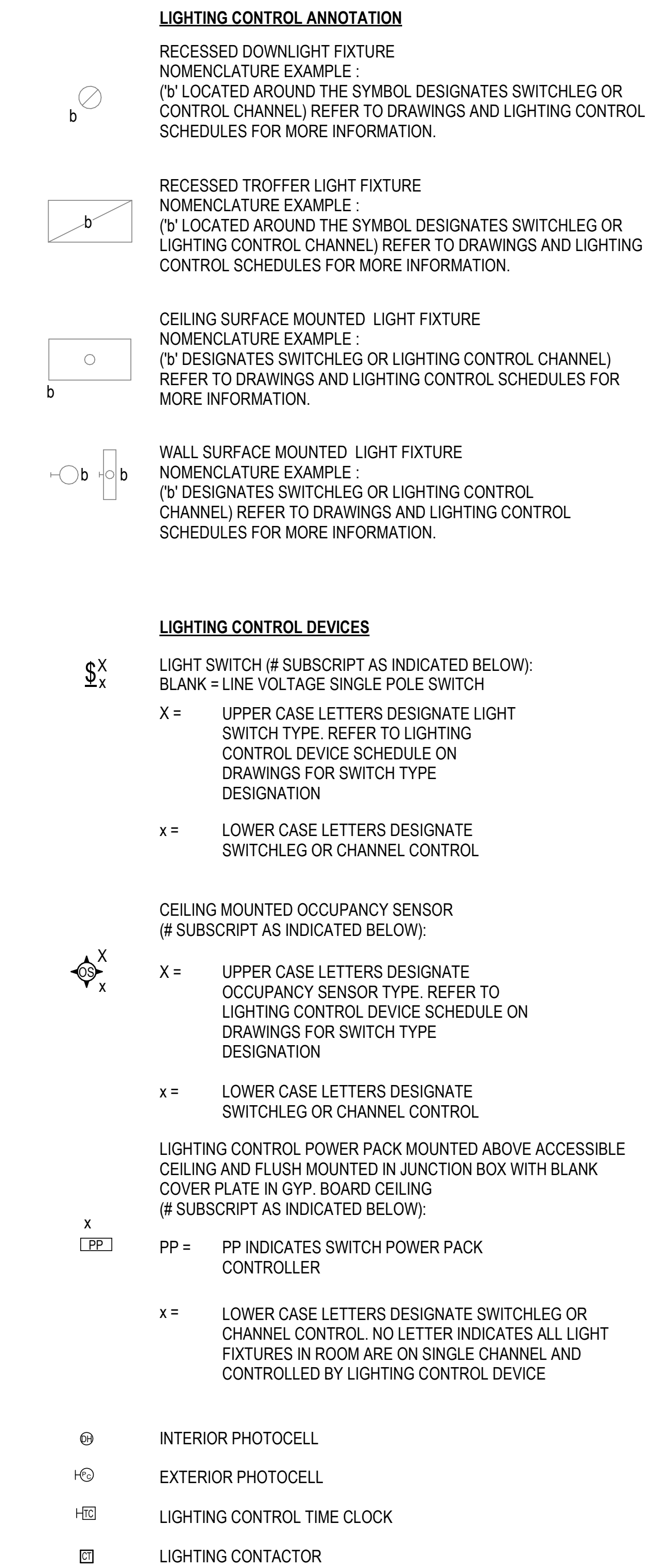


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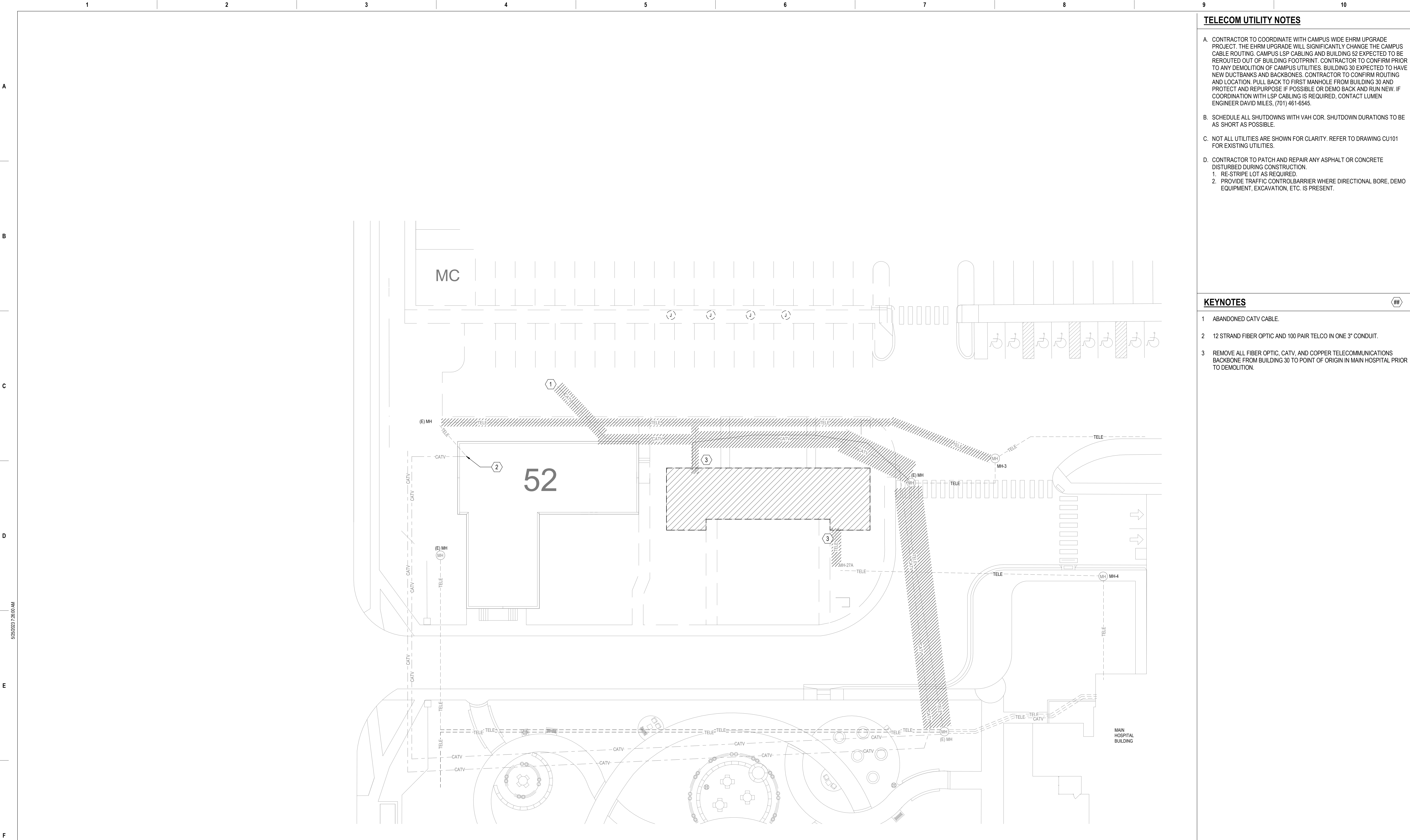


