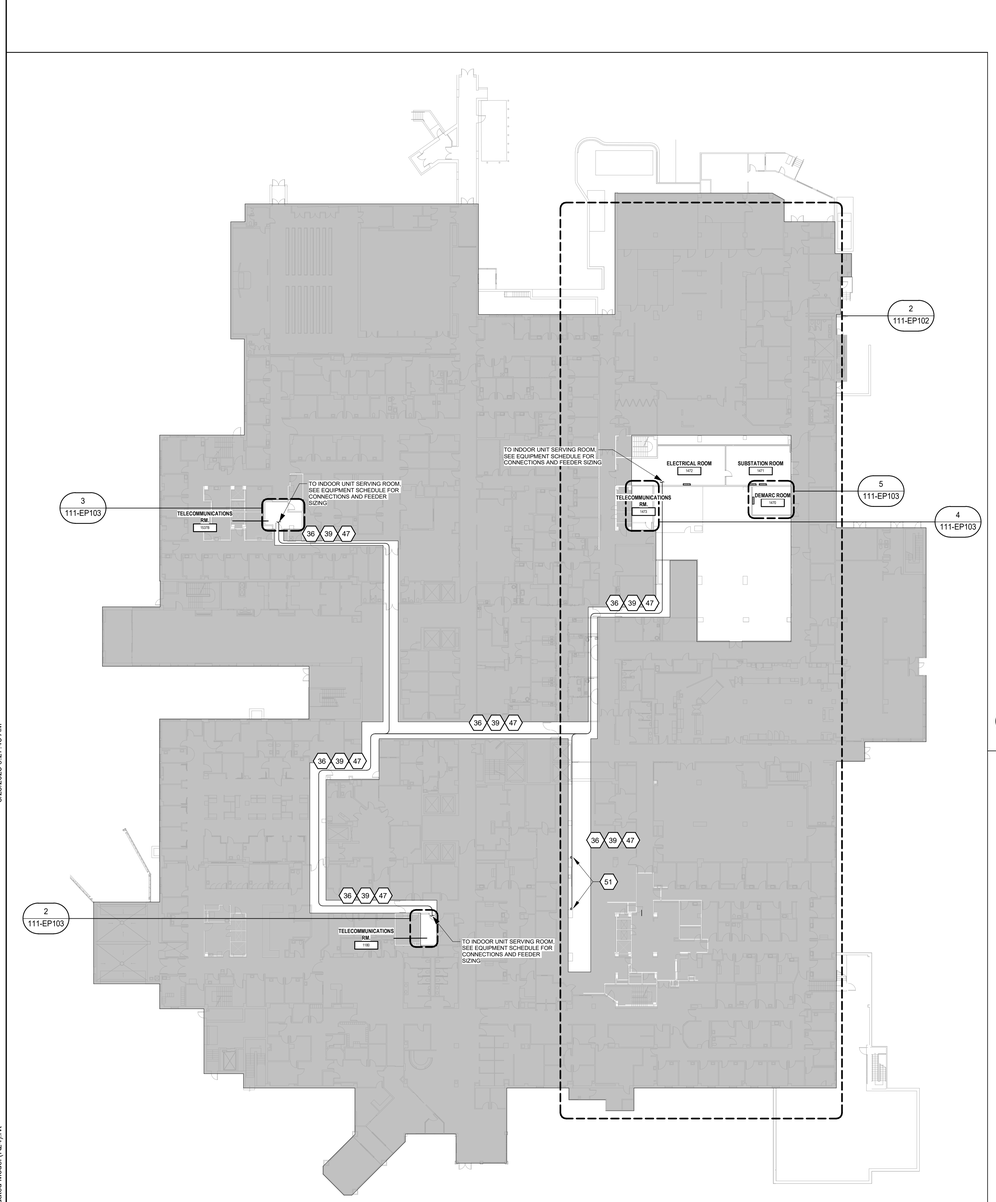
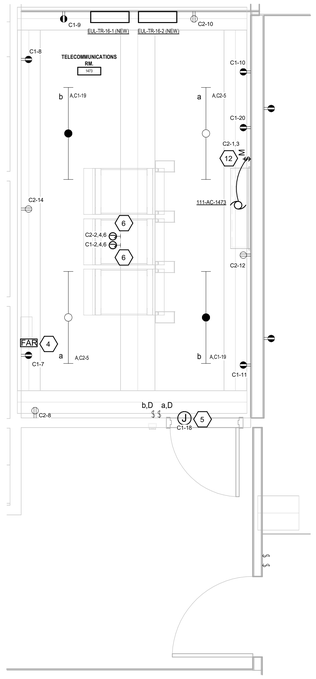
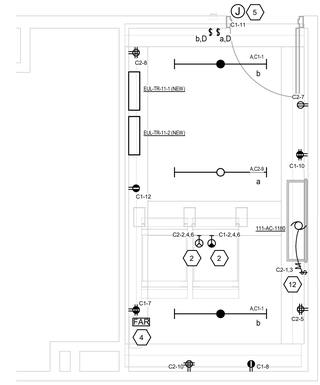
12. INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15. 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16. 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20. NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21. NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22. ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23. STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24. L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25. NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26. SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27. UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28. NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29. MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35. RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36. ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39. CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40. MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41. PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44. INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45. PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46. CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47. CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49. ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50. STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51. CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52. ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53. CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.



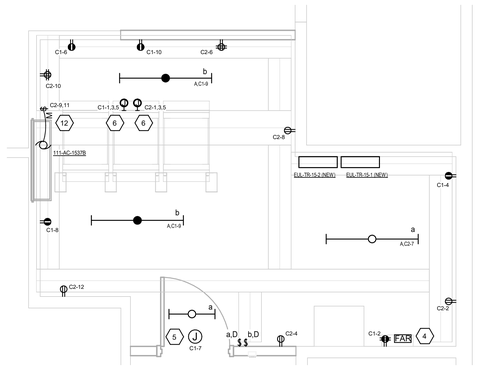
1 BLDG 111 - FIRST FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



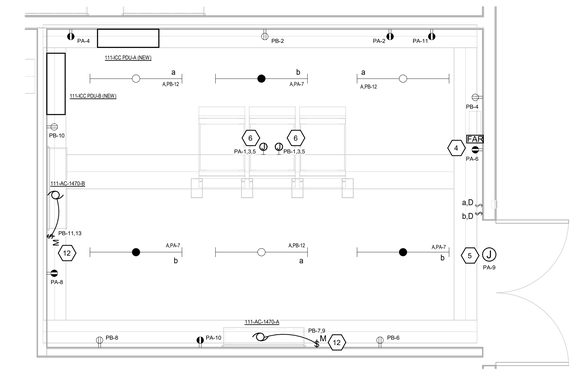
4 BLDG 111 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 1473
3/8" = 1'-0"



2 BLDG 111 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 1180
3/8" = 1'-0"



3 BLDG 111 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 1537B
3/8" = 1'-0"



5 BLDG 111 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 1470
3/8" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Revisions:	Date:

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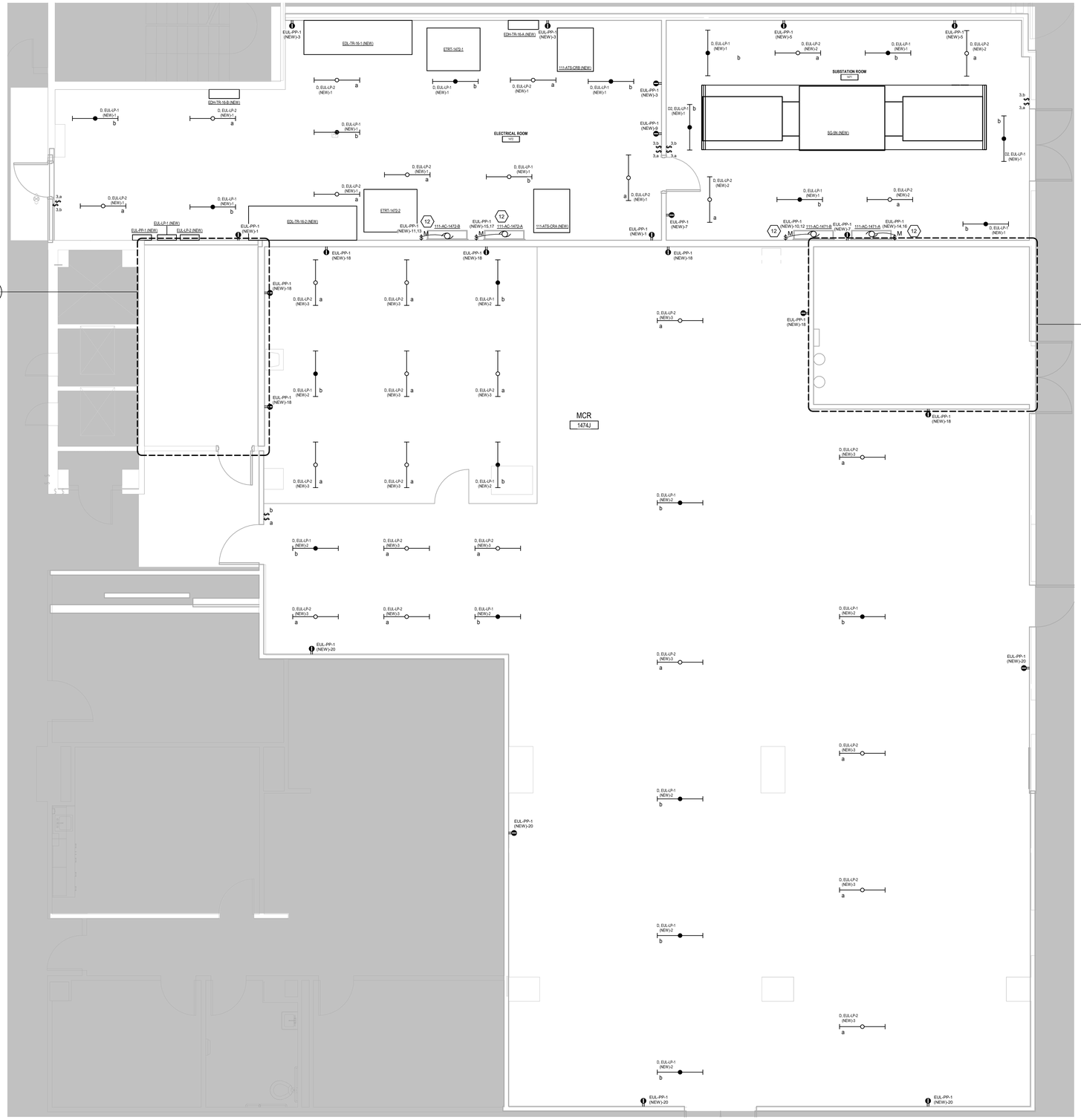
PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - FIRST FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP103

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
8/28/2025 9:27:43 AM
VA FORM 08 - 6231

Graphic Scale : 1/16" = 1'-0"
Graphic Scale : 1/8" = 1'-0"
Graphic Scale : 3/32" = 1'-0"
Graphic Scale : 1/4" = 1'-0"
Graphic Scale : 3/16" = 1'-0"
Graphic Scale : 1/2" = 1'-0"
Graphic Scale : 3/4" = 1'-0"
Graphic Scale : 1" = 1'-0"
Graphic Scale : 1 1/2" = 1'-0"



2 BLDG 111 - FIRST FLOOR - ENLARGED ELECTRICAL RCP NEW WORK - ROOM ICC

1/4" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

ELEC. NEW WORK KEYNOTES (#)

1. NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2. NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3. SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4. FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5. J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
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7. NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8. CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9. CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10. RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11. PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12. INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15. 60ASN/F/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
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53. CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

TRUE NORTH
PLAN NORTH

Graphic Scale: 1/16" = 1'-0"
Graphic Scale: 1/8" = 1'-0"
Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/4" = 1'-0"
Graphic Scale: 3/16" = 1'-0"
Graphic Scale: 1/2" = 1'-0"
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Graphic Scale: 1 1/2" = 1'-0"

Revisions:	Date:

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www.imegcorp.com # 17002665.02

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11291
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - FIRST FLOOR ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP104

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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ELEC. NEW WORK GENERAL NOTES

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10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-22-1 - CRITICAL POWER
EUL-TR-22-2 - CRITICAL POWER
EUL-TR-25-1 - CRITICAL POWER
EUL-TR-25-2 - CRITICAL POWER
EUL-TR-26-1 - CRITICAL POWER
EUL-TR-26-2 - CRITICAL POWER
111-HM-3-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

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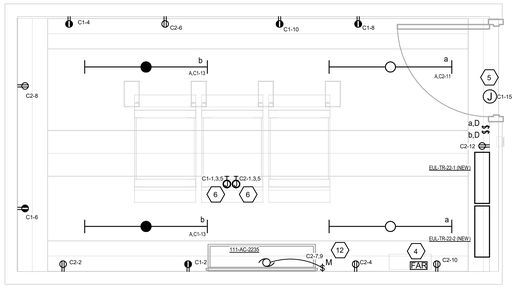
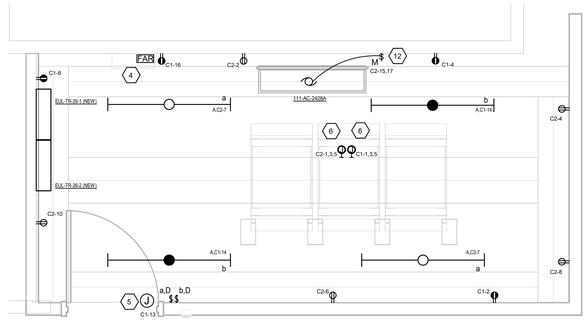
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

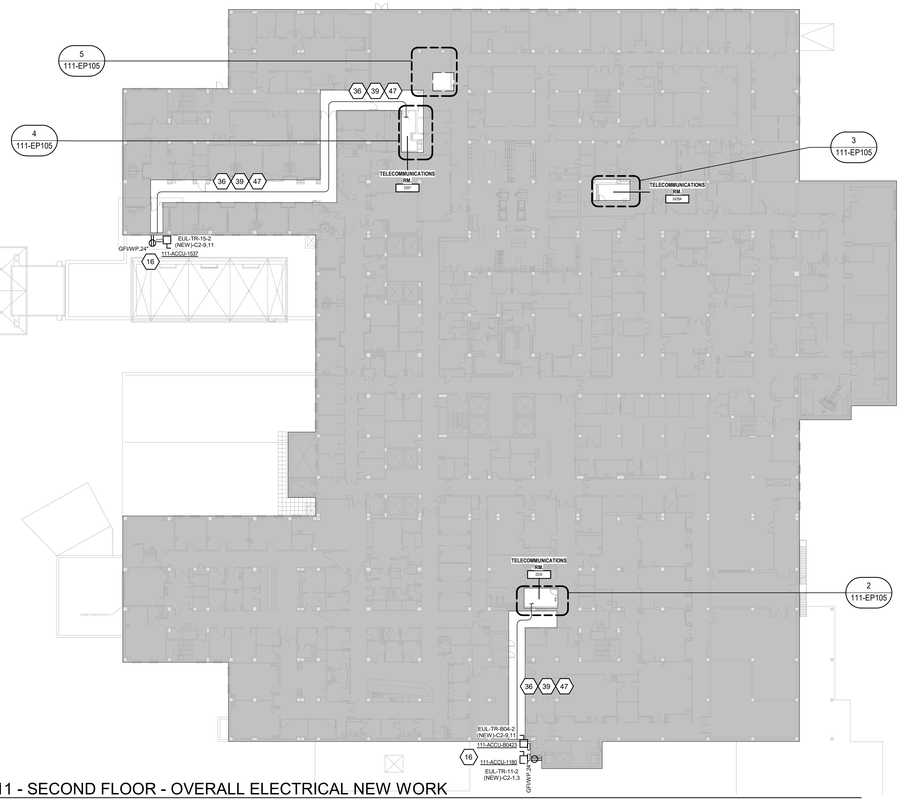


111-AC-2235

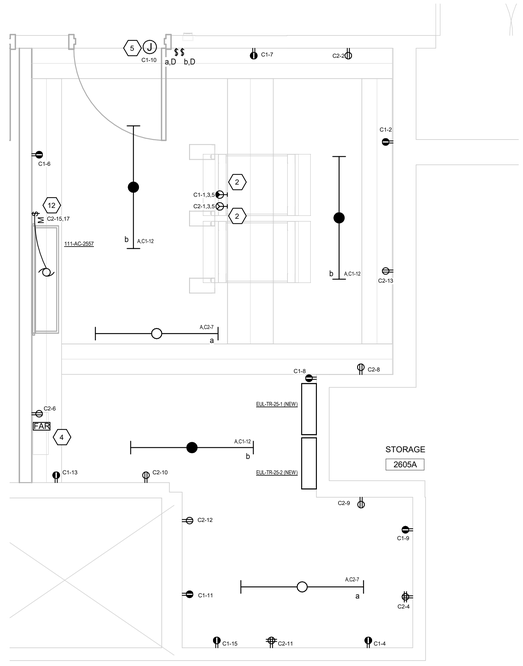
2 BLDG 111 - SECOND FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 2235
1/2" = 1'-0"



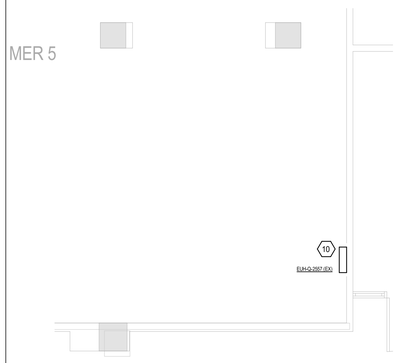
3 BLDG 111 - SECOND FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 2428B
1/2" = 1'-0"



1 BLDG 111 - SECOND FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



4 BLDG 111 - SECOND FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 2557
1/2" = 1'-0"



5 BLDG 111 - SECOND FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 2611
1/4" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale : 1/16" = 1'-0"
Graphic Scale : 1/8" = 1'-0"
Graphic Scale : 3/32" = 1'-0"
Graphic Scale : 1/4" = 1'-0"
Graphic Scale : 3/16" = 1'-0"
Graphic Scale : 1/2" = 1'-0"
Graphic Scale : 3/4" = 1'-0"
Graphic Scale : 1" = 1'-0"
Graphic Scale : 1 1/2" = 1'-0"

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title
BLDG 111 - SECOND FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK

Approved:

Phase
FINAL BID DOCUMENTS

Sprinklered
FULLY SPRINKLERED

Project Title
EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI

Location
5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date SEPTEMBER 5, 2025
Checked YW
Drawn SM

Project Number 695-21-700
Building Number 111
Drawing Number 111-EP105

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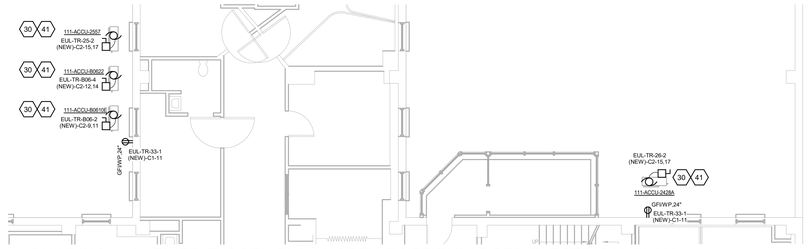
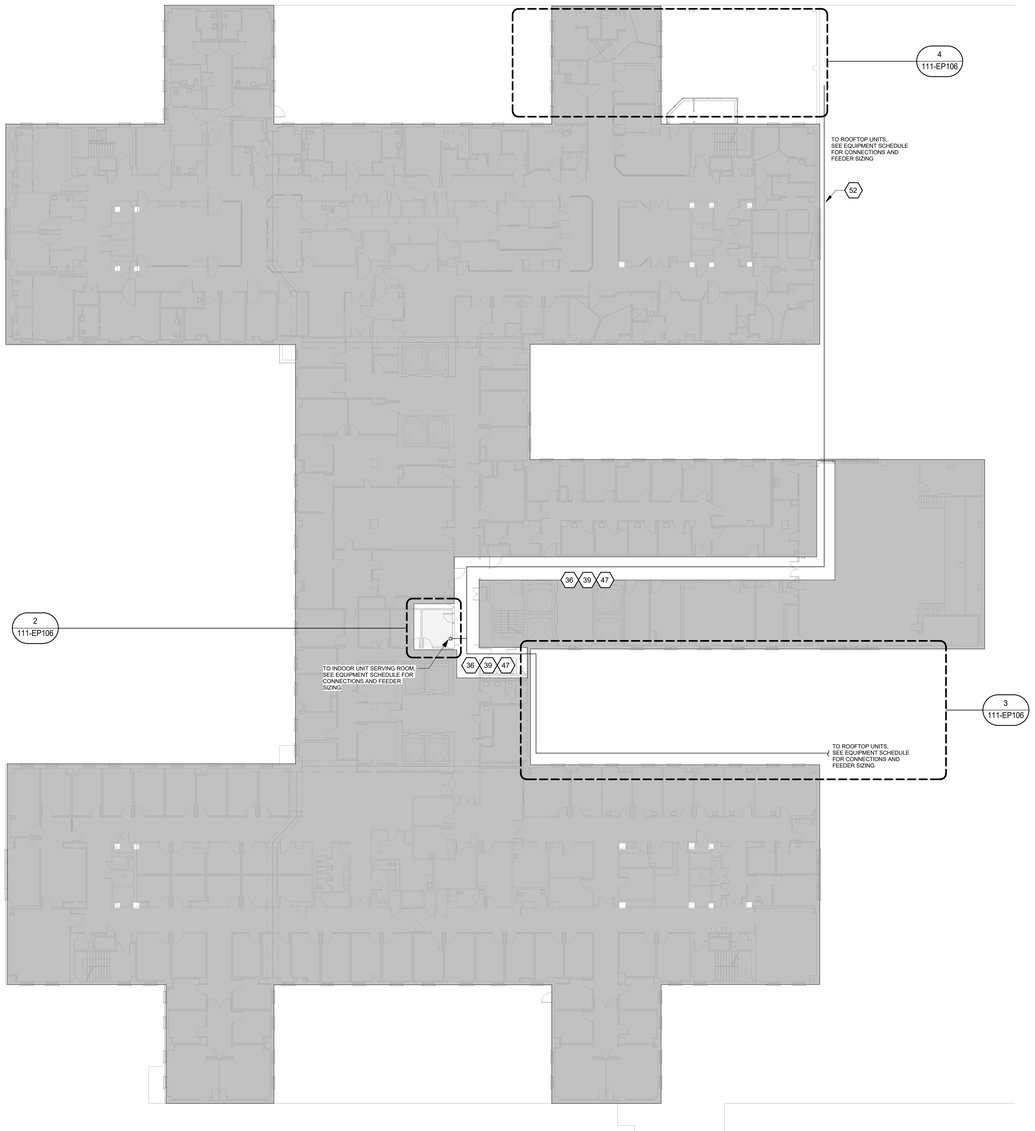
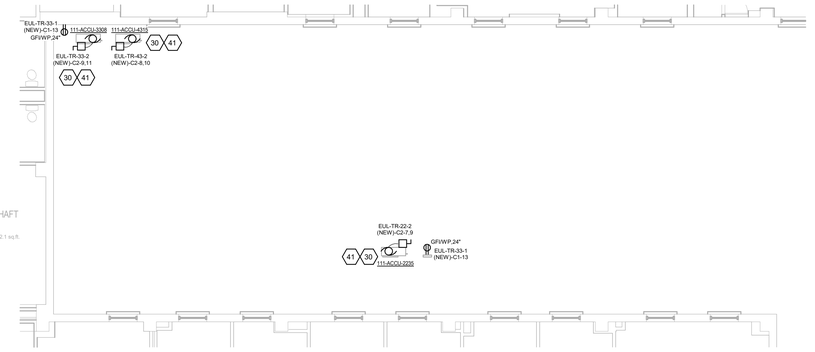
VA FORM 08 - 6231



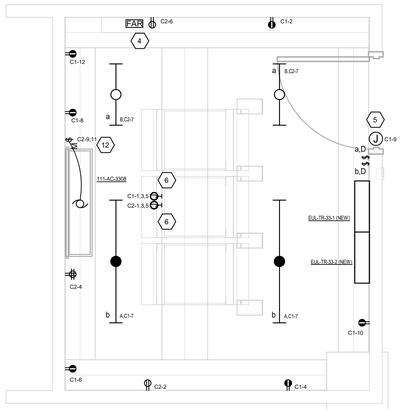
4 BUILDING 111 - THIRD FLOOR - PLAN NORTH ROOF ENLARGED ELECTRICAL PLAN
1/8" = 1'-0"



1 BLDG 111 - THIRD FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 20'-0"



3 BUILDING 111 - THIRD FLOOR - PLAN SOUTH ROOF ENLARGED ELECTRICAL PLAN
1/8" = 1'-0"



2 BLDG 111 - THIRD FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 3308
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-33-1 - CRITICAL POWER
EUL-TR-33-2 - CRITICAL POWER
111-HM-3-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60A/S/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30A/S/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOUIRE AND SETBACK PER VA PSRDM REQUIREMENTS.

Graphic Scale : 32'-0" = 1'-0"
Graphic Scale : 16'-0" = 1'-0"
Graphic Scale : 8'-0" = 1'-0"
Graphic Scale : 4'-0" = 1'-0"
Graphic Scale : 2'-0" = 1'-0"
Graphic Scale : 1'-0" = 1'-0"
Graphic Scale : 12'-0" = 1'-0"
Graphic Scale : 6'-0" = 1'-0"
Graphic Scale : 3'-0" = 1'-0"
Graphic Scale : 1'-6" = 1'-0"
Graphic Scale : 4'-0" = 1/4"
Graphic Scale : 2'-0" = 1/8"
Graphic Scale : 1'-0" = 1/16"
Graphic Scale : 6'-0" = 1/2"
Graphic Scale : 3'-0" = 1/4"
Graphic Scale : 1'-6" = 1/2" = 1'-0"

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - THIRD FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
			Building Number 111
Approved:	**Sprinklered** FULLY SPRINKLERED	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Drawing Number** 111-EP106
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	

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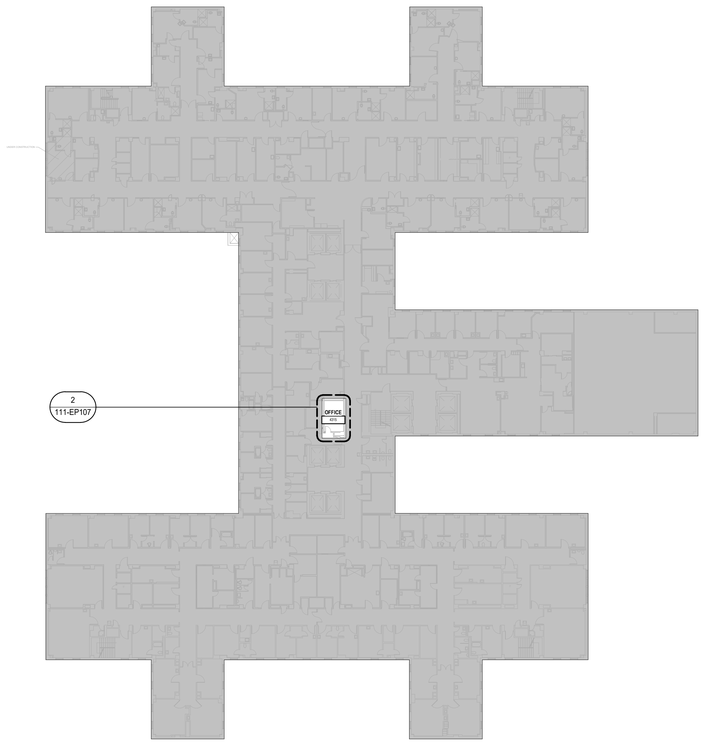

1 BLDG 111 - FOURTH FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"

2 BLDG 111 - FOURTH FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 4315
1/2" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-43-1 - CRITICAL POWER
EUL-TR-43-2 - CRITICAL POWER
111-HM-3-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
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35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
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47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale : 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale : 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale : 3/32" = 1'-0" (2' 1' 8" 4" 0')
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Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - FOURTH FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP107

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
8/28/2025 9:27:53 AM
VA FORM 08 - 6231

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-53-1 - CRITICAL POWER
EUL-TR-53-2 - CRITICAL POWER
111-HM-6-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
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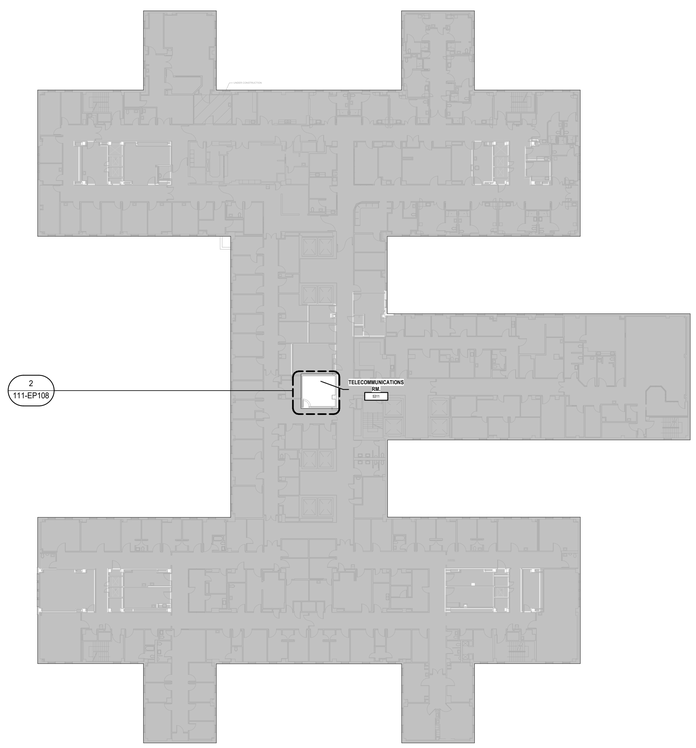
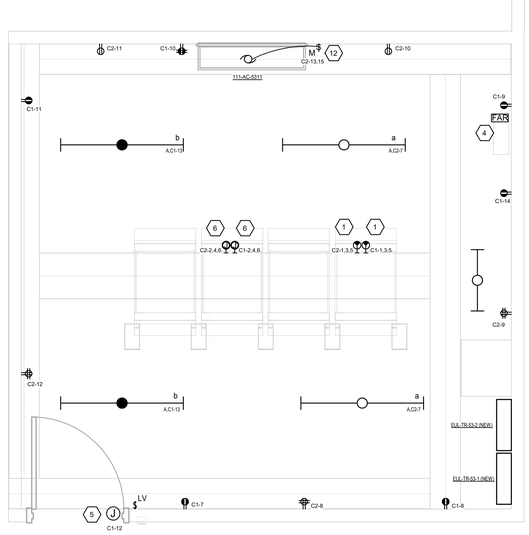


1 BLDG 111 - FIFTH FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



2 BLDG 111 - FIFTH FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 5311
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale : 1/16" = 1'-0"
Graphic Scale : 1/8" = 1'-0"
Graphic Scale : 3/32" = 1'-0"
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Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - FIFTH FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP108

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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VA FORM 08 - 6231

ELEC. NEW WORK GENERAL NOTES

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9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

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208/120V PANEL:
EUL-TR-64-1 - CRITICAL POWER
EUL-TR-64-2 - CRITICAL POWER
111-HM-6-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
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4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
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15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
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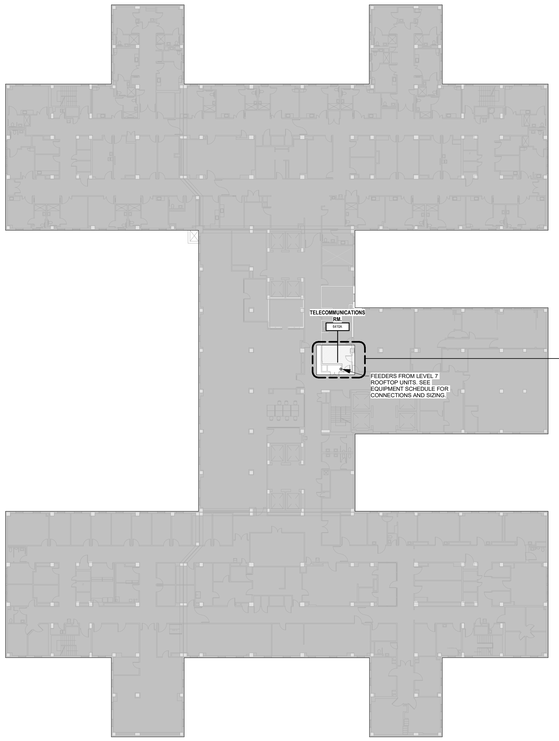
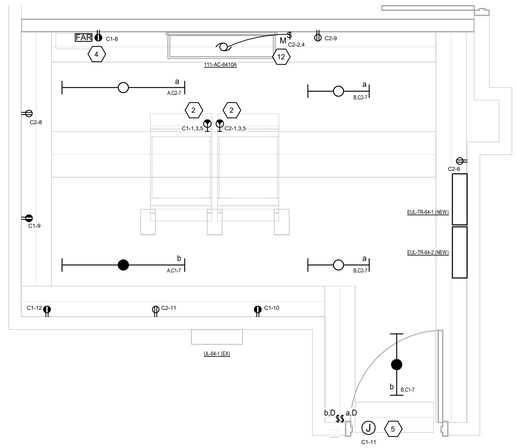


1 BLDG 111 - SIXTH FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



2 BLDG 111 - SIXTH FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 6410A
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale - 3/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale - 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale - 3/32" = 1'-0" (2' 1' 8" 4" 0')
Graphic Scale - 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 1/2" = 1'-0" (12' 6' 3' 1' 0')
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Graphic Scale - 1" = 1'-0" (2' 1' 6" 0')
Graphic Scale - 1 1/2" = 1'-0" (1' 6" 3" 1' 0')

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - SIXTH FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS
Approved:	**Sprinklered** FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI		**Project Number** 695-21-700
		Building Number 111
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI		**Drawing Number** 111-EP109
Issue Date SEPTEMBER 5, 2025	**Checked** YW	**Drawn** SM

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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VA FORM 08 - 6231

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

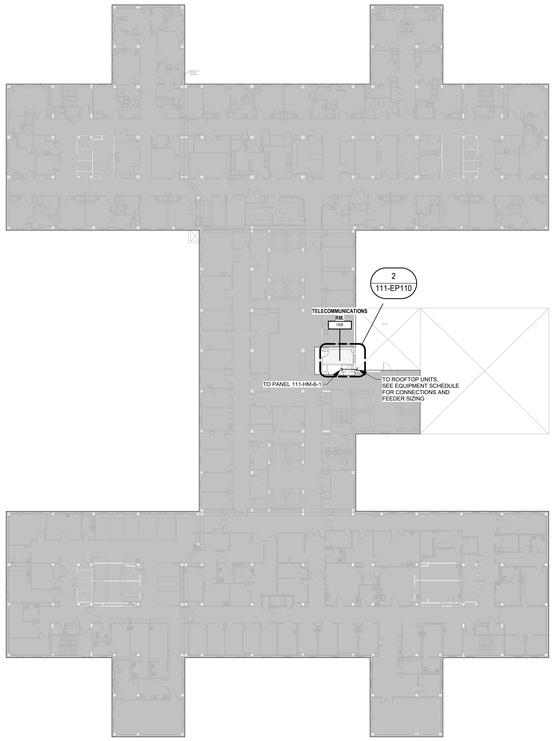
BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

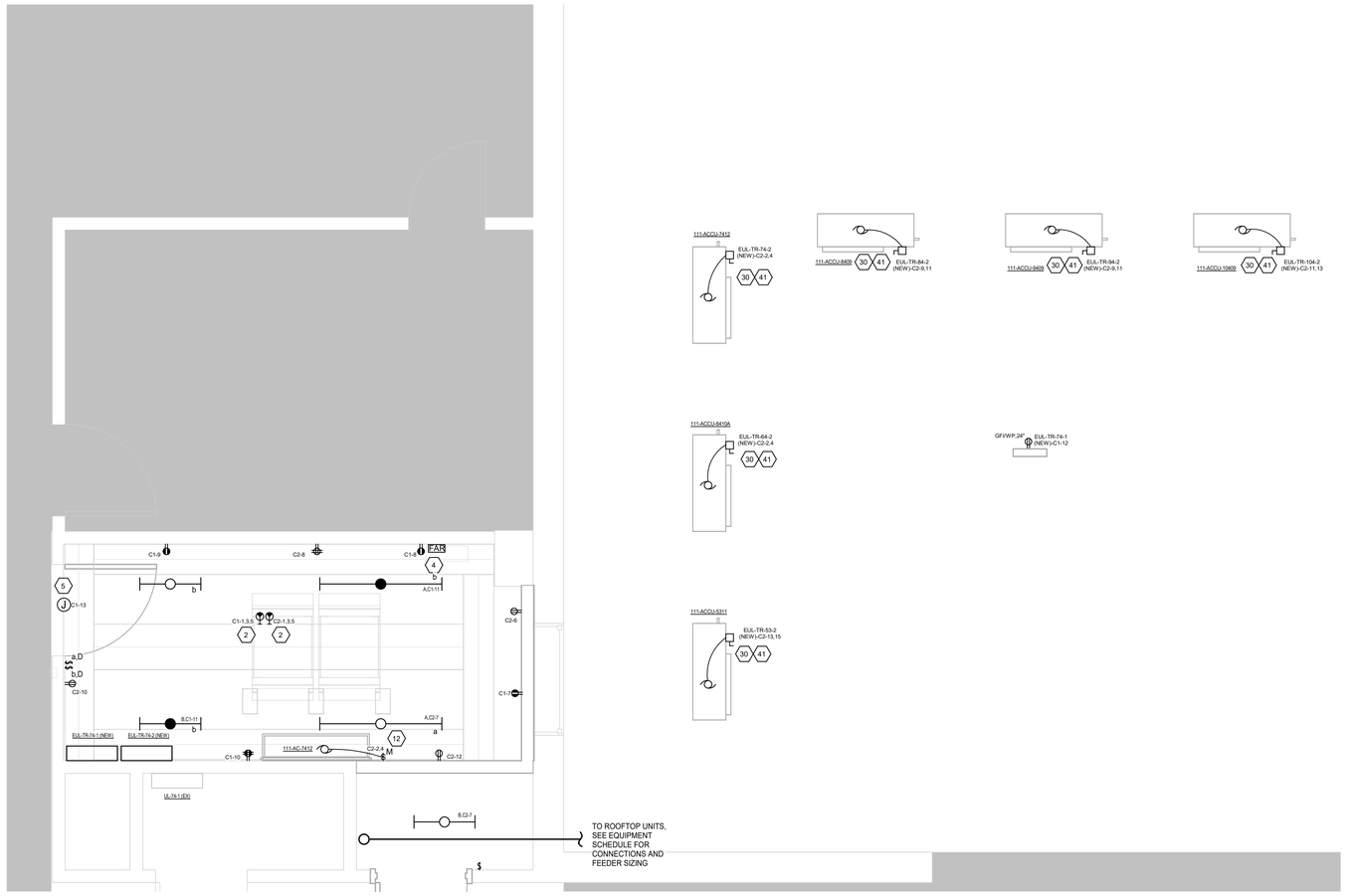
208/120V PANEL:
EUL-TR-74-1 - CRITICAL POWER
EUL-TR-74-2 - CRITICAL POWER
111-HM-6-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOUSRE AND SETBACK PER VA PSRDM REQUIREMENTS.