### ELECTRICAL SYMBOLS - LIGHTING CONTROL PLAN



**E**





TELECOM UTILITY NOTES

- A. CONTRACTOR TO COORDINATE WITH CAMPUS WIDE EHRM UPGRADE PROJECT. THE EHRM UPGRADE WILL SIGNIFICANTLY CHANGE THE CAMPUS CABLE ROUTING. CAMPUS LSP CABLING AND BUILDING 52 EXPECTED TO BE REROUTED OUT OF BUILDING FOOTPRINT. CONTRACTOR TO CONFIRM PRIOR TO ANY DEMOLITION OF CAMPUS UTILITIES. BUILDING 30 EXPECTED TO HAVE NEW DUCTBANKS AND BACKBONES. CONTRACTOR TO CONFIRM ROUTING AND LOCATION. PULL BACK TO FIRST MANHOLE FROM BUILDING 30 AND PROTECT AND REPURPOSE IF POSSIBLE OR DEMO BACK AND RUN NEW. IF COORDINATION WITH LSP CABLING IS REQUIRED, CONTACT LUMEN ENGINEER DAVID MILES, (701) 461-6545.
- B. SCHEDULE ALL SHUTDOWNS WITH VAH COR. SHUTDOWN DURATIONS TO BE AS SHORT AS POSSIBLE.
- C. NOT ALL UTILITIES ARE SHOWN FOR CLARITY. REFER TO DRAWING CU101 FOR EXISTING UTILITIES.
- D. CONTRACTOR TO PATCH AND REPAIR ANY ASPHALT OR CONCRETE DISTURBED DURING CONSTRUCTION.
1. RE-STRIPE LOT AS REQUIRED.
2. PROVIDE TRAFFIC CONTROL BARRIER WHERE DIRECTIONAL BORE, DEMO EQUIPMENT, EXCAVATION, ETC. IS PRESENT.

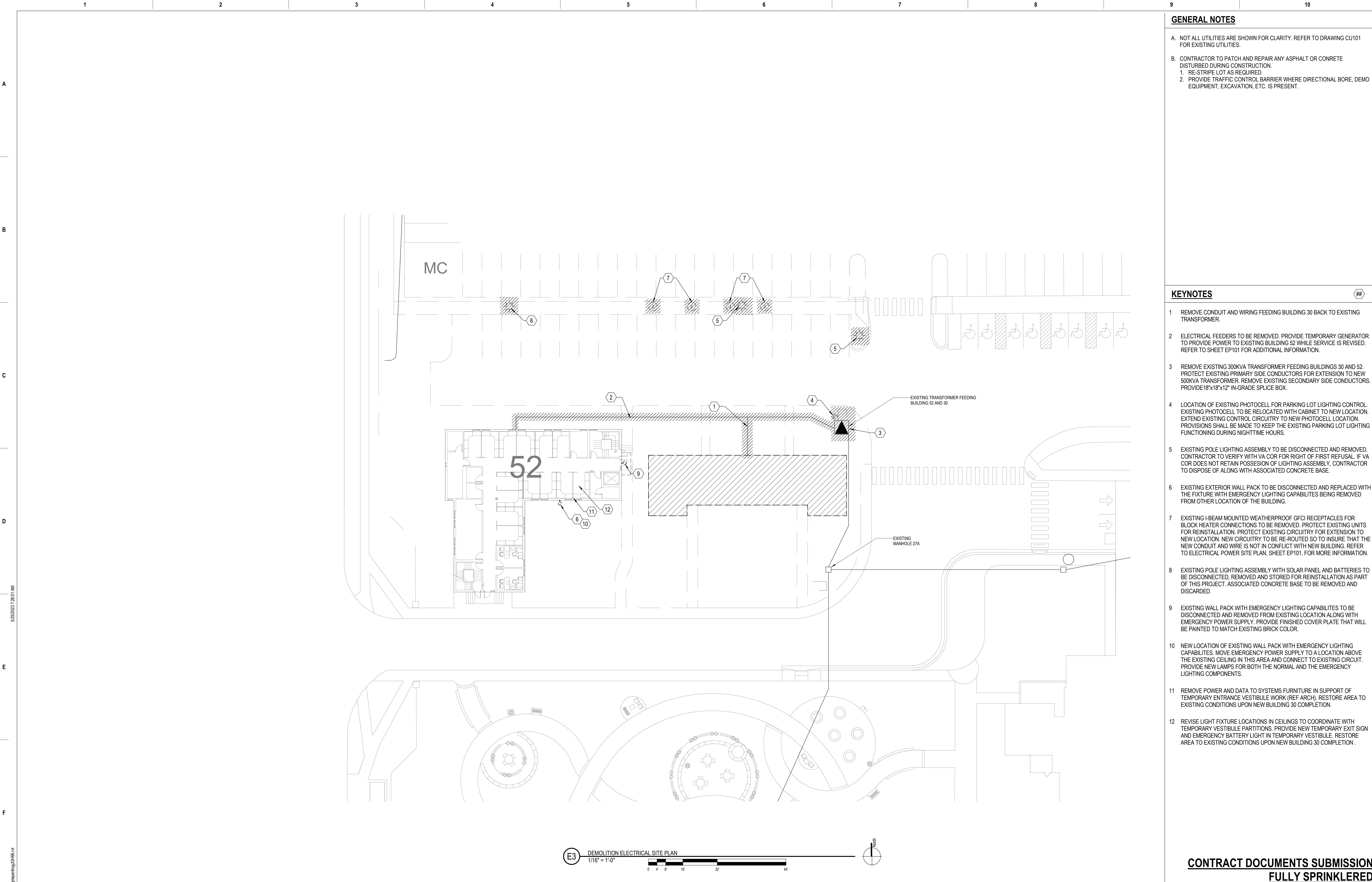
KEYNOTES

- 1 ABANDONED CATV CABLE.
- 2 12 STRAND FIBER OPTIC AND 100 PAIR TELCO IN ONE 3" CONDUIT.
- 3 REMOVE ALL FIBER OPTIC, CATV, AND COPPER TELECOMMUNICATIONS BACKBONE FROM BUILDING 30 TO POINT OF ORIGIN IN MAIN HOSPITAL PRIOR TO DEMOLITION.

CONTRACT DOCUMENTS SUBMISSION  
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|   |                    |            |              |                                                                                                         |                                        |                              |                    |                                                        |                 |
|---|--------------------|------------|--------------|---------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|--------------------|--------------------------------------------------------|-----------------|
| 0 | 100% BID DOCUMENTS | 05/26/2023 | CONSULTANTS: | ARCHITECT/ENGINEERS:                                                                                    | STAMP:                                 | Drawing Title                | Phase              | Project Title                                          | Project Number  |
|   |                    |            |              | VALHALLA<br>ENGINEERING<br>GROUP, LLC                                                                   |                                        | DEMOLITION TELECOM SITE PLAN | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION | 437-316         |
|   |                    |            |              | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 550-6307<br>WWW.VALHALLAENGINEERING.COM | U.S. Department<br>of Veterans Affairs | Approved: Project Director   |                    | Location                                               | Building Number |
|   |                    |            |              |                                                                                                         |                                        |                              |                    | 2101 ELM STREET, FARGO, ND 58102                       | 52              |
|   |                    |            |              |                                                                                                         |                                        |                              |                    | Issue Date                                             | Drawing Number  |
|   |                    |            |              |                                                                                                         |                                        |                              |                    | 05/26/2023                                             | ED101           |
|   |                    |            |              |                                                                                                         |                                        |                              |                    | Checked                                                | DWG 160 of 188  |
|   |                    |            |              |                                                                                                         |                                        |                              |                    | RA                                                     |                 |
|   |                    |            |              |                                                                                                         |                                        |                              |                    | Drawn                                                  |                 |
|   |                    |            |              |                                                                                                         |                                        |                              |                    | KEG                                                    |                 |





GENERAL NOTES

- A. NOT ALL UTILITIES ARE SHOWN FOR CLARITY. REFER TO DRAWING CU101 FOR EXISTING UTILITIES.
- B. CONTRACTOR TO PATCH AND REPAIR ANY ASPHALT OR CONCRETE DISTURBED DURING CONSTRUCTION.
1. RE-STRIPE LOT AS REQUIRED.
2. PROVIDE TRAFFIC CONTROL BARRIER WHERE DIRECTIONAL BORE, DEMO EQUIPMENT, EXCAVATION, ETC. IS PRESENT.