1 BLDG 111 - SEVENTH FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



2 BLDG 111 - SEVENTH FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 7412 AND ROOF
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale : 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale : 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale : 3/32" = 1'-0" (2' 1' 8" 0' 4")
Graphic Scale : 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale : 3/16" = 1'-0" (12' 6' 3' 0' 1' 6")
Graphic Scale : 1/2" = 1'-0" (4' 2' 1' 0')
Graphic Scale : 3/4" = 1'-0" (2' 1' 6" 0')
Graphic Scale : 1" = 1'-0" (2' 1' 6" 0')
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Revisions:	Date:

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9.5.2025

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

Drawing Title BLDG 111 - SEVENTH FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025
Checked YW
Drawn SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP110

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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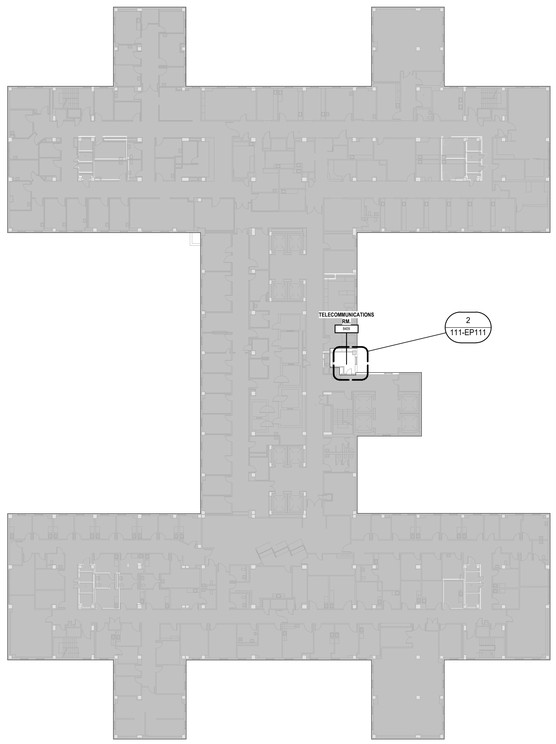
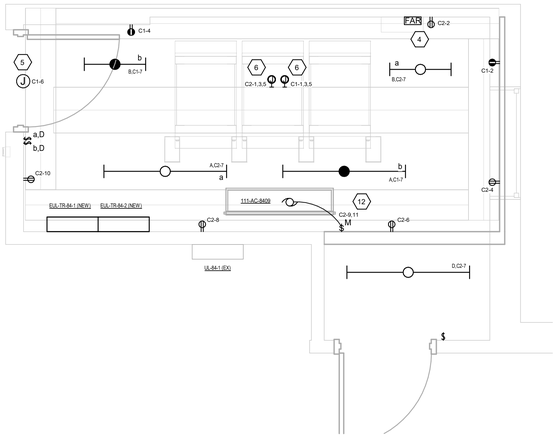


1 BLDG 111 - EIGHTH FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



2 BLDG 111 - EIGHTH FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 8409
1/2" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-84-1 - CRITICAL POWER
EUL-TR-84-2 - CRITICAL POWER
111-HM-8-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1)#10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
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12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
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23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
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26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale : 1/16" = 1'-0"
Graphic Scale : 1/8" = 1'-0"
Graphic Scale : 3/32" = 1'-0"
Graphic Scale : 1/4" = 1'-0"
Graphic Scale : 3/16" = 1'-0"
Graphic Scale : 1/2" = 1'-0"
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Revisions:	Date:

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9.5.2025

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

Drawing Title BLDG 111 - EIGHTH FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
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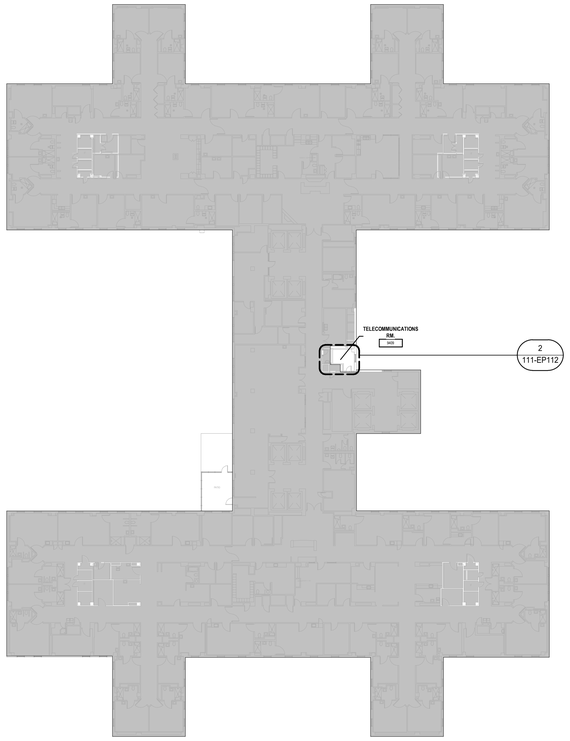
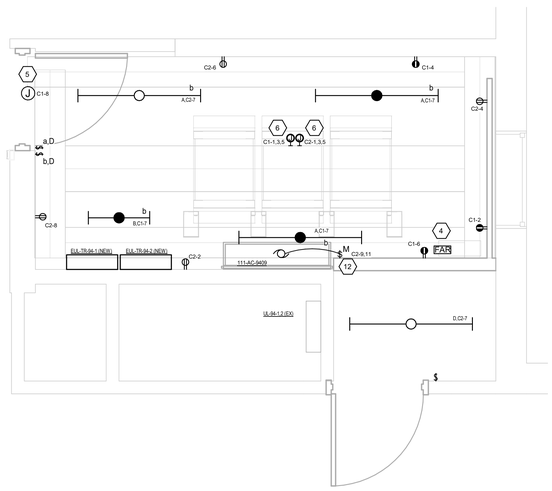


1 BLDG 111 - NINTH FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



2 BLDG 111 - NINTH FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 9409
1/2" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
EUL-TR-94-1 - CRITICAL POWER
EUL-TR-94-2 - CRITICAL POWER
111-HM-8-1 - EQUIPMENT

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale : 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale : 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale : 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale : 1/4" = 1'-0" (0' 1' 2' 4')
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Graphic Scale : 1" = 1'-0" (0' 6" 1' 2')
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Revisions:	Date:

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YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - NINTH FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 111
Drawing Number 111-EP112

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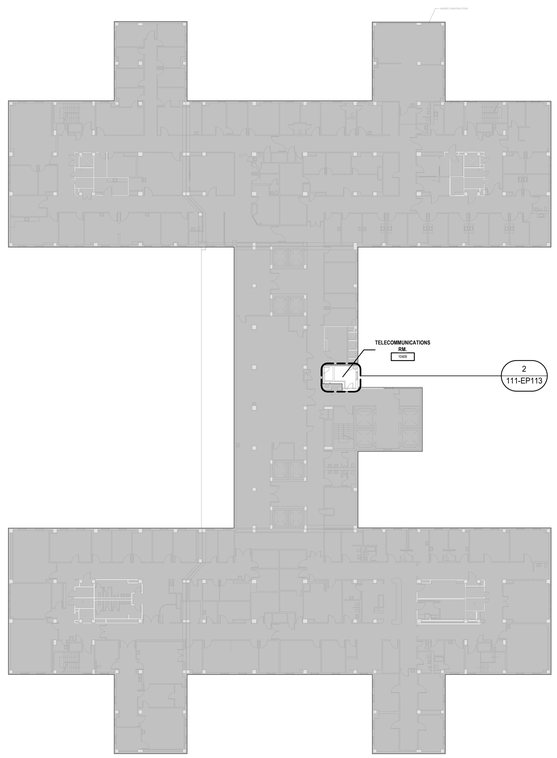
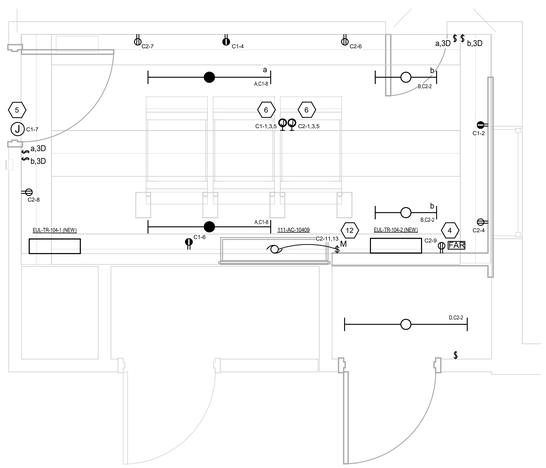
VA FORM 08 - 6231



1 BLDG 111 - TENTH FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



2 BLDG 111 - TENTH FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 10409
1/2" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

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2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
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9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

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208/120V PANEL:
EUL-TR-104-1 - CRITICAL POWER
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ELEC. NEW WORK KEYNOTES (#)

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4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
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PLAN NORTH

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Graphic Scale : 1/4" = 1'-0" (0' 1' 2' 4')
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Revisions:	Date:

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www.imegcorp.com **# 17002665.02**

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E-11591
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 111 - TENTH FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS
Approved:	**Sprinklered** FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI		**Project Number** 695-21-700
		Building Number 111
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI		**Drawing Number** 111-EP113
Issue Date SEPTEMBER 5, 2025	**Checked** YW	**Drawn** SM

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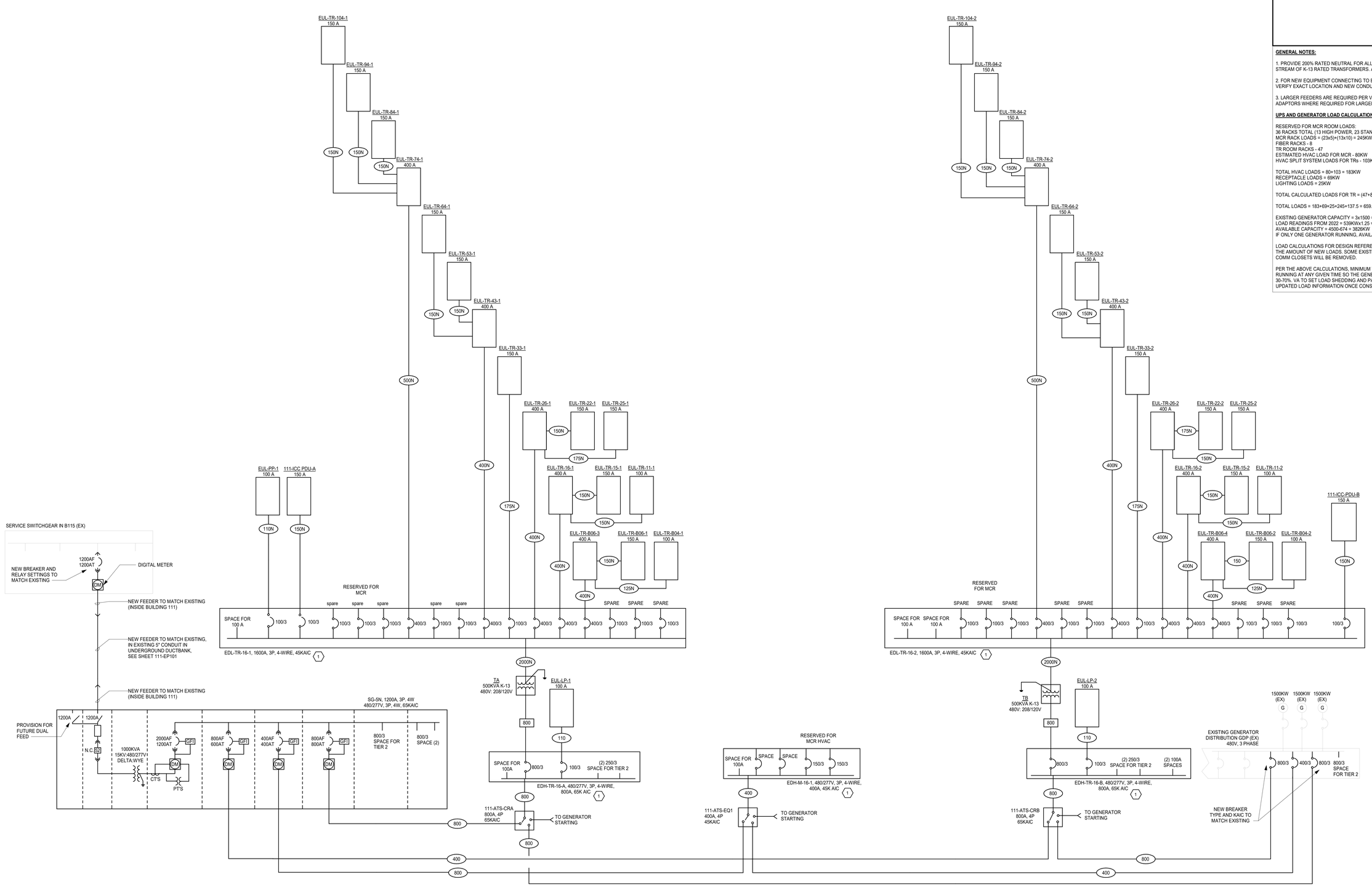

1 BLDG 111 - POWER ONE LINE DIAGRAM-NEW
NTS

KEYNOTES

1. PROVIDE DIGITAL METERING AND RELATED COMPONENTS AS REQUIRED.

GENERAL NOTES:

1. PROVIDE 200% RATED NEUTRAL FOR ALL FEEDERS AND BRANCH FEEDERS DOWN STREAM OF K-13 RATED TRANSFORMERS. ADJUST CONDUIT SIZES AS REQUIRED.

2. FOR NEW EQUIPMENT CONNECTING TO EXISTING EQUIPMENT CONTRACTOR TO VERIFY EXACT LOCATION AND NEW CONDUIT ROUTING PATH.

3. LARGER FEEDERS ARE REQUIRED PER VOLTAGE DROP CALCULATIONS. PROVIDE ADAPTORS WHERE REQUIRED FOR LARGER FEEDER CONNECTION.

UPS AND GENERATOR LOAD CALCULATIONS: (FOR EQUIPMENT SIZING ONLY, FUTURE MCR AND LOAD MAY CHANGE)

RESERVED FOR MCR ROOM LOADS:
36 RACKS TOTAL (13 HIGH POWER, 23 STANDARD POWER)
MCR RACK LOADS = (23x5)+(13x10) = 245KW
FIBER RACKS - 8
TR ROOM RACKS - 47
ESTIMATED HVAC LOAD FOR MCR - 80KW
HVAC SPLIT SYSTEM LOADS FOR TRs - 103KW

TOTAL HVAC LOADS = 80+103 = 183KW
RECEPTACLE LOADS = 69KW
LIGHTING LOADS = 29KW

TOTAL CALCULATED LOADS FOR TR = (47+8)x2.5 = 137.5KW

TOTAL LOADS = 183+69+25+245+137.5 = 659.5KW

EXISTING GENERATOR CAPACITY = 3x1500 = 4500KW
LOAD READINGS FROM 2022 = 539KWx1.25 = 674KW
AVAILABLE CAPACITY = 4500-674 = 3826KW
IF ONLY ONE GENERATOR RUNNING, AVAILABLE CAPACITY = 826KW

LOAD CALCULATIONS FOR DESIGN REFERENCE ONLY. NOT NECESSARILY ADDING THE AMOUNT OF NEW LOADS. SOME EXISTING TR EQUIPMENT LOAD IN EXISTING COMM CLOSETS WILL BE REMOVED.

PER THE ABOVE CALCULATIONS, MINIMUM TWO EXISTING GENERATORS SHOULD BE RUNNING AT ANY GIVEN TIME SO THE GENERATORS WILL BE LOADED BETWEEN 30-70%. VA TO SET LOAD SHEDDING AND PARALLELING CONTROLS PER THE UPDATED LOAD INFORMATION ONCE CONSTRUCTION IS COMPLETE.

Graphic Scale: 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale: 3/32" = 1'-0" (0' 4" 8" 1' 2')
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Office of Construction and Facilities Management

VA | U.S. Department of Veterans Affairs

Drawing Title BLDG 111 - ELECTRICAL RISER DIAGRAM	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
Approved:	**Sprinklered** FULLY SPRINKLERED	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Building Number** 111
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	**Drawing Number** 111-EP114

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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VA FORM 08 - 6231

FEEDER SCHEDULE

4 WIRE PLUS GROUND							3 WIRE PLUS GROUND				
FEEDER NUMBER	AMP RATING	SETS	PHASE CONDUCTORS	NEUTRAL CONDUCTORS	EQUIPMENT GROUNDING CONDUCTOR	CONDUIT FOR 4W PLUS GROUND	FEEDER NUMBER	SETS	PHASE CONDUCTORS	EQUIPMENT GROUNDING CONDUCTOR	EQUIPMENT GROUNDING CONDUCTOR
15	15	1	3 #12	1 #12	#12	3/4"	15	1	3 #12	#12	3/4"
20	20	1	3 #12	1 #12	#12	3/4"	20	1	3 #12	#12	3/4"
25	25	1	3 #10	1 #10	#10	3/4"	25	1	3 #10	#10	3/4"
30	30	1	3 #10	1 #10	#10	3/4"	30	1	3 #10	#10	3/4"
35	35	1	3 #8	1 #8	#10	1"	35	1	3 #8	#10	1"
40	40	1	3 #8	1 #8	#10	1"	40	1	3 #8	#10	1"
45	45	1	3 #8	1 #8	#10	1"	45	1	3 #8	#10	1"
50	50	1	3 #8	1 #8	#10	1"	50	1	3 #8	#10	1"
60	60	1	3 #6	1 #6	#10	1"	60	1	3 #6	#10	1"
70	70	1	3 #4	1 #4	#8	1 1/4"	70	1	3 #4	#8	1 1/4"
80	80	1	3 #4	1 #4	#8	1 1/4"	80	1	3 #4	#8	1 1/4"
90	90	1	3 #3	1 #3	#8	1 1/4"	90	1	3 #3	#8	1 1/4"
100	100	1	3 #3	1 #3	#8	1 1/4"	100	1	3 #3	#8	1 1/4"
110	110	1	3 #2	1 #2	#6	1 1/2"	110	1	3 #2	#6	1 1/2"
110N	110	1	3 #1	1 #3/0	#8	1 1/2"					
125	125	1	3 #1	1 #1	#6	2"	125	1	3# 1	#6	2"
125N	125	1	3 #1	1 #3/0	#6	2"					
150	150	1	3 #1/0	1 #1/0	#6	2"	150	1	3# 1/0	#6	2"
150N	150	1	3 #1/0	1 #4/0	#6	2"					
175	175	1	3 #2/0	1 #2/0	#6	2"	175	1	3 #2/0	#6	2"
175N	175	1	3 #2/0	2 #2/0	#6	2"					
200	200	1	3 #3/0	1 #3/0	#6	2 1/2"	200	1	3 #3/0	#6	2 1/2"
225	225	1	3 #4/0	1 #4/0	#4	2 1/2"	225	1	3 #4/0	#4	2 1/2"
250	250	1	3-250 KCMIL	1-250 KCMIL	#4	3"	250	1	3-250 KCMIL	#4	3"
275	275	1	3-300 KCMIL	1-300 KCMIL	#4	3"	275	1	3-300 KCMIL	#4	3"
300	300	1	3-350 KCMIL	1-350 KCMIL	#4	3"	300	1	3-350 KCMIL	#4	3"
325	325	1	3-400 KCMIL	1-400 KCMIL	#3	3 1/2"	325	1	3-400 KCMIL	#3	3 1/2"
350	350	1	3-500 KCMIL	1-500 KCMIL	#3	3 1/2"	350	1	3-500 KCMIL	#3	3 1/2"
400	400	2	3 #3/0	1 #3/0	#3	2 1/2"	400	2	3 # 3/0	# 3	2 1/2"
400N	400	2	3 #3/0	2 #3/0	#3	3"					
450	450	2	3 #4/0	1 #4/0	#2	2 1/2"	450	2	3 #4/0	# 2	2 1/2"
500	500	2	3-250 KCMIL	1-250 KCMIL	#2	3"	500	2	3-250 KCMIL	#2	3"
500N	500	2	3-250 KCMIL	2-250 KCMIL	#2	4"					
600	600	2	3-350 KCMIL	1-350 KCMIL	#1	3"	600	2	3-350 KCMIL	#1	3"
650	650	2	3-400 KCMIL	1-400 KCMIL	#1	3 1/2"	650	2	3-400 KCMIL	#1	3 1/2"
700	700	2	3-500 KCMIL	1-500 KCMIL	#1/0	3 1/2"	700	2	3-500 KCMIL	#1/0	3 1/2"
800	800	2	3-600 KCMIL	1-600 KCMIL	#1/0	4"	800	2	3-600 KCMIL	#1/0	4"
800	800	3	3-300 KCMIL	1-300 KCMIL	#1/0	3"	800	3	3-300 KCMIL	#1/0	3"
1000	1000	3	3-400 KCMIL	1-400 KCMIL	#2/0	3 1/2"	1000	3	3-400 KCMIL	#2/0	3 1/2"
1200	1200	4	3-350 KCMIL	1-350 KCMIL	#3/0	3"	1200	4	3-350 KCMIL	#3/0	3"
1250	1250	3	3-600 KCMIL	1-600 KCMIL	#3/0	4"	1250	3	3-600 KCMIL	#3/0	4"
1500	1500	4	3-500 KCMIL	1-500 KCMIL	#4/0	3 1/2"	1500	4	3-500 KCMIL	#4/0	3 1/2"
1600	1600	4	3-600 KCMIL	1-600 KCMIL	#4/0	4"	1600	4	3-600 KCMIL	#4/0	4"
2000	2000	6	3-400 KCMIL	1-400 KCMIL	250 KCMIL	3 1/2"	2000	6	3-400 KCMIL	250 KCMIL	3 1/2"
2000N	2000	6	3-400 KCMIL	2-400 KCMIL	250 KCMIL	4"					
2500	2500	6	3-600 KCMIL	1-600 KCMIL	350 KCMIL	4"	2500	6	3-600 KCMIL	350 KCMIL	4"
3000	3000	8	3-500 KCMIL	1-500 KCMIL	400 KCMIL	3 1/2"	3000	8	3-500 KCMIL	400 KCMIL	3 1/2"
3200	3200	8	3-600 KCMIL	1-600 KCMIL	400 KCMIL	4"	3200	8	3-600 KCMIL	400 KCMIL	4"
4000	4000	10	3-600 KCMIL	1-600 KCMIL	500 KCMIL	4"	4000	10	3-600 KCMIL	500 KCMIL	4"
4000	4000	12	3-400 KCMIL	1-400 KCMIL	500 KCMIL	3 1/2"	4000	12	3-400 KCMIL	500 KCMIL	3 1/2"

TRANSFORMER SCHEDULE

		PRIMARY - 480V 3 PHASE DELTA UNLESS OTHERWISE NOTED			SECONDARY - 120/208V 3 PHASE WYE UNLESS OTHERWISE NOTED			
TAG	kVA	FLA	CIRCUIT BREAKER	FEEDER SIZE	FLA	CIRCUIT BREAKER	FEEDER SIZE	GROUND SIZE
				XX			XX	
T9	9	10.8	15A	20	25.0	30A	40	#8
T15	15	18.0	25A	30	41.6	60A	70	#8
T30	30	36.1	45A	50	83.3	100A	110	#6
T45	45	54.1	70A	70	125.0	150A	150	#6
T75	75	90.2	125A	150	208.3	300A	300	#2
T112	112.5	135.3	175A	175	312.5	400A	401	#1/0
T150	150	180.5	225A	225	416.6	600A	600	#2/0
T225	225	270.8	350A	400	625.0	800A	801	#3/0
T300	300	361.0	450A	450	833.3	1200A	1200	#3/0
T500	500	601.7	800A	800	1388.9	2000A	2000	300kcmil

Notes:

1. GROUND CONDUCTOR SIZES INDICATED IN THE TRANSFORMER SCHEDULE SHALL BE USED FOR TRANSFORMER SECONDARY FEEDERS IN LIEU OF THOSE SHOWN IN THE FEEDER NUMBER SIZE.

MECHANICAL EQUIPMENT ELECTRICAL SCHEDULE

NOTES:
1. ALL MAGNETIC AND SOLID STATE STARTERS ARE TO BE EQUIPPED WITH AUXILIARY CONTACTS, PILOT LIGHTS AND...
2. FIRE ALARM INTERLOCK.
3. INTEGRAL DISCONNECT SWITCH
4. MOUNT DISCONNECT SWITCH ON EQUIPMENT HOUSING.
5. DISCONNECT/CONTROL PANEL PROVIDED BY MANUFACTURER.
6. INTEGRAL CIRCUIT BREAKER DISCONNECT AND BYPASS PROVIDED WITH VFD.
7. DISCONNECT SWITCH ON EQUIPMENT TO BE EQUIPPED WITH AUXILARY CONTACTS FOR VFD TO SHUT OFF. PROVIDE...
8. PROVIDE VFD CABLES FROM VFD TO UNIT.
9. PROVIDE LOAD REACTOR AS REQUIRED BY MANUFACTURER FOR 300 FOOT CABLE RUN FROM VFD TO UNIT.
10. PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED TO REPLACE EXISTING STARTER WITH VFD.
11. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED TO REPLACE EXISTING STARTER WITH VFD.
12. PROVIDE CONDUIT AND CONDUCTORS FROM DISCONNECT TO UNIT.
13. EXTEND EXISTING CONDUCTORS AND CONDUIT TO UNIT.

BRANCH:
REFER TO FEEDER SCHEDULE WHEN THIS COLUMN CONTAINS A FEED DESIGNATION INSTEAD OF CONDUCTOR SIZE.

DISCONNECT SWITCH TYPE
NF - NON FUSED
F - FUSED
TOG - TOGGLE
REC - DUPLEX RECEPTACLE

STARTER TYPE:
COMB1 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH FUSED DISCONNECT SWITCH.
COMB2 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH UNFUSED DISCONNECT SWITCH.
COMB3 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH THERMAL MAGNETIC MOLDED CASE...
COMB4 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH MAGNETIC ONLY MOLDED CASE...
FVNR - FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITHOUT DISCONNECT.
MAN - MANUAL MOTOR STARTER WITH DISCONNECT SWITCH AND REPLACEABLE THERMAL OVERLOAD CONTACTS.
SDS - STAR DELTA STARTER.
PWCP - PREWIRED CONTROL PANEL.
VFD - VARIABLE FREQUENCY DRIVE.
2S2W - 2 SPEED 2 WINDING
2S1W - 2 SPEED SINGLING WINDING.

NEMA SIZE:
SIZE PER HP OF UNIT

STARTER ACCESSORIES:
HOAP - HOA WITH PILOT LIGHT
PB - START/STOP PUSH BUTTON

SPECIFICATION DIVISION...
DIVISION 14 - CONVEYING EQUIPMENT
DIVISION 21 - FIRE PROTECTION
DIVISION 22 - PLUMBING
DIVISION 23 - MECHANICAL
DIVISION 26 - ELECTRICAL

MARK				MOTOR OR EQUIPMENT DATA							FEEDER SIZE			DISCONNECT SWITCH AT EQUIPMENT		
ID	#	EQUIPMENT	LOCATION	VOLTS	Ø	FLA	MCA	LOAD	FED FROM	CB SIZE	Ø	GROUND	CONDUIT	NEMA ENCLOS. TYPE	SWITCH/FUSE SIZE	NOTES
111-AC	1180	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1180	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-11-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1470-A	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1470	208 V	1	1.9 A	2.4 A	0.4 kVA	111-ICC PDU-B (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1470-B	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1470	208 V	1	1.9 A	2.4 A	0.4 kVA	111-ICC PDU-B (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1471	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1471	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1471	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1471	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1472	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1472	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1472	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1472	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1473	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1473	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-16-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	1537B	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 1537B	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-15-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	2235	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 2235	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-22-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	2428A	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 2428B	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-26-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	2557	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 2557	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-25-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	3308	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 3308	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-33-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	4315	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 4315	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-43-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	5311	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 5311	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-53-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	6410A	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 6410A	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-64-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	7412	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 7412	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-74-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	8409	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 8409	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-84-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	9409	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 9409	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-94-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	10409	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM 10409	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-104-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	B0423	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM B0423	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-B04-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	B0610E	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM B0610E	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-B06-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-AC	B0622	SPLIT SYSTEM CONDITIONING UNIT	BLDG 111 - RM B0622	208 V	1	1.9 A	2.4 A	0.4 kVA	EUL-TR-B06-4 (NEW)	20 A	2#10	#10	3/4"	NEMA 1	20AS/NF	PROVIDE MOTOR RATED MANUAL TOGGLE CONTROLLER WITH THERMAL OVERLOAD ELEMENT. INDOOR CONDITIONING UNIT FED FROM OUTDOOR EVAPORATOR UNIT.
111-ACCU	1180	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 2 ROOF	208 V	1	12.0 A	15.0 A	2.5 kVA	EUL-TR-11-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 3R	30AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	1470-A	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	111-ICC PDU-B (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	1470-B	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	111-ICC PDU-B (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	1471	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	18.4 A	23.0 A	3.8 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	1471	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	18.4 A	23.0 A	3.8 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	1472	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	18.4 A	23.0 A	3.8 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	1472	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	18.4 A	23.0 A	3.8 kVA	EUL-PP-1 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	1473	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	EUL-TR-16-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	2235	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	EUL-TR-22-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	2428A	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	EUL-TR-26-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	2557	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	12.0 A	15.0 A	2.5 kVA	EUL-TR-25-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 3R	30AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	3308	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	EUL-TR-33-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	4315	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	18.4 A	23.0 A	3.8 kVA	EUL-TR-43-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	5311	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 7 ROOF	208 V	1	18.4 A	23.0 A	3.8 kVA	EUL-TR-53-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	6410A	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 7 ROOF	208 V	1	12.0 A	15.0 A	2.5 kVA	EUL-TR-64-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 3R	30AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	7412	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 7 ROOF	208 V	1	12.0 A	15.0 A	2.5 kVA	EUL-TR-74-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 3R	30AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	8409	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 7 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	EUL-TR-84-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	9409	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 7 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	EUL-TR-94-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	10409	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 7 ROOF	208 V	1	20.5 A	25.6 A	4.3 kVA	EUL-TR-104-2 (NEW)	35 A	2#8	#8	3/4"	NEMA 3R	60AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	B0423	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 2 ROOF	208 V	1	12.0 A	15.0 A	2.5 kVA	EUL-TR-B04-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 3R	30AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	B0610E	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	10.4 A	13.0 A	2.2 kVA	EUL-TR-B06-2 (NEW)	20 A	2#10	#10	3/4"	NEMA 3R	30AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
111-ACCU	B0622	SPLIT SYSTEM EVAPORATING UNIT	BLDG 111 - LEVEL 3 ROOF	208 V	1	10.4 A	13.0 A	2.2 kVA	EUL-TR-B06-4 (NEW)	20 A	2#10	#10	3/4"	NEMA 3R	30AS/NF	PROVIDE (2) 3/4"C FOR CONTROL WIRING AND POWER TO INDOOR UNIT.

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9.5.2025

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

Drawing Title: BLDG 111 - ELECTRICAL SCHEDULES
Approved:
Phase: FINAL BID DOCUMENTS
Sprinklered: FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date: SEPTEMBER 5, 2025 | Checked: YW | Drawn: SM
Project Number: 695-21-700
Building Number: 111
Drawing Number: 111-EP115

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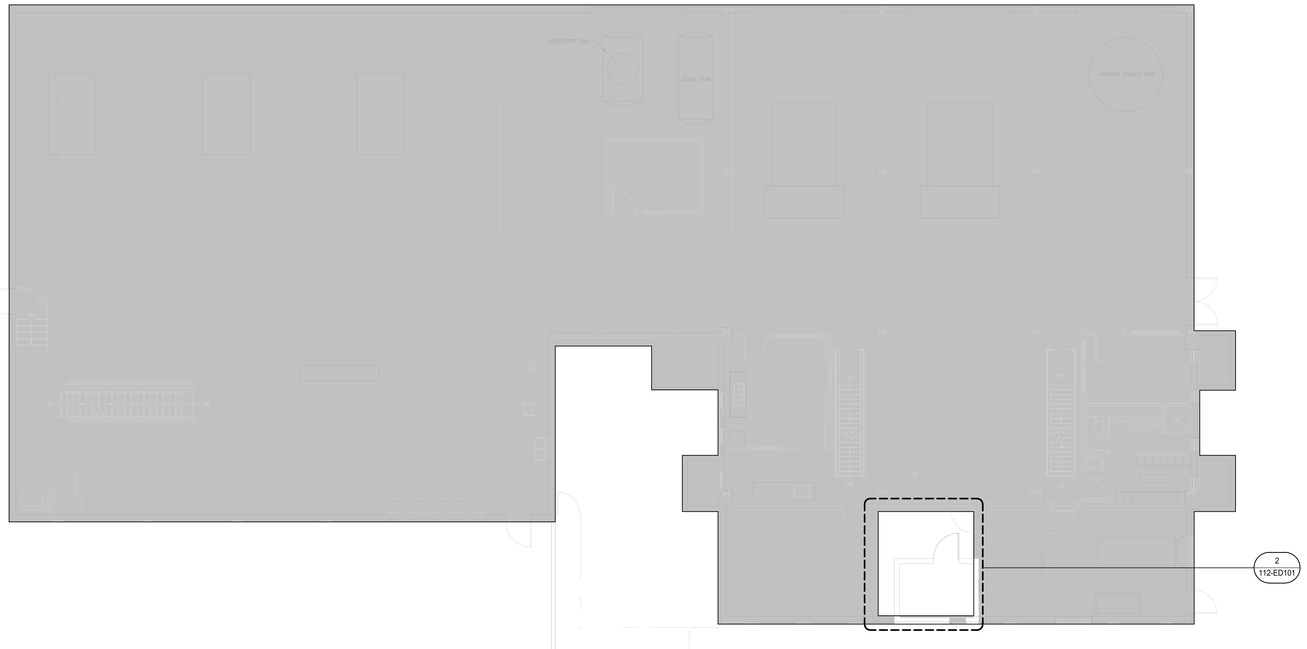
ELEC. DEMO GENERAL NOTES

1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

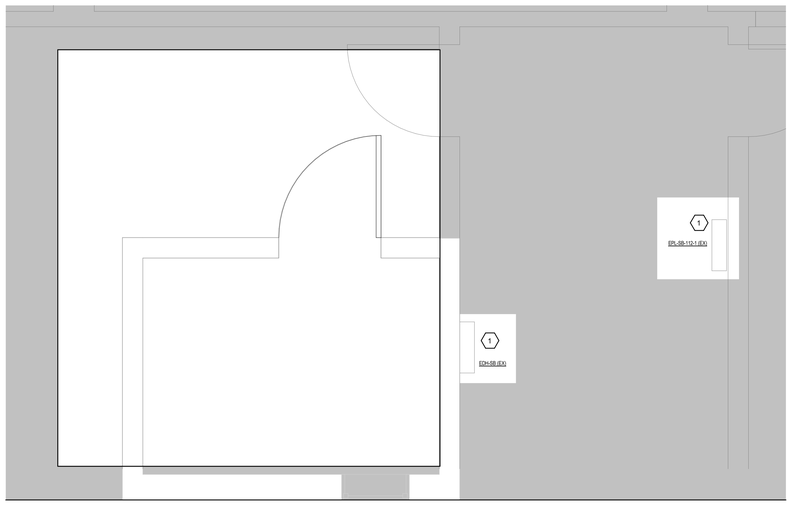
ELEC. DEMO KEYNOTES

#

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED, PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.



1 BLDG 112 - FIRST FLOOR - OVERALL ELECTRICAL DEMOLITION
1/8" = 1'-0"



2 BLDG 112 - FIRST FLOOR - ENLARGED ELECTRICAL DEMOLITION - ROOM 115
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
BLDG 112 - FIRST FLOOR OVERALL & ENLARGED - ELECTRICAL DEMOLITION	FINAL BID DOCUMENTS	EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	695-21-700
			Building Number: 112
Approved:	Sprinklered	Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI	Drawing Number: 112-ED101
		Issue Date: SEPTEMBER 5, 2025 / Checked: YW / Drawn: SM	

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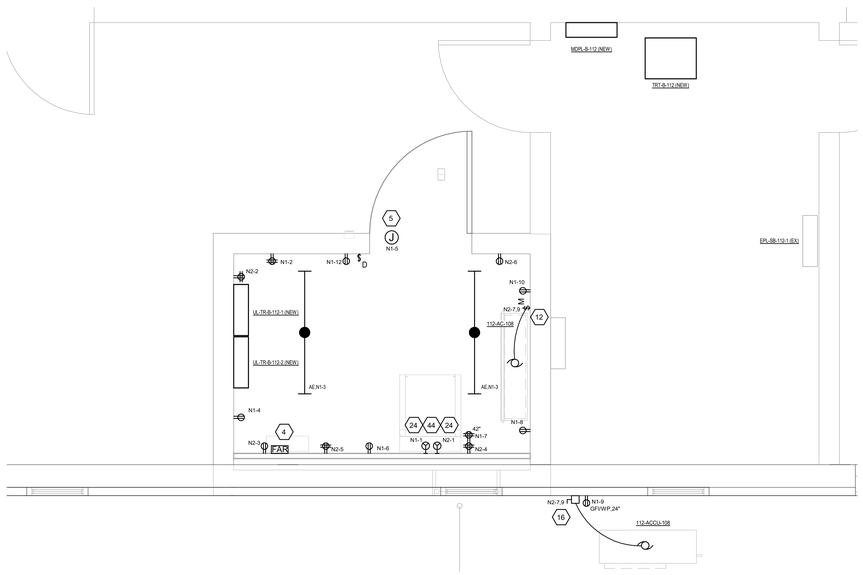
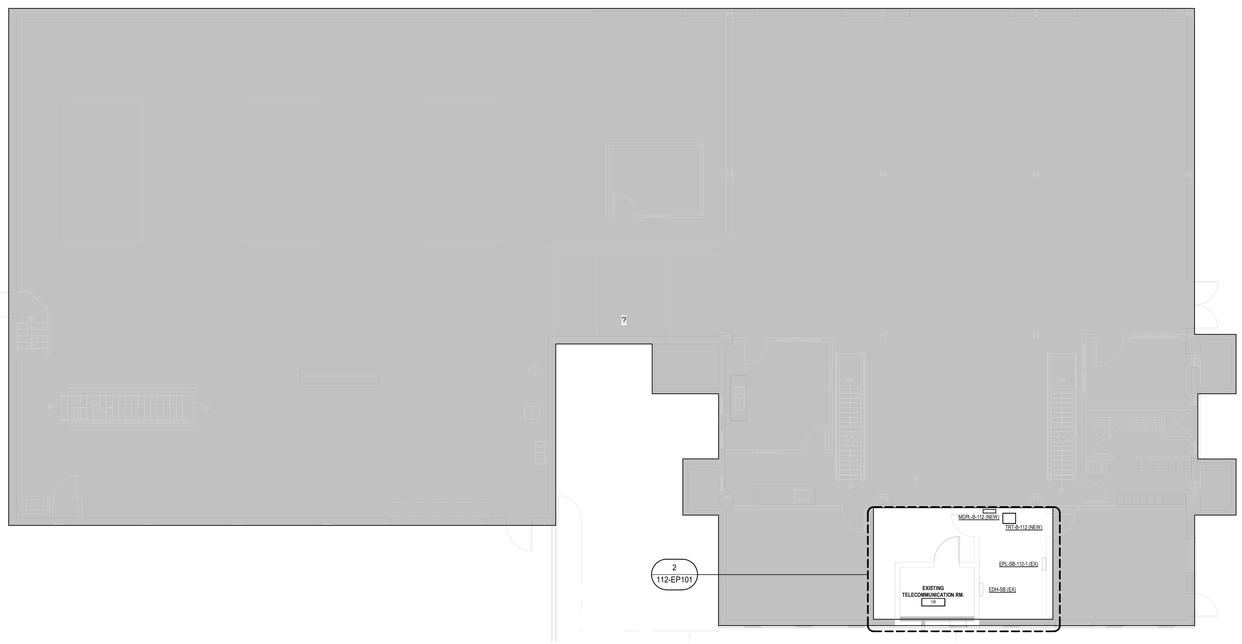


2 BLDG 112 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 108
1/2" = 1'-0"



1 BLDG 112 - FIRST FLOOR - OVERALL ELECTRICAL NEW WORK
1/8" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

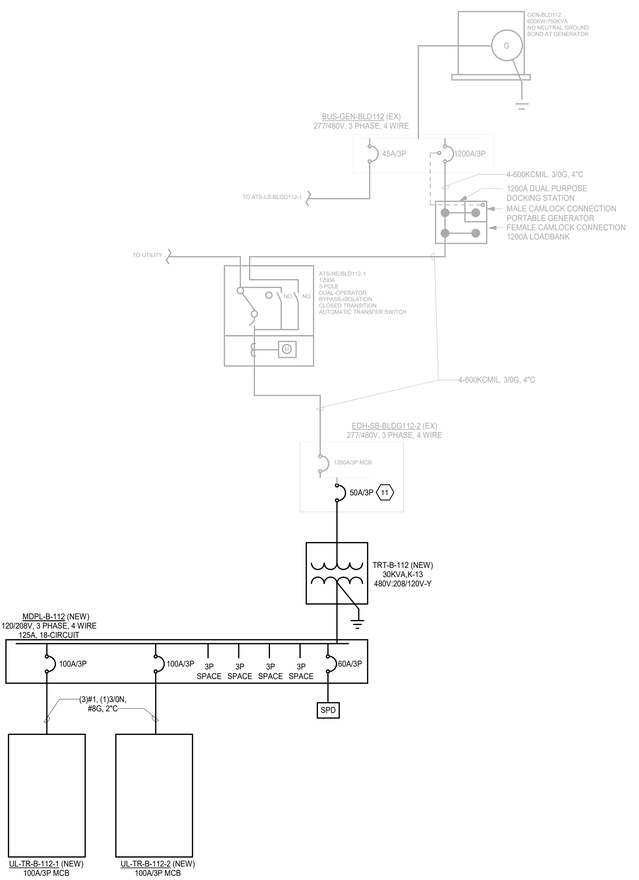
BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
UL-TR-B-112-1 - NORMAL POWER
UL-TR-B-112-2 - NORMAL POWER

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.



3 BUILDING 112 - PARTIAL ONE LINE DIAGRAM
1" = 1'-0"

TRUE NORTH
PLAN NORTH

Graphic Scale - 1/16" = 1'-0" (32', 16', 8', 0')
Graphic Scale - 1/8" = 1'-0" (16', 8', 4', 0')
Graphic Scale - 3/32" = 1'-0" (2', 1', 8", 0', 4")
Graphic Scale - 1/4" = 1'-0" (4', 2', 1', 0')
Graphic Scale - 3/16" = 1'-0" (12', 6', 3', 0', 1')
Graphic Scale - 1/2" = 1'-0" (4', 2', 1', 0')
Graphic Scale - 3/4" = 1'-0" (2', 1', 6", 0')
Graphic Scale - 1" = 1'-0" (2', 1', 6", 0', 3")
Graphic Scale - 1 1/2" = 1'-0" (1'6", 1', 6", 0', 3")

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Drawing Title BLDG 112 - FIRST FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
Approved:	**Sprinklered**	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Building Number** 112
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	**Drawing Number** 112-EP101

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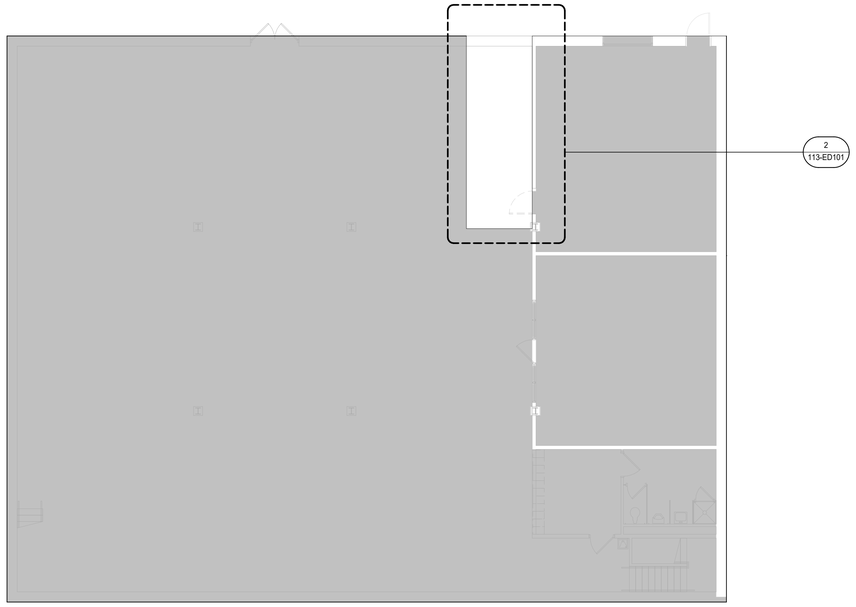
ELEC. DEMO GENERAL NOTES

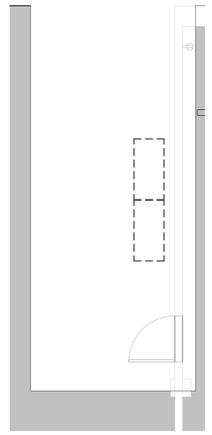
1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED. PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.