KEYNOTES

- 1 REMOVE CONDUIT AND WIRING FEEDING BUILDING 30 BACK TO EXISTING TRANSFORMER.
- 2 ELECTRICAL FEEDERS TO BE REMOVED. PROVIDE TEMPORARY GENERATOR TO PROVIDE POWER TO EXISTING BUILDING 52 WHILE SERVICE IS REVISED. REFER TO SHEET EP101 FOR ADDITIONAL INFORMATION.
- 3 REMOVE EXISTING 300KVA TRANSFORMER FEEDING BUILDINGS 30 AND 52. PROTECT EXISTING PRIMARY SIDE CONDUCTORS FOR EXTENSION TO NEW 500KVA TRANSFORMER. REMOVE EXISTING SECONDARY SIDE CONDUCTORS. PROVIDE 18"x18"x12" IN-GRADE SPLICE BOX.
- 4 LOCATION OF EXISTING PHOTOCELL FOR PARKING LOT LIGHTING CONTROL. EXISTING PHOTOCELL TO BE RELOCATED WITH CABINET TO NEW LOCATION. EXTEND EXISTING CONTROL CIRCUITRY TO NEW PHOTOCELL LOCATION. PROVISIONS SHALL BE MADE TO KEEP THE EXISTING PARKING LOT LIGHTING FUNCTIONING DURING NIGHTTIME HOURS.
- 5 EXISTING POLE LIGHTING ASSEMBLY TO BE DISCONNECTED AND REMOVED. CONTRACTOR TO VERIFY WITH VA COR FOR RIGHT OF FIRST REFUSAL. IF VA COR DOES NOT RETAIN POSSESSION OF LIGHTING ASSEMBLY, CONTRACTOR TO DISPOSE OF ALONG WITH ASSOCIATED CONCRETE BASE.
- 6 EXISTING EXTERIOR WALL PACK TO BE DISCONNECTED AND REPLACED WITH THE FIXTURE WITH EMERGENCY LIGHTING CAPABILITIES BEING REMOVED FROM OTHER LOCATION OF THE BUILDING.
- 7 EXISTING I-BEAM MOUNTED WEATHERPROOF GFCI RECEPTACLES FOR BLOCK HEATER CONNECTIONS TO BE REMOVED. PROTECT EXISTING UNITS FOR REINSTALLATION. PROTECT EXISTING CIRCUITRY FOR EXTENSION TO NEW LOCATION. NEW CIRCUITRY TO BE RE-ROUTED SO TO INSURE THAT THE NEW CONDUIT AND WIRE IS NOT IN CONFLICT WITH NEW BUILDING. REFER TO ELECTRICAL POWER SITE PLAN, SHEET EP101, FOR MORE INFORMATION.
- 8 EXISTING POLE LIGHTING ASSEMBLY WITH SOLAR PANEL AND BATTERIES TO BE DISCONNECTED, REMOVED AND STORED FOR REINSTALLATION AS PART OF THIS PROJECT. ASSOCIATED CONCRETE BASE TO BE REMOVED AND DISCARDED.
- 9 EXISTING WALL PACK WITH EMERGENCY LIGHTING CAPABILITIES TO BE DISCONNECTED AND REMOVED FROM EXISTING LOCATION ALONG WITH EMERGENCY POWER SUPPLY. PROVIDE FINISHED COVER PLATE THAT WILL BE PAINTED TO MATCH EXISTING BRICK COLOR.
- 10 NEW LOCATION OF EXISTING WALL PACK WITH EMERGENCY LIGHTING CAPABILITIES. MOVE EMERGENCY POWER SUPPLY TO A LOCATION ABOVE THE EXISTING CEILING IN THIS AREA AND CONNECT TO EXISTING CIRCUIT. PROVIDE NEW LAMPS FOR BOTH THE NORMAL AND THE EMERGENCY LIGHTING COMPONENTS.
- 11 REMOVE POWER AND DATA TO SYSTEMS FURNITURE IN SUPPORT OF TEMPORARY ENTRANCE VESTIBULE WORK (REF ARCH). RESTORE AREA TO EXISTING CONDITIONS UPON NEW BUILDING 30 COMPLETION.
- 12 REVISE LIGHT FIXTURE LOCATIONS IN CEILINGS TO COORDINATE WITH TEMPORARY VESTIBULE PARTITIONS. PROVIDE NEW TEMPORARY EXIT SIGN AND EMERGENCY BATTERY LIGHT IN TEMPORARY VESTIBULE. RESTORE AREA TO EXISTING CONDITIONS UPON NEW BUILDING 30 COMPLETION .

CONTRACT DOCUMENTS SUBMISSION  
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|         |                    |            |
|---------|--------------------|------------|
| 0       | 100% BID DOCUMENTS | 05/26/2023 |
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|         |                    |            |
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|         |                    |            |
|         |                    |            |
| Number: | Revisions:         | Date:      |

CONSULTANTS:

ARCHITECT/ENGINEERS:

**VALHALLA  
ENGINEERING  
GROUP, LLC**

750 W HAMPODEN AVE  
SUITE 300  
ENGLEWOOD, CO 80110  
(720) 560-6307  
WWW.VALHALLAENGINEERING.COM

VEG 21.05

STAMP:

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5/26/23

U.S. Department  
of Veterans Affairs

Drawing Title

**DEMOLITION ELECTRICAL SITE  
PLAN**

Approved: Project Director

Phase

**100% BID DOCUMENTS**

|                                                        |         |       |                                  |  |
|--------------------------------------------------------|---------|-------|----------------------------------|--|
| Project Title                                          |         |       | Project Number                   |  |
| CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION |         |       | 437-316                          |  |
| Building Number                                        |         |       | 52                               |  |
| Drawing Number                                         |         |       | ED102                            |  |
| Location                                               |         |       | 2101 ELM STREET, FARGO, ND 58102 |  |
| Issue Date                                             | Checked | Drawn | DWG 161 of 188                   |  |
| 05/26/2023                                             | RA      | MLS   |                                  |  |