1 BLDG 113 - BASEMENT - OVERALL ELECTRICAL DEMOLITION
1/8" = 1'-0"



2 BLDG 113 - BASEMENT - ENLARGED ELECTRICAL DEMOLITION - ROOM 100
1/4" = 1'-0"

TRUE NORTH
PLAN NORTH

Graphic Scale - 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale - 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale - 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale - 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale - 3/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale - 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale - 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale - 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale - 1 1/2" = 1'-0" (0' 3" 6" 1' 1' 6")

Revisions:	Date:

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

Drawing Title BLDG 113 - BASEMENT OVERALL & ENLARGED - ELECTRICAL DEMOLITION
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
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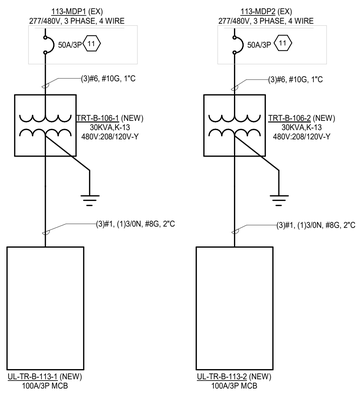
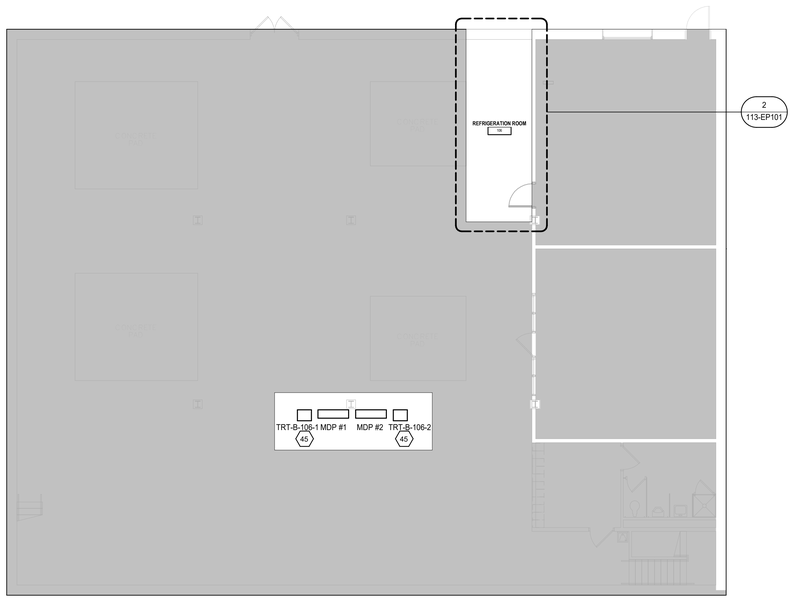
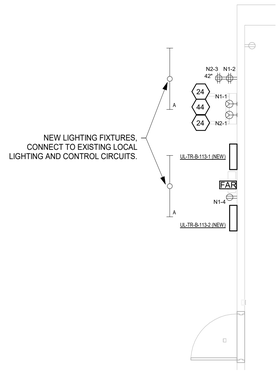


3 BLDG 113 - BASEMENT - PARTIAL ONE LINE DIAGRAM
1" = 1'-0"



1 BLDG 113 - BASEMENT - OVERALL ELECTRICAL NEW WORK
1/8" = 1'-0"



2 BLDG 113 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM 106
1/4" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
UL-TR-B-113-1 - NORMAL POWER
UL-TR-B-113-2 - NORMAL POWER

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60A/S/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30A/S/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

TRUE NORTH
PLAN NORTH

Graphic Scale : 1/16" = 1'-0" (32', 16', 8', 0')
Graphic Scale : 1/8" = 1'-0" (16', 8', 4', 0')
Graphic Scale : 3/32" = 1'-0" (2', 1', 8", 0', 4")
Graphic Scale : 1/4" = 1'-0" (4', 2', 1', 0')
Graphic Scale : 3/16" = 1'-0" (12', 6', 3', 0', 1')
Graphic Scale : 1/2" = 1'-0" (4', 2', 1', 0')
Graphic Scale : 3/4" = 1'-0" (2', 1', 6", 0')
Graphic Scale : 1" = 1'-0" (2', 1', 6", 0')
Graphic Scale : 1 1/2" = 1'-0" (1'6", 1', 6", 3", 0')

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 113 - BASEMENT OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS
Approved:	**Sprinklered** FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
	Building Number 113
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Drawing Number** 113-EP101
Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	

VA FORM 08 - 6231

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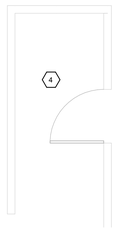
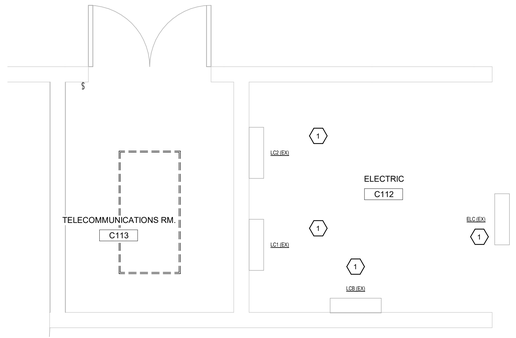


5 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL DEMOLITION - ROOM A113
1/4" = 1'-0"



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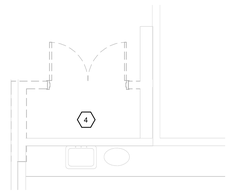
1/2" = 1'-0"



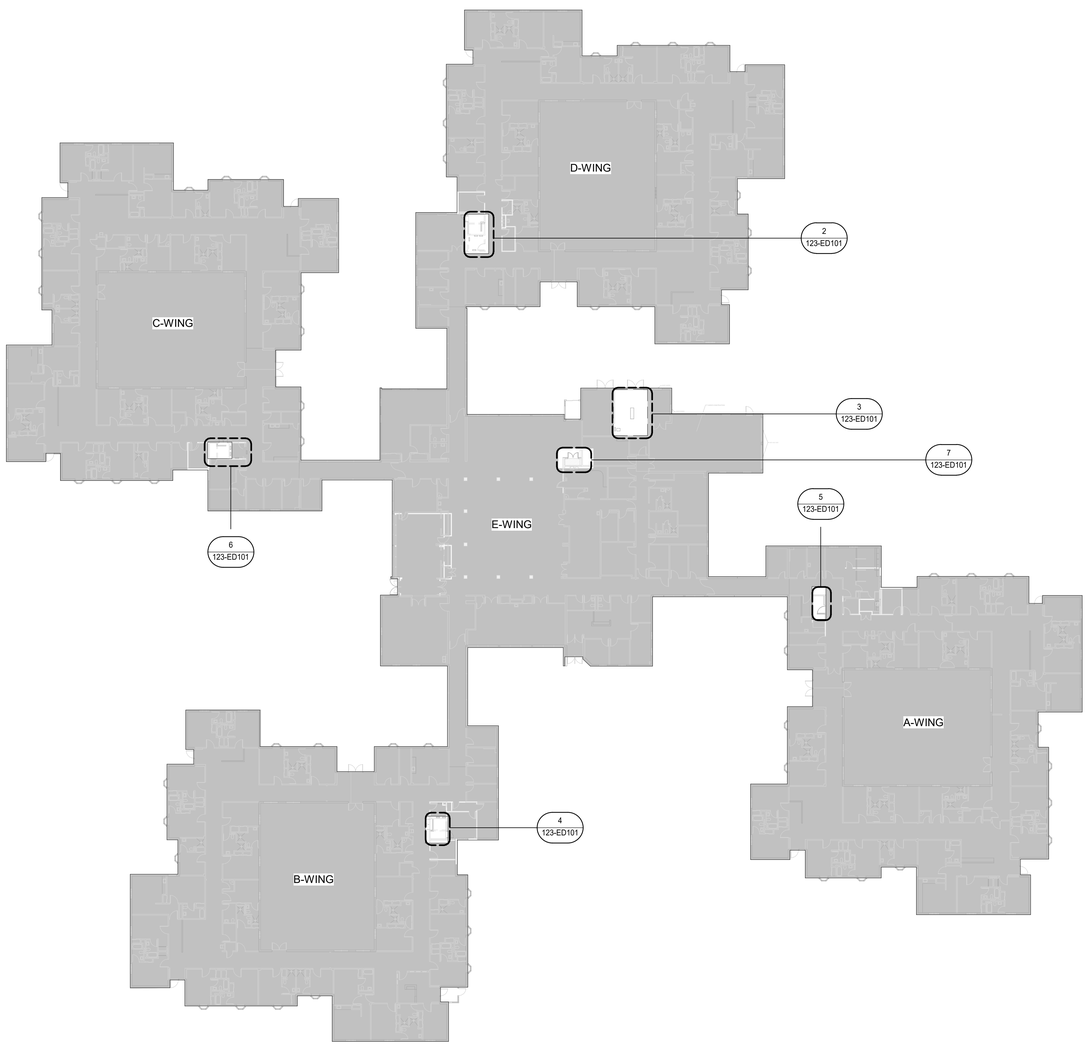
7 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL DEMOLITION - ROOM E105E
1/4" = 1'-0"

ELEC. DEMO GENERAL NOTES

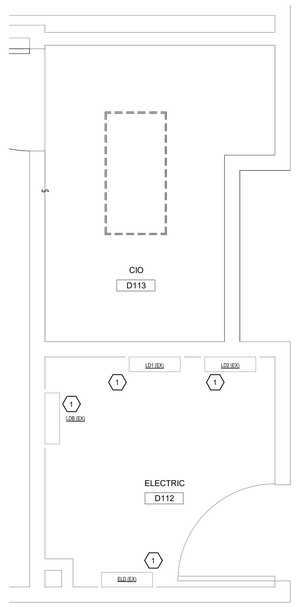
1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED. PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.



1 BLDG 123 - FIRST FLOOR - OVERALL ELECTRICAL DEMOLITION
1" = 30'-0"



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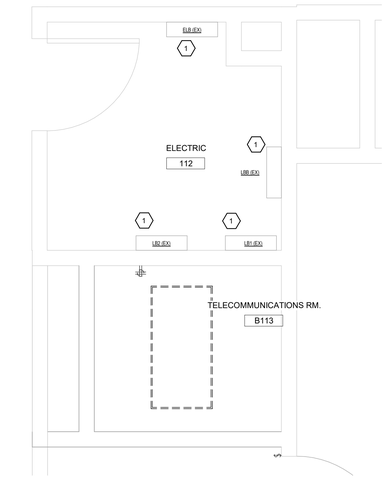
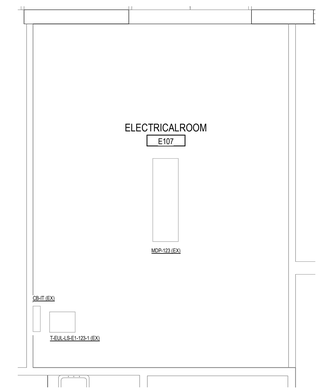
1/2" = 1'-0"



4 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL DEMOLITION - ROOM B113
1/2" = 1'-0"



3 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL DEMOLITION - ROOM E107
1/4" = 1'-0"

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

Graphic Scale - 3/32" = 1'-0"
Graphic Scale - 1/16" = 1'-0"
Graphic Scale - 1/4" = 1'-0"
Graphic Scale - 1/2" = 1'-0"
Graphic Scale - 3/4" = 1'-0"
Graphic Scale - 1" = 1'-0"
Graphic Scale - 1 1/2" = 1'-0"

Revisions:	Date:

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YUMEI WANG
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STATE OF NEBRASKA
9.5.2025

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

Drawing Title
BLDG 123 - FIRST FLOOR OVERALL & ENLARGED - ELECTRICAL DEMOLITION

Approved:

Phase
FINAL BID DOCUMENTS

Sprinklered
FULLY SPRINKLERED

Project Title
EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI

Location
5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date SEPTEMBER 5, 2025
Checked YW
Drawn SM

Project Number 695-21-700
Building Number 123
Drawing Number 123-ED101

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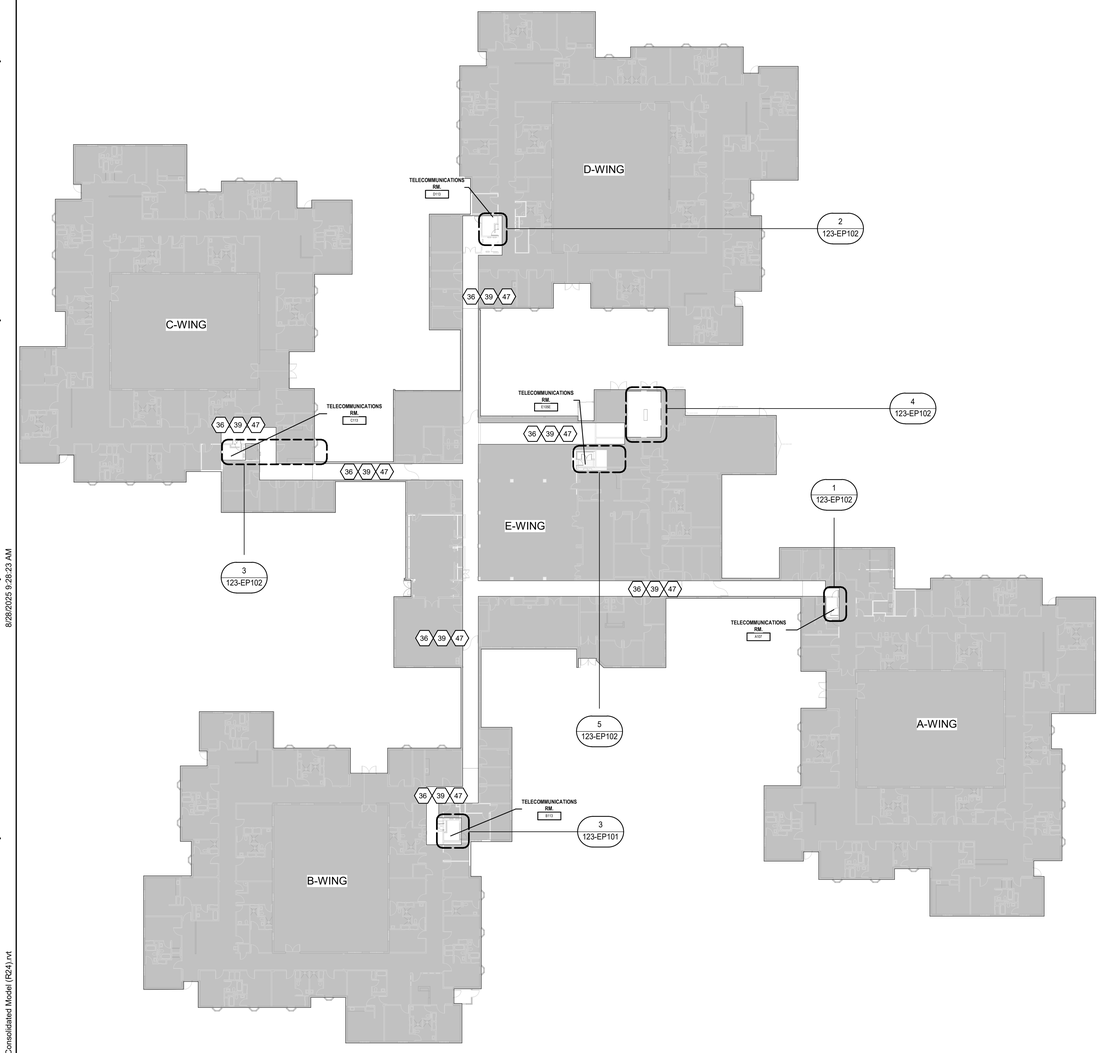
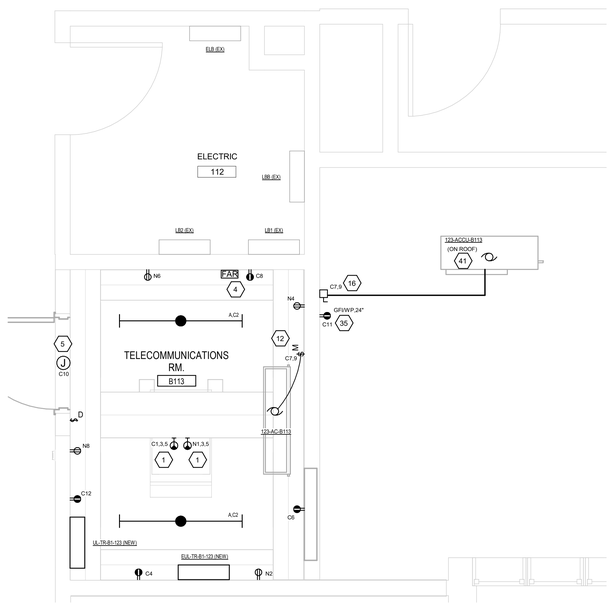
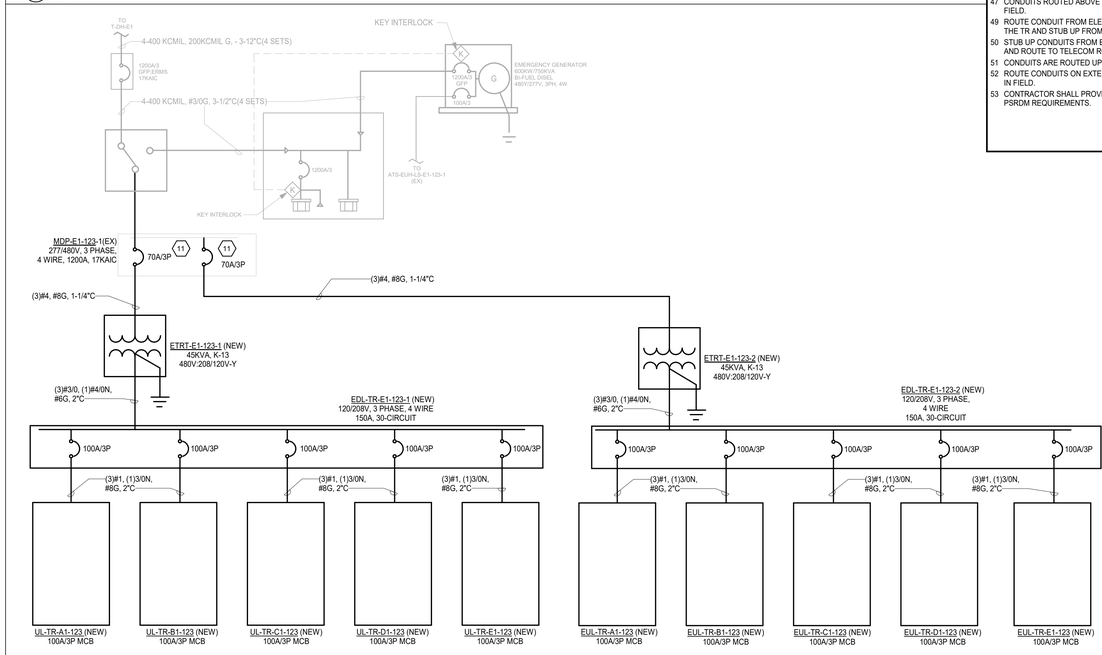


1 BLDG 123 - FIRST FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 30'-0"



3 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM B113
1/2" = 1'-0"



2 BLDG 123 - FIRST FLOOR - PARTIAL ONE LINE DIAGRAM
NTS

TRUE NORTH
PLAN NORTH

0' 15' 30' 60'
Graphic Scale : 1" = 30'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
UL-TR-A1-123 - NORMAL POWER
EUL-TR-A1-123 - CRITICAL POWER
UL-TR-B1-123 - NORMAL POWER
EUL-TR-B1-123 - CRITICAL POWER

ELEC. NEW WORK KEYNOTES

1. NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#12, (1)#10N, (1)#12G 3/4"C.
2. NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1)#8N, (1)#10G, 3/4"C.
3. SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4. FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5. J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6. MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7. NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8. CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9. CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10. RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11. PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12. INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15. 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16. 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20. NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21. NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22. ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23. STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24. L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25. NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26. SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27. UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28. NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29. MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35. RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36. ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39. CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40. MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41. PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44. INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45. PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46. CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47. CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49. ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50. STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51. CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52. ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53. CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

Graphic Scale - 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale - 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale - 3/32" = 1'-0" (2' 1' 8" 0')
Graphic Scale - 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 3/16" = 1'-0" (12' 6' 3' 0')
Graphic Scale - 1/2" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 3/4" = 1'-0" (2' 1' 6" 0')
Graphic Scale - 1" = 1'-0" (2' 1' 6" 0')
Graphic Scale - 1 1/2" = 1'-0" (1'6" 1' 6" 3" 0')

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 123 - FIRST FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 123
Drawing Number 123-EP101

VA FORM 08 - 6231

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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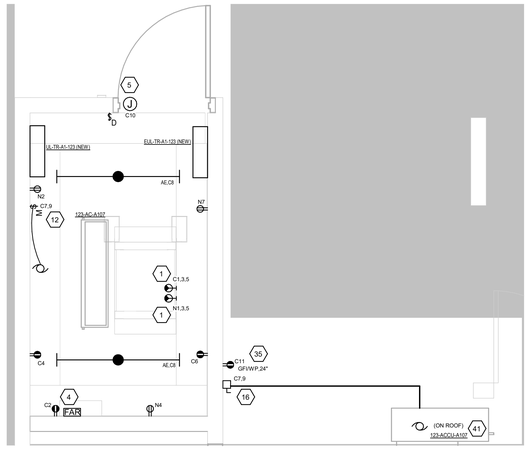
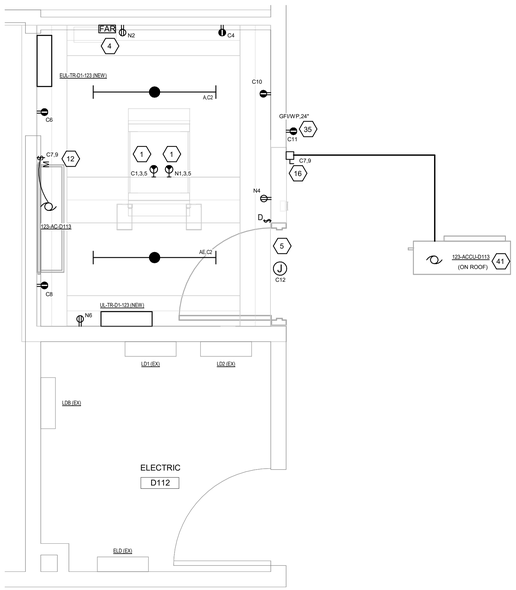
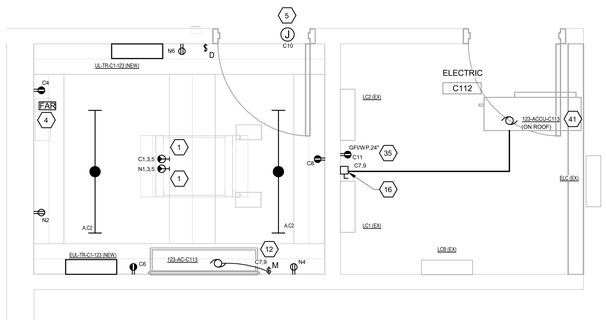


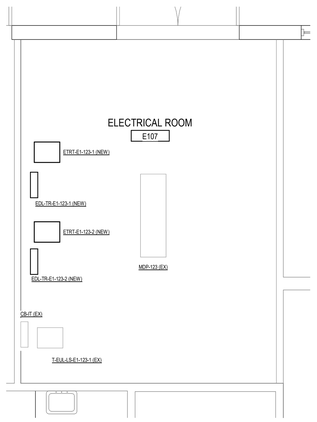
1 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM A107
1/2" = 1'-0"



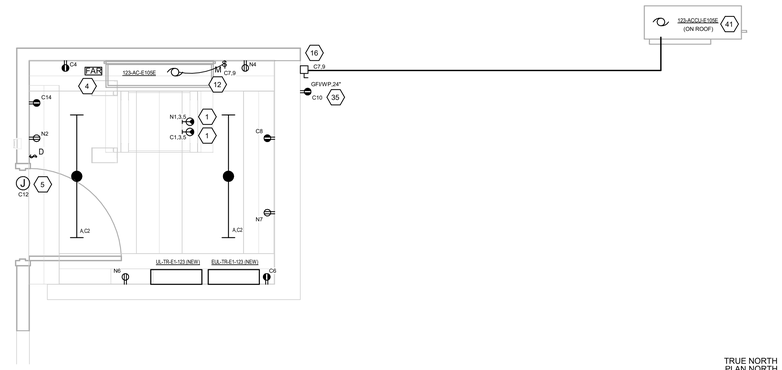
2 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM D113
1/2" = 1'-0"



3 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM C113
1/2" = 1'-0"



4 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM E107
1/4" = 1'-0"



5 BLDG 123 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM E105E
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
UL-TR-C1-123 - NORMAL POWER
EUL-TR-C1-123 - CRITICAL POWER
UL-TR-D1-123 - NORMAL POWER
EUL-TR-D1-123 - CRITICAL POWER

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1)#10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSROM REQUIREMENTS.

Graphic Scale - 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale - 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale - 3/32" = 1'-0" (2' 1' 8" 0' 4")
Graphic Scale - 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 3/16" = 1'-0" (12' 6' 3' 0' 1' 6")
Graphic Scale - 1/2" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 3/4" = 1'-0" (2' 1' 6" 0')
Graphic Scale - 1" = 1'-0" (2' 1' 6" 0')
Graphic Scale - 1 1/2" = 1'-0" (1' 6" 3" 0')

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 123 - FIRST FLOOR ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 123
Drawing Number 123-EP102

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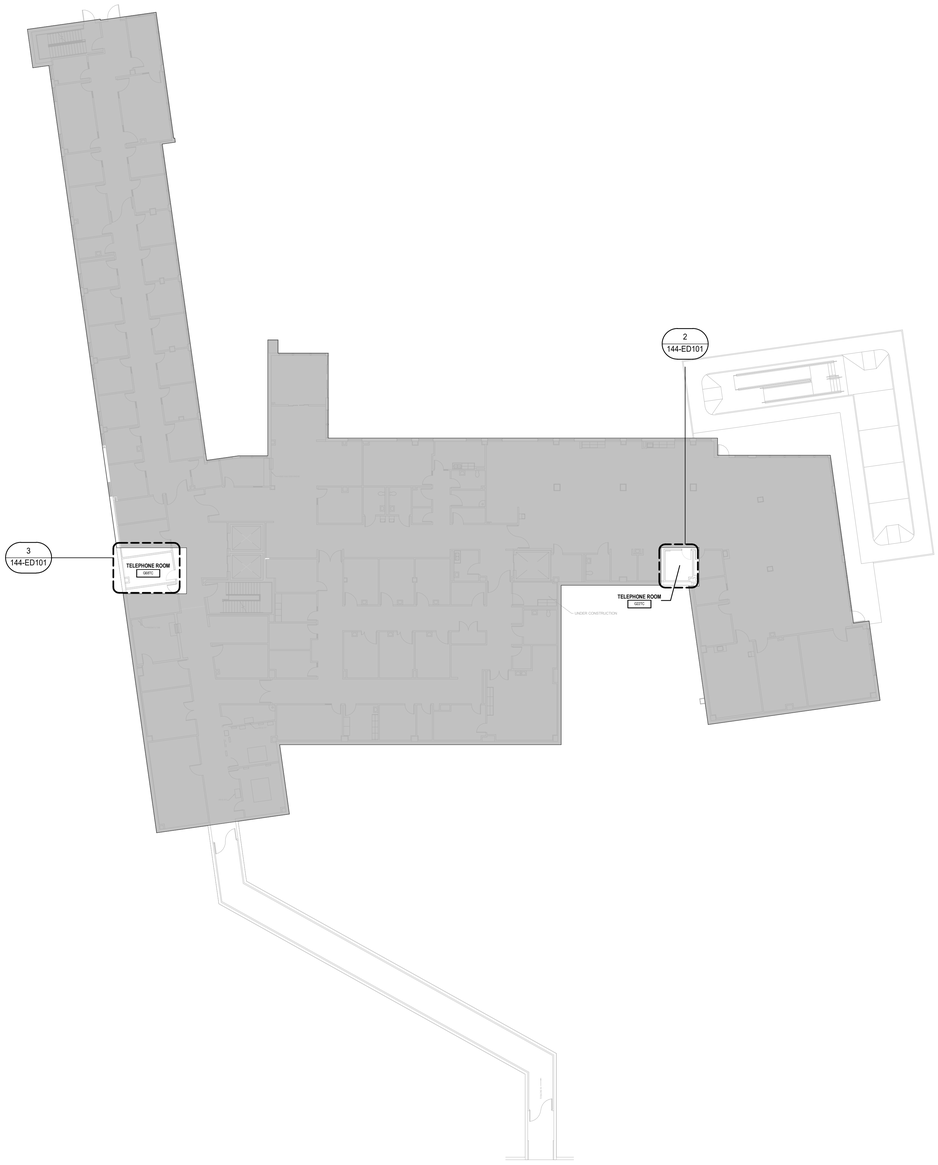
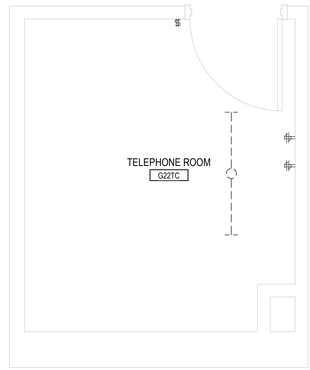
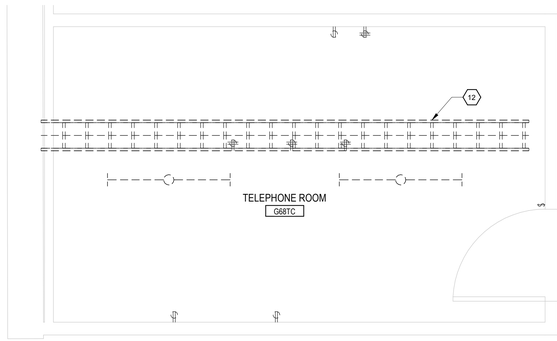


1 BLDG 144 - BASEMENT - OVERALL ELECTRICAL DEMOLITION
1" = 20'-0"



2 BLDG 144 - BASEMENT - ENLARGED ELECTRICAL DEMOLITION - ROOM G22
1/2" = 1'-0"



3 BLDG 144 - BASEMENT - ENLARGED ELECTRICAL DEMOLITION - ROOM G68
1/2" = 1'-0"

ELEC. DEMO GENERAL NOTES

1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED. PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.

Graphic Scale: 1/16" = 1'-0" (0' 1' 3' 6' 12' 16' 32')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale: 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale: 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/16" = 1'-0" (0' 3" 6" 1' 1'6" 2')
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1 1/2" = 1'-0" (0' 3" 6" 1' 1'6" 2')

TRUE NORTH
PLAN NORTH

Revisions:	Date:

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

Drawing Title: BLDG 144 - BASEMENT OVERALL & ENLARGED - ELECTRICAL DEMOLITION	Phase: FINAL BID DOCUMENTS	Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	Project Number: 695-21-700
Approved:	Sprinklered: FULLY SPRINKLERED	Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI	Building Number: 144
		Issue Date: SEPTEMBER 5, 2025 / Checked: YW / Drawn: SM	Drawing Number: 144-ED101

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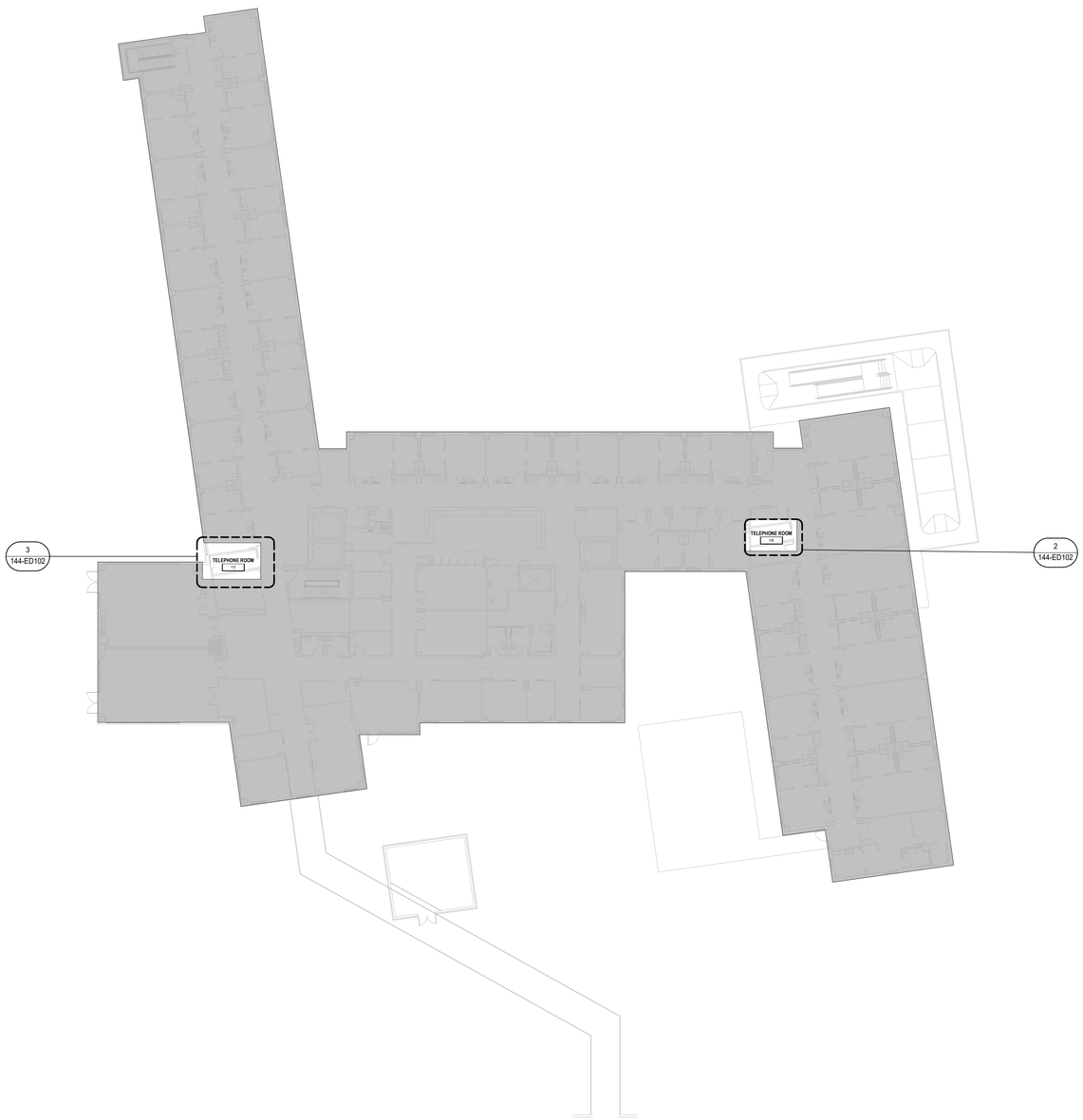
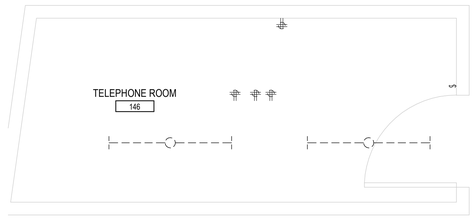
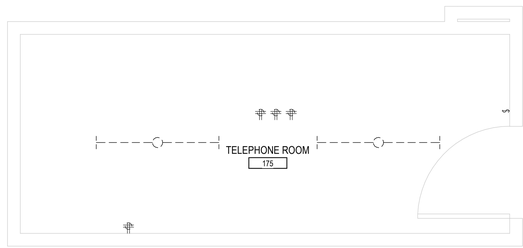


1 BLDG 144 - FIRST FLOOR - OVERALL ELECTRICAL DEMOLITION
1" = 20'-0"



2 BLDG 144 - FIRST FLOOR - ENLARGED ELECTRICAL DEMOLITION - ROOM 146
1/2" = 1'-0"



3 BLDG 144 - FIRST FLOOR - ENLARGED ELECTRICAL DEMOLITION - ROOM 175
1/2" = 1'-0"

ELEC. DEMO GENERAL NOTES

1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED, PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.

TRUE NORTH
PLAN NORTH

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
BLDG 144 - FIRST FLOOR OVERALL & ENLARGED - ELECTRICAL DEMOLITION	FINAL BID DOCUMENTS	EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	695-21-700
			Building Number: 144
Approved:	Sprinklered: FULLY SPRINKLERED	Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI	Drawing Number: 144-ED102
		Issue Date: SEPTEMBER 5, 2025 / Checked: YW / Drawn: SM	

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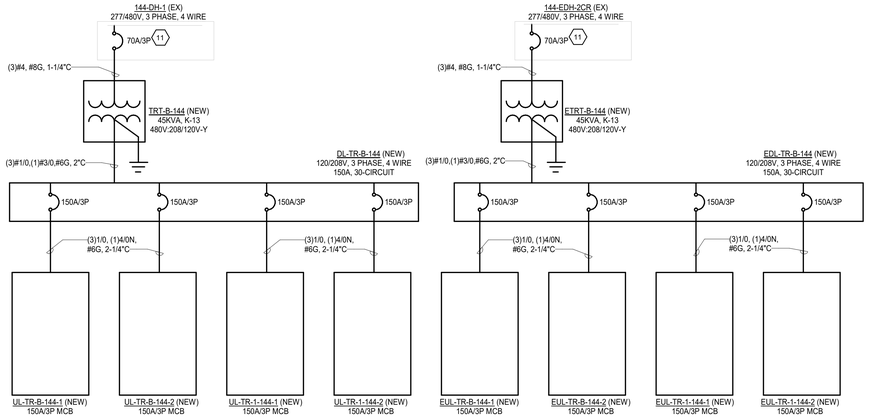
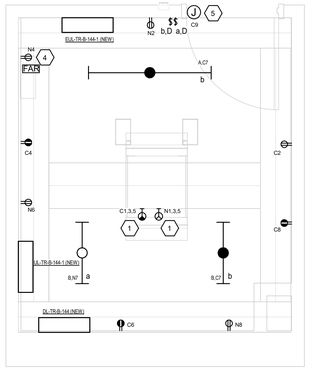


4 BLDG 144 - PARTIAL ONE LINE DIAGRAM
1" = 1'-0"



5 BLDG 144 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM 144-0-2
1/2" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

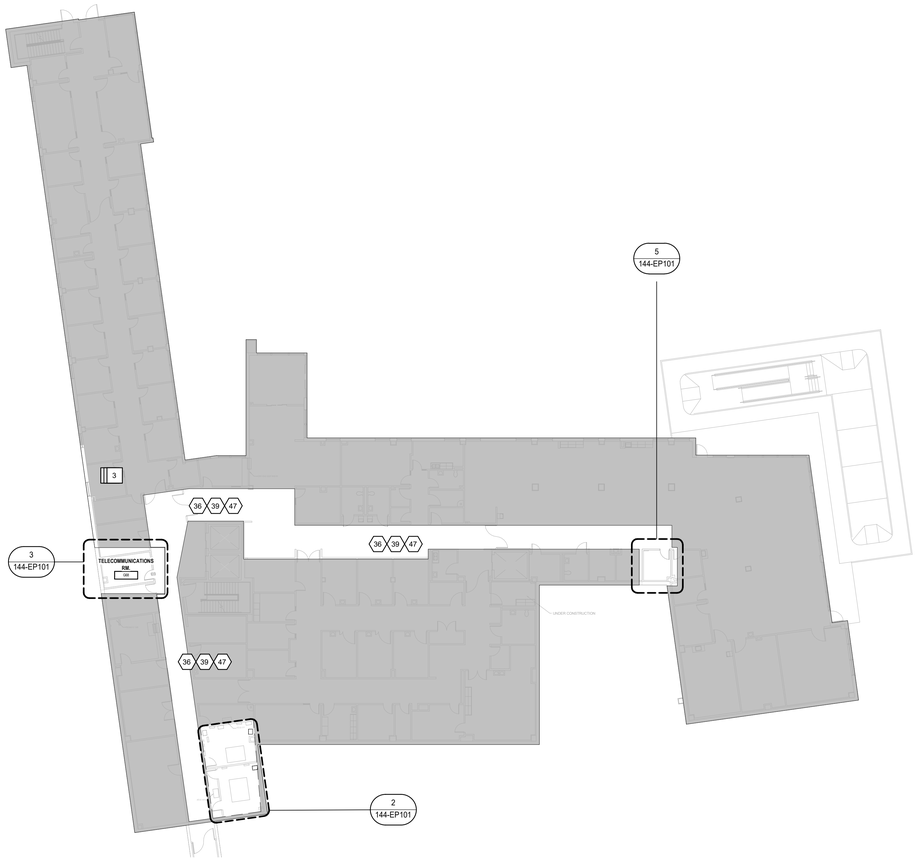
BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

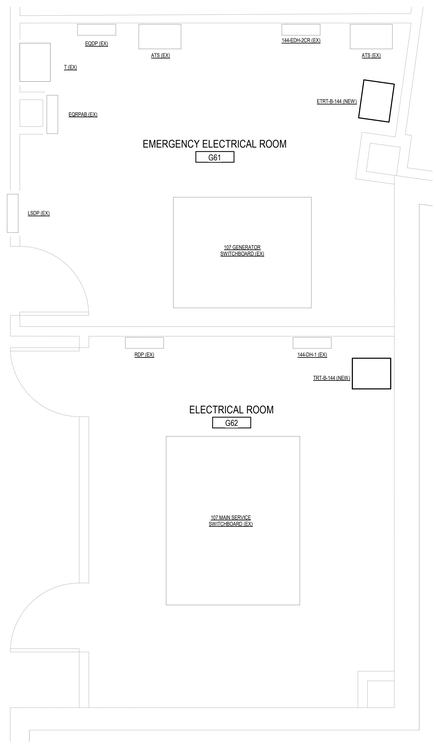
208/120V PANEL :
UL-TR-B-144-1 - NORMAL POWER
UL-TR-B-144-2 - NORMAL POWER
EUL-TR-B-144-1 - CRITICAL POWER
EUL-TR-B-144-2 - CRITICAL POWER

ELEC. NEW WORK KEYNOTES (#)

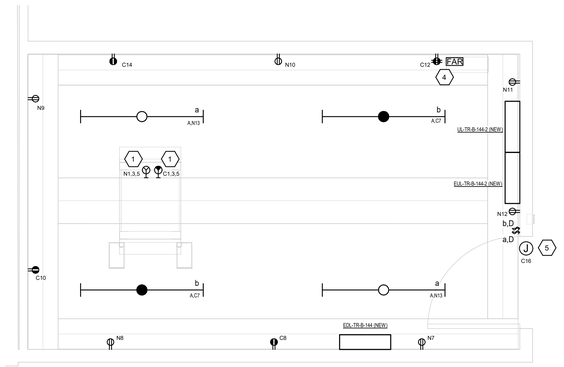
1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60A/SNF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30A/SNF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.