A

B

C

D

E

F

A

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E

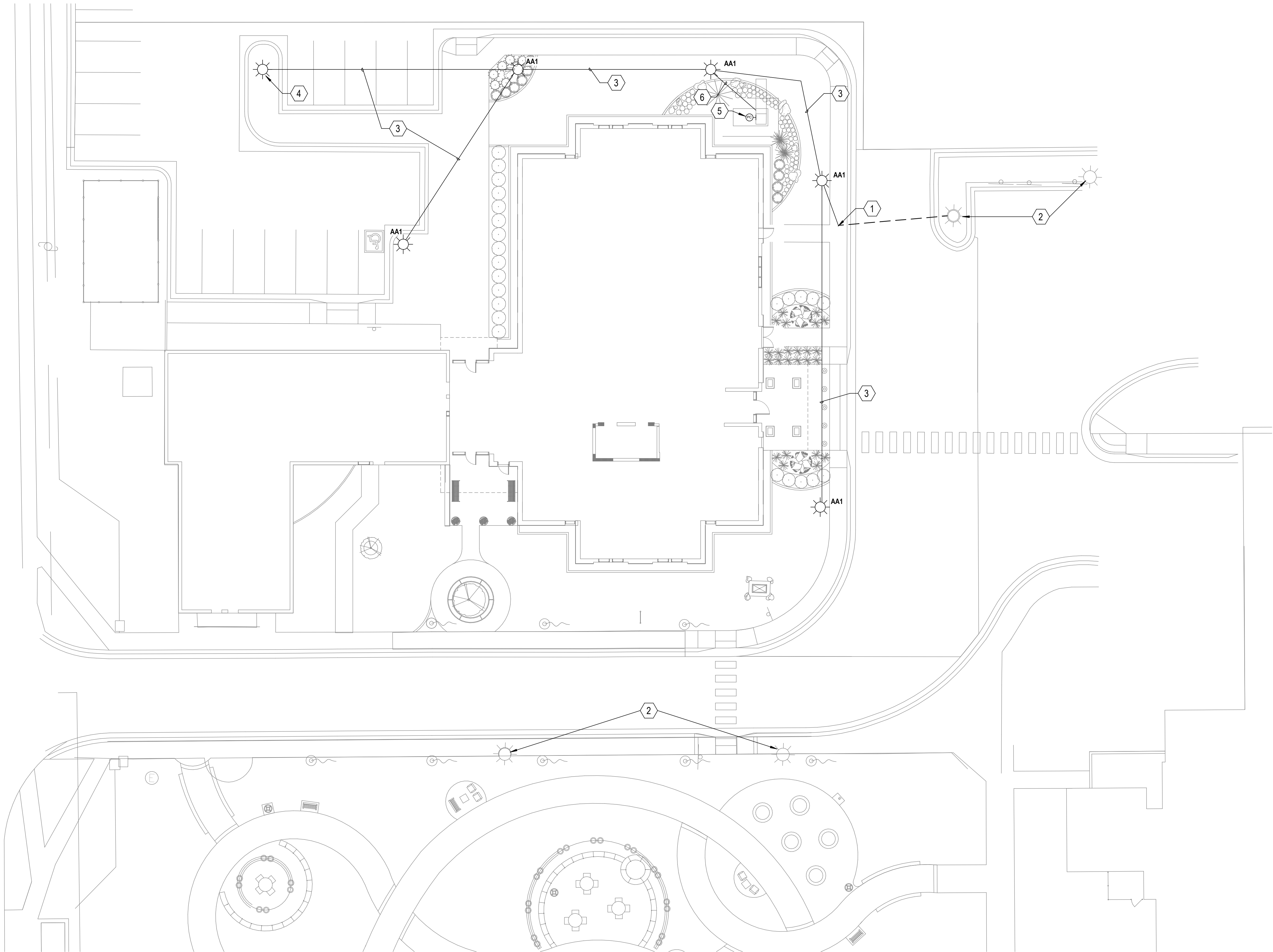
F

GENERAL NOTES

- A. ALL POLE MOUNTED LIGHTING TO BE CONTROLLED BY PARKING LOT LIGHTING PHOTOCELL.
- B. CONTRACTOR TO USE DIRECTIONAL BORE EQUIPMENT AND AVOID TRENCHING FOR NEW PATHWAYS.
- CONTRACTOR TO PATCH AND REPAIR ANY ASPHALT DISTURBED DURING CONSTRUCTION.
  - RE-STRIPE LOT AS REQUIRED.
  - PROVIDE TRAFFIC CONTROL BARRIER WHERE DIRECTIONAL BORE, EQUIPMENT, EXCAVTAION, ETC. IS PRESENT.

KEYNOTES

- INTERCEPT EXISTING UNDERGROUND CIRCUITRY. REMOVE EXISTING WIRING. EXTEND CONDUIT TO NEW LIGHT POLE ASSEMBLY. PROVIDE NEW WIRING FROM EXISTING LIGHT POLE ASSEMBLY TO THE NEW LIGHT POLE ASSEMBLY.
- EXISTING LIGHT POLE ASSEMBLY.
- MINIMUM 1 1/2" CONDUIT, 3#8 + GRD. UNDERGROUND ELECTRICAL CIRCUITING.
- NEW LOCATION OF EXISTING LIGHTING ASSEMBLY WITH SOLAR PANEL REMOVED AND STORED DURING DEMOLITION PHASE TO BE REINSTALLED ON NEW CONCRETE BASE.
- NEW LOCATION OF EXISTING PHOTOCELL CONTROLLING SITE LIGHTING.
- EXTEND NEW CIRCUITRY FROM SITE LIGHTING CIRCUIT BREAKER LOCATED AT THE NEW LOCATION OF EXISTING CABINET TO NEW LIGHT POLE ASSEMBLY. MINIMUM 1 1/2" CONDUIT, 3#8 + GRD. UNDERGROUND ELECTRICAL CIRCUITING.



E3

ELECTRICAL LIGHTING SITE PLAN  
1/16" = 1'-0"

0'

4'

8'

16'

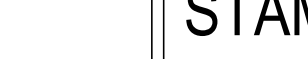
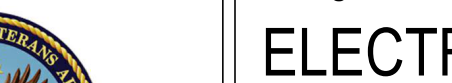
32'

64'

North

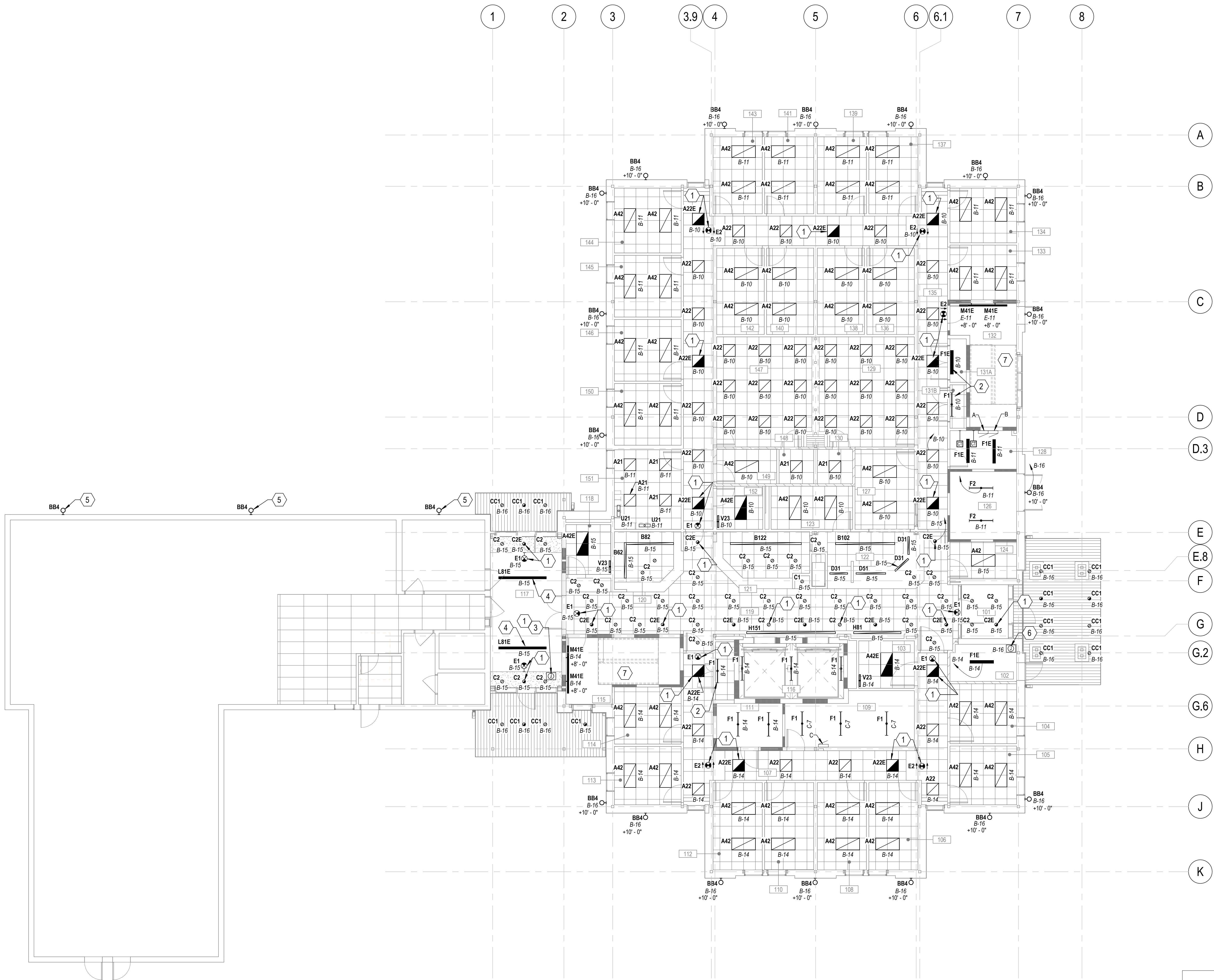
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CONTRACT DOCUMENTS SUBMISSION  
FULLY SPRINKLERED

|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    |                                                        |                 |
|---------|--------------------|------------|--------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------|--------------------|--------------------------------------------------------|-----------------|
| 0       | 100% BID DOCUMENTS | 05/26/2023 | CONSULTANTS: | ARCHITECT/ENGINEERS:                                                                                                           | STAMP:                                                                                |  | Drawing Title                 | Phase              | Project Title                                          | Project Number  |
|         |                    |            |              | <br>VALHALLA<br>ENGINEERING<br>GROUP, LLC |  |                                                                                       | ELECTRICAL LIGHTING SITE PLAN | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION | 437-316         |
|         |                    |            |              | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 560-6307<br>WWW.VALHALLAENGINEERING.COM                        |                                                                                       |                                                                                       | Approved: Project Director    |                    | Location                                               | Building Number |
|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    | 2101 ELM STREET, FARGO, ND 58102                       | 52              |
|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    | Issue Date                                             | Drawing Number  |
|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    | 05/26/2023                                             | EL101           |
|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    | Checked                                                | DWG 162 of 188  |
|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    | RA                                                     |                 |
|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    | Drawn                                                  |                 |
|         |                    |            |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    | JEE                                                    |                 |
| Number: | Revisions:         | Date:      |              |                                                                                                                                |                                                                                       |                                                                                       |                               |                    |                                                        |                 |