1 BLDG 144 - BASEMENT - OVERALL ELECTRICAL NEW WORK
1" = 20'-0"



2 BLDG 144 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM G61
3/8" = 1'-0"



3 BLDG 144 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM 144-0-1
1/2" = 1'-0"

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Revisions:	Date:

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STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 144 - BASEMENT OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS
Approved:	**Sprinklered** FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI		**Project Number** 695-21-700
		Building Number 144
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI		**Drawing Number** 144-EP101
Issue Date SEPTEMBER 5, 2025	**Checked** YW	**Drawn** SM

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Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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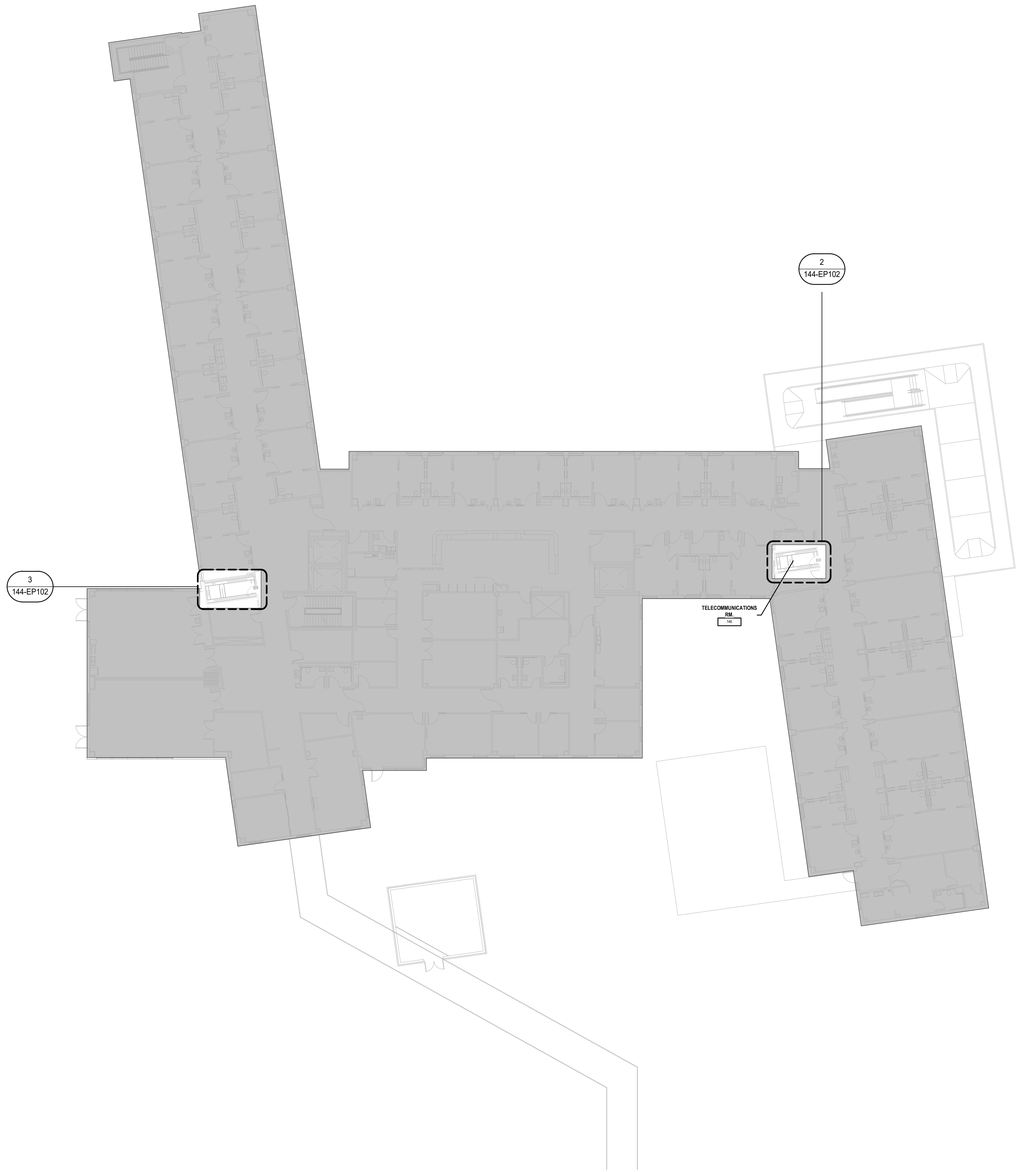
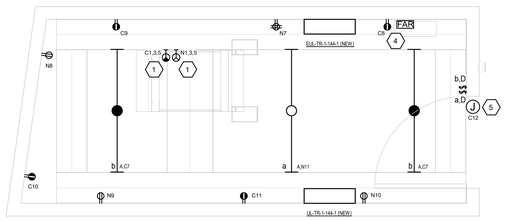
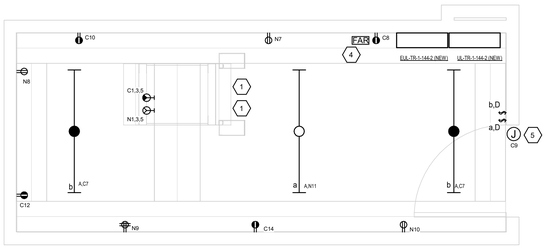
Graphic Scale: 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale: 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale: 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1 1/2" = 1'-0" (0' 3" 6" 1' 1' 6")



1 BLDG 144 - FIRST FLOOR - OVERALL ELECTRICAL NEW WORK
1" = 20'-0"



2 BLDG 144 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 144-1-2
1/2" = 1'-0"



3 BLDG 144 - FIRST FLOOR - ENLARGED ELECTRICAL NEW WORK - ROOM 144-1-1
1/2" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

208/120V PANEL:
UL-TR-1-144-1 - NORMAL POWER
UL-TR-1-144-2 - NORMAL POWER
EUL-TR-1-144-1 - CRITICAL POWER
EUL-TR-1-144-2 - CRITICAL POWER

ELEC. NEW WORK KEYNOTES

1. NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2. NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3. SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4. FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5. J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6. MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7. NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8. CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9. CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10. RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11. PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12. INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15. 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16. 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20. NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21. NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22. ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23. STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24. L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25. NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26. SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27. UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28. NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29. MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35. RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36. ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39. CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40. MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41. PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44. INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45. PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46. CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47. CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49. ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50. STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51. CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52. ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53. CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

TRUE NORTH
PLAN NORTH

Graphic Scale: 1/16" = 1'-0" (32', 16', 8', 0')
Graphic Scale: 1/8" = 1'-0" (16', 8', 4', 0')
Graphic Scale: 3/32" = 1'-0" (2', 1', 8", 4", 0')
Graphic Scale: 1/4" = 1'-0" (4', 2', 1', 0')
Graphic Scale: 3/16" = 1'-0" (12', 6', 3', 1', 0')
Graphic Scale: 1/2" = 1'-0" (4', 2', 1', 0')
Graphic Scale: 3/4" = 1'-0" (2', 1', 6", 0')
Graphic Scale: 1" = 1'-0" (2', 1', 6", 0')
Graphic Scale: 1 1/2" = 1'-0" (1'6", 1', 6", 3", 0')

Revisions:	Date:

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STATE OF NEBRASKA
9.5.2025

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

Drawing Title	BLDG 144 - FIRST FLOOR OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:	
Phase	FINAL BID DOCUMENTS
Sprinklered	FULLY SPRINKLERED
Project Title	EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location	5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date	SEPTEMBER 5, 2025
Checked	YW
Drawn	SM
Project Number	695-21-700
Building Number	144
Drawing Number	144-EP102

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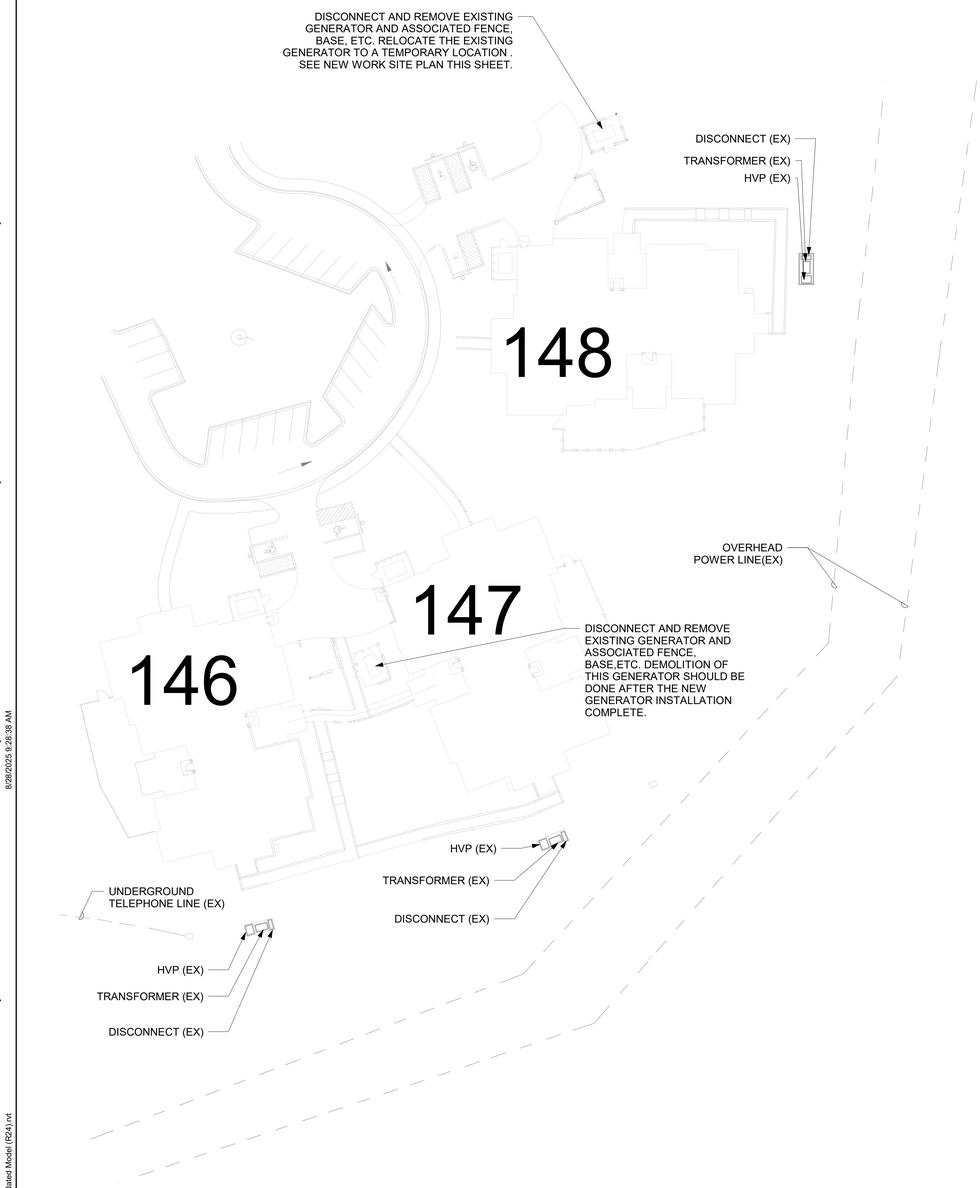
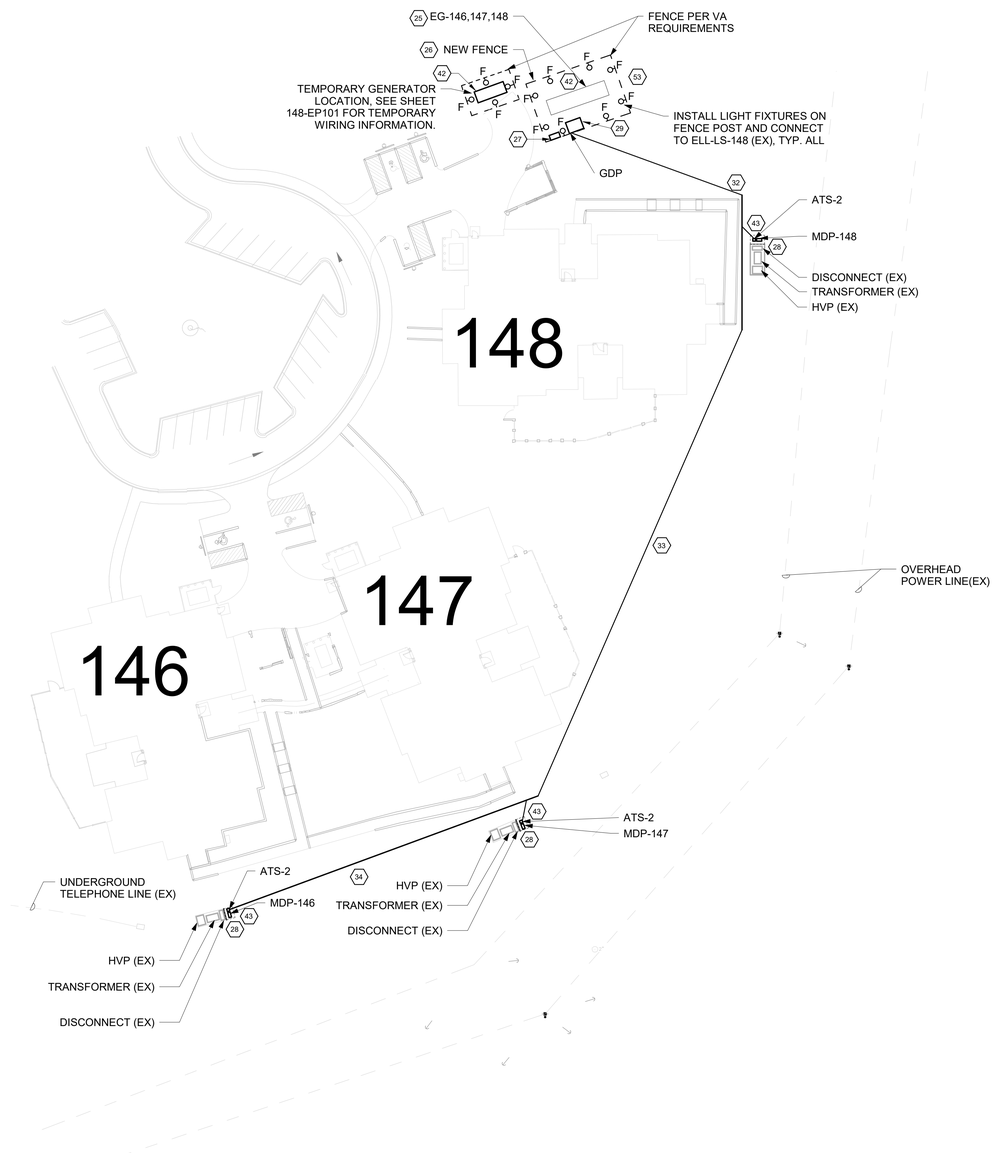
8/28/2025 9:28:37 AM
VA FORM 08 - 6231



1 BLDG 146, 147, & 148 - SITE PLAN - ELECTRICAL DEMO
1" = 30'-0"



2 BLDG 146, 147, & 148 - SITE PLAN - ELECTRICAL NEW WORK
1" = 30'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

ELEC. NEW WORK KEYNOTES

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

Graphic Scale - 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale - 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale - 3/32" = 1'-0" (2' 1' 8" 0' 4" 0')
Graphic Scale - 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 3/16" = 1'-0" (12' 6' 3' 0' 1' 0')
Graphic Scale - 1/2" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 3/8" = 1'-0" (2' 1' 6" 0')
Graphic Scale - 1" = 1'-0" (2' 1' 6" 0')
Graphic Scale - 1 1/2" = 1'-0" (1' 6" 1' 0' 3' 6" 0')

Revisions:	Date:

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9.5.2025

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

Drawing Title BLDG 146, 147, 148 - SITE - ELECTRICAL PLAN
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 146
Drawing Number 146-E100

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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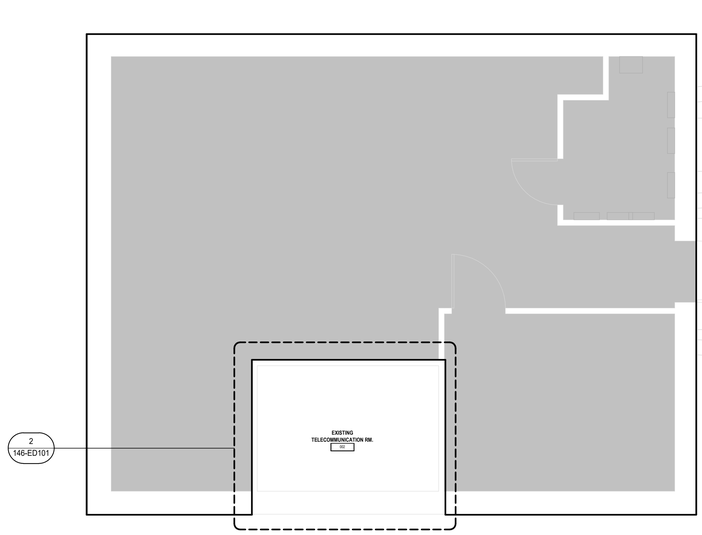
ELEC. DEMO GENERAL NOTES

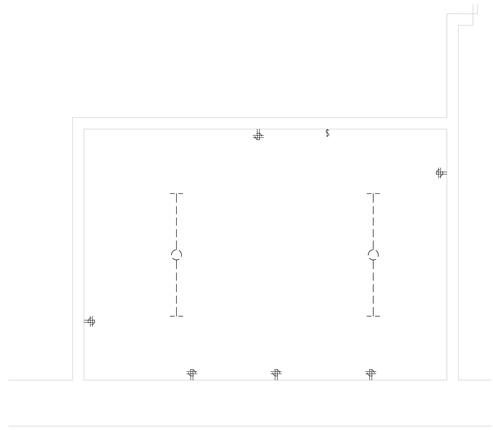
1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED. PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.



1 BLDG 146 - BASEMENT - OVERALL ELECTRICAL DEMOLITION
1/4" = 1'-0"



2 BLDG 146 - BASEMENT - ENLARGED ELECTRICAL DEMOLITION - ROOM 002
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/16" = 1'-0"
Graphic Scale: 1/8" = 1'-0"
Graphic Scale: 1/4" = 1'-0"
Graphic Scale: 3/16" = 1'-0"
Graphic Scale: 1/2" = 1'-0"
Graphic Scale: 3/4" = 1'-0"
Graphic Scale: 1" = 1'-0"
Graphic Scale: 1 1/2" = 1'-0"

Revisions:	Date:

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STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: BLDG 146 - BASEMENT OVERALL & ENLARGED - ELECTRICAL DEMOLITION	Phase: FINAL BID DOCUMENTS
Approved:	Sprinklered: FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	Project Number: 695-21-700
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI	Building Number: 146
Issue Date: SEPTEMBER 5, 2025 / Checked: YW / Drawn: SM	Drawing Number: 146-ED101

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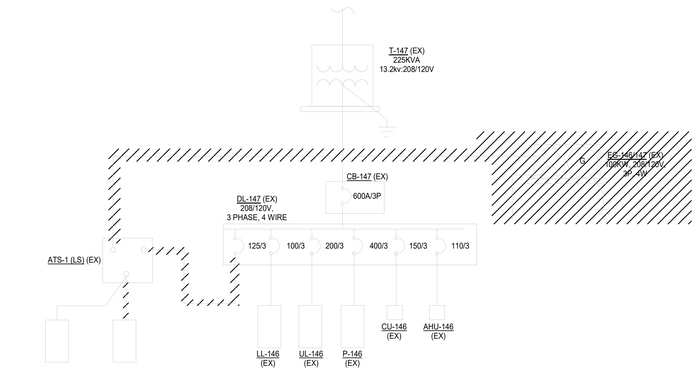
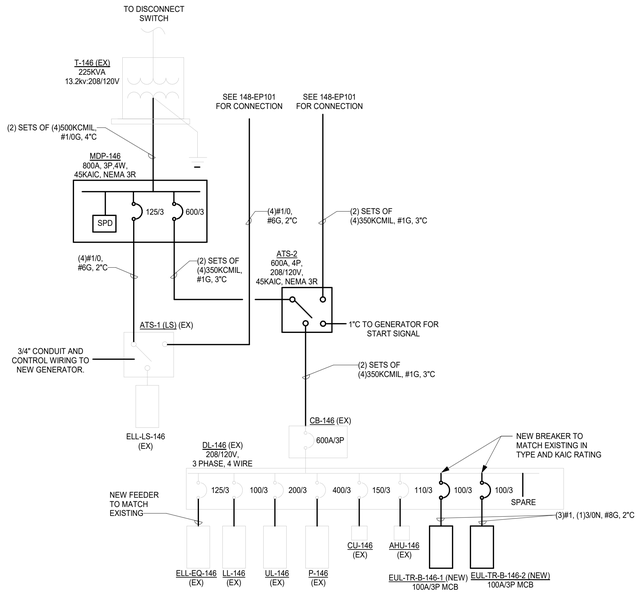


3 BLDG 146 - ELECTRICAL DEMO - PARTIAL ONE LINE DIAGRAM
1" = 1'-0"



4 BLDG 146 - ELECTRICAL NEW WORK - PARTIAL ONE LINE DIAGRAM
1" = 1'-0"

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

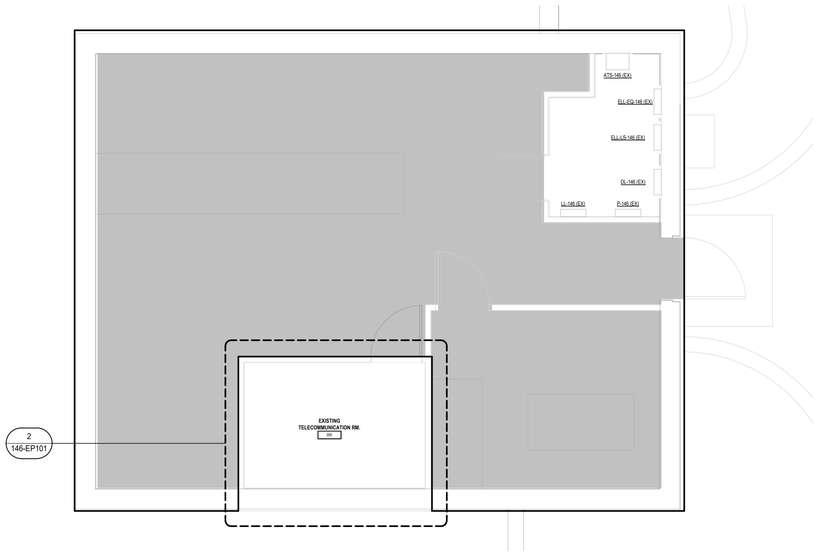
BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

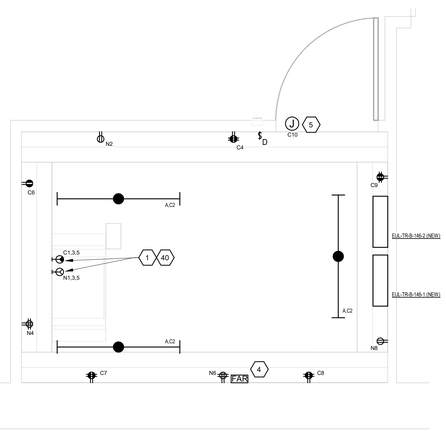
208/120V PANEL:
UL-TR-B-146 - NORMAL POWER
EUL-TR-B-146 - CRITICAL POWER

ELEC. NEW WORK KEYNOTES (#)

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60A/S/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30A/S/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 LS-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.



1 BLDG 146 - BASEMENT - OVERALL ELECTRICAL NEW WORK
1/4" = 1'-0"



2 BLDG 146 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM 005
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title: BLDG 146 - BASEMENT OVERALL & ENLARGED - ELECTRICAL NEW WORK	Phase: FINAL BID DOCUMENTS
Approved:	Sprinklered: FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI		Project Number: 695-21-700
		Building Number: 146
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI		Drawing Number: 146-EP101
Issue Date: SEPTEMBER 5, 2025	Checked: YW	Drawn: SM

VA FORM 08 - 6231

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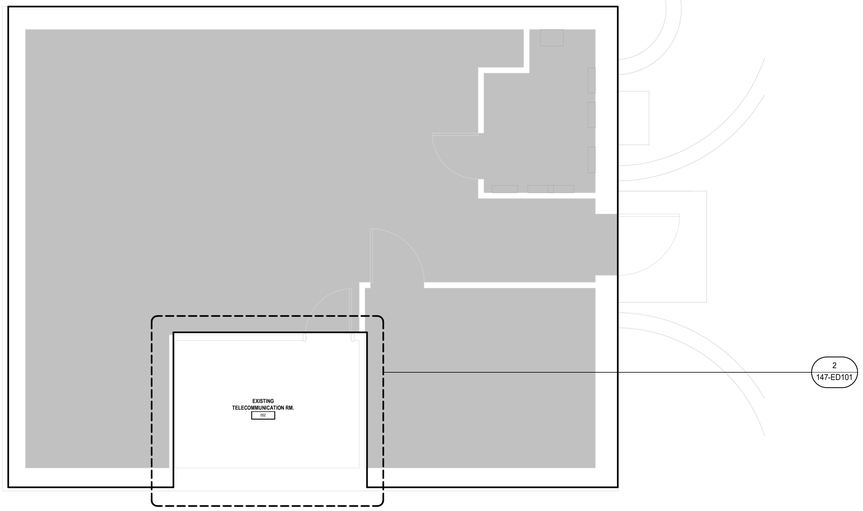
Graphic Scale: 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale: 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale: 3/32" = 1'-0" (2' 1' 8" 0')
Graphic Scale: 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale: 3/16" = 1'-0" (12' 6' 3' 1' 0')
Graphic Scale: 1/2" = 1'-0" (4' 2' 1' 0')
Graphic Scale: 3/8" = 1'-0" (2' 1' 6" 0')
Graphic Scale: 1" = 1'-0" (2' 1' 6" 0')
Graphic Scale: 1 1/2" = 1'-0" (1' 6" 3" 0')

ELEC. DEMO GENERAL NOTES

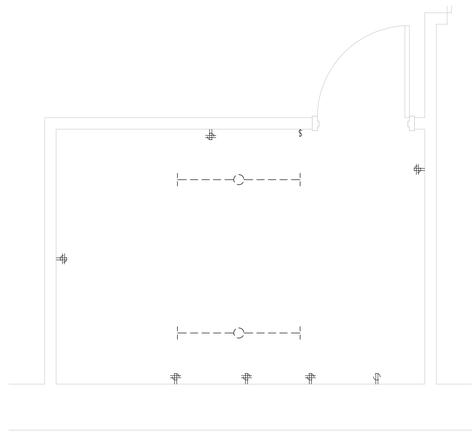
1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED. PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.



1 BLDG 147 - BASEMENT - OVERALL ELECTRICAL DEMOLITION
1/4" = 1'-0"



2 BLDG 147 - BASEMENT - ENLARGED ELECTRICAL DEMOLITION - ROOM 002
1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
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STATE OF WISCONSIN
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title BUILDING 147 BASEMENT - ELECTRICAL DEMOLITION PLAN
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 147
Drawing Number 147-ED101

Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/16" = 1'-0"
Graphic Scale: 1/8" = 1'-0"
Graphic Scale: 1/4" = 1'-0"
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Graphic Scale: 1" = 1'-0"
Graphic Scale: 1 1/2" = 1'-0"

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3 BLDG 147 - ELECTRICAL DEMO - PARTIAL ONE LINE DIAGRAM
NTS

4 BLDG 147 - ELECTRICAL NEW WORK - PARTIAL ONE LINE DIAGRAM
NTS

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

   208/120V PANEL:
   UL-TR-B-147 - NORMAL POWER
   EUL-TR-B-147 - CRITICAL POWER

ELEC. NEW WORK KEYNOTES

1 NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3) #12, (1) #10N, (1) #12G 3/4"C.
2 NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3 SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4 FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5 J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6 MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7 NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8 CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9 CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10 RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11 PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12 INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20 NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21 NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22 ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23 STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24 L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25 NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26 SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27 UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28 NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29 MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30 SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34 UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35 RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36 ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39 CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40 MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41 PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43 PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44 INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45 PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46 CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47 CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49 ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50 STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51 CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52 ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53 CONTRACTOR SHALL PROVIDE GENERATOR ENCLOURE AND SETBACK PER VA PSRDM REQUIREMENTS.

1 BLDG 147 - BASEMENT - OVERALL ELECTRICAL NEW WORK
1/4" = 1'-0"

2 BLDG 147 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM 002
1/2" = 1'-0"

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PLAN NORTH

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER YUMEI WANG E-11391 STATE OF NEBRASKA
9.5.2025

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

Drawing Title: BLDG 147 - BASEMENT OVERALL & ENLARGED - ELECTRICAL NEW WORK
Approved:
Phase: FINAL BID DOCUMENTS
Sprinklered: FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date: SEPTEMBER 5, 2025
Checked: YW
Drawn: SM
Project Number: 695-21-700
Building Number: 147
Drawing Number: 147-EP101

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
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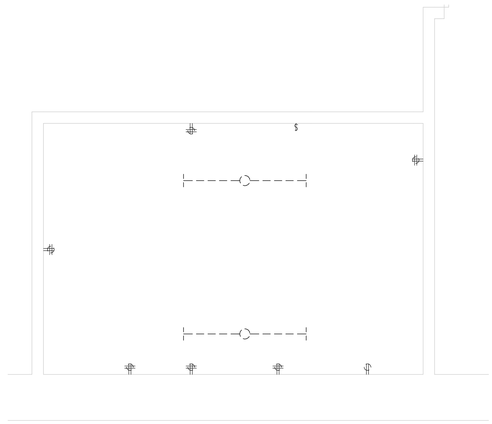
ELEC. DEMO GENERAL NOTES

1. SEE SHEET E-001 FOR GENERAL DEMOLITION NOTES.
2. NOT ALL KEYNOTES ARE USED ON THE SHEET.
3. FULL TONE, DASHED OR HATCHED ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.

ELEC. DEMO KEYNOTES (#)

1 EXISTING PANEL TO REMAIN.
2 DISCONNECT AND REMOVE PANEL.
3 NO WORK IN SPACE.
4 REMOVE LIGHTING AND WALL POWER OUTLETS IN ROOM.
5 DEVICES ON EXISTING WALLS NOT IMPACTED BY DEMOLITION SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
6 DISCONNECT AND REMOVE SERVICE DISCONNECT SWITCH, INCOMING FEEDERS TO REMAIN.
7 LIGHTING FIXTURE WILL BE RELOCATED. PROTECT DURING CONSTRUCTION. SEE NEW WORK PLAN OF CORRESPONDING AREA FOR NEW LOCATION.
8 CONTRACTOR TO VERIFY CONDUIT PATH AND DESTINATION. REROUTE CONDUITS TO MAKE SPACE FOR NEW EQUIPMENT AND INSTALLATION.
9 DATA CABLES WILL NEED TO BE RELOCATED OUTSIDE OF ELECTRICAL SPACES.
10 PULLBOX AND CONDUIT TO REMAIN.
11 DISCONNECT AND REMOVE ABANDONED PANELS.
12 EXISTING CABLE TRAY, REFER TO TN SHEETS FOR ADDITIONAL REQUIREMENTS.

1 BLDG 148 - BASEMENT - OVERALL ELECTRICAL DEMOLITION
1/4" = 1'-0"



2 BLDG 148 - BASEMENT - ENLARGED ELECTRICAL DEMOLITION - ROOM 002
1/2" = 1'-0"

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STATE OF NEBRASKA
9.5.2025

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

Drawing Title BLDG 148 - BASEMENT OVERALL & ENLARGED - ELECTRICAL DEMOLITION
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number 148
Drawing Number 148-ED101

Graphic Scale: 3/32" = 1'-0"
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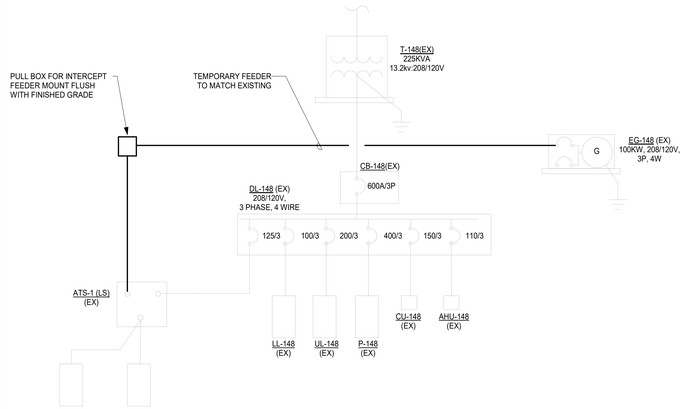
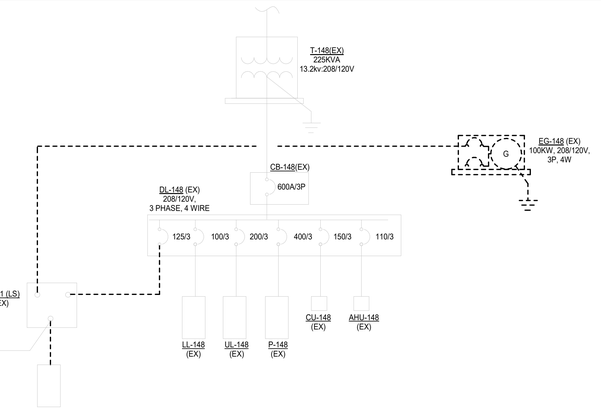


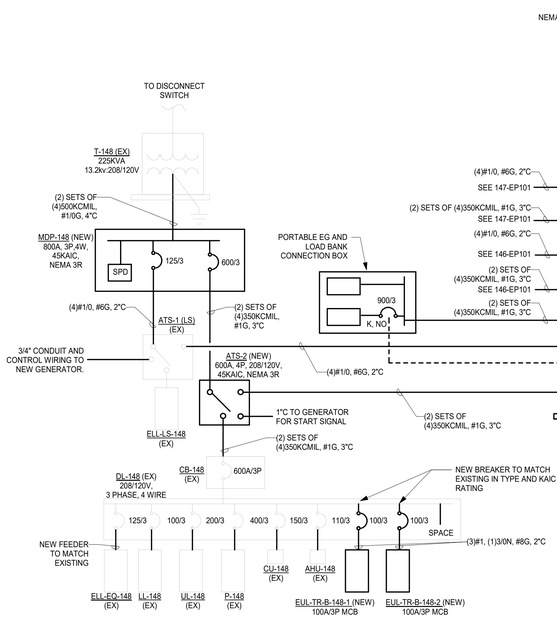
5 BLDG 148 - ELECTRICAL- PARTIAL ONE LINE DIAGRAM - TEMPORARY CONNECTION

NTS



3 BLDG 148 - ELECTRICAL DEMO - PARTIAL ONE LINE DIAGRAM

NTS



4 BLDG 148 - ELECTRICAL NEW WORK - PARTIAL ONE LINE DIAGRAM

NTS

ELEC. NEW WORK GENERAL NOTES

1. FIRE STOP SHALL BE PROVIDED AT ALL LOCATIONS WHERE ELECTRICAL EQUIPMENT OR SYSTEMS PENETRATE FIRE RATED WALLS. SEE ARCHITECTURAL PLANS FOR RATED WALL LOCATIONS.
2. SEE MECHANICAL SHEETS FOR CONTROL WIRING TO MECHANICAL EQUIPMENT.
3. ONE-LINE DIAGRAMS ARE MEANT TO SHOW ONLY ELECTRICAL RELATIONSHIPS AND THEREFORE MAY NOT INCLUDE ALL REQUIRED EQUIPMENT, DEVICES AND ACCESSORIES.
4. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND DEVICE LOCATIONS PRIOR TO BID.
5. EXISTING FIRE ALARM AND OTHER LOW VOLTAGE SYSTEM EQUIPMENT IN THE EXISTING TR ROOMS OR SPACES IMPACTED BY THE NEW TR ROOMS SHALL BE COORDINATED WITH THE VA COR FOR WORK REQUIRED.
6. NOT ALL KEYNOTES ARE USED ON THE SHEET.
7. PROVIDE 200% NEUTRAL FOR ALL BRANCH CIRCUITS FEEDING RACKS AND FEEDERS DOWN STREAM FROM K-13 RATED TRANSFORMERS.
8. FOR MECHANICAL INDOOR AND OUTDOOR UNITS FOR TR ROOMS, PROVIDE (1)3/4" CONDUIT FOR CONTROL WIRING BETWEEN INDOOR AND OUTDOOR UNITS. CONTROL WIRING BY MECHANICAL CONTROL CONTRACTOR.
9. FULL TONE, DASHED OR HATCEHD ITEMS INDICATE TO BE DEMOED. HALF TONE ITEMS INDICATE TO REMAIN.
10. PANELBOARDS SERVING LOADS LOCATED ON ROOF AND BUILDING EXTERIOR SHALL BE PROVIDED WITH SURGE PROTECTION DEVICES.

BRANCH CIRCUITING NOTES

1. UNLESS OTHERWISE NOTED, EXTEND BRANCH CIRCUITS IN THE TR ROOM TO THE FOLLOWING BRANCH PANELBOARDS.

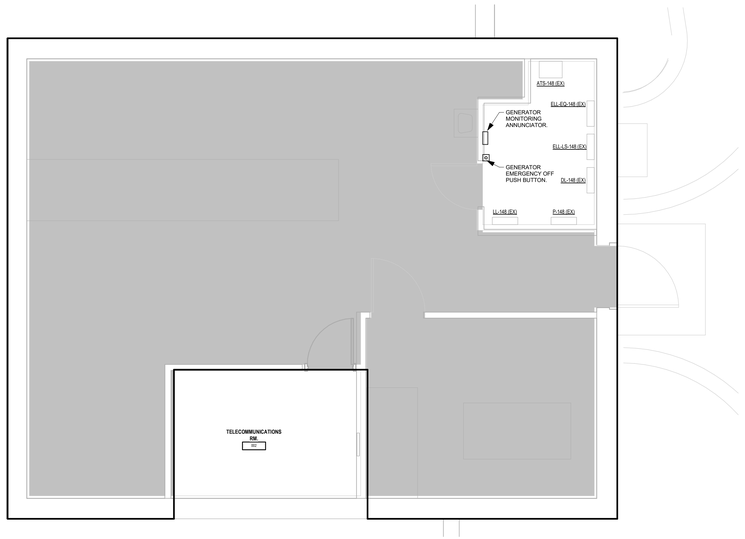
208/120V PANEL:
UL-TR-B-148 - NORMAL POWER
EUL-TR-B-148 - CRITICAL POWER

LOAD CALCULATIONS FOR NEW GENERATOR FOR BUILDINGS 146, 147 AND 148:

1. EXISTING B146, 147, 148 LOADS:
   PER LOAD READINGS VA PROVIDED (2/3/2022),
   B146: 68KW X1.25= 85KW
   B147: 57KW X 1.25 = 71.25KW
   B148: 55KW X 1.25 = 68.75KW
   TOTAL = 225KW
2. NEW IT AND COOLING LOADS: 15KVA X3 = 45KW
3. TOTAL CALCULATED LOADS ON THE NEW GENERATOR = 270KW
4. % OF LOADING: 45%

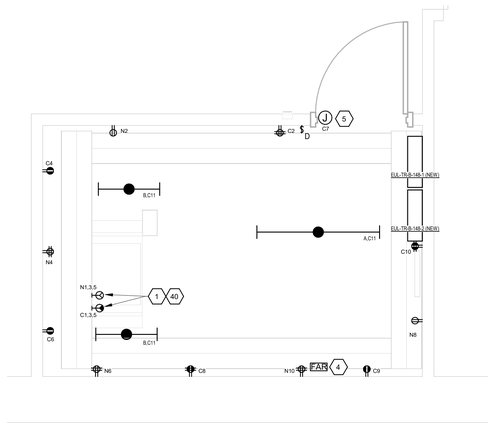
ELEC. NEW WORK KEYNOTES (#)

1. NEMA L21-20R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#12, (1) #10N, (1) #12G 3/4"C.
2. NEMA L21-30R MOUNT ON CABLE TRAY ABOVE RACK. COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. FEEDER: (3)#10, (1) #8N, (1) #10G, 3/4"C.
3. SURFACE MOUNT J-BOX (60A) FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
4. FIRE ALARM RELAY FOR CONNECTION TO ACCESS CONTROL PANEL IN ROOM. COORDINATE EXACT LOCATION WITH ACCESS CONTROL CONTRACTOR.
5. J-BOX FOR POWER TO ACCESS CONTROL POWER SUPPLY AT DOOR. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL AND DOOR HARDWARE.
6. MOUNT J-BOX (60A) ON CABLE TRAY ABOVE RACK FOR POWER TO RACK PDU. FEEDER: (3)#4, (1)#1/0N, (1)#8G, 2"C. MOUNT J-BOX ON CABLE TRAY ABOVE RACK, COORDINATE EXACT LOCATION/PLACEMENT WITH OTHER TRADES. SEE E-500 FOR MORE INFORMATION.
7. NEW PANEL IN EXISTING PANEL LOCATION. RECONNECT ALL EXISTING CIRCUITS TO NEW CIRCUIT BREAKERS IN PANEL. VERIFY EXACT LOAD AND LOCATION IN FIELD.
8. CONNECT NEW RECEPTACLE TO EXISTING POWER PANEL SERVING THE AREA. USE 20AMP SPARE CIRCUIT BREAKER OR PROVIDE NEW AS NEEDED.
9. CONNECT NEW PANEL TO BUILDING DISTRIBUTION PANEL. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW BREAKER TYPE TO MATCH EXISTING.
10. RELOCATED PANEL. RECONNECT ALL CIRCUITS TO EXISTING LOADS. COORDINATE EXACT BRANCH CIRCUIT INFORMATION IN FIELD AND COORDINATE LOCATION/PLACEMENT WITH THE COR.
11. PROVIDE NEW CIRCUIT BREAKER IN AVAILABLE SPACES IN EXISTING DISTRIBUTION. PROVIDE SEPARATE CIRCUIT BREAKER ENCLOSURE IF SPACES ARE NOT AVAILABLE.
12. INDOOR UNIT POWERED BY OUTDOOR UNIT. PROVIDE 20A/2P MOTOR RATED MANUAL TOGGLE CONTROLLER FOR CONTROL OF EQUIPMENT.
15. 60AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (3) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUIT FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
16. 30AS/NF/2P, NEMA 3R DISCONNECT SWITCH. FEEDER: (2) #10, #10G, 3/4"C. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
18. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION.
20. NEW PANEL AT EXISTING PANEL LOCATION. EXTEND AND RECONNECT EXISTING INCOMING AND OUTGOING FEEDERS. NEW CIRCUIT BREAKER RATING TO MATCH EXISTING.
21. NEW MEDIUM VOLTAGE FEEDER IN EXISTING SPARE CONDUIT BETWEEN THE EXISTING VAULT AND BUILDING 115. PROVIDE NEW CONDUIT IN BUILDING 115 TO THE NEW CIRCUIT BREAKER IN EXISTING MEDIUM VOLTAGE SWITCHGEAR. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
22. ROUTE CONDUIT ON WALL TO A NEW PULLBOX 24"X18"X12" ON CEILING.
23. STUB CONDUIT TO ROOM. SEE SHEET 111-EP114 FOR ADDITIONAL INFORMATION.
24. L5-30R RECEPTACLE MOUNTED ON WALL. COORDINATE LOCATION AND MOUNTING HEIGHT WITH WALL ENCLOSURE PLACEMENT. FEEDER: 2#10, #8N, #10G, 3/4"C.
25. NEW BI-FUEL GENERATOR WITH DIESEL AND NATURAL GAS. SEE MECHANICAL FOR GAS LINE INFORMATION. BASE MOUNTED DIESEL STORAGE TANK AND WEATHERPROOF ENCLOSURE. PROVIDE PLATFORM AND LADDER FOR ACCESS AND MAINTENANCE.
26. SEE CIVIL AND STRUCTURAL FOR FENCE AND PAD DETAILS.
27. UNISTRUT MOUNT PORTABLE GENERATOR AND LOAD BANK CONNECTION BOX. COORDINATE EXACT LOCATION WITH VA COR.
28. NEW NEMA 3R RATED EQUIPMENT MOUNT ON CONCRETE PAD. EXTEND EXISTING CONCRETE PAD.
29. MOUNT GENERATOR DISTRIBUTION PANEL ON CONCRETE PAD.
30. SEE EQUIPMENT SCHEDULE FOR FEEDER AND DISCONNECT INFORMATION. PROVIDE (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO INDOOR UNIT.
32. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (9) 4" AND (3) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
33. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (6) 4" AND (2) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
34. UNDERGROUND CONCRETE ENCASED DUCTBANK WITH (3) 4" AND (1) 1" CONDUITS. SEE SHEET 148-EP101 FOR EXACT CONNECTIONS.
35. RECEPTACLE MOUNTED ON ROOF ADJACENT TO MECHANICAL EQUIPMENT DISCONNECT.
36. ROUTE CONDUIT IN ABOVE CEILING SPACE AND SUPPORT FROM STRUCTURE.
39. CONTRACTOR TO REMOVE CEILING TILES AND/OR CEILING MOUNTED DEVICES AS NEEDED TO ALLOW NEW CONDUIT INSTALLATION. REINSTALL CEILING TILES AND DEVICES AFTER COMPLETE CONDUIT INSTALLATION.
40. MOUNT RECEPTACLE ON EXISTING CABLE TRAY.
41. PROVIDE CONNECTION TO EXISTING LIGHTNING PROTECTION SYSTEM ON ROOF. BONDING CONDUCTOR TO MATCH EXISTING.
42. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
43. PROVIDE LIGHTNING PROTECTION ON GENERATOR ENCLOSURE AND BOND TO FENCE/POST WHERE APPLICABLE. SEE SPECIFICATION SECTION FOR DETAILS.
44. INSTALL BOTH OUTLETS IN COMMON BACKBOX AND COVERPLATE.
45. PENDANT MOUNT TRANSFORMER FROM CEILING. PROVIDE NECESSARY MOUNTING BRACKETS. ELECTRICAL CONTRACTOR TO DETERMINE BEST LOCATION FOR MOUNTING.
46. CONDUITS UP TO CEILING. COORDINATE EXACT LOCATION IN FIELD.
47. CONDUITS ROUTED ABOVE CEILING SPACES. COORDINATE EXACT LOCATION IN FIELD.
49. ROUTE CONDUIT FROM ELEC E-34EC THROUGH BASEMENT CEILING TO BENEATH THE TR AND STUB UP FROM BELOW.
50. STUB UP CONDUITS FROM ELECTRICAL ROOM BELOW TO CEILING OF FIRST FLOOR AND ROUTE TO TELECOM ROOMS.
51. CONDUITS ARE ROUTED UP THE COLUMN TO THE TR ON THE FLOOR ABOVE.
52. ROUTE CONDUITS ON EXTERIOR ROOF AND WALLS. COORDINATE EXACT LOCATION IN FIELD.
53. CONTRACTOR SHALL PROVIDE GENERATOR ENCLOUSRE AND SETBACK PER VA PSRDM REQUIREMENTS.



1 BLDG 148 - BASEMENT - OVERALL ELECTRICAL NEW WORK

1/4" = 1'-0"



2 BLDG 148 - BASEMENT - ENLARGED ELECTRICAL NEW WORK - ROOM 002

1/2" = 1'-0"

TRUE NORTH
PLAN NORTH

Revisions:	Date:

CONSULTANT

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YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title BLDG 148 - BASEMENT OVERALL & ENLARGED - ELECTRICAL NEW WORK	**Phase** FINAL BID DOCUMENTS
Approved:	**Sprinklered** FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date	Checked	Drawn
SEPTEMBER 5, 2025	YW	SM

Project Number 695-21-700
Building Number 148
Drawing Number 148-EP101

Graphic Scale - 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale - 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale - 3/32" = 1'-0" (2' 1' 8" 0')
Graphic Scale - 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 3/16" = 1'-0" (12' 6' 3' 0')
Graphic Scale - 3/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale - 1" = 1'-0" (2' 1' 8" 0')
Graphic Scale - 1 1/2" = 1'-0" (1' 6" 3" 0')

8/28/2025 9:28:49 AM
Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt

VA FORM 08 - 6231

Branch Panel: UL-TR-1-03-1 (NEW)

Location: TELECOMMUNICATIONS RM. 1454
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	TE RACK (REDUNDANT) - 1454	20 A	1	180 VA	95 VA					1	20 A	LIGHTING - 1454	N1-2
N1-3	ACCESS CONTROL POWER SUPPLY	20 A	1			180 VA	180 VA			1	20 A	RECEP - 1454	N1-4
N1-5	RECEP - 1454	20 A	1					360 VA	360 VA	1	20 A	RECEP - 1454	N1-6
N1-7	03-ACCU-1454 CONVIENCE RECEP	20 A	1	180 VA	180 VA					1	20 A	RECEP - 1454	N1-8
N1-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - 1454	N1-10
N1-11	SPACE	--	1					--	180 VA	1	20 A	RECEP - 1454	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	635 VA		540 VA		900 VA					
			Total Amps:	5 A		5 A		8 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	1800 VA	100.00%	1800 VA	**Total Conn. Load:**	2075 VA
Lighting	95 VA	100.00%	95 VA	**Total Est. Demand:**	2075 VA
				Total Conn.:	6 A
				Total Est. Demand:	6 A

Notes:

Branch Panel: UL-TR-1-03-2 (NEW)

Location: TELECOMMUNICATIONS RM. 1454
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	TE RACK - 1454	20 A	1	180 VA	180 VA					1	20 A	RECEP - 1454	N2-2
N2-3	RECEP - 1454	20 A	1			360 VA	180 VA			1	20 A	RECEP - 1454	N2-4
N2-5	RECEP - 1454	20 A	1					180 VA	180 VA	1	20 A	RECEP - 1454	N2-6
N2-7	03-AC/ACCU-1454	20 A	2	1082 VA	--					1	--	SPACE	N2-8
N2-9	--	--	--			1082 VA	--			1	--	SPACE	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	1401 VA		1567 VA		360 VA					
			Total Amps:	13 A		14 A		3 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	1260 VA	100.00%	1260 VA	**Total Conn. Load:**	3302 VA
				Total Est. Demand:	3833 VA
				Total Conn.:	9 A
				Total Est. Demand:	11 A

Notes:

Branch Panel: UL-TR-2-04-1 (NEW)

Location: TELECOMMUNICATIONS RM 2110
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RACK - 2110	20 A	3	1921 VA	180 VA					1	20 A	04-ACCU-2110 CONVIENCE RECEP	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 2112	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 2112	N1-6
N1-7	J-BOX - DOOR POWER - 2112	20 A	1	180 VA	180 VA					1	20 A	RECEP - 2112	N1-8
N1-9	LIGHTING - 2110	20 A	1			64 VA	180 VA			1	20 A	RECEP - 2112	N1-10
N1-11	SPACE	--	1					--	--	1	--	SPACE	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	2461 VA		2345 VA		2101 VA					
			Total Amps:	21 A		20 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6663 VA	100.00%	6663 VA	**Total Conn. Load:**	6907 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	6907 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: UL-TR-2-04-2 (NEW)

Location: TELECOMMUNICATIONS RM 2110
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - 2110	20 A	3	1921 VA	180 VA					1	20 A	RECEP - 2112	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 2112	N2-4
N2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 2112	N2-6
N2-7	04-AC/ACCU-2110	20 A	2	1082 VA	180 VA					1	20 A	RECEP - 2112	N2-8
N2-9	--	--	--			1082 VA	--			1	--	SPACE	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	3251 VA		3074 VA		2101 VA					
			Total Amps:	28 A		27 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	6483 VA	100.00%	6483 VA	**Total Conn. Load:**	8399 VA
				Total Est. Demand:	8896 VA
				Total Conn.:	23 A
				Total Est. Demand:	25 A

Notes:

Branch Panel: UL-TR-1-05-1 (NEW)

Location: EXISTING TELECOMMUNICATIONS RM. 117
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RACK - 117	20 A	3	1921 VA	180 VA					1	20 A	05-ACCU-117 CONVIENCE...	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 117	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 117	N1-6
N1-7	RECEP - 117	20 A	1	360 VA	180 VA					1	20 A	J-BOX - DOOR POWER - 117	N1-8
N1-9	RECEP - 117	20 A	1			180 VA	64 VA			1	20 A	Lighting	N1-10
N1-11	RECEP - 117	20 A	1					180 VA	--	1	--	SPACE	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	2641 VA		2345 VA		2281 VA					
			Total Amps:	22 A		20 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	7023 VA	100.00%	7023 VA	**Total Conn. Load:**	7267 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	7267 VA
				Total Conn.:	20 A
				Total Est. Demand:	20 A

Notes:

Branch Panel: UL-TR-1-05-2 (NEW)

Location: EXISTING TELECOMMUNICATIONS RM. 117
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - 117	20 A	3	1921 VA	360 VA					1	20 A	RECEP - 117	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 117	N2-4
N2-5	--	--	--					1921 VA	1082 VA	2	20 A	05-AC/ACCU-117	N2-6
N2-7	RECEP - 117	20 A	1	360 VA	1082 VA					--	--	--	N2-8
N2-9	RECEP - 117	20 A	1			180 VA	180 VA			1	--	SPACE	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	3606 VA		2281 VA		2897 VA					
			Total Amps:	31 A		19 A		25 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	6843 VA	100.00%	6843 VA	**Total Conn. Load:**	8756 VA
				Total Est. Demand:	9252 VA
				Total Conn.:	24 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-2-05-1 (NEW)

Location: TELECOMMUNICATIONS RM. 204
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RACK - 204	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - 204	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 204	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 204	N1-6
N1-7	J-BOX - DOOR POWER - 204	20 A	1	180 VA	180 VA					1	20 A	RECEP - 204	N1-8
N1-9	RECEP - 204	20 A	1			180 VA	180 VA			1	20 A	05-ACCU-204 CONVIENCE...	N1-10
N1-11	SPACE	--	1					--	--	1	--	SPACE	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	2345 VA		2461 VA		2101 VA					
			Total Amps:	20 A		21 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6663 VA	100.00%	6663 VA	**Total Conn. Load:**	6907 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	6907 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: UL-TR-2-05-2 (NEW)

Location: TELECOMMUNICATIONS RM. 204
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - 204	20 A	3	1921 VA	180 VA					1	20 A	RECEP - 204	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 204	N2-4
N2-5	--	--	--					1921 VA	1082 VA	2	20 A	05-AC/ACCU-204	N2-6
N2-7	RECEP - 204	20 A	1	180 VA	1082 VA					--	--	--	N2-8
N2-9	RECEP - 204	20 A	1			180 VA	64 VA			1	20 A	LIGHTING - 204	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	3251 VA		2345 VA		2897 VA					
			Total Amps:	28 A		20 A		25 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	6483 VA	100.00%	6483 VA	**Total Conn. Load:**	8462 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	8959 VA
				Total Conn.:	23 A
				Total Est. Demand:	25 A

Notes:

Branch Panel: UL-TR-A1-06-1 (NEW)

Location: OI&T A104
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RACK - A104	20 A	3	1921 VA	191 VA					1	20 A	LIGHTING - A104	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - A104	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - A104	N1-6
N1-7	RECEP - A104	20 A	1	180 VA	180 VA					1	20 A	RECEP - A104	N1-8
N1-9	RECEP - A104	20 A	1			180 VA	1082 VA			2	20 A	06-AC/ACCU-A104	N1-10
N1-11	RECEP - A104	20 A	1					180 VA	1082 VA	--	--	--	N1-12
N1-13	J-BOX - DOOR POWER - A104	20 A	1	180 VA	180 VA					1	20 A	06-ITAC-1A CONVIENCE RECEP	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	2832 VA		3251 VA		3251 VA					
			Total Amps:	24 A		28 A		28 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	9303 VA
Receptacle	7023 VA	100.00%	7023 VA	**Total Est. Demand:**	9796 VA
Lighting	191 VA	100.00%	191 VA	**Total Conn.:**	26 A
				Total Est. Demand:	27 A

Notes:

Revisions:	Date:

CONSULTANT

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YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL PANEL SCHEDULES

Approved:

Phase FINAL BID DOCUMENTS

Sprinklered FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI

Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM

Project Number 695-21-700

Building Number

Drawing Number E-400

Graphic Scale: 1/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16' 32')
Graphic Scale: 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1 1/2" = 1'-0" (0' 3" 6" 1' 1' 6")

8/28/2025 9:28:50 AM

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VA FORM 08 - 6231

Branch Panel: UL-TR-A1-06-2 (NEW)

Location: OI&T A104 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - A104	20 A	3	1921 VA	180 VA					1	20 A	RECEP - A104	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - A104	N2-4
N2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - A104	N2-6
N2-7	SPACE	--	1	--	360 VA					1	20 A	RECEP - A104	N2-8
N2-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - A104	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	2461 VA		2281 VA		2101 VA					
			Total Amps:	21 A		19 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6843 VA	100.00%	6843 VA		
				Total Conn. Load:	6843 VA
				Total Est. Demand:	6843 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: UL-TR-B1-06-1 (NEW)

Location: VACANT OFFICE B103 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RAC - B103	20 A	3	1921 VA	95 VA					1	20 A	LIGHTING - B103	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B103	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B103	N1-6
N1-7	06-AC/ACCU-B10	20 A	2	1082 VA	180 VA					1	20 A	RECEP - B103	N1-8
N1-9	--	--	--			1082 VA	180 VA			1	20 A	RECEP - B103	N1-10
N1-11	06-ITAC-3A CONVIENCE RECEPTACLE	20 A	1					180 VA	180 VA	1	20 A	RECEP - B103	N1-12
N1-13	SPACE	--	1	--	180 VA					1	20 A	J-BOX - DOOR POWER - B103	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	3345 VA		3251 VA		2461 VA					
			Total Amps:	29 A		28 A		21 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	Total Conn. Load:	9029 VA
Receptacle	6843 VA	100.00%	6843 VA	Total Est. Demand:	9524 VA
Lighting	95 VA	100.00%	95 VA	Total Conn.:	25 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-B1-06-2 (NEW)

Location: VACANT OFFICE B103 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - B103	20 A	3	1921 VA	180 VA					1	20 A	RECEP - B103	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B103	N2-4
N2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B103	N2-6
N2-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - B103	N2-8
N2-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - B103	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	2281 VA		2281 VA		2101 VA					
			Total Amps:	19 A		19 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6663 VA	100.00%	6663 VA		
				Total Conn. Load:	6663 VA
				Total Est. Demand:	6663 VA
				Total Conn.:	18 A
				Total Est. Demand:	18 A

Notes:

Branch Panel: UL-TR-C1-06-1 (NEW)

Location: IT CLOSET 6-1-C012 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RAC - C102	20 A	3	1921 VA	95 VA					1	20 A	LIGHTING - C102	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - C102	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - C102	N1-6
N1-7	J-BOX - DOOR POWER - C102	20 A	1	180 VA	180 VA					1	20 A	RECEP - C102	N1-8
N1-9	SPACE	--	1			--	--			1	--	SPACE	N1-10
N1-11	SPACE	--	1					--	--	1	--	SPACE	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	2376 VA		2101 VA		2101 VA					
			Total Amps:	20 A		18 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6303 VA	100.00%	6303 VA	Total Conn. Load:	6578 VA
Lighting	95 VA	100.00%	95 VA	Total Est. Demand:	6578 VA
				Total Conn.:	18 A
				Total Est. Demand:	18 A

Notes:

Branch Panel: UL-TR-C1-06-2 (NEW)

Location: IT CLOSET 6-1-C012 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - C102	20 A	3	1921 VA	540 VA					1	20 A	RECEP - C102	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - C102	N2-4
N2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - C102	N2-6
N2-7	06-AC/ACCU-C102	20 A	2	1082 VA	180 VA					1	20 A	RECEP - C102	N2-8
N2-9	--	--	--			1082 VA	--			1	--	SPACE	N2-10
N2-11	06-ITAC-4A CONVIENCE RECEP	20 A	1					180 VA	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	3606 VA		3074 VA		2281 VA					
			Total Amps:	31 A		27 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	7023 VA	100.00%	7023 VA	Total Conn. Load:	8935 VA
				Total Est. Demand:	9430 VA
				Total Conn.:	25 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-D2-06-1 (NEW)

Location: TELECOMMUNICATIONS RM. D203 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RACK - D203	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - D203	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - D203	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - D203	N1-6
N1-7	06-ITAC-8A CONVIENCE RECEP	20 A	1	180 VA	180 VA					1	20 A	RECEP - D203	N1-8
N1-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - D203	N1-10
N1-11	SPACE	--	1					--	180 VA	1	20 A	RECEP - D203	N1-12
N1-13	SPACE	--	1	--	180 VA					1	20 A	J-BOX - DOOR POWER - D203	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	2525 VA		2281 VA		2281 VA					
			Total Amps:	21 A		19 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6843 VA	100.00%	6843 VA	Total Conn. Load:	7087 VA
Lighting	64 VA	100.00%	64 VA	Total Est. Demand:	7087 VA
				Total Conn.:	20 A
				Total Est. Demand:	20 A

Notes:

Branch Panel: UL-TR-D2-06-2 (NEW)

Location: TELECOMMUNICATIONS RM. D203 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - D203	20 A	3	1921 VA	180 VA					1	20 A	RECEP - D203	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - D203	N2-4
N2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - D203	N2-6
N2-7	06-AC/ACCU-D203	20 A	2	1082 VA	--					1	--	SPACE	N2-8
N2-9	--	--	--			1082 VA	--			1	--	SPACE	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	3074 VA		3074 VA		2101 VA					
			Total Amps:	27 A		27 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	6303 VA	100.00%	6303 VA	Total Conn. Load:	8221 VA
				Total Est. Demand:	8719 VA
				Total Conn.:	23 A
				Total Est. Demand:	24 A

Notes:

Branch Panel: UL-TR-C3-06-1 (NEW)

Location: TELECOMMUNICATIONS RM. C302 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RACK - C302	20 A	3	1921 VA	192 VA					1	20 A	LIGHTING - C302	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - C302	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - C302	N1-6
N1-7	06-ACCU-C302 CONVIENCE RECEP	20 A	1	180 VA	180 VA					1	20 A	RECEP - C302	N1-8
N1-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - C302	N1-10
N1-11	SPACE	--	1					--	180 VA	1	20 A	RECEP - C302	N1-12
N1-13	SPACE	--	1	--	180 VA					1	20 A	RECEP - C302	N1-14
N1-15	SPACE	--	1			--	180 VA			1	20 A	J-BOX - DOOR POWER - C302	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	2653 VA		2461 VA		2281 VA					
			Total Amps:	22 A		21 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	7023 VA	100.00%	7023 VA	Total Conn. Load:	7395 VA
Lighting	64 VA	100.00%	64 VA	Total Est. Demand:	7395 VA
				Total Conn.:	21 A
				Total Est. Demand:	21 A

Notes:

Branch Panel: UL-TR-C3-06-2 (NEW)

Location: TELECOMMUNICATIONS RM. C302 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - C303	20 A	3	1921 VA	180 VA					1	20 A	RECEP - C303	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - C303	N2-4
N2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - C303	N2-6
N2-7	06-AC/ACCU-C302	20 A	2	1082 VA	180 VA					1	20 A	RECEP - C303	N2-8
N2-9	--	--	--			1082 VA	180 VA			1	20 A	RECEP - C303	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	3251 VA		3251 VA		2101 VA					
			Total Amps:	29 A		29 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	6663 VA	100.00%	6663 VA	Total Conn. Load:	8578 VA
				Total Est. Demand:	9074 VA
				Total Conn.:	24 A
				Total Est. Demand:	25 A

Notes:

Revisions: Date:

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9.5.2025

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

Drawing Title: ELECTRICAL PANEL SCHEDULES
Approved:
Phase: FINAL BID DOCUMENTS
Sprinklered: FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date: SEPTEMBER 5, 2025 **Checked:** YW **Drawn:** SM
Project Number: 695-21-700
Building Number:
Drawing Number: E-401

VA FORM 08 - 6231
8/28/2025 9:28:51 AM
Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt

Branch Panel: UL-TR-B-07-1 (NEW)

Location: EXISTING TELECOMMUNICATION RM. B09
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	1 RACK - B09	20 A	3	1921 VA	95 VA					1	20 A	LIGHTING - B09	N1-2
N1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B09	N1-4
N1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B09	N1-6
N1-7	07-AC/ACCU-B09	20 A	2	1082 VA	180 VA					1	20 A	RECEP - B09	N1-8
N1-9	--	--	--			1082 VA	180 VA			1	20 A	RECEP - B09	N1-10
N1-11	7-ITAC-1A CONVIENCE RECEP	20 A	1					180 VA	180 VA	1	20 A	RECEP - B09	N1-12
N1-13	SPACE	--	1	--	180 VA					1	20 A	J-BOX - DOOR POWER - B09	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	3345 VA		3251 VA		2461 VA					
			Total Amps:	29 A		28 A		21 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	9029 VA
Receptacle	6843 VA	100.00%	6843 VA	**Total Est. Demand:**	9524 VA
Lighting	95 VA	100.00%	95 VA	**Total Conn.:**	25 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-B-07-2 (NEW)

Location: EXISTING TELECOMMUNICATION RM. B09
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	1 RACK - B09	20 A	3	1921 VA	180 VA					1	20 A	RECEP - B09	N2-2
N2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B09	N2-4
N2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B09	N2-6
N2-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - B09	N2-8
N2-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - B09	N2-10
N2-11	SPACE	--	1					--	180 VA	1	20 A	RECEP - B09	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	2281 VA		2281 VA		2281 VA					
			Total Amps:	19 A		19 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6843 VA	100.00%	6843 VA		
				Total Conn. Load:	6843 VA
				Total Est. Demand:	6843 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: UL-TR-2-20-1 (NEW)

Location: TELECOMMUNICATIONS RM. 20-1-030
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - 20-1-030	20 A	3	1921 VA	76 VA					1	20 A	LIGHTING - 20-01-30	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 20-1-030	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 20-1-030	N6
N7	RECEP - 20-1-030	20 A	1	180 VA	180 VA					1	20 A	Receptacle	N8
N9	RECEP - 20-1-030	20 A	1			180 VA	--			1	--	SPACE	N10
N11	RECEP - 20-1-030	20 A	1					360 VA	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2357 VA		2281 VA		2461 VA					
			Total Amps:	20 A		19 A		21 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	7023 VA	100.00%	7023 VA		
				Total Conn. Load:	7099 VA
				Total Est. Demand:	7099 VA
				Total Conn.:	20 A
				Total Est. Demand:	20 A

Notes:

Branch Panel: EUL-TR-2-20-1 (NEW)

Location: TELECOMMUNICATIONS RM. 20-1-030
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - 20-1-030	20 A	3	1921 VA	76 VA					1	20 A	LIGHTING - 20-1-030	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 20-1-030	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 20-1-030	C6
C7	RECEP - 20-1-030	20 A	1	180 VA	360 VA					1	20 A	RECEP - 20-1-030	C8
C9	RECEP - 20-1-030	20 A	1			180 VA	1082 VA			2	20 A	20-AC/ACCU-20-1-030	C10
C11	J-BOX - DOOR POWER	20 A	1					180 VA	1082 VA	1	--	--	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2537 VA		3251 VA		3251 VA					
			Total Amps:	21 A		28 A		28 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	9010 VA
Receptacle	6843 VA	100.00%	6843 VA	**Total Est. Demand:**	9505 VA
				Total Conn.:	25 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-1-43-1 (NEW)

Location: TELECOMMUNICATIONS RM. A156
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - A156	20 A	3	1921 VA	32 VA					1	20 A	LIGHTING - A156	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - A156	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - A156	N6
N7					180 VA					1	20 A	RECEP - A156	N8
N9							360 VA			1	20 A	RECEP - A156	N10
N11									180 VA	1	20 A	RECEP - A156	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2133 VA		2461 VA		2281 VA					
			Total Amps:	18 A		21 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6843 VA	100.00%	6843 VA		
Lighting	32 VA	100.00%	32 VA	**Total Conn. Load:**	6875 VA
				Total Est. Demand:	6875 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-1-43-1 (NEW)

Location: TELECOMMUNICATIONS RM. A156
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - A156	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - A156	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - A156	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - A156	C6
C7	J-BOX - DOOR POWER - A156	20 A	1	180 VA	180 VA					1	20 A	RECEP - A156	C8
C9	SPACE	--	1			--	180 VA			1	20 A	RECEP - A156	C10
C11	SPACE	--	1						--	1	20 A	43-AC/ACCU-A156	C12
C13	SPACE	--	1	--	1082 VA					--	--	--	C14
C15	SPACE	--	1					--	180 VA	1	20 A	43-CRAC-1A CONVIENCE RECEP	C16
C17	SPACE	--	1						--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1					--	--	1	--	SPACE	C22
C23	SPACE	--	1						--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1					--	--	1	--	SPACE	C28
C29	SPACE	--	1						--	1	--	SPACE	C30
			Total Load:	3313 VA		2461 VA		3074 VA					
			Total Amps:	28 A		21 A		26 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	8819 VA
Receptacle	6663 VA	100.00%	6663 VA	**Total Est. Demand:**	9315 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	24 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-2-43-1 (NEW)

Location:
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - A201	20 A	3	1921 VA	76 VA					1	20 A	LIGHTING - A201	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - A201	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - A201	N6
N7	SPACE	--	1	--	180 VA					1	20 A	RECEP - A201	N8
N9	SPACE	--	1			--	180 VA			1	20 A	RECEP - A201	N10
N11	SPACE	--	1					--	180 VA	1	20 A	RECEP - A201	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2177 VA		2281 VA		2281 VA					
			Total Amps:	18 A		19 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6663 VA	100.00%	6663 VA		
				Total Conn. Load:	6739 VA
				Total Est. Demand:	6739 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-2-43-1 (NEW)

Location:
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - A201	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - A201	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - A201	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - A201	C6
C7	43-AC/ACCU-A201	20 A	2	1082 VA	180 VA					1	20 A	RECEP - A201	C8
C9	--	--	1			1082 VA	180 VA			1	20 A	RECEP - A201	C10
C11	SPACE	--	1					--	180 VA	1	20 A	J-BOX - DOOR POWER - A201	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	3136 VA		3251 VA		2281 VA					
			Total Amps:	27 A		28 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	8641 VA
Receptacle	6483 VA	100.00%	6483 VA	**Total Est. Demand:**	9137 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	24 A
				Total Est. Demand:	25 A

Notes:

Revisions:	Date:

CONSULTANT

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PROFESSIONAL ELECTRICAL ENGINEER — YUMEI WANG E-11391 — STATE OF NEBRASKA — 9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL PANEL SCHEDULES
Approved:	
Phase	FINAL BID DOCUMENTS
Sprinklered	FULLY SPRINKLERED
Project Title	EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location	5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date	SEPTEMBER 5, 2025
Checked	YW
Drawn	SM
Project Number	695-21-700
Building Number	
Drawing Number	E-402

Graphic Scale: 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale: 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale: 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/16" = 1'-0" (0' 3" 6" 1' 1' 6")
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1 1/2" = 1'-0" (0' 3" 6" 1' 1' 6")

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
8/28/2025 9:28:52 AM

Branch Panel: EUL-TR-B1-70-1 (NEW)

Location: TELECOMMUNICATIONS RM. B-39
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	LIGHTING - B-159	20 A	1	127 VA	5764 VA					3	60 A	3 RACK - B-159	N2
N3	SPACE	--	1			--	5764 VA			--	--	--	N4
N5	SPACE	--	1					--	5764 VA	--	--	--	N6
N7	SPACE	--	1	--	180 VA					1	20 A	RECEP - B-159	N8
N9	SPACE	--	1			--	180 VA			1	20 A	RECEP - B-159	N10
N11	SPACE	--	1					--	180 VA	1	20 A	RECEP - B-159	N12
N13	SPACE	--	1	--	180 VA					1	20 A	RECEP - B-159	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	6251 VA		5944 VA		5944 VA					
			Total Amps:	52 A		50 A		50 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	18012 VA	77.76%	14006 VA		
Lighting	127 VA	100.00%	127 VA	**Total Conn. Load:**	18139 VA
				Total Est. Demand:	14133 VA
				Total Conn.:	50 A
				Total Est. Demand:	39 A

Notes:

Branch Panel: EUL-TR-B1-70-2 (NEW)

Location: TELECOMMUNICATIONS RM. B-39
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	70-AC/ACCU-B-159	30 A	2	2130 VA	5764 VA					3	60 A	3 RACK - B-159	C2
C3	--	--	--			2130 VA	5764 VA			--	--	--	C4
C5	70-ITAC-1A CONVIENCE RECEP	20 A	1					180 VA	5764 VA	--	--	--	C6
C7	SPACE	--	1	--	127 VA					1	20 A	LIGHTING - B-159	C8
C9	SPACE	--	1			--	180 VA			1	20 A	RECEP - B-159	C10
C11	SPACE	--	1					--	180 VA	1	20 A	RECEP - B-159	C12
C13	SPACE	--	1	--	180 VA					1	20 A	RECEP - B-159	C14
C15	SPACE	--	1			--	180 VA			1	20 A	RECEP - B-159	C16
C17	SPACE	--	1					--	180 VA	1	20 A	RECEP - B-159	C18
C19	SPACE	--	1	--	180 VA					1	20 A	J-BOX - DOOR POWER - B-159	C20
C21	SPACE	--	1			--	180 VA			1	20 A	RECEP - B-159	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1							1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	8139 VA		8192 VA		6304 VA					
			Total Amps:	70 A		71 A		53 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4260 VA	125.00%	5325 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	22592 VA
Receptacle	18552 VA	76.95%	14276 VA	**Total Est. Demand:**	19314 VA
Lighting	127 VA	100.00%	127 VA	**Total Conn.:**	63 A
				Total Est. Demand:	54 A

Notes:

Branch Panel: EUL-TR-C1-70-1 (NEW)

Location: TELECOMMUNICATIONS RM. C-17EC
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	LIGHTING - C-126	20 A	1	127 VA	5764 VA					3	60 A	3 RACK - C-126	N2
N3	RECEP - C-126	20 A	1			360 VA	5764 VA			--	--	--	N4
N5	RECEP - C-126	20 A	1					180 VA	5764 VA	--	--	--	N6
N7	RECEP - C-126	20 A	1	180 VA	180 VA					1	20 A	RECEP - C-126	N8
N9	SPACE	--	1			--	180 VA			1	20 A	RECEP - C-126	N10
N11	SPACE	--	1					--	180 VA	1	20 A	RECEP - C-126	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	6251 VA		6304 VA		6124 VA					
			Total Amps:	52 A		53 A		51 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	18552 VA	76.95%	14276 VA		
Lighting	127 VA	100.00%	127 VA	**Total Conn. Load:**	18679 VA
				Total Est. Demand:	14403 VA
				Total Conn.:	52 A
				Total Est. Demand:	40 A

Notes:

Branch Panel: EUL-TR-C1-70-2 (NEW)

Location: TELECOMMUNICATIONS RM. C-17EC
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	70-AC/ACCU-C-126	30 A	2	2130 VA	5764 VA					3	60 A	3 RACK - C-126	C2
C3	--	--	--			2130 VA	5764 VA			--	--	--	C4
C5	RECEP - C-126	20 A	1					180 VA	5764 VA	--	--	--	C6
C7	RECEP - C-126	20 A	1	180 VA	180 VA					1	20 A	RECEP - C-126	C8
C9	RECEP - C-126	20 A	1			180 VA	180 VA			1	20 A	RECEP - C-126	C10
C11	LIGHTING - C-126	20 A	1					95 VA	180 VA	1	20 A	RECEP - C-126	C12
C13	J-BOX - DOOR POWER - C-126	20 A	1	180 VA	180 VA					1	20 A	RECEP - C-126	C14
C15	SPACE	--	1			--	180 VA			1	20 A	70-ITAC-5A CONVIENCE RECEP	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	8370 VA		8192 VA		6219 VA					
			Total Amps:	72 A		71 A		52 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4260 VA	125.00%	5325 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	22739 VA
Receptacle	18732 VA	76.69%	14366 VA	**Total Est. Demand:**	19372 VA
Lighting	95 VA	100.00%	95 VA	**Total Conn.:**	63 A
				Total Est. Demand:	54 A

Notes:

Branch Panel: EUL-TR-D1-70-1 (NEW)

Location: EXISTING TELECOMMUNICATION RM. D-125
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	2 RACK - D125	30 A	3	2882 VA	180 VA					1	20 A	RECEP - D-125	N2
N3	--	--	--			2882 VA	180 VA			1	20 A	RECEP - D-125	N4
N5	--	--	--					2882 VA	180 VA	1	20 A	RECEP - D-125	N6
N7	RECEP - D-125	20 A	1	180 VA	360 VA					1	20 A	RECEP - D-125	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	3602 VA		3062 VA		3062 VA					
			Total Amps:	30 A		26 A		26 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	9726 VA	100.00%	9726 VA		
				Total Conn. Load:	9726 VA
				Total Est. Demand:	9726 VA
				Total Conn.:	27 A
				Total Est. Demand:	27 A

Notes:

Branch Panel: EUL-TR-D1-70-2 (NEW)

Location: EXISTING TELECOMMUNICATION RM. D-125
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	2 RACK - D125	30 A	3	2882 VA	180 VA					1	20 A	RECEP - D-125	C2
C3	--	--	--			2882 VA	180 VA			1	20 A	RECEP - D-125	C4
C5	--	--	--					2882 VA	360 VA	1	20 A	RECEP - D-125	C6
C7	LIGHTING - D-125	20 A	1	102 VA	180 VA					1	20 A	RECEP - D-125	C8
C9	J-BOX - DOOR POWER	20 A	1			180 VA	--			1	--	SPACE	C10
C11	70-AC/ACCU-D12	20 A	2					1248 VA	--	1	--	SPACE	C12
C13	--	--	--	1248 VA	--					1	--	SPACE	C14
C15	70-ITAC-4A CONVIENCE RECEPTACLE	20 A	1			180 VA	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	4453 VA		3422 VA		4353 VA					
			Total Amps:	38 A		29 A		37 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2496 VA	125.00%	3120 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	12200 VA
Receptacle	9726 VA	100.00%	9726 VA	**Total Est. Demand:**	12766 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	34 A
				Total Est. Demand:	35 A

Notes:

Branch Panel: EUL-TR-E1-70-1 (NEW)

Location: TELECOMMUNICATIONS RM. E-2B
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	3 RACK - E-104	60 A	3	5764 VA									N2
N3	--	--	--			5764 VA							N4
N5	--	--	--					5764 VA					N6
N7	RECEP - E-104	20 A	1	180 VA	95 VA					1	20 A	LIGHTING - E-104	N8
N9	RECEP - E-104	20 A	1			180 VA	180 VA			1	20 A	RECEP - E-104	N10
N11	RECEP - E-104	20 A	1					180 VA	180 VA	1	20 A	RECEP - E-104	N12
N13	SPACE	--	1	--	180 VA					1	20 A	RECEP - E-104	N14
N15	SPACE	--	1			--	180 VA			1	20 A	RECEP - E-104	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	6219 VA		6304 VA		6124 VA					
			Total Amps:	52 A		53 A		51 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	18562 VA	76.95%	14276 VA		
Lighting	95 VA	100.00%	95 VA	**Total Conn. Load:**	18647 VA
				Total Est. Demand:	14371 VA
				Total Conn.:	52 A
				Total Est. Demand:	40 A

Notes:

Branch Panel: EUL-TR-E1-70-2 (NEW)

Location: TELECOMMUNICATIONS RM. E-2B
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	3 RACK - E-104	60 A	3	5764 VA	2130 VA					2	30 A	70-AC/ACCU-E-104	C2
C3	--	--	--			5764 VA	2130 VA			--	--	--	C4
C5	--	--	--					5764 VA					C6
C7					95 VA					1	20 A	LIGHTING - E-104	C8
C9							180 VA			1	20 A	RECEP - E-104	C10
C11									180 VA	1	20 A	RECEP - E-104	C12
C13					180 VA					1	20 A	RECEP - E-104	C14
C15							180 VA			1	20 A	RECEP - E-104	C16
C17									180 VA	1	20 A	J-BOX - DOOR POWER - E-104	C18
C19	70-CRAC-1A CONVIENCE RECEP	20 A	1	180 VA	180 VA					1	20 A	RECEP - E-104	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	8286 VA		8013 VA		6124 VA					
			Total Amps:	71 A		69 A		51 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4260 VA	125.00%	5325 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	22381 VA
Receptacle	18372 VA	77.22%	14186 VA	**Total Est. Demand:**	19194 VA
Lighting	95 VA	100.00%	95 VA	**Total Conn.:**	62 A
				Total Est. Demand:	53 A

Notes:

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title ELECTRICAL PANEL SCHEDULES
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number
Drawing Number E-403

VA FORM 08 - 6231

8/28/2025 9:28:53 AM

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt

Graphic Scale: 1/16" = 1'-0" (3'2", 16', 8', 0')
Graphic Scale: 1/8" = 1'-0" (16', 8', 4', 0')
Graphic Scale: 3/32" = 1'-0" (2', 1', 8", 0', 4")
Graphic Scale: 1/4" = 1'-0" (4', 2', 1', 0')
Graphic Scale: 3/16" = 1'-0" (12', 6', 3', 1', 0')
Graphic Scale: 1/2" = 1'-0" (4', 2', 1', 0')
Graphic Scale: 3/8" = 1'-0" (2', 1', 6", 0')
Graphic Scale: 1" = 1'-0" (2', 1', 6", 0')
Graphic Scale: 1 1/2" = 1'-0" (1'-6", 1', 6", 3", 0')

Branch Panel: UL-TR-1-97-1 (NEW)

Location: TELECOMMUNICATIONS RM. 005 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	TE RACK - 001	20 A	1	180 VA	64 VA					1	20 A	LIGHTING - 001	N1-2
N1-3	RECEP - 001	20 A	1			360 VA	180 VA			1	20 A	RECEP - 001	N1-4
N1-5	97-ACCU-005 CONVIENCE RECEPT	20 A	1					180 VA	180 VA	1	20 A	RECEP - 001	N1-6
N1-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - 001	N1-8
N1-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - 001	N1-10
N1-11	SPACE	--	1					--	180 VA	1	20 A	J-BOX - DOOR POWER - 001	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	424 VA		720 VA		540 VA					
			Total Amps:	4 A		6 A		5 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	1440 VA	100.00%	1440 VA	Total Conn. Load:	1684 VA
Lighting	64 VA	100.00%	64 VA	Total Est. Demand:	1684 VA
				Total Conn.:	5 A
				Total Est. Demand:	5 A

Notes:

Branch Panel: UL-TR-1-97-2 (NEW)

Location: TELECOMMUNICATIONS RM. 005 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	TE RACK - 001	20 A	1	180 VA	180 VA					1	20 A	RECEP - 001	N2-2
N2-3	RECEP - 001	20 A	1			360 VA	180 VA			1	20 A	RECEP - 001	N2-4
N2-5	SPACE	--	1					--	180 VA	1	20 A	RECEP - 001	N2-6
N2-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - 001	N2-8
N2-9	SPACE	--	1			--	1082 VA			2	20 A	97-AC/ACCU-005	N2-10
N2-11	SPACE	--	1					--	1082 VA	--	--	--	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	540 VA		1567 VA		1238 VA					
			Total Amps:	5 A		14 A		11 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	1260 VA	100.00%	1260 VA	Total Conn. Load:	3302 VA
				Total Est. Demand:	3833 VA
				Total Conn.:	9 A
				Total Est. Demand:	11 A

Notes:

Branch Panel: UL-TR-B-102 (NEW)

Location: TELECOMMUNICATIONS RM. B100FC **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - B100FC	20 A	3	1921 VA	32 VA					1	20 A	LIGHTING - B100FC	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B100FC	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B100FC	N6
N7	RECEP - B100FC	20 A	1	180 VA	180 VA					1	20 A	RECEP - B100FC	N8
N9	RECEP - B100FC	20 A	1			180 VA	180 VA			1	20 A	RECEP - B100FC	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2313 VA		2461 VA		2101 VA					
			Total Amps:	20 A		21 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6843 VA	100.00%	6843 VA		
Lighting	32 VA	100.00%	32 VA	Total Conn. Load:	6875 VA
				Total Est. Demand:	6875 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-B-102 (NEW)

Location: TELECOMMUNICATIONS RM. B100FC **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - B100FC	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - B100FC	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B100FC	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B100FC	C6
C7	RECEP - B100FC	20 A	1	180 VA	180 VA					1	20 A	RECEP - B100FC	C8
C9	RECEP - B100FC	20 A	1			180 VA	180 VA			1	20 A	RECEP - B100FC	C10
C11	RECEP - B100FC	20 A	1					180 VA	1082 VA	2	20 A	102-AC/ACCU-B100FC	C12
C13	J-BOX - DOOR POWER	20 A	1	180 VA	1082 VA					--	--	--	C14
C15	SPACE	--	1			--	180 VA			1	20 A	102-ACCU-B100FC CONVIENCE RECEP	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	3491 VA		2641 VA		3251 VA					
			Total Amps:	30 A		22 A		28 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	Total Conn. Load:	9355 VA
Receptacle	7203 VA	100.00%	7203 VA	Total Est. Demand:	9849 VA
Lighting	64 VA	100.00%	64 VA	Total Conn.:	26 A
				Total Est. Demand:	27 A

Notes:

Branch Panel: UL-TR-1-102 (NEW)

Location: TELECOMMUNICATIONS RM. 144 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - 144A	20 A	3	1921 VA	180 VA					1	20 A	RECEPT - 144A	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEPT - 144A	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEPT - 144A	N6
N7	RECEPT - 144A	20 A	1	360 VA	38 VA					1	20 A	LIGHTING - 144	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2499 VA		2101 VA		2101 VA					
			Total Amps:	21 A		18 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6663 VA	100.00%	6663 VA		
				Total Conn. Load:	6701 VA
				Total Est. Demand:	6701 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-1-102 (NEW)

Location: TELECOMMUNICATIONS RM. 144 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - 144A	20 A	3	1921 VA	64 VA					1	20 A	Lighting	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEPT - 144A	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEPT - 144A	C6
C7	RECEPT - 144A	20 A	1	180 VA	180 VA					1	20 A	RECEPT - 144A	C8
C9	102-AC/ACCU-144	20 A	2			1082 VA	180 VA			1	20 A	102-CRAC-2A CONVIENCE RECEP	C10
C11	--	--	--					1082 VA	180 VA	1	20 A	J-BOX - DOOR POWER - 144A	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2345 VA		3251 VA		3251 VA					
			Total Amps:	20 A		28 A		28 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	Total Conn. Load:	8819 VA
Receptacle	6663 VA	100.00%	6663 VA	Total Est. Demand:	9315 VA
Lighting	64 VA	100.00%	64 VA	Total Conn.:	24 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-M-107-1 (NEW)

Location: TELECOMMUNICATIONS RM. 200 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	TE RACK - 200	20 A	1	180 VA	64 VA					1	20 A	LIGHTING - 200	N1-2
N1-3	RECEP - 200	20 A	1			180 VA	180 VA			1	20 A	RECEP - 200	N1-4
N1-5	RECEP - 200	20 A	1					180 VA	180 VA	1	20 A	J-BOX - DOOR POWER - 200	N1-6
N1-7	RECEP - 200	20 A	1	360 VA	180 VA					1	20 A	Receptacle	N1-8
N1-9	SPACE	--	1			--	--			1	--	SPACE	N1-10
N1-11	SPACE	--	1					--	--	1	--	SPACE	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	784 VA		360 VA		360 VA					
			Total Amps:	7 A		3 A		3 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	1260 VA	100.00%	1260 VA	Total Conn. Load:	1504 VA
Lighting	64 VA	100.00%	64 VA	Total Est. Demand:	1504 VA
				Total Conn.:	4 A
				Total Est. Demand:	4 A

Notes:

Branch Panel: UL-TR-M-107-2 (NEW)

Location: TELECOMMUNICATIONS RM. 200 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	TE RACK - 200	20 A	1	180 VA	180 VA					1	20 A	RECEP - 200	N2-2
N2-3	RECEP - 200	20 A	1			180 VA	180 VA			1	20 A	RECEP - 200	N2-4
N2-5	RECEP - 200	20 A	1					360 VA	0 VA	2	20 A	107-AC/ACCU-200	N2-6
N2-7	SPACE	--	1	--	0 VA					--	--	--	N2-8
N2-9	SPACE	--	1			--	--			1	--	SPACE	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	360 VA		360 VA		360 VA					
			Total Amps:	3 A		3 A		3 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	0 VA	0.00%	0 VA		
Receptacle	1080 VA	100.00%	1080 VA	Total Conn. Load:	1080 VA
				Total Est. Demand:	1080 VA
				Total Conn.:	3 A
				Total Est. Demand:	3 A

Notes:

8/28/2025 9:28:54 AM

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt

Graphic Scale : 1/16" = 1'-0" | Graphic Scale : 1/8" = 1'-0" | Graphic Scale : 3/32" = 1'-0" | Graphic Scale : 1/4" = 1'-0" | Graphic Scale : 3/16" = 1'-0" | Graphic Scale : 1/2" = 1'-0" | Graphic Scale : 3/4" = 1'-0" | Graphic Scale : 1" = 1'-0" | Graphic Scale : 1 1/2" = 1'-0"

Revisions: Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL PANEL SCHEDULES

Approved:

Phase: FINAL BID DOCUMENTS

Sprinklered: FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI

Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date: SEPTEMBER 5, 2025 | Checked: YW | Drawn: SM

Project Number: 695-21-700

Building Number:

Drawing Number: E-404

VA FORM 08 - 6231

Branch Panel: UL-TR-2-108-1 (NEW)

Location: TELECOMMUNICATIONS RM. 200 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	TE RACK - 200	20 A	1	180 VA	127 VA					1	20 A	LIGHTING - 114	N1-2
N1-3	RECEP - 114	20 A	1			360 VA	180 VA			1	20 A	RECEP - 114	N1-4
N1-5	108-ACCU-200 CONVIENCE RECEP	20 A	1					180 VA	180 VA	1	20 A	RECEP - 114	N1-6
N1-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - 114	N1-8
N1-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - 114	N1-10
N1-11	SPACE	--	1					--	180 VA	1	20 A	J-BOX - DOOR POWER - 114	N1-12
N1-13	SPACE	--	1	--	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	487 VA		720 VA		540 VA					
			Total Amps:	4 A		6 A		5 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	1440 VA	100.00%	1440 VA	Total Conn. Load:	1747 VA
Lighting	127 VA	100.00%	127 VA	Total Est. Demand:	1747 VA
				Total Conn.:	5 A
				Total Est. Demand:	5 A

Notes:

Branch Panel: UL-TR-2-108-2 (NEW)

Location: TELECOMMUNICATIONS RM. 200 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	TE RACK - 200	20 A	1	180 VA	180 VA					1	20 A	RECEP - 114	N2-2
N2-3	108-AC/ACCU-200	20 A	2			0 VA	360 VA			1	20 A	RECEP - 114	N2-4
N2-5	--	--	--					0 VA	180 VA	1	20 A	RECEP - 114	N2-6
N2-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - 114	N2-8
N2-9	SPACE	--	1			--	--			1	--	SPACE	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	540 VA		360 VA		180 VA					
			Total Amps:	5 A		3 A		2 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	0 VA	0.00%	0 VA		
Receptacle	1080 VA	100.00%	1080 VA	Total Conn. Load:	1080 VA
				Total Est. Demand:	1080 VA
				Total Conn.:	3 A
				Total Est. Demand:	3 A

Notes:

Branch Panel: UL-TR-B-109-1 (NEW)

Location: TELECOMMUNICATIONS RM. B001 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1-1	TE RACK - B001	20 A	1	180 VA	64 VA					1	20 A	LIGHTING - B001	N1-2
N1-3							180 VA			1	20 A	RECEP - B001	N1-4
N1-5									180 VA	1	20 A	RECEP - B001	N1-6
N1-7	RECEP - B001	20 A	1	360 VA	180 VA					1	20 A	RECEP - B001	N1-8
N1-9	109-ACCU-B001 CONVIENCE RECEPT	20 A	1			180 VA	180 VA			1	20 A	RECEP - B001	N1-10
N1-11	109-AC/ACCU-B001	20 A	2					1082 VA	180 VA	1	20 A	J-BOX - DOOR POWER- B001	N1-12
N1-13	--	--	--	1082 VA	--					1	--	SPACE	N1-14
N1-15	SPACE	--	1			--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1					--	--	1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--					1	--	SPACE	N1-20
N1-21	SPACE	--	1			--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1					--	--	1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--					1	--	SPACE	N1-26
N1-27	SPACE	--	1			--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1					--	--	1	--	SPACE	N1-30
			Total Load:	1796 VA		540 VA		1400 VA					
			Total Amps:	16 A		5 A		13 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	Total Conn. Load:	3702 VA
Receptacle	1440 VA	100.00%	1440 VA	Total Est. Demand:	4229 VA
Lighting	64 VA	100.00%	64 VA	Total Conn.:	10 A
				Total Est. Demand:	12 A

Notes:

Branch Panel: UL-TR-B-109-2 (NEW)

Location: TELECOMMUNICATIONS RM. B001 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N2-1	TE RACK - B001	20 A	1	180 VA	180 VA					1	20 A	RECEP - B001	N2-2
N2-3	RECEP - B001	20 A	1			360 VA	180 VA			1	20 A	RECEP - B001	N2-4
N2-5	SPACE	--	1					--	180 VA	1	20 A	RECEP - B001	N2-6
N2-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - B001	N2-8
N2-9	SPACE	--	1			--	--			1	--	SPACE	N2-10
N2-11	SPACE	--	1					--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--					1	--	SPACE	N2-14
N2-15	SPACE	--	1			--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1					--	--	1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--					1	--	SPACE	N2-20
N2-21	SPACE	--	1			--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1					--	--	1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--					1	--	SPACE	N2-26
N2-27	SPACE	--	1			--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1					--	--	1	--	SPACE	N2-30
			Total Load:	540 VA		540 VA		180 VA					
			Total Amps:	5 A		5 A		2 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	1260 VA	100.00%	1260 VA		
				Total Conn. Load:	1260 VA
				Total Est. Demand:	1260 VA
				Total Conn.:	3 A
				Total Est. Demand:	3 A

Notes:

Branch Panel: 111-ICC PDU-A (NEW)