| ROOM NUMBER KEY |                  |
|-----------------|------------------|
| NUMBER          | NAME             |
| 101             | VESTIBULE        |
| 102             | MECH             |
| 103             | BARIATRIC RR     |
| 104             | BARIATRIC OFFICE |
| 105             | OFFICE           |
| 106             | OFFICE           |
| 107             | CORR             |
| 108             | OFFICE           |
| 109             | COMM / EHRM      |
| 110             | OFFICE           |
| 111             | ELEV. EQUIP.     |
| 112             | OFFICE           |
| 113             | OFFICE           |
| 114             | OFFICE           |
| 115             | STAIR A          |
| 116             | ELEV             |
| 117             | VESTIBULE        |
| 118             | RR               |
| 119             | CORR             |
| 120             | WAITING          |
| 121             | WAITING          |
| 122             | RECEPTION        |
| 123             | ADMIN            |
| 124             | STOR             |
| 126             | FIRE PUMP        |
| 127             | WORKRM / STOR    |
| 128             | ELEC             |
| 129             | GROUP THERAPY    |
| 130             | STOR             |
| 131A            | ELEC             |
| 131B            | TELEHEALTH       |
| 132             | STAIR B          |
| 133             | OFFICE           |
| 134             | OFFICE           |
| 135             | CORR             |
| 136             | OFFICE           |
| 137             | OFFICE           |
| 138             | OFFICE           |
| 139             | OFFICE           |
| 140             | OFFICE           |
| 141             | OFFICE           |
| 142             | OFFICE           |
| 143             | OFFICE           |
| 144             | OFFICE           |
| 145             | OFFICE           |
| 146             | OFFICE           |
| 147             | GROUP THERAPY    |
| 148             | STOR             |
| 149             | HAC              |
| 150             | OFFICE           |
| 151             | LOUNGE           |
| 152             | RR               |
| 153             | CLOSET           |
| 154             | ELEVATOR CAR 1   |
| 155             | ELEVATOR CAR 2   |
| 156             | TEMP VESTIBULE   |



- KEYNOTES**
- CONNECT TO UNSWITCHED PORTION OF THE CIRCUIT.
  - STRIP LIGHT FIXTURE TO BE WALL MOUNTED ABOVE THE DOOR.
  - EMERGENCY BACKUP LIGHTING INVERTER EQUAL TO BODINE ELI-S-100, 100VA MAXIMUM OUTPUT POWER. UNIT TO BE MOUNTED ON THE TOP SIDE OF THE SOFFIT STRUCTURE. LOCATE THE UNIT IN LOCATION WHERE IT IS NOT VISIBLE WHEN STANDING INSIDE THE VESTIBULE 117.
  - TYPE L81E LUMINAIRE TO HAVE TWO CIRCUIT CONTROL. THE TOP ILLUMINATION CIRCUIT TO BE CONNECTED TO CIRCUIT VIA INVERTER DESCRIBED IN NOTE #3.
  - EXISTING EXTERIOR WALL PACK TO BE DISCONNECTED, REMOVED, AND REPLACED WITH NEW LUMINAIRE. RECONNECT TO EXISTING CIRCUITRY.
  - EMERGENCY BACKUP LIGHTING INVERTER EQUAL TO BODINE ELI-S-100, 100VA MAXIMUM OUTPUT POWER.
  - MOUNTING HEIGHTS SHOWN IN THE AREA ARE MEASURED FROM FIRST LEVEL FLOOR.

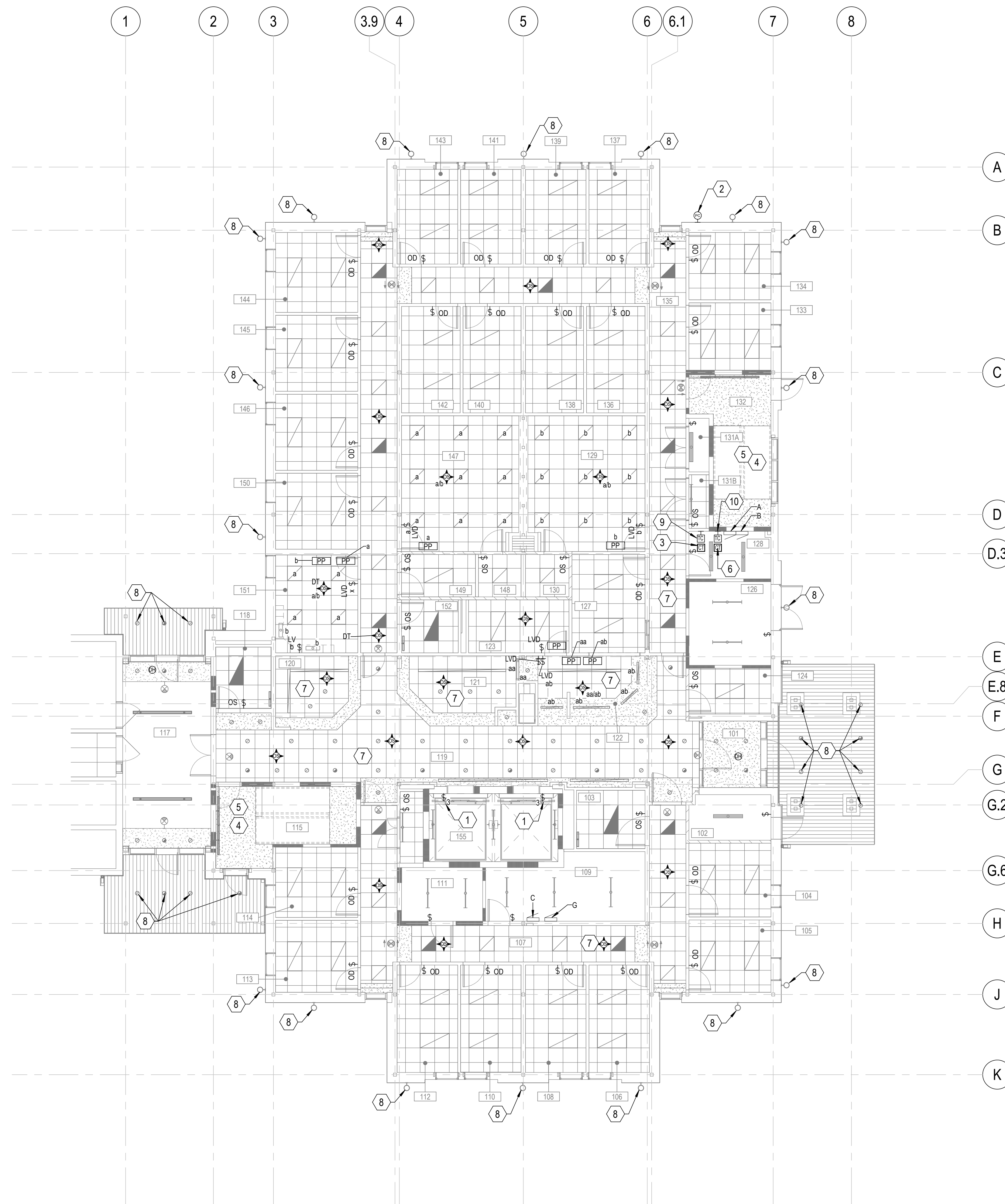
| PANEL NAMES |            |             |
|-------------|------------|-------------|
| PANEL ID    | PANEL NAME | ROOM NUMBER |
| A           | 52A-N1A-1  | 128         |
| B           | 52A-N1A-2  | 128         |
| C           | 52A-N1B-1  | 109         |
| D           | 52A-N2A-1  | 226A        |
| E           | 52A-N2A-2  | 226A        |
| F           | 52A-N2B-1  | 205         |
| G           | 52A-N1B-2  | 109         |
| H           | 52A-N2B-2  | 205         |