Location: DEMARC ROOM 1470 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
PA-1	3 RACK - 1470	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 1470	PA-2
PA-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 1470	PA-4
PA-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 1470	PA-6
PA-7	LIGHTING - 1470	20 A	1	95 VA	180 VA					1	20 A	RECEP - 1470	PA-8
PA-9	J-BOX - DOOR POWER - 1470	20 A	1			180 VA	180 VA			1	20 A	RECEP - 1470	PA-10
PA-11	RECEP - 1470	20 A	1					180 VA	--	1	--	SPACE	PA-12
PA-13	SPACE	--	1	--	--					1	--	SPACE	PA-14
PA-15	SPACE	--	1			--	--			1	--	SPACE	PA-16
PA-17	SPACE	--	1					--	--	1	--	SPACE	PA-18
PA-19	SPACE	--	1	--	--					1	--	SPACE	PA-20
PA-21	SPACE	--	1			--	--			1	--	SPACE	PA-22
PA-23	SPACE	--	1					--	--	1	--	SPACE	PA-24
PA-25	SPACE	--	1	--	--					1	--	SPACE	PA-26
PA-27	SPACE	--	1			--	--			1	--	SPACE	PA-28
PA-29	SPACE	--	1					--	--	1	--	SPACE	PA-30
			Total Load:	6219 VA		6304 VA		6124 VA					
			Total Amps:	52 A		53 A		51 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	18372 VA	77.22%	14186 VA	Total Conn. Load:	18647 VA
Lighting	95 VA	100.00%	95 VA	Total Est. Demand:	14461 VA
				Total Conn.:	52 A
				Total Est. Demand:	40 A

Notes:

Branch Panel: 111-ICC PDU-B (NEW)

Location: DEMARC ROOM 1470 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
PB-1	3 RACK - 1470	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 1470	PB-2
PB-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 1470	PB-4
PB-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 1470	PB-6
PB-7	111-AC/ACCU-1470-A	30 A	2	2330 VA	180 VA					1	20 A	RECEP - 1470	PB-8
PB-9	--	--	--			2330 VA	180 VA			1	20 A	RECEP - 1470	PB-10
PB-11	111-AC/ACCU-1470-B	30 A	2					2330 VA	95 VA	1	20 A	LIGHTING - 1470	PB-12
PB-13	--	--	--	2330 VA	--					1	--	SPACE	PB-14
PB-15	SPACE	--	1			--	--			1	--	SPACE	PB-16
PB-17	SPACE	--	1					--	--	1	--	SPACE	PB-18
PB-19	SPACE	--	1	--	--					1	--	SPACE	PB-20
PB-21	SPACE	--	1			--	--			1	--	SPACE	PB-22
PB-23	SPACE	--	1					--	--	1	--	SPACE	PB-24
PB-25	SPACE	--	1	--	--					1	--	SPACE	PB-26
PB-27	SPACE	--	1			--	--			1	--	SPACE	PB-28
PB-29	SPACE	--	1					--	--	1	--	SPACE	PB-30
			Total Load:	10379 VA		8197 VA		8113 VA					
			Total Amps:	87 A		68 A		68 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	9320 VA	111.43%	10385 VA		
Receptacle	18192 VA	77.48%	14096 VA	Total Conn. Load:	26665 VA
Lighting	95 VA	100.00%	95 VA	Total Est. Demand:	23659 VA
				Total Conn.:	74 A
				Total Est. Demand:	66 A

Notes:

Branch Panel: EUL-LP-1 (NEW)

Location: TELECOMMUNICATIONS RM. 1473 **Volts:** 480/277 Wye **A.I.C. Rating:** 14,000
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LIGHTING - 1472, 1471	20 A	1	446 VA	318 VA					1	20 A	LIGHTING - ICC	2
3	SPACE	--	1			--	--			1	--	SPACE	4
5	SPACE	--	1					--	--	1	--	SPACE	6
7	SPACE	--	1	--	--					1	--	SPACE	8
9	SPACE	--	1			--	--			1	--	SPACE	10
11	SPACE	--	1					--	--	1	--	SPACE	12
13	SPACE	--	1	--	--					1	--	SPACE	14
15	SPACE	--	1			--	--			1	--	SPACE	16
17	SPACE	--	1					--	--	1	--	SPACE	18
19	SPACE	--	1	--	--					1	--	SPACE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
			Total Load:	764 VA		0 VA		0 VA					
			Total Amps:	3 A		0 A		0 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0 VA	0.00%	0 VA		
Lighting	764 VA	100.00%	764 VA	Total Conn. Load:	764 VA
				Total Est. Demand:	764 VA
				Total Conn.:	1 A
				Total Est. Demand:	1 A

Notes:

Branch Panel: EUL-LP-2 (NEW)

Location: TELECOMMUNICATIONS RM. 1473 **Volts:** 480/277 Wye **A.I.C. Rating:** 22,000
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LIGHTING - 1472	20 A	1	223 VA	127 VA					1	20 A	LIGHTING - 1471	2
3	LIGHTING - ICC	20 A	1			509 VA	--			1	--	SPACE	4
5	SPACE	--	1					--	--	1	--	SPACE	6
7	SPACE	--	1	--	--					1	--	SPACE	8
9	SPACE	--	1			--	--			1	--	SPACE	10
11	SPACE	--	1					--	--	1	--	SPACE	12
13	SPACE	--	1	--	--					1	--	SPACE	14
15	SPACE	--	1			--	--			1	--	SPACE	16
17	SPACE	--	1					--	--	1	--	SPACE	18
19	SPACE	--	1	--	--					1	--	SPACE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
			Total Load:	350 VA		509 VA		0 VA					
			Total Amps:	1 A		2 A		0 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	859 VA	100.00%	859 VA		
				Total Conn. Load:	859 VA
				Total Est. Demand:	859 VA
				Total Conn.:	1 A
				Total Est. Demand:	1 A

Notes:

Branch Panel: EUL-PP-1 (NEW)

Location: ELECTRICAL ROOM 1472 **Volts:** 120/208 Wye **A.I.C. Rating:** 14,000
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RECEP - 1472	20 A	1	360 VA	1920 VA					1	20 A	TIER 2 LOAD	2
3	RECEP - 1472	20 A	1			540 VA	1920 VA			1	20 A	TIER 2 LOAD	4
5	RECEPT - 1471	20 A	1					360 VA	1920 VA	1	20 A	TIER 2 LOAD	6
7	RECEPT - 1471	20 A	1	360 VA	1920 VA					1	20 A	TIER 2 LOAD	8
9	TRAP PRIMER - 1472	20 A	1			180 VA	2114 VA			2	30 A	111-AC/ACCU-1471-B	10
11	111-AC/ACCU-1472-B	30 A	2					2114 VA	2114 VA	--	--	--	12
13	--	--	--	2114 VA	2114 VA					2	30 A	111-AC/ACCU-1471-A	14
15	111-AC/ACCU-1472-A	30 A	2			2114 VA	2114 VA			--	--	--	16
17	--	--	--					2114 VA	1260 VA	1	20 A	Receptacle	18
19	SPACE	--	1	--	900 VA					1	20 A	Receptacle	20
21	SPACE	--	1			--							22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
			Total Load:	9323 VA		8697 VA		9534 VA					
			Total Amps:	78 A		72 A		80 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	16909 VA	105.66%	17866 VA		
Receptacle	3960 VA	100.00%	3960 VA	Total Conn. Load:	27495 VA
Spare	7680 VA	100.00%	7680 VA	Total Est. Demand:	28429 VA
				Total Conn.:	76 A
				Total Est. Demand:	79 A

Notes:

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Revisions: Date:

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PROFESSIONAL ELECTRICAL ENGINEER YUMEI WANG E-11391 STATE OF NEBRASKA
9.5.2025

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

Drawing Title: ELECTRICAL PANEL SCHEDULES
Approved:
Phase: FINAL BID DOCUMENTS
Sprinklered: FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date: SEPTEMBER 5, 2025
Checked: YW
Drawn: SM
Project Number: 695-21-700
Building Number:
Drawing Number: E-405

VA FORM 08 - 6231

Branch Panel: EDL-TR-16-1 (NEW)

Location: ELECTRICAL ROOM 1472
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 35,000
Mains Type: MCB
Mains Rating: 2000 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EUL-TR-B06-3	400 A	3	8291 VA	16041 VA					3	400 A	EUL-TR-16-1	2
3	--	--	--			8344 VA	15310 VA			--	--	--	4
5	--	--	--					7546 VA	15850 VA	--	--	--	6
7	EUL-TR-26-1	400 A	3	15977 VA	6548 VA					3	100 A	EUL-TR-33-1	8
9	--	--	--			16030 VA	6304 VA			--	--	--	10
11	--	--	--					15225 VA	6664 VA	--	--	--	12
13	EUL-TR-43-1	400 A	3	19529 VA	21849 VA					3	400 A	EUL-TR-74-1	14
15	--	--	--			19692 VA	21254 VA			--	--	--	16
17	--	--	--					19152 VA	20964 VA	--	--	--	18
19	SPACE	--	1	--	--					1	--	SPACE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
		Total Load:		103532 VA		101323 VA		100510 VA					
		Total Amps:		864 A		845 A		838 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	16909 VA	105.66%	17866 VA		
Power - General	3240 VA	100.00%	3240 VA	**Total Conn. Load:**	305360 VA
Receptacle	278634 VA	51.79%	144317 VA	**Total Est. Demand:**	171984 VA
Spare	7680 VA	100.00%	7680 VA	**Total Conn.:**	848 A
Lighting	1113 VA	100.00%	1113 VA	**Total Est. Demand:**	477 A

Notes:

Branch Panel: EDL-TR-16-2 (NEW)

Location: ELECTRICAL ROOM 1472
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 35,000
Mains Type: MCB
Mains Rating: 2000 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EUL-TR-B06-4	400 A	3	10980 VA	19017 VA					3	400 A	EUL-TR-16-2	2
3	--	--	--			8630 VA	20962 VA			--	--	--	4
5	--	--	--					9754 VA	17577 VA	--	--	--	6
7	EUL-TR-26-2	400 A	3	19228 VA	6020 VA					3	100 A	EUL-TR-33-2	8
9	--	--	--			17820 VA	8197 VA			--	--	--	10
11	--	--	--					21108 VA	8019 VA	--	--	--	12
13	EUL-TR-43-2	400 A	3	24216 VA	25247 VA					3	400 A	EUL-TR-74-2	14
15	--	--	--			24340 VA	26641 VA			--	--	--	16
17	--	--	--					19332 VA	27265 VA	--	--	--	18
19	SPACE	--	1	--	--					1	--	SPACE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
		Total Load:		114917 VA		114736 VA		110988 VA					
		Total Amps:		962 A		961 A		925 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	74659 VA	101.43%	75724 VA		
Receptacle	273594 VA	51.83%	141797 VA	**Total Conn. Load:**	340636 VA
Lighting	922 VA	100.00%	922 VA	**Total Est. Demand:**	211266 VA
				Total Conn.:	946 A
				Total Est. Demand:	586 A

Notes:

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11291
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
ELECTRICAL PANEL SCHEDULES

Approved:

Phase
FINAL BID DOCUMENTS

Sprinklered
FULLY SPRINKLERED

Project Title
EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI

Location
5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date SEPTEMBER 5, 2025
Checked YW
Drawn SM

Project Number 695-21-700
Building Number
Drawing Number E-406

VA FORM 08 - 6231

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Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/16" = 1'-0"
Graphic Scale: 3/16" = 1'-0"
Graphic Scale: 1/8" = 1'-0"
Graphic Scale: 1/4" = 1'-0"
Graphic Scale: 3/4" = 1'-0"
Graphic Scale: 1/2" = 1'-0"
Graphic Scale: 1" = 1'-0"
Graphic Scale: 1 1/2" = 1'-0"

Branch Panel: EUL-TR-B04-1 (NEW)

Location: TELECOMMUNICATIONS RM. B0423
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	2 RACK - B0423	30 A	3	2882 VA	180 VA					1	20 A	RECEP - B0423	C1-2
C1-3	--	--	--			2882 VA	180 VA			1	20 A	RECEP - B0423	C1-4
C1-5	--	--	--					2882 VA	180 VA	1	20 A	RECEP - B0423	C1-6
C1-7	LIGHTING - B0423	20 A	1	64 VA	180 VA					1	20 A	RECEP - B0423	C1-8
C1-9	J-BOX - DOOR POWER - B0423	20 A	1			180 VA	180 VA			1	20 A	RECEP - B0423	C1-10
C1-11	SPACE	--	1					--	--	1	--	SPACE	C1-12
C1-13	SPACE	--	1	--	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	3306 VA		3422 VA		3062 VA					
			Total Amps:	28 A		29 A		26 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	9546 VA	100.00%	9546 VA	**Total Conn. Load:**	9790 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	9790 VA
				Total Conn.:	27 A
				Total Est. Demand:	27 A

Notes:

Branch Panel: EUL-TR-B04-2 (NEW)

Location: TELECOMMUNICATIONS RM. B0423
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	2 RACK - B0423	30 A	3	2882 VA	180 VA					1	20 A	RECEP - B0423	C2-2
C2-3	--	--	--			2882 VA	180 VA			1	20 A	RECEP - B0423	C2-4
C2-5	--	--	--					2882 VA	180 VA	1	20 A	RECEP - B0423	C2-6
C2-7	LIGHTING - B0423	20 A	1	70 VA	180 VA					1	20 A	RECEP - B0423	C2-8
C2-9	111-AC/ACCU-B0423	20 A	2			1448 VA	--			1	--	SPACE	C2-10
C2-11	--	--	--					1448 VA	--	1	--	SPACE	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	3312 VA		4360 VA		4360 VA					
			Total Amps:	28 A		38 A		38 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2896 VA	121.55%	3520 VA		
Receptacle	9366 VA	100.00%	9366 VA	**Total Conn. Load:**	11995 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	12565 VA
				Total Conn.:	33 A
				Total Est. Demand:	35 A

Notes:

Branch Panel: EUL-TR-B06-1 (NEW)

Location: TELECOMMUNICATIONS RM. B0610E
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	1 RACK - B0610E	20 A	3	1921 VA	180 VA					1	20 A	RECEP - B0610E	C1-2
C1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B0610E	C1-4
C1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B0610E	C1-6
C1-7	LIGHTING - B0610E	20 A	1	64 VA	180 VA					1	20 A	RECEP - B0610E	C1-8
C1-9	J-BOX - DOOR POWER - B0610E	20 A	1			180 VA	180 VA			1	20 A	RECEP - B0610E	C1-10
C1-11	SPACE	--	1					--	--	1	--	SPACE	C1-12
C1-13	SPACE	--	1	--	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	2345 VA		2461 VA		2101 VA					
			Total Amps:	20 A		21 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6663 VA	100.00%	6663 VA	**Total Conn. Load:**	6907 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	6907 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-B06-2 (NEW)

Location: TELECOMMUNICATIONS RM. B0610E
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	1 RACK - B0610E	20 A	3	1921 VA	180 VA					1	20 A	RECEP - B0610E	C2-2
C2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B0610E	C2-4
C2-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B0610E	C2-6
C2-7	LIGHTING - B0610E	20 A	1	64 VA	180 VA					1	20 A	RECEP - B0610E	C2-8
C2-9	111-AC/ACCU-B0610E	20 A	2			1282 VA	--			1	--	SPACE	C2-10
C2-11	--	--	--					1282 VA	--	1	--	SPACE	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	2345 VA		3261 VA		3261 VA					
			Total Amps:	20 A		28 A		28 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2563 VA	121.10%	3104 VA		
Receptacle	6483 VA	100.00%	6483 VA	**Total Conn. Load:**	8829 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	9329 VA
				Total Conn.:	25 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: EUL-TR-B06-3 (NEW)

Location: TELECOMMUNICATIONS RM. B0622
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	1 RACK - B0622	20 A	3	1921 VA	180 VA					1	20 A	RECEP - B0622	C1-2
C1-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B0622	C1-4
C1-5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B0622	C1-6
C1-7	EUL-TR-B04-1	100 A	3	3306 VA	180 VA					1	20 A	RECEP - B0622	C1-8
C1-9	--	--	--			3422 VA	180 VA			1	20 A	RECEP - B0622	C1-10
C1-11	--	--	--					3062 VA	180 VA	1	20 A	RECEP - B0622	C1-12
C1-13	EUL-TR-B06-1	150 A	3	2345 VA	180 VA					1	20 A	RECEP - B0622	C1-14
C1-15	--	--	--			2461 VA	180 VA			1	20 A	J-BOX - DOOR POWER - B0622	C1-16
C1-17	--	--	--					2101 VA	102 VA	1	20 A	LIGHTING - B0622	C1-18
C1-19	SPACE	--	1	--	--					1	20 A	RECEP - B0622	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	8291 VA		8344 VA		7546 VA					
			Total Amps:	70 A		70 A		63 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	540 VA	100.00%	540 VA		
Receptacle	23412 VA	71.36%	16706 VA	**Total Conn. Load:**	24181 VA
Lighting	191 VA	100.00%	191 VA	**Total Est. Demand:**	17475 VA
				Total Conn.:	67 A
				Total Est. Demand:	49 A

Notes:

Branch Panel: EUL-TR-B06-4 (NEW)

Location: TELECOMMUNICATIONS RM. B0622
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	1 RACK - B0622	20 A	3	1921 VA	180 VA					1	20 A	RECEP - B0622	C2-2
C2-3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B0622	C2-4
C2-5	--	--	--					1921 VA	2345 VA	3	150 A	EUL-TR-B06-2	C2-6
C2-7	LIGHTING - B0622	20 A	1	102 VA	3261 VA					--	--	--	C2-8
C2-9	EUL-TR-B04-2	100 A	3			3312 VA	3261 VA			--	--	--	C2-10
C2-11	--	--	--					4360 VA	1282 VA	2	20 A	111-AC/ACCU-B0622	C2-12
C2-13	--	--	--	4360 VA	1282 VA					--	--	--	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	10980 VA		8630 VA		9754 VA					
			Total Amps:	93 A		72 A		83 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	8022 VA	107.78%	8646 VA		
Receptacle	21972 VA	72.76%	15986 VA	**Total Conn. Load:**	29332 VA
Lighting	159 VA	100.00%	159 VA	**Total Est. Demand:**	24007 VA
				Total Conn.:	81 A
				Total Est. Demand:	67 A

Notes:

Branch Panel: EUL-TR-11-1 (NEW)

Location: TELECOMMUNICATIONS RM. 1180
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	LIGHTING - 1180	20 A	1	64 VA	2882 VA					3	30 A	2 RACK - 1180	C1-2
C1-3						2882 VA				--	--	--	C1-4
C1-5								2882 VA		--	--	--	C1-6
C1-7	RECEP - 1180	20 A	1	360 VA	180 VA					1	20 A	RECEP - 1180	C1-8
C1-9						360 VA				1	20 A	RECEP - 1180	C1-10
C1-11	J-BOX - DOOR POWER - 1180	20 A	1				180 VA	180 VA		1	20 A	RECEPT - 1180	C1-12
C1-13	SPACE	--	1	--	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	3486 VA		3242 VA		3242 VA					
			Total Amps:	29 A		27 A		27 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	9726 VA	100.00%	9726 VA	**Total Conn. Load:**	9970 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	9970 VA
				Total Conn.:	28 A
				Total Est. Demand:	28 A

Notes:

Branch Panel: EUL-TR-11-2 (NEW)

Location: TELECOMMUNICATIONS RM. 1180
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	111-AC/ACCU-1180	20 A	2	1448 VA	2882 VA					3	30 A	2 RACK - 1180	C2-2
C2-3	--	--	--			1448 VA	2882 VA			--	--	--	C2-4
C2-5	RECEP - 1180	20 A	1					360 VA	2882 VA	--	--	--	C2-6
C2-7	RECEP - 1180	20 A	1	180 VA	360 VA					1	20 A	RECEP - 1180	C2-8
C2-9	LIGHTING - 1180	20 A	1			32 VA	360 VA			1	20 A	RECEP - 1180	C2-10
C2-11	SPACE	--	1					--	--	1	--	SPACE	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	4715 VA		4569 VA		3242 VA					
			Total Amps:	41 A		40 A		27 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2896 VA	121.55%	3520 VA		
Receptacle	9906 VA	100.00%	9906 VA	**Total Conn. Load:**	12493 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	13062 VA
				Total Conn.:	35 A
				Total Est. Demand:	36 A

Notes:

Revisions:	Date:

CONSULTANT

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YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL PANEL SCHEDULES	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
			Building Number
Approved:	**Sprinklered** FULLY SPRINKLERED	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Drawing Number** E-407
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	

Graphic Scale: 1/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale: 1/8" = 1'-0" (0' 8' 16' 32')
Graphic Scale: 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale: 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1 1/2" = 1'-0" (0' 3" 6" 1' 1' 6")

8/28/2025 9:28:57 AM

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VA FORM 08 - 6231

Branch Panel: EUL-TR-15-1 (NEW)

Location: TELECOMMUNICATIONS RM. 1537B
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	3 RACK - 1537B	60 A	3	5764 VA	360 VA					1	20 A	RECEP - 1537B	C1-2
C1-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 1537B	C1-4
C1-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 1537B	C1-6
C1-7	J-BOX - DOOR POWER - 1537B	20 A	1	180 VA	180 VA					1	20 A	RECEP - 1537B	C1-8
C1-9	LIGHTING - 1537B	20 A	1			64 VA	180 VA			1	20 A	RECEP - 1537B	C1-10
C1-11	SPACE	--	1					--	--	1	--	SPACE	C1-12
C1-13	SPACE	--	1	--	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	6484 VA		6188 VA		5944 VA					
			Total Amps:	54 A		52 A		50 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	18372 VA	77.22%	14186 VA	**Total Conn. Load:**	18616 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	14430 VA
				Total Conn.:	52 A
				Total Est. Demand:	40 A

Notes:

Branch Panel: EUL-TR-15-2 (NEW)

Location: TELECOMMUNICATIONS RM. 1537B
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	3 RACK - 1537B	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 1537B	C2-2
C2-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 1537B	C2-4
C2-5	--	--	--					5764 VA	360 VA	1	20 A	RECEP - 1537B	C2-6
C2-7	LIGHTING - 1537B	20 A	1	32 VA	180 VA					1	20 A	RECEP - 1537B	C2-8
C2-9	111-AC/ACCU-1537B	35 A	2			2330 VA	360 VA			1	20 A	RECEP - 1537B	C2-10
C2-11	--	--	--					2330 VA	180 VA	1	20 A	RECEP - 1537B	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	6156 VA		8375 VA		8375 VA					
			Total Amps:	51 A		73 A		73 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4660 VA	122.85%	5725 VA		
Receptacle	18732 VA	76.69%	14366 VA	**Total Conn. Load:**	22857 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	19499 VA
				Total Conn.:	63 A
				Total Est. Demand:	54 A

Notes:

Branch Panel: EUL-TR-16-1 (NEW)

Location: TELECOMMUNICATIONS RM. 1473
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1					5764 VA					3	60 A	3 RACK - 1473	C1-2
C1-3							5764 VA			--	--	--	C1-4
C1-5									5764 VA	--	--	--	C1-6
C1-7	RECEP - 1473	20 A	1	180 VA	180 VA					1	20 A	RECEP - 1473	C1-8
C1-9	RECEP - 1473	20 A	1			180 VA	180 VA			1	20 A	RECEP - 1473	C1-10
C1-11	RECEP - 1473	20 A	1					180 VA	6484 VA	3	150 A	EUL-TR-15-1	C1-12
C1-13	EUL-TR-11-1	100 A	3	3486 VA	6188 VA					--	--	--	C1-14
C1-15	--	--	--			3242 VA	5944 VA			--	--	--	C1-16
C1-17	--	--	--					3242 VA	180 VA	1	20 A	J-BOX - DOOR POWER - 1473	C1-18
C1-19	LIGHTING - 1473	20 A	1	64 VA	180 VA					1	20 A	TRAP PRIMER - 1473	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	16041 VA		15310 VA		15850 VA					
			Total Amps:	134 A		128 A		133 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	540 VA	100.00%	540 VA		
Receptacle	46470 VA	60.76%	28235 VA	**Total Conn. Load:**	47201 VA
Lighting	191 VA	100.00%	191 VA	**Total Est. Demand:**	28966 VA
				Total Conn.:	131 A
				Total Est. Demand:	80 A

Notes:

Branch Panel: EUL-TR-16-2 (NEW)

Location: TELECOMMUNICATIONS RM. 1473
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	111-AC/ACCU-1473	35 A	2	2330 VA	5764 VA					3	60 A	3 RACK - 1659	C2-2
C2-3	--	--	--			2330 VA	5764 VA			--	--	--	C2-4
C2-5	LIGHTING - 1473	20 A	1					64 VA	5764 VA	--	--	--	C2-6
C2-7	SPACE	--	1	--	180 VA					1	20 A	RECEP - 1659	C2-8
C2-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - 1659	C2-10
C2-11	SPACE	--	1					--	180 VA	1	20 A	RECEP - 1659	C2-12
C2-13	SPACE	--	1	--	180 VA					1	20 A	RECEP - 1659	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	EUL-TR-15-2	150 A	3	6156 VA	4715 VA					3	100 A	EUL-TR-11-2	C2-26
C2-27	--	--	--			8375 VA	4569 VA			--	--	--	C2-28
C2-29	--	--	--					8375 VA	3242 VA	--	--	--	C2-30
			Total Load:	19017 VA		20962 VA		17577 VA					
			Total Amps:	160 A		177 A		146 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	12216 VA	108.72%	13281 VA		
Receptacle	46650 VA	60.72%	28325 VA	**Total Conn. Load:**	57522 VA
Lighting	127 VA	100.00%	127 VA	**Total Est. Demand:**	40352 VA
				Total Conn.:	160 A
				Total Est. Demand:	112 A

Notes:

Branch Panel: EUL-TR-22-1 (NEW)

Location: TELECOMMUNICATIONS RM. 2235
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	3 RACK - 2235	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 2235	C1-2
C1-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 2235	C1-4
C1-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 2235	C1-6
C1-7					180 VA					1	20 A	RECEP - 2235	C1-8
C1-9							180 VA			1	20 A	RECEP - 2235	C1-10
C1-11									--	1	--	--	C1-12
C1-13	LIGHTING - 2235	20 A	1	64 VA	--					1	--	SPACE	C1-14
C1-15	J-BOX - DOOR POWER - 2235	20 A	1			180 VA	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	6188 VA		6304 VA		5944 VA					
			Total Amps:	52 A		53 A		50 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	18192 VA	77.48%	14096 VA	**Total Conn. Load:**	18436 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	14340 VA
				Total Conn.:	51 A
				Total Est. Demand:	40 A

Notes:

Branch Panel: EUL-TR-22-2 (NEW)

Location: TELECOMMUNICATIONS RM. 2235
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	3 RACK - 2235	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 2235	C2-2
C2-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 2235	C2-4
C2-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 2235	C2-6
C2-7	111-AC/ACCU-2235	35 A	2	2330 VA	180 VA					1	20 A	RECEP - 2235	C2-8
C2-9	--	--	--			2330 VA	180 VA			1	20 A	RECEP - 2235	C2-10
C2-11	LIGHTING - 2235	20 A	1					64 VA	180 VA	1	20 A	RECEP - 2235	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	8197 VA		8197 VA		6188 VA					
			Total Amps:	71 A		71 A		52 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4660 VA	122.85%	5725 VA		
Receptacle	18372 VA	77.22%	14186 VA	**Total Conn. Load:**	22531 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	19352 VA
				Total Conn.:	63 A
				Total Est. Demand:	54 A

Notes:

Branch Panel: EUL-TR-25-1 (NEW)

Location: TELECOMMUNICATIONS RM. 2557
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	2 RACK - 2257	30 A	3	2882 VA	180 VA					1	20 A	RECEP - 2257	C1-2
C1-3	--	--	--			2882 VA	180 VA			1	20 A	RECEP - 2257	C1-4
C1-5	--	--	--					2882 VA	180 VA	1	20 A	RECEP - 2257	C1-6
C1-7	RECEP - 2257	20 A	1	180 VA	180 VA					1	20 A	RECEP - 2257	C1-8
C1-9	RECEP - 2257	20 A	1			180 VA	180 VA			1	20 A	J-BOX - DOOR POWER - 2557	C1-10
C1-11	RECEP - 2257	20 A	1					180 VA	95 VA	1	20 A	LIGHTING - 2557	C1-12
C1-13	RECEP - 2257	20 A	1	180 VA	--					1	--	SPACE	C1-14
C1-15	RECEP - 2257	20 A	1			180 VA	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	3602 VA		3602 VA		3337 VA					
			Total Amps:	30 A		30 A		28 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	10266 VA	98.70%	10133 VA	**Total Conn. Load:**	10541 VA
Lighting	95 VA	100.00%	95 VA	**Total Est. Demand:**	10408 VA
				Total Conn.:	29 A
				Total Est. Demand:	29 A

Notes:

Branch Panel: EUL-TR-25-2 (NEW)

Location: TELECOMMUNICATIONS RM. 2557
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	2 RACK - 2257	30 A	3	2882 VA	180 VA					1	20 A	RECEP - 2257	C2-2
C2-3	--	--	--			2882 VA	360 VA			1	20 A	RECEP - 2257	C2-4
C2-5	--	--	--					2882 VA	180 VA	1	20 A	RECEP - 2257	C2-6
C2-7	LIGHTING - 2257	20 A	1	64 VA	180 VA					1	20 A	RECEP - 2257	C2-8
C2-9	RECEP - 2257	20 A	1			180 VA	180 VA			1	20 A	RECEP - 2257	C2-10
C2-11	RECEP - 2257	20 A	1					360 VA	180 VA	1	20 A	RECEP - 2257	C2-12
C2-13	RECEP - 2257	20 A	1	180 VA	--					1	--	SPACE	C2-14
C2-15	111-AC/ACCU-2557	20 A	2			1448 VA	--			1	--	SPACE	C2-16
C2-17	--	--	--					1448 VA	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	3486 VA		4893 VA		4893 VA					
			Total Amps:	29 A		43 A		43 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2896 VA	121.55%	3520 VA		
Receptacle	10626 VA	97.05%	10313 VA	**Total Conn. Load:**	13239 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	13497 VA
				Total Conn.:	37 A
				Total Est. Demand:	37 A

Notes:

Revisions:	Date:

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STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL PANEL SCHEDULES	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
Approved:	**Sprinklered** FULLY SPRINKLERED	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Building Number**
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	**Drawing Number** E-408

Graphic Scale: 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale: 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale: 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1 1/2" = 1'-0" (0' 3" 6" 1' 1' 6")

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt
8/29/2025 9:28:58 AM

Branch Panel: EUL-TR-26-1 (NEW)

Location: TELECOMMUNICATIONS RM. 2428A
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	3 RACK - 2428A	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 2428A	C1-2
C1-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 2428A	C1-4
C1-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 2428A	C1-6
C1-7	EUL-TR-25-1	150 A	3	3602 VA	6188 VA					3	150 A	EUL-TR-22-1	C1-8
C1-9	--	--	--			3602 VA	6304 VA			--	--	--	C1-10
C1-11	--	--	--					3337 VA	5944 VA	--	--	--	C1-12
C1-13	J-BOX - DOOR POWER - 2428A	20 A	1	180 VA	64 VA					1	20 A	LIGHTING - 2428A	C1-14
C1-15	SPACE	--	1			--	180 VA			1	20 A	RECEP - 2428A	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	15977 VA		16030 VA		15225 VA					
			Total Amps:	134 A		135 A		127 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	540 VA	100.00%	540 VA		
Receptacle	46470 VA	60.76%	28235 VA	**Total Conn. Load:**	47233 VA
Lighting	223 VA	100.00%	223 VA	**Total Est. Demand:**	28998 VA
				Total Conn.:	131 A
				Total Est. Demand:	80 A

Notes:

Branch Panel: EUL-TR-26-2 (NEW)

Location: TELECOMMUNICATIONS RM. 2428A
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	3 RACK - 2428B	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 2428B	C2-2
C2-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 2428B	C2-4
C2-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 2428B	C2-6
C2-7	LIGHTING - 2428B	20 A	1	64 VA	180 VA					1	20 A	RECEP - 2428B	C2-8
C2-9	EUL-TR-25-2	150 A	3			3486 VA	180 VA			1	20 A	RECEP - 2428B	C2-10
C2-11	--	--	--					4893 VA	8197 VA	3	150 A	EUL-TR-22-2	C2-12
C2-13	--	--	--	4893 VA	8197 VA					--	--	--	C2-14
C2-15	111-AC/ACCU-2428A	35 A	2			2330 VA	6188 VA			--	--	--	C2-16
C2-17	--	--	--					2330 VA	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	19228 VA		17820 VA		21108 VA					
			Total Amps:	162 A		148 A		178 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	12216 VA	108.72%	13281 VA		
Receptacle	47190 VA	60.60%	28595 VA	**Total Conn. Load:**	58121 VA
Lighting	191 VA	100.00%	191 VA	**Total Est. Demand:**	40680 VA
				Total Conn.:	161 A
				Total Est. Demand:	113 A

Notes:

Branch Panel: EUL-TR-33-1 (NEW)

Location: TELECOMMUNICATIONS RM. 3308
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	3 RACK - 3308	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 3308	C1-2
C1-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 3308	C1-4
C1-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 3308	C1-6
C1-7	LIGHTING - 3308	20 A	1	64 VA	180 VA					1	20 A	RECEP - 3308	C1-8
C1-9	J-BOX - DOOR POWER - 3308	20 A	1			180 VA	180 VA			1	20 A	RECEP - 3308	C1-10
C1-11	RECEP - ROOF	20 A	1					540 VA	180 VA	1	20 A	RECEP - 3308	C1-12
C1-13	RECEP - ROOF	20 A	1	360 VA	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	6548 VA		6304 VA		6664 VA					
			Total Amps:	55 A		53 A		56 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	19272 VA	75.94%	14636 VA	**Total Conn. Load:**	19516 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	14880 VA
				Total Conn.:	54 A
				Total Est. Demand:	41 A

Notes:

Branch Panel: EUL-TR-33-2 (NEW)

Location: TELECOMMUNICATIONS RM. 3308
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	3 RACK - 3308	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 3308	C2-2
C2-3	--	--	--			5764 VA	360 VA			1	20 A	RECEP - 3308	C2-4
C2-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 3308	C2-6
C2-7	LIGHTING - 3308	20 A	1	76 VA	--					1	--	SPACE	C2-8
C2-9	111-AC/ACCU-3308	35 A	2			2330 VA	--			1	--	SPACE	C2-10
C2-11	--	--	--					2330 VA	--	1	--	SPACE	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	6020 VA		8197 VA		8019 VA					
			Total Amps:	50 A		71 A		69 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4660 VA	122.85%	5725 VA		
Receptacle	18012 VA	77.76%	14006 VA	**Total Conn. Load:**	22185 VA
				Total Est. Demand:	19187 VA
				Total Conn.:	62 A
				Total Est. Demand:	53 A

Notes:

Branch Panel: EUL-TR-43-1 (NEW)

Location: TELECOMMUNICATIONS RM. 4315
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	4 RACK 60A - 4135	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 4135	C1-2
C1-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 4135	C1-4
C1-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 4135	C1-6
C1-7	4 RACK 20A - 4135	20 A	3	1921 VA	180 VA					1	20 A	RECEP - 4135	C1-8
C1-9	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 4135	C1-10
C1-11	--	--	--					1921 VA	--	1	--	SPACE	C1-12
C1-13	LIGHTING - 4315	20 A	1	64 VA	--					1	--	SPACE	C1-14
C1-15	J-BOX - DOOR POWER - 4315	20 A	1			180 VA	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	EUL-TR-53-1	150 A	3	8289 VA	3132 VA					3	150 A	EUL-TR-64-1	C1-26
C1-27	--	--	--			8225 VA	3242 VA			--	--	--	C1-28
C1-29	--	--	--					8045 VA	3242 VA	--	--	--	C1-30
			Total Load:	19529 VA		19692 VA		19152 VA					
			Total Amps:	163 A		165 A		160 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	540 VA	100.00%	540 VA		
Receptacle	57636 VA	58.68%	33818 VA	**Total Conn. Load:**	58373 VA
Lighting	159 VA	100.00%	159 VA	**Total Est. Demand:**	34555 VA
				Total Conn.:	162 A
				Total Est. Demand:	96 A

Notes:

Branch Panel: EUL-TR-43-2 (NEW)

Location: TELECOMMUNICATIONS RM. 4315
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 400 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	4 RACK 60A - 4315	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 4135	C2-2
C2-3	--	--	--			5764 VA	360 VA			1	20 A	RECEP - 4135	C2-4
C2-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 4135	C2-6
C2-7	4 RACK 20A - 4315	20 A	3	1921 VA	2114 VA					2	35 A	111-AC/ACCU-4315	C2-8
C2-9	--	--	--			1921 VA	2114 VA			--	--	--	C2-10
C2-11	--	--	--					1921 VA	--	1	--	SPACE	C2-12
C2-13	LIGHTING - 4135	20 A	1	64 VA	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	EUL-TR-53-2	150 A	3	9968 VA	4466 VA					3	150 A	EUL-TR-64-2	C2-26
C2-27	--	--	--			10083 VA	4360 VA			--	--	--	C2-28
C2-29	--	--	--					8225 VA	3242 VA	--	--	--	C2-30
			Total Load:	24216 VA		24340 VA		19332 VA					
			Total Amps:	208 A		209 A		161 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	11350 VA	108.43%	12307 VA		
Receptacle	57636 VA	58.68%	33818 VA	**Total Conn. Load:**	67783 VA
Lighting	159 VA	100.00%	159 VA	**Total Est. Demand:**	44984 VA
				Total Conn.:	188 A
				Total Est. Demand:	125 A

Notes:

Branch Panel: EUL-TR-53-1 (NEW)

Location: TELECOMMUNICATIONS RM. 5311
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	4 RACK 20A - 5311	20 A	3	1921 VA	5764 VA					3	60 A	4 RACK 60A - 5311	C1-2
C1-3	--	--	--			1921 VA	5764 VA			--	--	--	C1-4
C1-5	--	--	--					1921 VA	5764 VA	--	--	--	C1-6
C1-7	RECEP - 5311	20 A	1	180 VA	180 VA					1	20 A	RECEP - 5311	C1-8
C1-9	RECEP - 5311	20 A	1			180 VA	360 VA			1	20 A	RECEP - 5311	C1-10
C1-11	RECEP - 5311	20 A	1					180 VA	180 VA	1	20 A	J-BOX - DOOR POWER - 5311	C1-12
C1-13	LIGHTING - 5311	20 A	1	64 VA	180 VA					1	20 A	RECEP - 5311	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	8289 VA		8225 VA		8045 VA					
			Total Amps:	69 A		69 A		67 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	24315 VA	70.56%	17158 VA	**Total Conn. Load:**	24559 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	17401 VA
				Total Conn.:	68 A
				Total Est. Demand:	48 A

Notes:

Branch Panel: EUL-TR-53-2 (NEW)

Location: TELECOMMUNICATIONS RM. 5311
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	4 RACK 20A - 5311	20 A	3	1921 VA	5764 VA					3	60 A	4 RACK 60A - 5311	C2-2
C2-3	--	--	--			1921 VA	5764 VA			--	--	--	C2-4
C2-5	--	--	--					1921 VA	5764 VA	--	--	--	C2-6
C2-7	LIGHTING - 5311	20 A	1	64 VA	360 VA					1	20 A	RECEP - 5311	C2-8
C2-9	RECEP - 5311	20 A	1			360 VA	180 VA			1	20 A	RECEP - 5311	C2-10
C2-11	RECEP - 5311	20 A	1					180 VA	360 VA	1	20 A	RECEP - 5311	C2-12
C2-13	111-AC/ACCU-5311	35 A	2	2114 VA	--					1	--	SPACE	C2-14
C2-15	--	--	--			2114 VA	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	9968 VA		10083 VA		8225 VA					
			Total Amps:	85 A		86 A		69 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4227 VA	122.63%	5184 VA		
Receptacle	24495 VA	70.41%	17248 VA	**Total Conn. Load:**	28240 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	21889 VA
				Total Conn.:	78 A
				Total Est. Demand:	61 A

Notes:

Revisions:	Date:

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9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL PANEL SCHEDULES	**Phase** FINAL BID DOCUMENTS	**Project Title** EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI	**Project Number** 695-21-700
Approved:	**Sprinklered** FULLY SPRINKLERED	**Location** 5000 W. NATIONAL AVENUE MILWAUKEE, WI	**Building Number**
		Issue Date SEPTEMBER 5, 2025 / **Checked** YW / **Drawn** SM	**Drawing Number** E-409

Graphic Scale - 3/16" = 1'-0"
Graphic Scale - 1/16" = 1'-0"
Graphic Scale - 1/8" = 1'-0"
Graphic Scale - 3/32" = 1'-0"
Graphic Scale - 1/4" = 1'-0"
Graphic Scale - 1/2" = 1'-0"
Graphic Scale - 3/4" = 1'-0"
Graphic Scale - 1" = 1'-0"
Graphic Scale - 1 1/2" = 1'-0"

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VA FORM 08 - 6231

Branch Panel: EUL-TR-64-1 (NEW)

Location: TELECOMMUNICATIONS RM. 6410A **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	2 RACK - 6410A	30 A	3	2882 VA									C1-2
C1-3	--	--	--			2882 VA							C1-4
C1-5	--	--	--					2882 VA					C1-6
C1-7	LIGHTING - 6410A	20 A	1	70 VA	180 VA					1	20 A	RECEP - 6410A	C1-8
C1-9	RECEP - 6410A	20 A	1			180 VA	180 VA			1	20 A	RECEP - 6410A	C1-10
C1-11	J-BOX - DOOR POWER - 6410A	20 A	1					180 VA	180 VA	1	20 A	RECEP - 6410A	C1-12
C1-13	SPACE	--	1	--	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	3132 VA		3242 VA		3242 VA					
			Total Amps:	26 A		27 A		27 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	9366 VA	100.00%	9366 VA	**Total Conn. Load:**	9616 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	9616 VA
				Total Conn.:	27 A
				Total Est. Demand:	27 A

Notes:

Branch Panel: EUL-TR-64-2 (NEW)

Location: TELECOMMUNICATIONS RM. 6410A **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	2 RACK - 6410A	30 A	3	2882 VA	1448 VA					2	20 A	111-AC/ACCU-6410A	C2-2
C2-3	--	--	--			2882 VA	1448 VA			--	--	--	C2-4
C2-5	--	--	--					2882 VA	180 VA	1	20 A	RECEP - 6410A	C2-6
C2-7	LIGHTING - 6410A	20 A	1	108 VA	180 VA					1	20 A	RECEP - 6410A	C2-8
C2-9	RECEP - 6410A	20 A	1			180 VA	--			1	--	SPACE	C2-10
C2-11	RECEP - 6410A	20 A	1					180 VA	--	1	--	SPACE	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	4466 VA		4360 VA		3242 VA					
			Total Amps:	39 A		38 A		27 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2896 VA	121.55%	3520 VA		
Receptacle	9366 VA	100.00%	9366 VA	**Total Conn. Load:**	12033 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	12603 VA
				Total Conn.:	33 A
				Total Est. Demand:	35 A

Notes:

Branch Panel: EUL-TR-74-1 (NEW)

Location: TELECOMMUNICATIONS RM. 7409 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 400 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	2 RACK - 7412	30 A	3	2882 VA									C1-2
C1-3	--	--	--			2882 VA							C1-4
C1-5	--	--	--					2882 VA					C1-6
C1-7	RECEP - 7412	20 A	1	180 VA	180 VA					1	20 A	RECEP - 7412	C1-8
C1-9	RECEP - 7412	20 A	1			180 VA	360 VA			1	20 A	RECEP - 7412	C1-10
C1-11	RECEP - 7412	20 A	1					70 VA	180 VA	1	20 A	RECEP - ROOF	C1-12
C1-13	J-BOX - DOOR POWER - 7412	20 A	1	180 VA	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	EUL-TR-84-1	150 A	3	6014 VA	--					1	--	SPACE	C1-20
C1-21	--	--	--			5944 VA	--			1	--	SPACE	C1-22
C1-23	--	--	--					5944 VA	--	1	--	SPACE	C1-24
C1-25	EUL-TR-94-1	150 A	3	6226 VA	6188 VA					3	150 A	EUL-TR-104-1	C1-26
C1-27	--	--	--			5944 VA	5944 VA			--	--	--	C1-28
C1-29	--	--	--					5944 VA	5944 VA	--	--	--	C1-30
			Total Load:	21849 VA		21254 VA		20964 VA					
			Total Amps:	182 A		177 A		175 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	720 VA	100.00%	720 VA		
Receptacle	63042 VA	57.93%	36521 VA	**Total Conn. Load:**	64067 VA
Lighting	191 VA	100.00%	191 VA	**Total Est. Demand:**	37546 VA
				Total Conn.:	178 A
				Total Est. Demand:	104 A

Notes:

Branch Panel: EUL-TR-74-2 (NEW)

Location: TELECOMMUNICATIONS RM. 7409 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 400 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	2 RACK - 7412	30 A	3	2882 VA	1448 VA					2	20 A	111-AC/ACCU-7412	C2-2
C2-3	--	--	--			2882 VA	1448 VA			--	--	--	C2-4
C2-5	--	--	--					2882 VA	180 VA	1	20 A	RECEP - 7412	C2-6
C2-7	LIGHTING - 7412	20 A	1	70 VA	360 VA					1	20 A	RECEP - 7412	C2-8
C2-9	SPACE	--	1			--	180 VA			1	20 A	RECEP - 7412	C2-10
C2-11	SPACE	--	1					--	180 VA	1	20 A	RECEP - 7412	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	EUL-TR-84-2	150 A	3	6226 VA	--					1	--	SPACE	C2-20
C2-21	--	--	--			8197 VA	--			1	--	SPACE	C2-22
C2-23	--	--	--					8019 VA	--	1	--	SPACE	C2-24
C2-25	EUL-TR-94-2	150 A	3	6188 VA	8304 VA					3	150 A	EUL-TR-104-2	C2-26
C2-27	--	--	--			8019 VA	6124 VA			--	--	--	C2-28
C2-29	--	--	--					8019 VA	8019 VA	--	--	--	C2-30
			Total Load:	25247 VA		26641 VA		27265 VA					
			Total Amps:	210 A		224 A		229 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	16876 VA	106.31%	17940 VA		
Receptacle	63942 VA	57.82%	36971 VA	**Total Conn. Load:**	79130 VA
Lighting	191 VA	100.00%	191 VA	**Total Est. Demand:**	53406 VA
				Total Conn.:	220 A
				Total Est. Demand:	148 A

Notes:

Branch Panel: EUL-TR-84-1 (NEW)

Location: TELECOMMUNICATIONS RM. 8409 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	3 RACK - 8409	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 8409	C1-2
C1-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 8409	C1-4
C1-5	--	--	--					5764 VA	180 VA	1	20 A	J-BOX - DOOR POWER - 8409	C1-6
C1-7	LIGHTING - 8409	20 A	1	70 VA	--					1	--	SPACE	C1-8
C1-9	SPACE	--	1			--	--			1	--	SPACE	C1-10
C1-11	SPACE	--	1					--	--	1	--	SPACE	C1-12
C1-13	SPACE	--	1	--	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	6014 VA		5944 VA		5944 VA					
			Total Amps:	50 A		50 A		50 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	17652 VA	78.33%	13826 VA	**Total Conn. Load:**	17902 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	14076 VA
				Total Conn.:	50 A
				Total Est. Demand:	39 A

Notes:

Branch Panel: EUL-TR-84-2 (NEW)

Location: TELECOMMUNICATIONS RM. 8409 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	3 RACK - 8409	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 8409	C2-2
C2-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 8409	C2-4
C2-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 8409	C2-6
C2-7	LIGHTING - 8409	20 A	1	102 VA	180 VA					1	20 A	RECEP - 8409	C2-8
C2-9	111-AC/ACCU-8409	35 A	2			2330 VA	180 VA			1	20 A	RECEP - 8409	C2-10
C2-11	--	--	--					2330 VA	--	1	--	SPACE	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	6226 VA		8197 VA		8019 VA					
			Total Amps:	52 A		71 A		69 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4660 VA	122.85%	5725 VA		
Receptacle	18192 VA	77.48%	14096 VA	**Total Conn. Load:**	22390 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	19301 VA
				Total Conn.:	62 A
				Total Est. Demand:	54 A

Notes:

Branch Panel: EUL-TR-94-1 (NEW)

Location: TELECOMMUNICATIONS RM. 9409 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1-1	3 RACK - 9409	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 9409	C1-2
C1-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 9409	C1-4
C1-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 9409	C1-6
C1-7	LIGHTING - 9409	20 A	1	102 VA	180 VA					1	20 A	J-BOX - DOOR POWER - 9409	C1-8
C1-9	SPACE	--	1			--	--			1	--	SPACE	C1-10
C1-11	SPACE	--	1					--	--	1	--	SPACE	C1-12
C1-13	SPACE	--	1	--	--					1	--	SPACE	C1-14
C1-15	SPACE	--	1			--	--			1	--	SPACE	C1-16
C1-17	SPACE	--	1					--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--					1	--	SPACE	C1-20
C1-21	SPACE	--	1			--	--			1	--	SPACE	C1-22
C1-23	SPACE	--	1					--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--					1	--	SPACE	C1-26
C1-27	SPACE	--	1			--	--			1	--	SPACE	C1-28
C1-29	SPACE	--	1					--	--	1	--	SPACE	C1-30
			Total Load:	6226 VA		5944 VA		5944 VA					
			Total Amps:	52 A		50 A		50 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	17832 VA	78.04%	13916 VA	**Total Conn. Load:**	18114 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	14198 VA
				Total Conn.:	50 A
				Total Est. Demand:	39 A

Notes:

Branch Panel: EUL-TR-94-2 (NEW)

Location: TELECOMMUNICATIONS RM. 9409 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 150 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C2-1	3 RACK - 9409	60 A	3	5764 VA	180 VA					1	20 A	RECEP - 9409	C2-2
C2-3	--	--	--			5764 VA	180 VA			1	20 A	RECEP - 9409	C2-4
C2-5	--	--	--					5764 VA	180 VA	1	20 A	RECEP - 9409	C2-6
C2-7	LIGHTING - 9409	20 A	1	64 VA	180 VA					1	20 A	RECEP - 9409	C2-8
C2-9	111-AC/ACCU-9409	35 A	2			2330 VA	--			1	--	SPACE	C2-10
C2-11	--	--	--					2330 VA	--	1	--	SPACE	C2-12
C2-13	SPACE	--	1	--	--					1	--	SPACE	C2-14
C2-15	SPACE	--	1			--	--			1	--	SPACE	C2-16
C2-17	SPACE	--	1					--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--					1	--	SPACE	C2-20
C2-21	SPACE	--	1			--	--			1	--	SPACE	C2-22
C2-23	SPACE	--	1					--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--					1	--	SPACE	C2-26
C2-27	SPACE	--	1			--	--			1	--	SPACE	C2-28
C2-29	SPACE	--	1					--	--	1	--	SPACE	C2-30
			Total Load:	6188 VA		8019 VA		8019 VA					
			Total Amps:	52 A		69 A		69 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4660 VA	122.85%	5725 VA		
Receptacle	18012 VA	77.76%	14006 VA	**Total Conn. Load:**	22173 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	19174 VA
				Total Conn.:	62 A
				Total Est. Demand:	53 A

Notes:

Revisions: Date:

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E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title: ELECTRICAL PANEL SCHEDULES
Approved:
Phase: FINAL BID DOCUMENTS
Sprinklered: FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date: SEPTEMBER 5, 2025
Checked: YW
Drawn: SM
Project Number: 695-21-700
Building Number:
Drawing Number: E-410

VA FORM 08 - 6231
8/28/2025 9:29:01 AM
Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt

Graphic Scale : 1/16" = 1'-0"
Graphic Scale : 1/8" = 1'-0"
Graphic Scale : 3/32" = 1'-0"
Graphic Scale : 1/4" = 1'-0"
Graphic Scale : 3/16" = 1'-0"
Graphic Scale : 1/2" = 1'-0"
Graphic Scale : 3/4" = 1'-0"
Graphic Scale : 1" = 1'-0"
Graphic Scale : 1 1/2" = 1'-0"

Branch Panel: EUL-TR-104-1 (NEW)

Location:
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
C1-1	3 RACK - 10409	60 A	3	5764 VA	180 VA		1	20 A	RECEP - 10409	C1-2
C1-3	--	--	--		5764 VA	180 VA	1	20 A	RECEP - 10409	C1-4
C1-5	--	--	--			5764 VA	180 VA	1	20 A	RECEP - 10409	C1-6
C1-7	J-BOX - DOOR POWER - 10409	20 A	1	180 VA	64 VA			1	20 A	LIGHTING - 10409	C1-8
C1-9	SPACE	--	1		--	--		1	--	SPACE	C1-10
C1-11	SPACE	--	1			--	--	1	--	SPACE	C1-12
C1-13	SPACE	--	1	--	--			1	--	SPACE	C1-14
C1-15	SPACE	--	1		--	--		1	--	SPACE	C1-16
C1-17	SPACE	--	1			--	--	1	--	SPACE	C1-18
C1-19	SPACE	--	1	--	--			1	--	SPACE	C1-20
C1-21	SPACE	--	1		--	--		1	--	SPACE	C1-22
C1-23	SPACE	--	1			--	--	1	--	SPACE	C1-24
C1-25	SPACE	--	1	--	--			1	--	SPACE	C1-26
C1-27	SPACE	--	1		--	--		1	--	SPACE	C1-28
C1-29	SPACE	--	1			--	--	1	--	SPACE	C1-30
			Total Load:	6188 VA	5944 VA	5944 VA				
			Total Amps:	52 A	50 A	50 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	17832 VA	78.04%	13916 VA	**Total Conn. Load:**	18076 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	14160 VA
				Total Conn.:	50 A
				Total Est. Demand:	39 A

Notes:

Branch Panel: EUL-TR-104-2 (NEW)

Location: TELECOMMUNICATIONS RM. 10409
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
C2-1	3 RACK - 10409	60 A	3	5764 VA	108 VA		1	20 A	LIGHTING - 10409	C2-2
C2-3	--	--	--		5764 VA	180 VA	1	20 A	RECEP - 10409	C2-4
C2-5	--	--	--			5764 VA	180 VA	1	20 A	RECEP - 10409	C2-6
C2-7	RECEP - 10409	20 A	1	180 VA	180 VA			1	20 A	RECEP - 10409	C2-8
C2-9	RECEP - 10409	20 A	1		180 VA	--		1	--	SPACE	C2-10
C2-11	111-AC/ACCU-10409	35 A	2			2330 VA	--	1	--	SPACE	C2-12
C2-13	--	--	--	2330 VA	--			1	--	SPACE	C2-14
C2-15	SPACE	--	1		--	--		1	--	SPACE	C2-16
C2-17	SPACE	--	1			--	--	1	--	SPACE	C2-18
C2-19	SPACE	--	1	--	--			1	--	SPACE	C2-20
C2-21	SPACE	--	1		--	--		1	--	SPACE	C2-22
C2-23	SPACE	--	1			--	--	1	--	SPACE	C2-24
C2-25	SPACE	--	1	--	--			1	--	SPACE	C2-26
C2-27	SPACE	--	1		--	--		1	--	SPACE	C2-28
C2-29	SPACE	--	1			--	--	1	--	SPACE	C2-30
			Total Load:	8304 VA	6124 VA	8019 VA				
			Total Amps:	72 A	51 A	69 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	4660 VA	122.85%	5725 VA		
Receptacle	18192 VA	77.48%	14096 VA	**Total Conn. Load:**	22396 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	19307 VA
				Total Conn.:	62 A
				Total Est. Demand:	54 A

Notes:

Branch Panel: UL-TR-B-112-1 (NEW)

Location: EXISTING TELECOMMUNICATION RM. 108
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
N1-1	TE RACK (REDUNDANT) - 115	20 A	1	180 VA	360 VA			1	20 A	RECEP - 115	N1-2
N1-3	LIGHTING - 115	20 A	1			64 VA	180 VA		1	20 A	RECEP - 115	N1-4
N1-5	J-BOX - DOOR POWER - 115	20 A	1				180 VA	180 VA	1	20 A	RECEP - 115	N1-6
N1-7	RECEP - 115	20 A	1	360 VA	180 VA				1	20 A	RECEP - 115	N1-8
N1-9	112-ACCU-108 CONVIENCE RECEPT	20 A	1			180 VA	180 VA		1	20 A	RECEP - 115	N1-10
N1-11	SPACE	--	1				--	180 VA	1	20 A	RECEP - 115	N1-12
N1-13	SPACE	--	1	--	--				1	--	SPACE	N1-14
N1-15	SPACE	--	1		--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1			--	--		1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--				1	--	SPACE	N1-20
N1-21	SPACE	--	1		--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1			--	--		1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--				1	--	SPACE	N1-26
N1-27	SPACE	--	1		--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1			--	--		1	--	SPACE	N1-30
			Total Load:	1080 VA	604 VA	540 VA				
			Total Amps:	9 A	5 A	5 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	1980 VA	100.00%	1980 VA	**Total Conn. Load:**	2224 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	2224 VA
				Total Conn.:	6 A
				Total Est. Demand:	6 A

Notes:

Branch Panel: UL-TR-B-112-2 (NEW)

Location: EXISTING TELECOMMUNICATION RM. 108
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
N2-1	TE RACK - 115	20 A	1	180 VA	360 VA			1	20 A	RECEP - 115	N2-2
N2-3	RECEP - 115	20 A	1			180 VA	360 VA		1	20 A	RECEP - 115	N2-4
N2-5	RECEP - 115	20 A	1				360 VA	180 VA	1	20 A	RECEP - 115	N2-6
N2-7	112-AC/ACCU-108	20 A	2	1082 VA	--				1	--	SPACE	N2-8
N2-9	--	--	--		1082 VA	--			1	--	SPACE	N2-10
N2-11	SPACE	--	1				--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--				1	--	SPACE	N2-14
N2-15	SPACE	--	1		--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1			--	--		1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--				1	--	SPACE	N2-20
N2-21	SPACE	--	1		--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1			--	--		1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--				1	--	SPACE	N2-26
N2-27	SPACE	--	1		--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1			--	--		1	--	SPACE	N2-30
			Total Load:	1567 VA	1567 VA	540 VA				
			Total Amps:	14 A	14 A	5 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Receptacle	1620 VA	100.00%	1620 VA	**Total Conn. Load:**	3642 VA
				Total Est. Demand:	4170 VA
				Total Conn.:	10 A
				Total Est. Demand:	12 A

Notes:

Branch Panel: UL-TR-B-113-1 (NEW)

Location:
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
N1-1	TE RACK (REDUNDANT) - 106	20 A	1	180 VA	360 VA			1	20 A	RECEP - 106	N1-2
N1-3	SPACE	--	1		--	180 VA			1	20 A	RECEPT - 106	N1-4
N1-5	SPACE	--	1				--	--	1	--	SPACE	N1-6
N1-7	SPACE	--	1	--	--				1	--	SPACE	N1-8
N1-9	SPACE	--	1			--	--		1	--	SPACE	N1-10
N1-11	SPACE	--	1				--	--	1	--	SPACE	N1-12
N1-13	SPACE	--	1	--	--				1	--	SPACE	N1-14
N1-15	SPACE	--	1		--	--			1	--	SPACE	N1-16
N1-17	SPACE	--	1			--	--		1	--	SPACE	N1-18
N1-19	SPACE	--	1	--	--				1	--	SPACE	N1-20
N1-21	SPACE	--	1		--	--			1	--	SPACE	N1-22
N1-23	SPACE	--	1			--	--		1	--	SPACE	N1-24
N1-25	SPACE	--	1	--	--				1	--	SPACE	N1-26
N1-27	SPACE	--	1		--	--			1	--	SPACE	N1-28
N1-29	SPACE	--	1			--	--		1	--	SPACE	N1-30
			Total Load:	540 VA	180 VA	0 VA				
			Total Amps:	5 A	2 A	0 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	720 VA	100.00%	720 VA		
				Total Conn. Load:	720 VA
				Total Est. Demand:	720 VA
				Total Conn.:	2 A
				Total Est. Demand:	2 A

Notes:

Branch Panel: UL-TR-B-113-2 (NEW)

Location:
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
N2-1	TE RACK - 106	20 A	1	180 VA	--			1	--	SPACE	N2-2
N2-3	RECEP - 106	20 A	1		360 VA	--			1	--	SPACE	N2-4
N2-5	SPACE	--	1				--	--	1	--	SPACE	N2-6
N2-7	SPACE	--	1	--	--				1	--	SPACE	N2-8
N2-9	SPACE	--	1			--	--		1	--	SPACE	N2-10
N2-11	SPACE	--	1				--	--	1	--	SPACE	N2-12
N2-13	SPACE	--	1	--	--				1	--	SPACE	N2-14
N2-15	SPACE	--	1		--	--			1	--	SPACE	N2-16
N2-17	SPACE	--	1			--	--		1	--	SPACE	N2-18
N2-19	SPACE	--	1	--	--				1	--	SPACE	N2-20
N2-21	SPACE	--	1		--	--			1	--	SPACE	N2-22
N2-23	SPACE	--	1			--	--		1	--	SPACE	N2-24
N2-25	SPACE	--	1	--	--				1	--	SPACE	N2-26
N2-27	SPACE	--	1		--	--			1	--	SPACE	N2-28
N2-29	SPACE	--	1			--	--		1	--	SPACE	N2-30
			Total Load:	180 VA	360 VA	0 VA				
			Total Amps:	2 A	3 A	0 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	540 VA	100.00%	540 VA		
				Total Conn. Load:	540 VA
				Total Est. Demand:	540 VA
				Total Conn.:	1 A
				Total Est. Demand:	1 A

Notes:

Revisions:	Date:

CONSULTANT

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL PANEL SCHEDULES
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number
Drawing Number E-411

Graphic Scale: 3/16" = 1'-0" | Graphic Scale: 1/8" = 1'-0" | Graphic Scale: 3/32" = 1'-0" | Graphic Scale: 1/4" = 1'-0" | Graphic Scale: 1/2" = 1'-0" | Graphic Scale: 3/4" = 1'-0" | Graphic Scale: 1" = 1'-0" | Graphic Scale: 1 1/2" = 1'-0"

8/29/2025 5:29:02 AM

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VA FORM 08 - 6231

Branch Panel: UL-TR-A1-123 (NEW)

Location: TELECOMMUNICATIONS RM. A107 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - A113	20 A	3	0 VA	180 VA					1	20 A	RECEP - A113	N2
N3	--	--	--			0 VA	180 VA			1	20 A	RECEP - A113	N4
N5	--	--	--					0 VA	--	1	--	SPACE	N6
N7	RECEP - A113	20 A	1	180 VA	--					1	--	SPACE	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	360 VA		180 VA		0 VA					
			Total Amps:	3 A		2 A		0 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	540 VA	100.00%	540 VA		
				Total Conn. Load:	540 VA
				Total Est. Demand:	540 VA
				Total Conn.:	1 A
				Total Est. Demand:	1 A

Notes:

Branch Panel: EUL-TR-A1-123 (NEW)

Location: TELECOMMUNICATIONS RM. A107 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - A113	20 A	3	1921 VA	180 VA					1	20 A	RECEP - A113	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - A113	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - A113	C6
C7	123-AC/ACCU-A107	20 A	2	1082 VA	64 VA					1	20 A	LIGHTING - A113	C8
C9	--	--	--			1082 VA	180 VA			1	20 A	J-BOX - DOOR POWER - A113	C10
C11	123-ACCU-A107 CONVIENCE RECEP	20 A	1					180 VA	--	1	--	SPACE	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	3136 VA		3251 VA		2281 VA					
			Total Amps:	27 A		28 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	8641 VA
Receptacle	6483 VA	100.00%	6483 VA	**Total Est. Demand:**	9137 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	24 A
				Total Est. Demand:	25 A

Notes:

Branch Panel: UL-TR-B1-123 (NEW)

Location: TELECOMMUNICATIONS RM. B113 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - B113	20 A	3	0 VA	180 VA					1	20 A	RECEP - B113	N2
N3	--	--	--			0 VA	180 VA			1	20 A	RECEP - B113	N4
N5	--	--	--					0 VA	180 VA	1	20 A	RECEP - B113	N6
N7	SPACE	--	1	--	180 VA					1	20 A	RECEP - B113	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	360 VA		180 VA		180 VA					
			Total Amps:	3 A		2 A		2 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	720 VA	100.00%	720 VA		
				Total Conn. Load:	720 VA
				Total Est. Demand:	720 VA
				Total Conn.:	2 A
				Total Est. Demand:	2 A

Notes:

Branch Panel: EUL-TR-B1-123 (NEW)

Location: TELECOMMUNICATIONS RM. B113 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - B113	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - B113	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - B113	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - B113	C6
C7	123-AC/ACCU-B113	20 A	2	1082 VA	180 VA					1	20 A	RECEP - B113	C8
C9	--	--	--			1082 VA	180 VA			1	20 A	J-BOX - DOOR POWER - B113	C10
C11	123-CRAC-2A CONVIENCE RECEP	20 A	1					180 VA	180 VA	1	20 A	RECEP - B113	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	3136 VA		3251 VA		2461 VA					
			Total Amps:	27 A		28 A		21 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	8819 VA
Receptacle	6663 VA	100.00%	6663 VA	**Total Est. Demand:**	9315 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	24 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-C1-123 (NEW)

Location: TELECOMMUNICATIONS RM. C113 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - C113	20 A	3	1921 VA	180 VA					1	20 A	RECEP - C113	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - C113	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - C113	N6
N7	SPACE	--	1	--	--					1	--	SPACE	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2101 VA		2101 VA		2101 VA					
			Total Amps:	18 A		18 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6303 VA	100.00%	6303 VA		
				Total Conn. Load:	6303 VA
				Total Est. Demand:	6303 VA
				Total Conn.:	17 A
				Total Est. Demand:	17 A

Notes:

Branch Panel: EUL-TR-C1-123 (NEW)

Location: TELECOMMUNICATIONS RM. C113 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - C113	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - C113	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - C113	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - C113	C6
C7	123-AC/ACCU-C113	20 A	2	1082 VA	180 VA					1	20 A	RECEP - C113	C8
C9	--	--	--			1082 VA	180 VA			1	20 A	J-BOX - DOOR POWER - C113	C10
C11	123-ACCU-C113 CONVIENCE RECEP	20 A	1					180 VA	--	1	--	SPACE	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	3136 VA		3251 VA		2281 VA					
			Total Amps:	27 A		28 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	8641 VA
Receptacle	6483 VA	100.00%	6483 VA	**Total Est. Demand:**	9137 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	24 A
				Total Est. Demand:	25 A

Notes:

Branch Panel: UL-TR-D1-123 (NEW)

Location: TELECOMMUNICATIONS RM. D113 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - D113	20 A	3	1921 VA	180 VA					1	20 A	RECEP - D113	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - D113	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - D113	N6
N7	SPACE	--	1	--	--					1	--	SPACE	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2101 VA		2101 VA		2101 VA					
			Total Amps:	18 A		18 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6303 VA	100.00%	6303 VA		
				Total Conn. Load:	6303 VA
				Total Est. Demand:	6303 VA
				Total Conn.:	17 A
				Total Est. Demand:	17 A

Notes:

Branch Panel: EUL-TR-D1-123 (NEW)

Location: TELECOMMUNICATIONS RM. D113 **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - D113	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - D113	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - D113	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - D113	C6
C7	123-AC/ACCU-D113	20 A	2	1082 VA	180 VA					1	20 A	RECEP - D113	C8
C9	--	--	--			1082 VA	180 VA			1	20 A	RECEP - D113	C10
C11	123-ACCU-D113 CONVIENCE RECEP	20 A	1					180 VA	180 VA	1	20 A	J-BOX - DOOR POWER - D113	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	3136 VA		3251 VA		2461 VA					
			Total Amps:	27 A		28 A		21 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	8819 VA
Receptacle	6663 VA	100.00%	6663 VA	**Total Est. Demand:**	9315 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	24 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-E1-123 (NEW)

Location: TELECOMMUNICATIONS RM. E105E **Volts:** 120/208 Wye **A.I.C. Rating:** 10,000 A
Supply From: REFER TO NEW BUILDING ONE LINE **Phases:** 3 **Mains Type:** MCB
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - E105E	20 A	3	1921 VA	180 VA					1	20 A	RECEPT - E105E	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEPT - E105E	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEPT - E105E	N6
N7	RECEPT - E105E	20 A	1	180 VA	--					1	--	SPACE	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2281 VA		2101 VA		2101 VA					
			Total Amps:	19 A		18 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6483 VA	100.00%	6483 VA		
				Total Conn. Load:	6483 VA
				Total Est. Demand:	6483 VA
				Total Conn.:	18 A
				Total Est. Demand:	18 A

Notes:

Revisions: Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

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

Drawing Title ELECTRICAL PANEL SCHEDULES
Approved:
Phase FINAL BID DOCUMENTS
Sprinklered FULLY SPRINKLERED
Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025
Checked YW
Drawn SM
Project Number 695-21-700
Building Number
Drawing Number E-412

8/28/2025 9:29:03 AM
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VA FORM 08 - 6231

Branch Panel: EUL-TR-E1-123 (NEW)

Location: TELECOMMUNICATIONS RM. E105E
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - E105E	20 A	3	1921 VA	64 VA					1	20 A	LIGHTING - E105E	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEPT - E105E	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEPT - E105E	C6
C7	123-AC/ACCU-E105E	20 A	2	1082 VA	180 VA					1	20 A	RECEPT - E105E	C8
C9	--	--	--			1082 VA	180 VA			1	20 A	123-CRAC-5A CONVIENCE OUTLET	C10
C11	SPACE	--	1					--	180 VA	1	20 A	J-BOX - DOOR POWER	C12
C13	SPACE	--	1	--	180 VA					1	20 A	RECEPT - E105E	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	3313 VA		3251 VA		2281 VA					
			Total Amps:	29 A		28 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2163 VA	125.00%	2704 VA		
Power - General	180 VA	100.00%	180 VA	**Total Conn. Load:**	8819 VA
Receptacle	6663 VA	100.00%	6663 VA	**Total Est. Demand:**	9315 VA
Lighting	64 VA	100.00%	64 VA	**Total Conn.:**	24 A
				Total Est. Demand:	26 A

Notes:

Branch Panel: UL-TR-B-144-1 (NEW)

Location: TELEPHONE RM. G22
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - G22	20 A	3	1921 VA	180 VA					1	20 A	RECEP - G22	N2
N3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - G22	N4
N5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - G22	N6
N7	LIGHTING - G22	20 A	1	38 VA	180 VA					1	20 A	RECEP - G22	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2319 VA		2101 VA		2101 VA					
			Total Amps:	19 A		18 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6483 VA	100.00%	6483 VA		
				Total Conn. Load:	6521 VA
				Total Est. Demand:	6521 VA
				Total Conn.:	18 A
				Total Est. Demand:	18 A

Notes:

Branch Panel: EUL-TR-B-144-1 (NEW)

Location: TELEPHONE RM. G22
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - G22	20 A	3	1921 VA	180 VA					1	20 A	RECEP - G22	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - G22	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - G22	C6
C7	LIGHTING - G22	20 A	1	70 VA	180 VA					1	20 A	RECEP - G22	C8
C9	J-BOX - DOOR POWER - G22	20 A	1			180 VA	--			1	--	SPACE	C10
C11	SPACE	--	1					--	--	1	--	SPACE	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2351 VA		2281 VA		2101 VA					
			Total Amps:	20 A		19 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6483 VA	100.00%	6483 VA	**Total Conn. Load:**	6733 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	6733 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: UL-TR-B-144-2 (NEW)

Location: TELECOMMUNICATIONS RM. G68
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - G68	20 A	3	1921 VA									N2
N3	--	--	--			1921 VA							N4
N5	--	--	--					1921 VA					N6
N7	RECEP - G68	20 A	1	180 VA	180 VA					1	20 A	RECEP - G68	N8
N9	RECEP - G68	20 A	1			180 VA	180 VA			1	20 A	RECEP - G68	N10
N11	RECEP - G68	20 A	1					180 VA	180 VA	1	20 A	RECEP - G68	N12
N13	LIGHTING - G68	20 A	1	64 VA	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2345 VA		2281 VA		2281 VA					
			Total Amps:	20 A		19 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6843 VA	100.00%	6843 VA		
Lighting	64 VA	100.00%	64 VA	**Total Conn. Load:**	6907 VA
				Total Est. Demand:	6907 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-B-144-2 (NEW)

Location: TELECOMMUNICATIONS RM. G68
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - G68	20 A	3	1921 VA									C2
C3	--	--	--			1921 VA							C4
C5	--	--	--					1921 VA					C6
C7	LIGHTING - G68	20 A	1	64 VA	180 VA					1	20 A	RECEP - G68	C8
C9	SPACE	--	1			--	180 VA			1	20 A	RECEP - G68	C10
C11	SPACE	--	1					--	360 VA	1	20 A	RECEP - G68	C12
C13	SPACE	--	1	--	180 VA					1	20 A	RECEP - G68	C14
C15	SPACE	--	1			--	180 VA			1	20 A	J-BOX - DOOR POWER - G68	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2345 VA		2281 VA		2281 VA					
			Total Amps:	20 A		19 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6663 VA	100.00%	6663 VA	**Total Conn. Load:**	6907 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	6907 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: UL-TR-1-144-1 (NEW)

Location: TELECOMMUNICATIONS RM. 146
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - 146	20 A	3	1921 VA									N2
N3	--	--	--			1921 VA							N4
N5	--	--	--					1921 VA					N6
N7	RECEP - 146	20 A	1	360 VA	180 VA					1	20 A	RECEP - 146	N8
N9	RECEP - 146	20 A	1			180 VA	180 VA			1	20 A	RECEP - 146	N10
N11	LIGHTING - 144-1-2	20 A	1					32 VA	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2461 VA		2281 VA		1953 VA					
			Total Amps:	21 A		19 A		16 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6663 VA	100.00%	6663 VA		
Lighting	32 VA	100.00%	32 VA	**Total Conn. Load:**	6695 VA
				Total Est. Demand:	6695 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-1-144-1 (NEW)

Location: TELECOMMUNICATIONS RM. 146
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - 146	20 A	3	1921 VA									C2
C3	--	--	--			1921 VA							C4
C5	--	--	--					1921 VA					C6
C7	LIGHTING - 146	20 A	1	64 VA	180 VA					1	20 A	RECEP - 146	C8
C9	RECEP - 146	20 A	1			180 VA	180 VA			1	20 A	RECEP - 146	C10
C11	RECEP - 146	20 A	1					180 VA	180 VA	1	20 A	J-BOX - DOOR POWER	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2165 VA		2281 VA		2281 VA					
			Total Amps:	18 A		19 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6483 VA	100.00%	6483 VA	**Total Conn. Load:**	6727 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	6727 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: UL-TR-1-144-2 (NEW)

Location: TELECOMMUNICATIONS RM. 175
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - 175	20 A	3	1921 VA									N2
N3	--	--	--			1921 VA							N4
N5	--	--	--					1921 VA					N6
N7	RECEP - 175	20 A	1	180 VA	180 VA					1	20 A	RECEP - 175	N8
N9	RECEP - 175	20 A	1			360 VA	180 VA			1	20 A	RECEP - 175	N10
N11	LIGHTING - 175	20 A	1					32 VA	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2281 VA		2461 VA		1953 VA					
			Total Amps:	19 A		21 A		16 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6663 VA	100.00%	6663 VA		
Lighting	32 VA	100.00%	32 VA	**Total Conn. Load:**	6695 VA
				Total Est. Demand:	6695 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-1-144-2 (NEW)

Location: TELECOMMUNICATIONS RM. 175
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MCB
Mains Rating: 150 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - 175	20 A	3	1921 VA									C2
C3	--	--	--			1921 VA							C4
C5	--	--	--					1921 VA					C6
C7	LIGHTING - 175	20 A	1	64 VA	180 VA					1	20 A	RECEP - 175	C8
C9	J-BOX - DOOR POWER - 175	20 A	1			180 VA	180 VA			1	20 A	RECEP - 175	C10
C11	SPACE	--	1					--	180 VA	1	20 A	RECEP - 175	C12
C13	SPACE	--	1	--	180 VA					1	20 A	RECEP - 175	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2345 VA		2281 VA		2101 VA					
			Total Amps:	20 A		19 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	6483 VA	100.00%	6483 VA	**Total Conn. Load:**	6727 VA
Lighting	64 VA	100.00%	64 VA	**Total Est. Demand:**	6727 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Revisions:	Date:

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YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL PANEL SCHEDULES

Approved:

Phase FINAL BID DOCUMENTS

Sprinklered FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI

Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI

Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM

Project Number 695-21-700

Building Number

Drawing Number E-413

Graphic Scale: 1/16" = 1'-0" (32' 16' 8' 0')
Graphic Scale: 1/8" = 1'-0" (16' 8' 4' 0')
Graphic Scale: 3/32" = 1'-0" (2' 1' 8" 0' 4")
Graphic Scale: 1/4" = 1'-0" (4' 2' 1' 0')
Graphic Scale: 3/16" = 1'-0" (12' 6' 3' 0' 1' 6")
Graphic Scale: 1/2" = 1'-0" (4' 2' 1' 0')
Graphic Scale: 3/4" = 1'-0" (2' 1' 6" 0')
Graphic Scale: 1" = 1'-0" (2' 1' 6" 0')
Graphic Scale: 1 1/2" = 1'-0" (1' 6" 3" 0')

8/28/2025 9:29:04 AM

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt

VA FORM 08 - 6231

Branch Panel: EUL-TR-B-146-2 (NEW)

Location: EXISTING TELECOMMUNICATION RM. 005
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - 005	20 A	3	1921 VA	180 VA					1	20 A	RECEP - 005	N2
N3	--	--	--			1921 VA	360 VA			1	20 A	RECEP - 005	N4
N5	--	--	--					1921 VA	360 VA	1	20 A	RECEP - 005	N6
N7	SPACE	--	1	--	180 VA					1	20 A	RECEP - 005	N8
N9	SPACE	--	1			--	--			1	--	SPACE	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2281 VA		2281 VA		2281 VA					
			Total Amps:	19 A		19 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	6843 VA	100.00%	6843 VA		
				Total Conn. Load:	6843 VA
				Total Est. Demand:	6843 VA
				Total Conn.:	19 A
				Total Est. Demand:	19 A

Notes:

Branch Panel: EUL-TR-B-146-1 (NEW)

Location: EXISTING TELECOMMUNICATION RM. 005
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - 005	20 A	3	1921 VA	95 VA					1	20 A	LIGHTING - 005	C2
C3	--	--	--			1921 VA	360 VA			1	20 A	RECEP - 005	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 005	C6
C7	RECEP - 005	20 A	1	360 VA	360 VA					1	20 A	RECEP - 005	C8
C9	RECEP - 005	20 A	1			360 VA	180 VA			1	20 A	J-BOX - DOOR POWER -005	C10
C11	SPACE	--	1					--	--	1	--	SPACE	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2736 VA		2821 VA		2101 VA					
			Total Amps:	24 A		24 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	7383 VA	100.00%	7383 VA	**Total Conn. Load:**	7658 VA
Lighting	95 VA	100.00%	95 VA	**Total Est. Demand:**	7658 VA
				Total Conn.:	21 A
				Total Est. Demand:	21 A

Notes:

Branch Panel: EUL-TR-B-147-2 (NEW)

Location: TELECOMMUNICATIONS RM. 002
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - 002	20 A	3	1921 VA	180 VA					1	20 A	RECEP - 002	N2
N3	--	--	--			1921 VA	360 VA			1	20 A	RECEP - 002	N4
N5	--	--	--					1921 VA	360 VA	1	20 A	RECEP - 002	N6
N7	SPACE	--	1	--	360 VA					1	20 A	RECEP - 002	N8
N9	SPACE	--	1			--	180 VA			1	20 A	RECEP - 002	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2461 VA		2461 VA		2281 VA					
			Total Amps:	21 A		21 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	7203 VA	100.00%	7203 VA		
				Total Conn. Load:	7203 VA
				Total Est. Demand:	7203 VA
				Total Conn.:	20 A
				Total Est. Demand:	20 A

Notes:

Branch Panel: EUL-TR-B-147-1 (NEW)

Location: TELECOMMUNICATIONS RM. 002
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - 002	20 A	3	1921 VA	95 VA					1	20 A	LIGHTING - 002	C2
C3	--	--	--			1921 VA	360 VA			1	20 A	RECEP - 002	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 002	C6
C7	RECEP - 002	20 A	1	180 VA	360 VA					1	20 A	RECEP - 002	C8
C9	RECEP - 002	20 A	1			180 VA	360 VA			1	20 A	RECEP - 002	C10
C11	J-BOX - DOOR POWER - 002	20 A	1					180 VA	--	1	--	SPACE	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2556 VA		2821 VA		2281 VA					
			Total Amps:	22 A		24 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	7383 VA	100.00%	7383 VA	**Total Conn. Load:**	7658 VA
Lighting	95 VA	100.00%	95 VA	**Total Est. Demand:**	7658 VA
				Total Conn.:	21 A
				Total Est. Demand:	21 A

Notes:

Branch Panel: EUL-TR-B-148-2 (NEW)

Location: TELECOMMUNICATIONS RM. 002
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
N1	1 RACK - 002	20 A	3	1921 VA	180 VA					1	20 A	RECEP - 002	N2
N3	--	--	--			1921 VA	360 VA			1	20 A	RECEP - 002	N4
N5	--	--	--					1921 VA	360 VA	1	20 A	RECEP - 002	N6
N7	SPACE	--	1	--	180 VA					1	20 A	RECEP - 002	N8
N9	SPACE	--	1			--	360 VA			1	20 A	RECEP - 002	N10
N11	SPACE	--	1					--	--	1	--	SPACE	N12
N13	SPACE	--	1	--	--					1	--	SPACE	N14
N15	SPACE	--	1			--	--			1	--	SPACE	N16
N17	SPACE	--	1					--	--	1	--	SPACE	N18
N19	SPACE	--	1	--	--					1	--	SPACE	N20
N21	SPACE	--	1			--	--			1	--	SPACE	N22
N23	SPACE	--	1					--	--	1	--	SPACE	N24
N25	SPACE	--	1	--	--					1	--	SPACE	N26
N27	SPACE	--	1			--	--			1	--	SPACE	N28
N29	SPACE	--	1					--	--	1	--	SPACE	N30
			Total Load:	2281 VA		2641 VA		2281 VA					
			Total Amps:	19 A		22 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	7203 VA	100.00%	7203 VA		
				Total Conn. Load:	7203 VA
				Total Est. Demand:	7203 VA
				Total Conn.:	20 A
				Total Est. Demand:	20 A

Notes:

Branch Panel: EUL-TR-B-148-1 (NEW)

Location: TELECOMMUNICATIONS RM. 002
Supply From: REFER TO NEW BUILDING ONE LINE
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000 A
Mains Type: MCB
Mains Rating: 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
C1	1 RACK - 002	20 A	3	1921 VA	360 VA					1	20 A	RECEP - 002	C2
C3	--	--	--			1921 VA	180 VA			1	20 A	RECEP - 002	C4
C5	--	--	--					1921 VA	180 VA	1	20 A	RECEP - 002	C6
C7	J-BOX - DOOR POWER - 002	20 A	1	180 VA	360 VA					1	20 A	RECEP - 002	C8
C9	RECEP - 002	20 A	1			180 VA	360 VA			1	20 A	RECEP - 002	C10
C11	LIGHTING - 002	20 A	1					108 VA	--	1	--	SPACE	C12
C13	SPACE	--	1	--	--					1	--	SPACE	C14
C15	SPACE	--	1			--	--			1	--	SPACE	C16
C17	SPACE	--	1					--	--	1	--	SPACE	C18
C19	SPACE	--	1	--	--					1	--	SPACE	C20
C21	SPACE	--	1			--	--			1	--	SPACE	C22
C23	SPACE	--	1					--	--	1	--	SPACE	C24
C25	SPACE	--	1	--	--					1	--	SPACE	C26
C27	SPACE	--	1			--	--			1	--	SPACE	C28
C29	SPACE	--	1					--	--	1	--	SPACE	C30
			Total Load:	2821 VA		2641 VA		2209 VA					
			Total Amps:	24 A		23 A		18 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power - General	180 VA	100.00%	180 VA		
Receptacle	7383 VA	100.00%	7383 VA	**Total Conn. Load:**	7671 VA
Lighting	32 VA	100.00%	32 VA	**Total Est. Demand:**	7671 VA
				Total Conn.:	21 A
				Total Est. Demand:	21 A

Notes:

Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/16" = 1'-0"
Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/4" = 1'-0"
Graphic Scale: 3/16" = 1'-0"
Graphic Scale: 1/2" = 1'-0"
Graphic Scale: 3/4" = 1'-0"
Graphic Scale: 1" = 1'-0"
Graphic Scale: 1 1/2" = 1'-0"

Revisions:	Date:

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YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	ELECTRICAL PANEL SCHEDULES
Approved:	
Phase	FINAL BID DOCUMENTS
Sprinklered	FULLY SPRINKLERED
Project Title	EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location	5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date	SEPTEMBER 5, 2025
Checked	YW
Drawn	SM
Project Number	695-21-700
Building Number	
Drawing Number	E-414

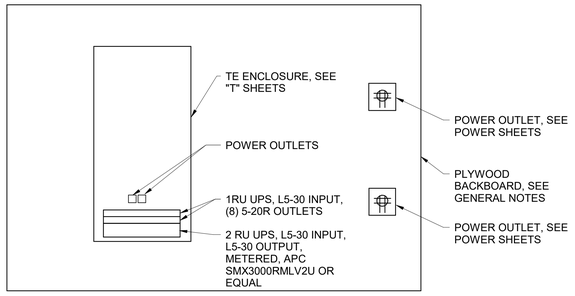
8/28/2025 9:29:05 AM

Autodesk Docs://OCFM East - Milwaukee EHRM (R24)/Consolidated Model (R24).rvt

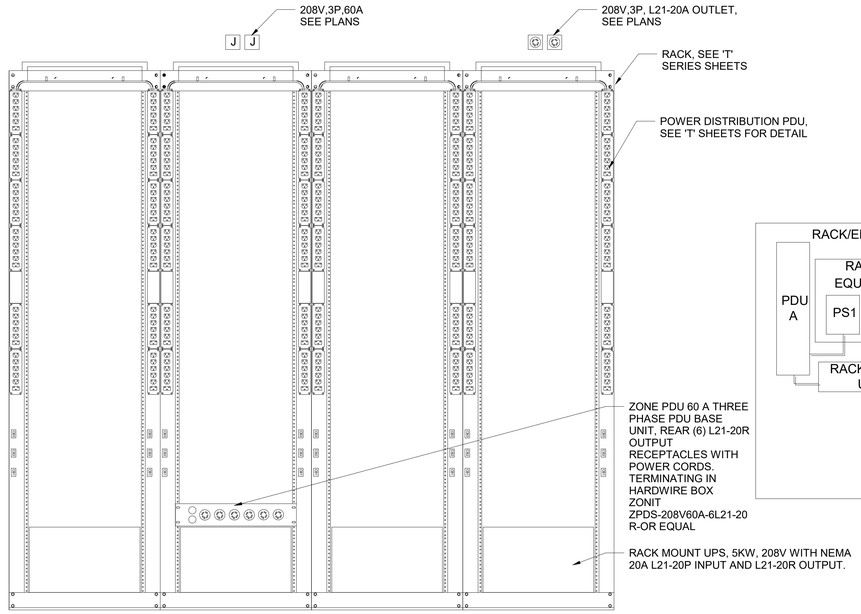
VA FORM 08 - 6231

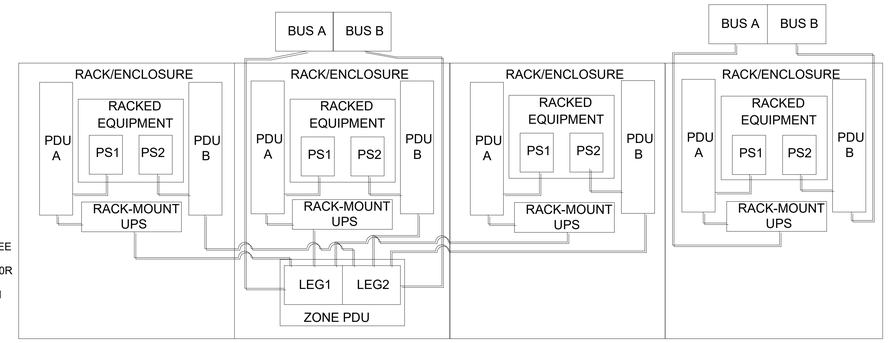
GENERAL NOTES

1. COORDINATE WITH 'T' SERIES SHEETS FOR TR ROOM RACK, GROUNDING, PDU, UPS, AND ZONE PDU LOCATION.
2. PROVIDE RACK MOUNTED UPS FOR ALL NEW TR, DEMARC, AND ICC ROOMS.
3. COORDINATE POWER OUTLET LOCATIONS WITH CABLE TRAY LOCATIONS ON 'T' SERIES SHEETS.
4. UPS SHALL BE CONNECTED TO '!' SIDE POWER (CRITICAL POWER).
5. ALL POWER DISTRIBUTION WITHIN THE TR AND MCR SPACES SHALL INCORPARATE SPECIFIC COLOR IDENTIFICATION TO DIFFERENTIATE BETWEEN DIFFERENT ELECTRICAL BUS POWER TYPES. USE OF SPECIFIC COLOR IDENTIFICATION FOR EACH ELECTRICAL BUS SHALL STAY CONSISTENT THROUGHOUT THE BUILDING DISTRIBUTION. A SUGGESTED STRATEGY IS TO USE BLACK COLOR CONDUIT FOR A-BUS CIRCUITS AND WHITE COLOR CONDUITS FOR B-BUS CIRCUITS. WITHIN IT EQUIPMENT RACKS/CABINETS, SEPARATE A-SIDE AND B-SIDE POWER SEGREGATE EQUIPMENT POWER CORDSBY COLOR FOR IDENTIFICATION OF A/B POWER TO EACH PIECE OF IT EQUIPMENT.
6. PROVIDE RACK MOUNT ZONE POWER UNITS AND DISTRIBUTION.
7. STORE UPS EQUIPMENT AND BATTERIES IN A LOCATION MEETS ALL VA AND MANUFACTURE REQUIREMENTS.

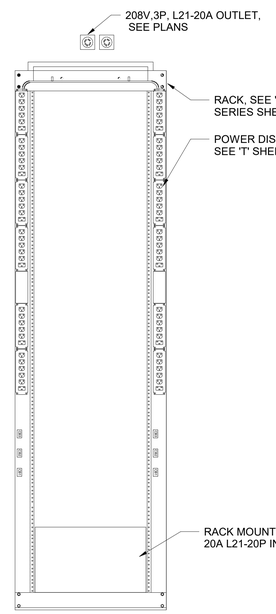


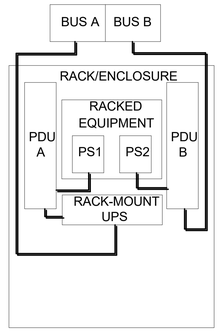
5 TR ENCLOSURE POWER DETAIL - ELEVATION
6" = 1'-0"





4 FOUR RACK POWER DETAIL
NTS





1 ONE RACK POWER DETAIL
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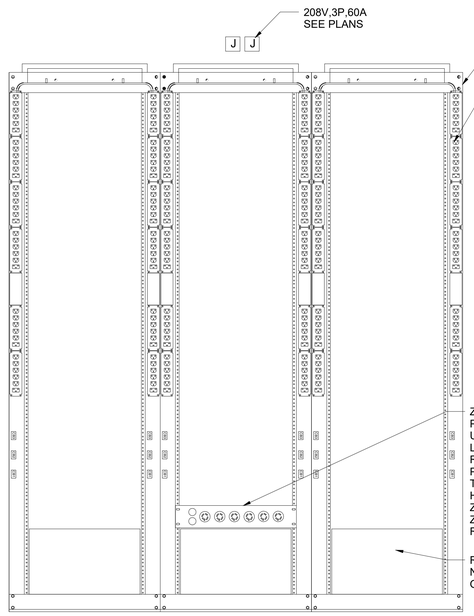

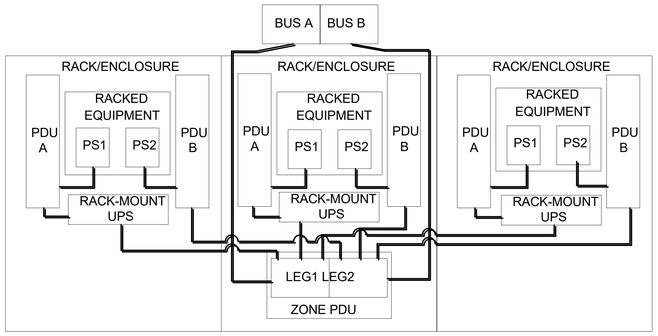

3 THREE RACK POWER DETAIL
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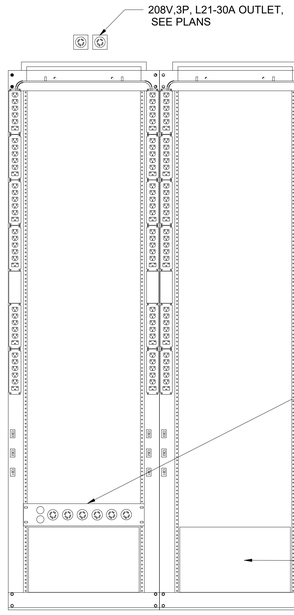

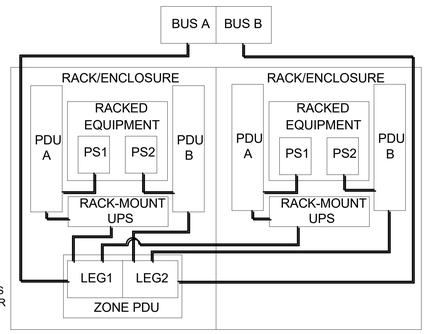

2 TWO RACK POWER DETAIL
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YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL DETAILS	**Phase** FINAL BID DOCUMENTS
Approved:	**Sprinklered** FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM
Project Number 695-21-700
Building Number
Drawing Number E-500

Graphic Scale - 3/32" = 1'-0" (0' 8' 16' 32')
Graphic Scale - 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale - 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale - 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale - 3/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale - 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale - 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale - 1" = 1'-0" (0' 6" 1' 2')
Graphic Scale - 1 1/2" = 1'-0" (0' 3" 6" 1' 1' 6")

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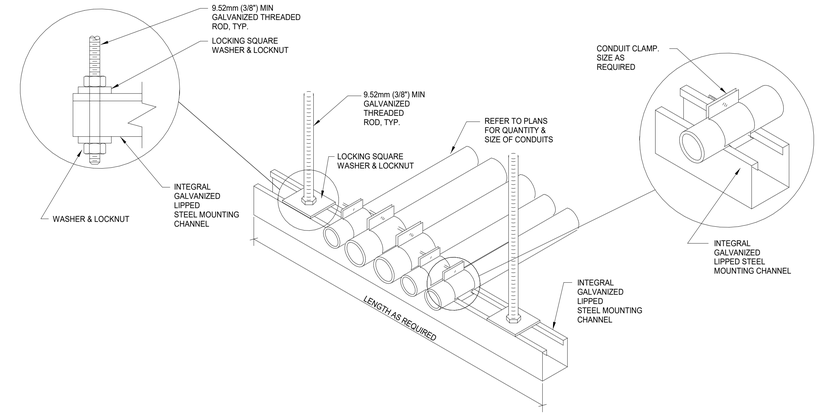
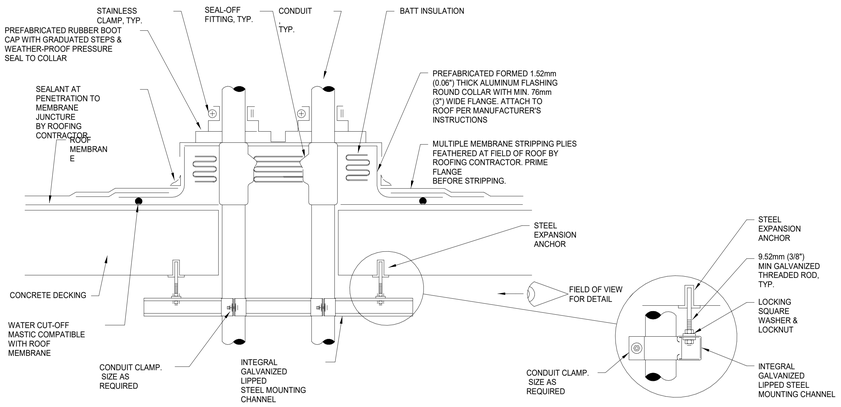


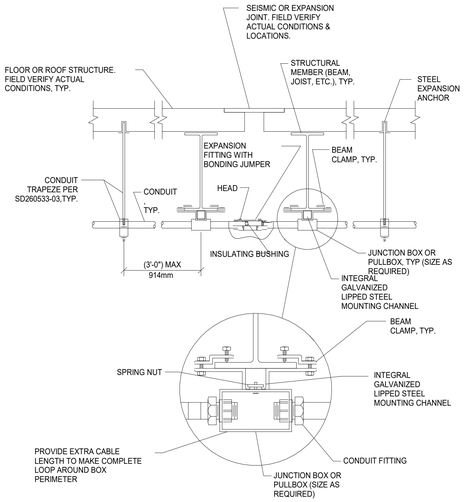
GENERAL NOTES:
1. INTEGRAL GALVANIZED LIPPED STEEL MOUNTING CHANNEL LONGER THAN 915mm (36") SHALL BE INSTALLED WITH A CENTER SUPPORT ROD. SUPPORT RODS SHALL NOT BE GREATER THAN 457mm (18") APART.
2. FASTEN THREADED ROD TO STRUCTURE BY APPROVED METHOD PER SPECIFICATION 26 05 33, RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS. FIELD VERIFY EXACT CONDITIONS.

1 CONDUIT ROOF PENETRATION DETAIL
NTS



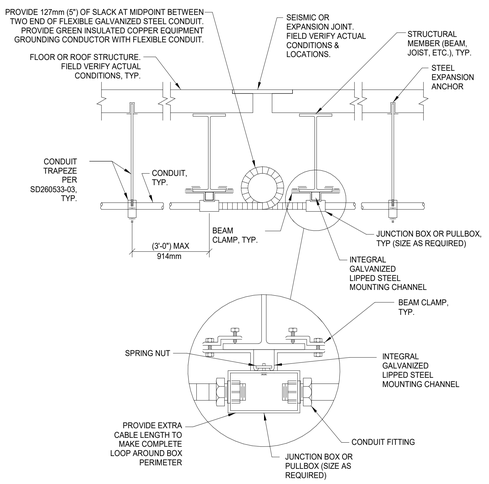
GENERAL NOTES:
1. MAINTAIN A MINIMUM CLEARANCE OF 305mm (12") ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING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

2 CONDUIT ROOF PENETRATION DETAIL
NTS



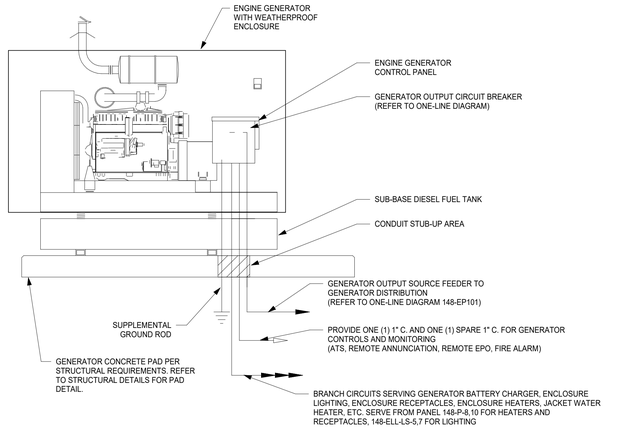
GENERAL NOTE:
1. INSTALLATION IS ACCEPTABLE ALTERNATE TO DETAIL SD260533-01.
2. INSTALLATION IS REQUIRED FOR CONDUIT SMALLER THAN 76mm (3") AND LARGER.

3 CONDUIT EXPANSION JOINT CROSSING - EXPANSION FITTING DETAIL
NTS

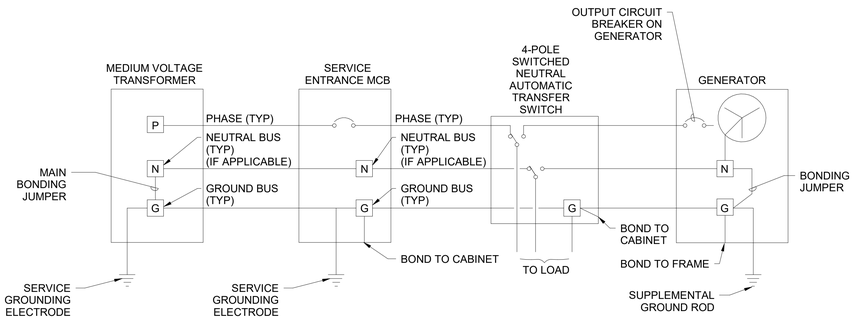


GENERAL NOTE:
1. DETAIL IS APPLICABLE ONLY FOR CONDUIT SMALLER THAN 76mm (3").

4 CONDUIT EXPANSION JOINT CROSSING DETAIL - FLEXIBLE CONDUIT
NTS



5 GENERATOR ENCLOSURE DETAIL
NTS



6 GENERATOR GROUNDING DETAIL - SEPARATELY DERIVED SYSTEM
NTS

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title ELECTRICAL DETAILS	**Phase** FINAL BID DOCUMENTS
Approved:	**Sprinklered** FULLY SPRINKLERED

Project Title EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI
Location 5000 W. NATIONAL AVENUE MILWAUKEE, WI
Issue Date SEPTEMBER 5, 2025 | **Checked** YW | **Drawn** SM

Project Number 695-21-700
Building Number
Drawing Number E-501

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Graphic Scale: 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale: 3/32" = 1'-0" (0' 4" 8" 1' 2')
Graphic Scale: 1/4" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/16" = 1'-0" (0' 1' 3' 6' 12')
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 3/4" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 1" = 1'-0" (0' 6" 1' 2')
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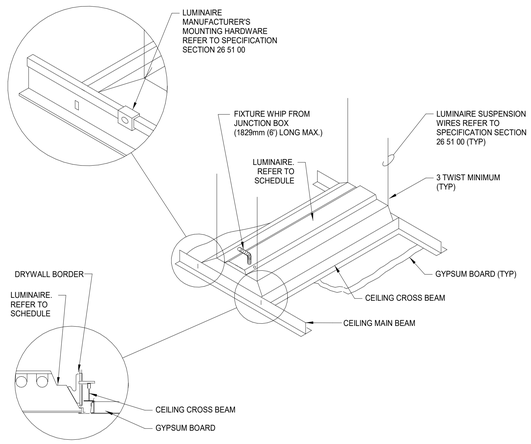
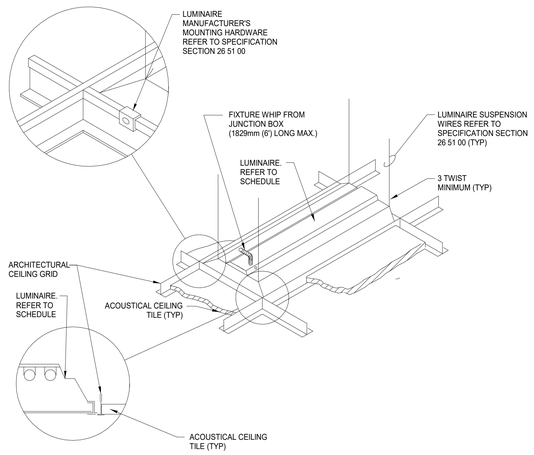
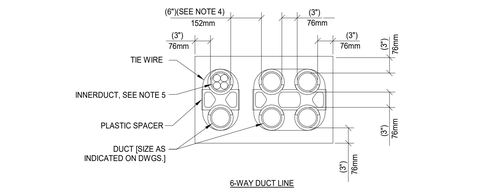


1 LUMINAIRE MOUNTING - GYPBOARD CEILING DETAIL
NTS

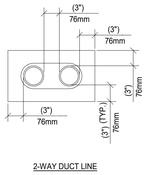


GENERAL NOTE:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

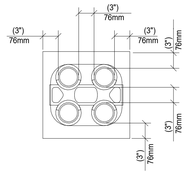
2 LUMINAIRE MOUNTING - LAY-IN CEILING DETAIL
NTS



6-WAY DUCT LINE



2-WAY DUCT LINE



4-WAY DUCT LINE

GENERAL NOTES:
1. CONCRETE SHALL BE 2000 P.S.I. @ 28 DAYS, OR AS SPECIFIED.
2. PROVIDE #4 REINFORCING RODS ON TOP AND BOTTOM OF DUCTS WHEN CROSSING OR PLACED IN ROADWAYS.
3. MINIMUM COVER TO TOP OF ENVELOPE SHALL BE 914mm (36") OR AS OTHERWISE SPECIFIED IN SECTION 26 05 41.
4. PROVIDE MINIMUM 152mm (6") SPACE BETWEEN POWER AND TELECOMMUNICATION DUCTS. INCREASE SIZE AS REQUIRED.
5. INNERDUCT QUANTITY AND SIZE AS INDICATED ON PLANS.

3 DUCT BANK DETAIL
NTS

NOTES:
1. INSTALL 2000 lb TENSILE STRENGTH BRAIDED POLYPROPYLENE PULL CORD IN ALL CONDUITS.
2. TRENCHING AND BACKFILL ACCORDING TO SPECIFICATIONS.
3. MINIMUM OF 4'-0" CLEAR BETWEEN ADJACENT DUCTBANKS.
4. DOWEL ENDS OF DUCTBANK TO FOUNDATION OR MANHOLE WITH A MINIMUM OF (4) #4 DOWELS.

4 DUCT BANK DETAIL
NTS

Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/8" = 1'-0"
Graphic Scale: 3/32" = 1'-0"
Graphic Scale: 1/4" = 1'-0"
Graphic Scale: 3/16" = 1'-0"
Graphic Scale: 1/2" = 1'-0"
Graphic Scale: 3/4" = 1'-0"
Graphic Scale: 1" = 1'-0"
Graphic Scale: 1 1/2" = 1'-0"

Revisions:	Date:

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PROFESSIONAL ELECTRICAL ENGINEER
YUMEI WANG
E-11391
STATE OF NEBRASKA
9.5.2025

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ELECTRICAL DETAILS	Phase: FINAL BID DOCUMENTS
Approved:	Sprinklered: FULLY SPRINKLERED

Project Title: EHRM INFRASTRUCTURE UPGRADES – MILWAUKEE, WI		Project Number: 695-21-700
		Building Number:
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI		Drawing Number: E-502
Issue Date: SEPTEMBER 5, 2025	Checked: YW	Drawn: SM

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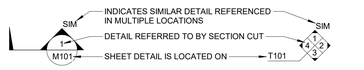
VA FORM 08 - 6231

VIEW KEY

NAME — LEVEL NAME
10' - 0" — HEIGHT ABOVE PROJECT 0' - 0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL



LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
——— NEW
- - - - - - - - - EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
— — — — NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
——————— EXISTING
- - - - - - - - - EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
— — — — EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG-1 — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

TECHNOLOGY ABBREVIATION KEY

ABBR:	DESCRIPTION:
AFF	ABOVE FINISHED FLOOR
BFC	BELOW FINISHED CEILING
C	CONDUIT
J-BOX	JUNCTION BOX
SIM	SIMILAR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTES
+#	MOUNTING HEIGHT ABOVE FINISHED FLOOR
TR-#	TELECOMMUNICATIONS ROOM

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
C.C.	CIVIL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
G.C.	GENERAL CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR

TECHNOLOGY SYMBOL LIST

SYMBOL:	EQUIPMENT LIST ABBREV.:	DESCRIPTION:	NOTE:
#' #'	SC-IO-C	CEILING INFORMATION OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION	1.
1D-WAP	SC-IO-C	CEILING INFORMATION OUTLET, DATA COMMUNICATION ONLY, WIRELESS ACCESS POINT	1.
#' #'	SC-IO-W	WALL INFORMATION OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION	1.
W	SC-IO-W	WALL INFORMATION OUTLET, WALL TELEPHONE COMMUNICATION	1.
TV	SC-IO-W	WALL INFORMATION OUTLET, TELEVISION, MOUNTED AT +84" UNLESS OTHERWISE NOTED	1.
#'	SC-IO-F	FLOOR INFORMATION OUTLET, DATA COMMUNICATION ONLY	1.
#' #'	SC-IO-F	FLOOR INFORMATION OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION	1.
#'	N/A	ELECTRICAL FLOOR BOX WITH TECHNOLOGY	1., 2.
#'	SC-IO-C	CEILING INFORMATION OUTLET, DATA COMMUNICATION ONLY	1.
CSS	N/A	CONTROLLED SECURITY SCHEME SCHEDULE IDENTIFIER	3.
M	AC-CR1	CARD ACCESS READER WITH KEYPAD; LETTER INDICATES AS FOLLOWS: M = MOUNT C - CEILING D - DESK F- FLUSH H - HIDDEN M - MULLION P - PEDESTAL R - RACK S - SURFACE W - WALL	.
M T	AC-DC	DOOR CONTACT; LETTER INDICATES AD FOLLOWS: M = MOUNT S - SURFACE R - RECESSED T = TECHNOLOGY/TYPE M = MAGNETIC REED	.
CCTV	N/A	VIDEO SURVEILLANCE CAMERA WITH LENS, WALL MOUNT OR CEILING MOUNT	4.
WIDTH X HEIGHT		CABLE TRAY, CHANNEL TRAY, BASKET TRAY	
DIAMETER⌀ C		CONDUIT	
		CONDUIT DOWN	
		CONDUIT UP OR UP/DOWN	
		CONDUIT SLEEVE	
		CONTINUATION	

GENERAL NOTES:

1. ALL SYMBOLS AND ABBREVIATIONS LISTED MAY NOT BE APPLICABLE TO THIS PROJECT. REFER TO THE TECHNOLOGY EQUIPMENT SCHEDULE FOR MORE COMPLETE DESCRIPTION AND ITEMS.
2. ALL SYMBOLS AND ABBREVIATIONS REFER TO TECHNOLOGY SHEETS ONLY AS DEFINED ON THE SHEET INDEX. REFER TO THE GENERAL TECHNOLOGY NOTES FOR ADDITIONAL INFORMATION.
3. ALL SYMBOLS LISTED ABOVE ARE FOR REFERENCE ONLY. REFER TO PLANS AND LINE TYPE KEY FOR NEW, EXISTING TO REMAIN AND TO BE REMOVED ITEMS FOR ADDITIONAL INFORMATION.
4. REFER TO RISERS ON SHEET(S): TN500 - TN509

TECHNOLOGY SYMBOL NOTES:

1. "#D" INDICATES INFORMATION OUTLET FACEPLATE CONFIGURATION. REFER TO INFORMATION OUTLET SCHEDULE ON TN600 FOR ADDITIONAL INFORMATION.
2. INFORMATION OUTLET INSTALLED IN E.C. PROVIDED FLOOR BOX. "#D" INDICATES INFORMATION OUTLET FACEPLATE CONFIGURATION. REFER TO INFORMATION OUTLET SCHEDULE ON TN600 FOR ADDITIONAL INFORMATION. REFER TO THE ELECTRICAL FLOOR PLANS AND ELECTRICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
3. REFER TO CONTROLLED SECURITY SCHEME (CSS) SCHEDULE ON TN601 FOR ADDITIONAL INFORMATION.
4. REFER TO INDIVIDUAL CAMERA REQUIREMENTS SCHEDULE ON TN601 FOR ADDITIONAL INFORMATION. SUBSCRIPT INDICATED CAMERA NUMBER. A CAMERA HEIGHT IDENTIFIES THE HEIGHT FROM THE FLOOR TO THE CENTERLINE OF THE CAMERA. NO HEIGHT INDICATES A CEILING MOUNT CAMERA.

TELECOM ROOM REFERENCES

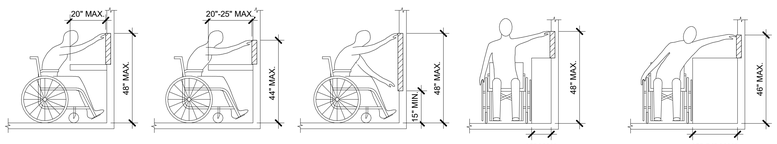
BLDG NO.	ROOM NUMBER	FLOOR PLAN REFERENCE	DETAIL SHEET REFERENCE	TR #
3	1454	03-TN101	1/TN300	TE-3-1454
4	2110	04-TN104	4/TN300	TR-4-2110
5	117	05-TN101	1/TN301	TR-5-117
5	204	05-TN102	4/TN301	TR-5-204
6	B103	06-TN101B	1/TN303	TR-6-B103
6	D203	06-TN102D	4/TN303	TR-6-D203
6	A104	06-TN101A	1/TN302	TR-6-A104
6	6-1-C013	06-TN101C	1/TN304	TR-6-1-C013
6	C302	06-TN103C	1/TN305	TR-6-C302
7	B09	07-TN100	4/TN305	TR-7-B09
20	20-1-030	20-TN101	1/TN306	TR-20-1-030
43	A156	43-TN101	4/TN306	TR-43-A156
43	A201	43-TN102	1/TN307	TR-43-A201
43	A303	43-TN103	4/TN307	TR-43-A303
70	D-125	70-TN101D-S	1/TN309	TR-70-D-125
70	E-104	70-TN101E-N	4/TN309	TR-70-E-104
70	C-126	70-TN101C-N	4/TN308	TR-70-C-126
70	B-159	70-TN101A	1/TN308	TR-70-B-159
97	005	97-TN101	1/TN311	TE-97-005
102	B100FC	102-TN101	1/TN310	TR-102-B100FC
102	144	102-TN101	1/TN312	TR-102-144
107	200	107-TN102	4/TN311	TE-107-200
108	200	108-TN102	1/TN313	TE-108-200
109	B001	109-TN100	4/TN313	TE-109-B001
111	B0610E	111-TN1100E	1/TN314	TR-111-B0610E
111	B0622	111-TN1100F	4/TN314	TR-111-B0622
111	B0423	111-TN1100K	1/TN315	TR-111-B0423
111	1470	111-TN1101F	1/TN316	TR-111-1470
111	1474	111-TN1101F	4/TN316	MCR-111-1474J
111	1473	111-TN1101F	4/TN315	TR-111-1473
111	1180	111-TN1101K	1/TN317	TR-111-1180
111	1537B	111-TN1101D	1/TN318	TR-111-1537B
111	2557	111-TN1102E	4/TN318	TR-111-2557
111	2428A	111-TN1102F	1/TN319	TR-111-2428A
111	2235	111-TN1102K	4/TN319	TR-111-2235
111	3308	111-TN1103H	1/TN320	TR-111-3308
111	4315	111-TN1104H	4/TN320	TR-111-4315
111	5311	111-T2105H	1/TN321	TR-111-5311
111	6410B	111-TN1106H	4/TN321	TR-111-6410A
111	7412	111-T2107H	1/TN322	TR-111-7412
111	8409	111-TN1108H	4/TN322	TR-111-8409
111	9409	111-TN1109H	1/TN323	TR-111-9409
111	10409	111-TN1110H	4/TN323	TR-111-10409
112	108	112-TN111	1/TN324	TE-112-108
113	106	113-TN100	4/TN324	TE-113-106
123	A107	123-TN101A	1/TN326	TR-123-A107
123	B113	123-TN101B	4/TN326	TR-123-B113
123	C113	123-TN101C	4/TN325	TR-123-C113
123	D113	123-TN101D	1/TN325	TR-123-D113
123	E105E	123-TN101E	1/TN327	TR-123-E105E
144	G68	144-TN100B	4/TN327	TR-144-G68
144	G22	144-TN100D	1/TN328	TR-144-G22
144	175	144-TN101B	4/TN328	TR-144-175
144	146	144-TN101D	1/TN329	TR-144-146
146	005	146-TN100	4/TN329	TR-146-005
147	002	147-TN100	1/TN330	TR-147-002
148	002	148-TN100	2/TN330	TR-148-002

TECHNOLOGY PHASING NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILED PHASING INFORMATION.
2. THE EXISTING MAIN COMPUTER ROOM AND ALL EXISTING TELECOM ROOMS TO REMAIN OPERATIONAL DURING THE INSTALLATION OF THE NEW BACKBONE CABLING AND STRUCTURED CABLING. THE EXISTING SYSTEMS SHALL NOT BE DISRUPTED UNLESS COORDINATED IN ADVANCE WITH THE CONTRACTING OFFICER.
3. THE EXISTING ACCESS CONTROL AND VIDEO SURVEILLANCE SYSTEMS SHALL REMAIN OPERATIONAL DURING THE INSTALLATION OF THE NEW BACKBONE CABLING AND STRUCTURED CABLING. THE EXISTING SYSTEMS SHALL NOT BE DISRUPTED UNLESS COORDINATED IN ADVANCE WITH THE CONTRACTING OFFICER.

TECHNOLOGY OUTSIDE PLANT NOTES

1. THE LOCATION OF THE CONDUIT, HAND HOLES AND/OR MAINTENANCE HOLES SHOWN ARE APPROXIMATE LOCATIONS. FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIVATE AND/OR PUBLIC PRIOR TO THE INSTALLATION OF THE COMPONENT. FIELD COORDINATE THE FINAL LOCATION WITH THE OWNER AND ENGINEER PRIOR TO INSTALLATION.
2. POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES, IF APPLICABLE, SHALL BE INCLUDED IN THE CONTRACTOR'S BID. CONTRACTOR IS RESPONSIBLE FOR FINAL PLACEMENT OF HAND HOLES AND/OR MAINTENANCE HOLES AND SHALL NOTIFY THE ENGINEER OF FINAL LOCATIONS PRIOR TO INSTALLATION.
3. HAND HOLES AND/OR MAINTENANCE HOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE FRAME WILL BE FLUSH WITH THE GROUND LINE.
4. REMOVAL AND REPLACEMENT OF THE EXISTING UNDERGROUND UTILITIES THAT ARE REQUIRED TO COMPLETE THE INSTALLATION SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
5. CONTRACTOR SHALL INCLUDE IN THEIR BID ANY REMOVAL AND REPLACEMENT OF EXISTING SIDEWALK, PAVEMENT, GRASS, SHRUBS, TREES, ETC. THAT WILL BE IMPACTED BY THE INSTALLATION OF THE NEW CONDUITS SHOWN ON THE DRAWINGS. IF TREES ARE REQUIRED TO BE REMOVED THE CONTRACTOR SHALL CONTACT THE OWNER AND DISCUSS OPTIONS PRIOR TO CUTTING DOWN ANY TREE OR SHRUB OVER 5' IN HEIGHT.
6. NO ADDITIONAL COST SHALL BE APPROVED FOR PLACING CONDUITS DEEPER THAN REQUIRED MINIMUM DEPTH TO AVOID EXISTING UNDERGROUND UTILITIES.
7. PROVIDE A MINIMUM OF 25'-0" SLACK LOOP WITHIN EACH HAND HOLES AND/OR MAINTENANCE HOLES. SLACK LOOP SHALL BE SECURE SO COPPER OR FIBER IS NOT RESTING ON EARTH AFTER FINAL INSTALLATION.



INSTALL ABOVE COUNTER DEVICE AT 44" ABOVE FINISHED FLOOR.
INSTALL ABOVE COUNTER DEVICE AT 40" ABOVE FINISHED FLOOR.
INSTALL DEVICE AT 18" ABOVE FINISHED FLOOR.
INSTALL DEVICE AT 44" ABOVE FINISHED FLOOR.
INSTALL DEVICE AT 40" ABOVE FINISHED FLOOR.

ADA GUIDELINES - FRONT ACCESS
ADA GUIDELINES - SIDE ACCESS

ADA STANDARDS FOR ACCESSIBLE DESIGN

TECHNOLOGY GENERAL NOTES:

1. ###-### INDICATES TECHNOLOGY EQUIPMENT SCHEDULE ITEM LABELED AS "EQUIPMENT LIST ABBREVIATION"
2. REFER TO TECHNOLOGY EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR FULL DESCRIPTIONS AND MANUFACTURERS OF ALL DEVICES.

TECHNOLOGY MOUNTING SUBSCRIPT KEY:
- A MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH
- H MOUNT ORIENTED HORIZONTALLY
- L MOUNT IN CASEWORK
- M MOUNT IN MODULAR FURNITURE
- S MOUNT IN SURFACE RACEWAY

A SLASH IS USED BETWEEN TWO SUBSCRIPTS, E.G., A/H.

TECHNOLOGY INSTALLATION NOTES:

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS ON THIS PAGE FOR ADDITIONAL INFORMATION.
2. CONCEAL ALL CONDUIT IN WALLS, PARTITIONS, ABOVE CEILING, IN FLOOR SLAB, ETC. UNLESS OTHERWISE INDICATED ON THE PLANS OR IN THE SPECIFICATIONS. CONDUIT IN MECHANICAL ROOMS AND STORAGE ROOMS WITHOUT CEILINGS MAY BE EXPOSED ON BUILDING STRUCTURE.
3. BOXES LOCATED ON OPPOSITE SIDES OF NON-RATED WALLS SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY. BOXES ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 24" HORIZONTALLY. "THRU-THE-WALL" BOXES SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
4. VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL TELECOMMUNICATIONS INSTALLATION, ADJUST OUTLETS OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
5. TELECOMMUNICATIONS EQUIPMENT SHALL BE MOUNTED TO ALLOW ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF TELECOMMUNICATION DEVICES ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
7. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO DIVISION 07 FOR ADDITIONAL INFORMATION.
8. REMOVE AND REINSTALL ALL CEILING TILES AS REQUIRED FOR THE EXECUTION OF TELECOMMUNICATIONS WORK THAT IS OUTSIDE THE CONTRACT LIMITS OF CONSTRUCTION. REPLACE CEILING TILES WITH IDENTICAL MATERIAL WHERE DAMAGED BY THIS CONTRACTOR.
9. ALL LADDER RACK SIZES ARE AS DEFINED ON THE DRAWINGS. REFER TO SPECIFICATION SECTION 27 05 36 FOR APPROVED MANUFACTURERS AND INSTALLATION REQUIREMENTS.
10. FLUSH MOUNT ALL TELECOMMUNICATION OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.
11. SCOPE OF WORK INCLUDES THE RE-USE OF THE EXISTING TELECOMMUNICATIONS OUTLET ROUGH-INS FOR ALL NEW CABLING UP TO FOUR (4) SMALL OUTER DIAMETER CAT 6A CABLES. REFER TO SPECIFICATIONS FOR CAT6A CABLE, MAXIMUM OUTER DIAMETER OF 0.245". WHERE FIVE (5) OR MORE CAT 6A CABLES ARE REQUIRED, PROVIDE AND INSTALL A NEW CONDUIT AND BACKBOX, REFER TO DETAIL 1/TN400 FOR ADDITIONAL INFORMATION. THE CONDUIT SIZE SHALL BE BASED ON 40% FILL. WHERE A 1.5" CONDUIT IS REQUIRED, A 5" SQUARE BACKBOX IS REQUIRED. CONTRACTOR SHALL ASSUME 40% ALLOWANCE FOR NEW BACKBOX LOCATIONS FOR WHERE EXISTING CONDUIT IS NOT OF SUFFICIENT SIZE OR WHERE 5 OR MORE CAT 6A CABLES ARE REQUIRED.
12. FIELD VERIFY LOCATIONS OF INFORMATION OUTLETS IN FURNITURE.
13. EXISTING TELECOM SPACES ARE REFERENCED ON THESE DRAWINGS AS "DATA CLOSETS". NEW SPACES WITH WALL MOUNT CABINETS ARE REFERRED TO AS A TELECOM ENCLOSURE, TE. NEW SPACES WITH FULL SIZE RACKS ARE REFERRED TO AS A TELECOM ROOM, TR.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CABLE LOCATIONS WITHIN FURNITURE AND SHALL BE RESPONSIBLE FOR ALL FURNITURE MOVES TO COMPLETE THE INSTALLATION.
15. PROVIDE ADDITIONAL SLEEVES. FOR BIDDING PURPOSES, THE CONTRACTOR SHOULD ASSUME A 20% ALLOWANCE FOR ADDITIONAL CONDUIT SLEEVES.
16. SCOPE OF WORK INCLUDES RE-USING EXISTING CABLE SUPPORT PATHWAYS AND SLEEVES. BASED ON NEW WORK PHASING PLANS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL PATHWAY AND SLEEVES AS REQUIRED AT 40% FILL.
17. CONTRACTOR TO INCLUDE AN ALLOWANCE FOR 10% ADDITIONAL 2-PORTS CAT6A INFORMATION OUTLETS IN THEIR PROPOSAL. FUTURE INFORMATION OUTLET LOCATIONS WILL BE DETERMINED BY THE VA AT A LATER DATE.
18. INSTALL TEMPORARY FIRESTOPPING AT THE END OF THE WORK SHIFT IF ADDITIONAL CABLE PULLS ARE REQUIRED THROUGH A RATED WALL.
19. CONTRACTOR TO CONFIRM ALL DATA CABLE RUNS ARE AT 290' OR LESS PRIOR TO INSTALLATION.
20. CONTRACTOR SHALL REFER TO HAZARDOUS AREA REPORT FOR ADDITIONAL INFORMATION ON AREAS WITH HAZARDOUS MATERIALS.
21. VA ISSUED DESIGN ALERTS 1-16 ARE APPLICABLE TO THIS PROJECT.
22. STAIRWELLS SHALL NOT BE USED FOR ROUTING UTILITIES OR CABLING UNLESS NOTED OTHERWISE.
23. SCOPE OF WORK INCLUDES RE-USE OF EXISTING TELECOMMUNICATIONS OUTLET ROUGH-IN FOR NEW CATEGORY 6A CABLING. NEW CATEGORY 6A CABLING AT EXISTING OUTLET LOCATIONS SHALL BE AS FOLLOWS BASED ON 0.245" O.D. REDUCED DIAMETER CAT 6A CABLE:
    - EXISTING 3/4" CONDUIT ROUGH-IN LOCATIONS TO RECEIVE A MAXIMUM OF TWO (2) CAT 6A CABLES
    - EXISTING 1" CONDUIT ROUGH-IN LOCATIONS TO RECEIVE A MAXIMUM OF FOUR (4) CAT 6A CABLES.
    - FOR BIDDING PURPOSES CONTRACTOR SHALL INCLUDE AN ALLOWANCE FOR NEW ROUGH-INS FOR 40% OF THE TOTAL NUMBER OF WORK AREA OUTLETS.
24. FOR EXISTING ROUGH-IN WITH SHALLOW BACX BOXES: PROVIDE A SURFACE MOUNT BACKBOX INSTALLED OVER TOP OF EXISTING IN-WALL BACKBOX (LEVITON 42777 OR SIM). WITH AN ANGLED FACEPLATE (LEVITON 42081 SERIES OR SIM) TO ALLOW FOR BEND RADIUS OF NEW CAT 6A CABLING.
25. FOR MAIN CABLE ROUTES WITHIN CORRIDORS, THE CONTRACTOR SHALL ASSUME THAT ALL WALLS WILL REQUIRE NEW SLEEVES TO ALLOW FOR NEW HORIZONTAL CABLING TO BE ROUTED PRIOR TO REMOVING EXISTING HORIZONTAL CABLING. SLEEVES THROUGH RATED WALLS SHALL INCLUDE LISTED FIRE STOP. SLEEVE REQUIREMENTS INDICATED PER SPECIFICATION.
26. ALL HORIZONTAL CABLING AND THEIR PATHWAYS PASSING THROUGH A WALL, RATED FIRE OR SMOKE BARRIER MUST BE PROPERLY SLEEVED AND FIRE STOPPED USING APPROVED (UL CLASSIFIED) FIRE STOP ASSEMBLIES AS REQUIRED FOR THE WALL RATING. FIRESTOP ASSEMBLIES ARE TO BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS FOR THE TYPE OF BARRIER, PATHWAY SIZE, AND QUANTITY OF CABLES.
27. THE CONTRACTOR SHALL INCLUDE IN THEIR BID THE QUANTITY OF SLEEVES REQUIRED FOR A COMPLETE INSTALLATION.

TECHNOLOGY DEMOLITION NOTES

1. THE DRAWINGS INDICATE EXISTING ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND VERIFY EXISTING CONDITIONS.
2. ITEMS (i.e. SPEAKERS, SWITCHES, ETC.) REMOVED AND NOT RELOCATED REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF MATERIAL THE OWNER DOES NOT WANT TO REUSE OR RETAIN. (i.e., FOR MAINTENANCE PURPOSES).
3. EXISTING TO REMAIN DEVICES WITHIN OR ADJACENT TO THE PATH OF CONSTRUCTION SHALL BE PROTECTED IN PLACE. DEVICES THAT MUST BE REMOVED SHALL BE TESTED PRIOR TO REMOVAL, PROTECTED FROM DAMAGE, AND RE-INSTALLED IN ITS ORIGINAL LOCATION DURING THE NEW CONSTRUCTION PHASE OF THE PROJECT.
4. OBTAIN APPROVAL FROM THE OWNER BEFORE TURNING OFF THE POWER TO EQUIPMENT, SYSTEMS, PANELS, ETC. COORDINATE ALL OUTAGES WITH OWNER. CONDUIT CONCEALED IN WALL CONSTRUCTION MAY BE ABANDONED IN PLACE IF NOT AFFECTED BY OTHER CONSTRUCTION. NO POWER OUTAGES SHALL BE DONE DURING NORMAL BUSINESS HOURS WHICH ARE 7:00 AM TO 4:00 PM DURING THE WEEK. A POWER OUTAGE REQUEST SHALL BE SUBMITTED TO THE COR A MINIMUM OF 3 WEEKS BEFORE A REQUESTED POWER OUTAGE AND REQUIRES COR'S APPROVAL.
5. ALL CONDUIT SHALL BE REMOVED WHERE WALLS ARE BEING REMOVED. WHERE CONDUIT IS IN THE CONCRETE SLAB, CUT OFF FLUSH, PULL OUT WIRE, AND PLUG. WHERE CONDUIT IS RUN EXPOSED, ALL ASSOCIATED CLAMPS, SUPPORTS, HANGERS, ETC., SHALL ALSO BE REMOVED.
6. COORDINATE ALL WORK WITH OTHER CONTRACTORS AT THE JOB SITE BEFORE REMOVING EXISTING EQUIPMENT AND INSTALLING NEW ITEMS.
7. EXISTING CONDUIT IN GOOD CONDITION, MAY BE REUSED IN PLACE. RELOCATING EXISTING CONDUIT SHALL NOT BE ALLOWED. BONDING CONDUCTORS SHALL BE INSTALLED IN ALL REUSED CONDUIT TO ASSURE PROPER GROUND PATH.
8. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
9. DEVICES TO BE REMOVED SHALL HAVE ALL CONNECTED WIRING REMOVED TO THE SOURCE.
10. DEVICES NOT TO BE REMOVED SHALL BE PROTECTED FROM THE ENVIRONMENT, AND ALL ASSOCIATED CABLE/RACEWAYS ARE TO REMAIN AND BE PROTECTED. T.C. SHALL BE RESPONSIBLE FOR REPAIR OF ANY INTERRUPTIONS TO PROTECTED DEVICES.
11. REFER TO SPECIFICATIONS SECTION 27 05 00 AND 27 05 05 FOR ADDITIONAL INFORMATION.
12. FOR ALL TELECOMMUNICATIONS ROOMS THAT ARE RE-USED, EXISTING EQUIPMENT WHICH IS REMOVED SHALL BE RETURNED TO CONTRACTING OFFICER.

Revisions:	Date:
35% SCHEMATIC DESIGN SUBMISSION	5.17.21
65% DESIGN DEVELOPMENT SUBMISSION	6.15.21
65% DESIGN DEVELOPMENT RESUBMISSION	8.25.21

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VA U.S. Department of Veterans Affairs

Drawing Title: TECHNOLOGY COVERSHEET	Phase: FINAL BID DOCUMENTS
Approved:	Sprinklered: FULLY SPRINKLERED
Project Title: EHRM INFRASTRUCTURE UPGRADES - MILWAUKEE, WI	Project Number: 695-21-700
	Building Number: 00
Location: 5000 W. NATIONAL AVENUE MILWAUKEE, WI	Drawing Number: T1001
Issue Date: SEPTEMBER 05, 2025	Checked: PHINIE
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Graphic Scale: 1/16" = 1'-0" (0' 8' 16' 32')
Graphic Scale: 1/8" = 1'-0" (0' 4' 8' 16')
Graphic Scale: 1/4" = 1'-0" (0' 2' 4' 8')
Graphic Scale: 3/8" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 1/2" = 1'-0" (0' 1' 2' 4')
Graphic Scale: 1" = 1'-0" (0' 1' 2')
Graphic Scale: 1 1/2" = 1'-0" (0' 6" 1' 2')
Graphic Scale: 3" = 1'-0" (0' 3" 6" 1' 1'6")

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111-TD1107B	BUILDING 111 SEVENTH FLOOR DEMO PLAN - TECHNOLOGY - AREA B
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