**CONTRACT DOCUMENTS SUBMISSION  
FULLY SPRINKLERED**

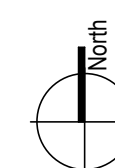
|         |                    |            |              |                                                                                                         |                                        |                                      |                    |                                                        |                       |                                           |
|---------|--------------------|------------|--------------|---------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------|--------------------|--------------------------------------------------------|-----------------------|-------------------------------------------|
| 0       | 100% BID DOCUMENTS | 05/26/2023 | CONSULTANTS: | ARCHITECT/ENGINEERS:                                                                                    | STAMP:                                 | Drawing Title                        | Phase              | Project Title                                          | Project Number        |                                           |
|         |                    |            |              | VALHALLA<br>ENGINEERING<br>GROUP, LLC                                                                   | U.S. Department<br>of Veterans Affairs | ELECTRICAL LIGHTING RCP -<br>LEVEL 1 | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION | 437-316               |                                           |
|         |                    |            |              | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 550-6307<br>WWW.VALHALLAENGINEERING.COM |                                        | Approved: Project Director           |                    | Location<br>2101 ELM STREET, FARGO, ND 58102           | Building Number<br>52 |                                           |
| Number: | Revisions:         | Date:      |              |                                                                                                         |                                        |                                      |                    | Issue Date<br>05/26/2023                               | Checked<br>RA         | Drawing Number<br>EL111<br>DWG 163 of 188 |
|         |                    |            |              |                                                                                                         |                                        |                                      |                    |                                                        | Drawn<br>JEE          |                                           |



| ROOM NUMBER KEY |                  |
|-----------------|------------------|
| NUMBER          | NAME             |
| 101             | VESTIBULE        |
| 102             | MECH             |
| 103             | BARIATRIC RR     |
| 104             | BARIATRIC OFFICE |
| 105             | OFFICE           |
| 106             | OFFICE           |
| 107             | CORR             |
| 108             | OFFICE           |
| 109             | COMM / EHRM      |
| 110             | OFFICE           |
| 111             | ELEV. EQUIP.     |
| 112             | OFFICE           |
| 113             | OFFICE           |
| 114             | OFFICE           |
| 115             | STAIR A          |
| 116             | ELEV             |
| 117             | VESTIBULE        |
| 118             | RR               |
| 119             | CORR             |
| 120             | WAITING          |
| 121             | WAITING          |
| 122             | RECEPTION        |
| 123             | ADMIN            |
| 124             | STOR             |
| 126             | FIRE PUMP        |
| 127             | WORKRM / STOR    |
| 128             | ELEC             |
| 129             | GROUP THERAPY    |
| 130             | STOR             |
| 131A            | ELEC             |
| 131B            | TELEHEALTH       |
| 132             | STAIR B          |
| 133             | OFFICE           |
| 134             | OFFICE           |
| 135             | CORR             |
| 136             | OFFICE           |
| 137             | OFFICE           |
| 138             | OFFICE           |
| 139             | OFFICE           |
| 140             | OFFICE           |
| 141             | OFFICE           |
| 142             | OFFICE           |
| 143             | OFFICE           |
| 144             | OFFICE           |
| 145             | OFFICE           |
| 146             | OFFICE           |
| 147             | GROUP THERAPY    |
| 148             | STOR             |
| 149             | HAC              |
| 150             | OFFICE           |
| 151             | LOUNGE           |
| 152             | RR               |
| 153             | CLOSET           |
| 154             | ELEVATOR CAR 1   |
| 155             | ELEVATOR CAR 2   |
| 156             | TEMP VESTIBULE   |



**F4** ELECTRICAL LIGHTING CONTROLS RCP - LEVEL 1  
1/8" = 1'-0"

[illegible]

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VA FORM 08-6231

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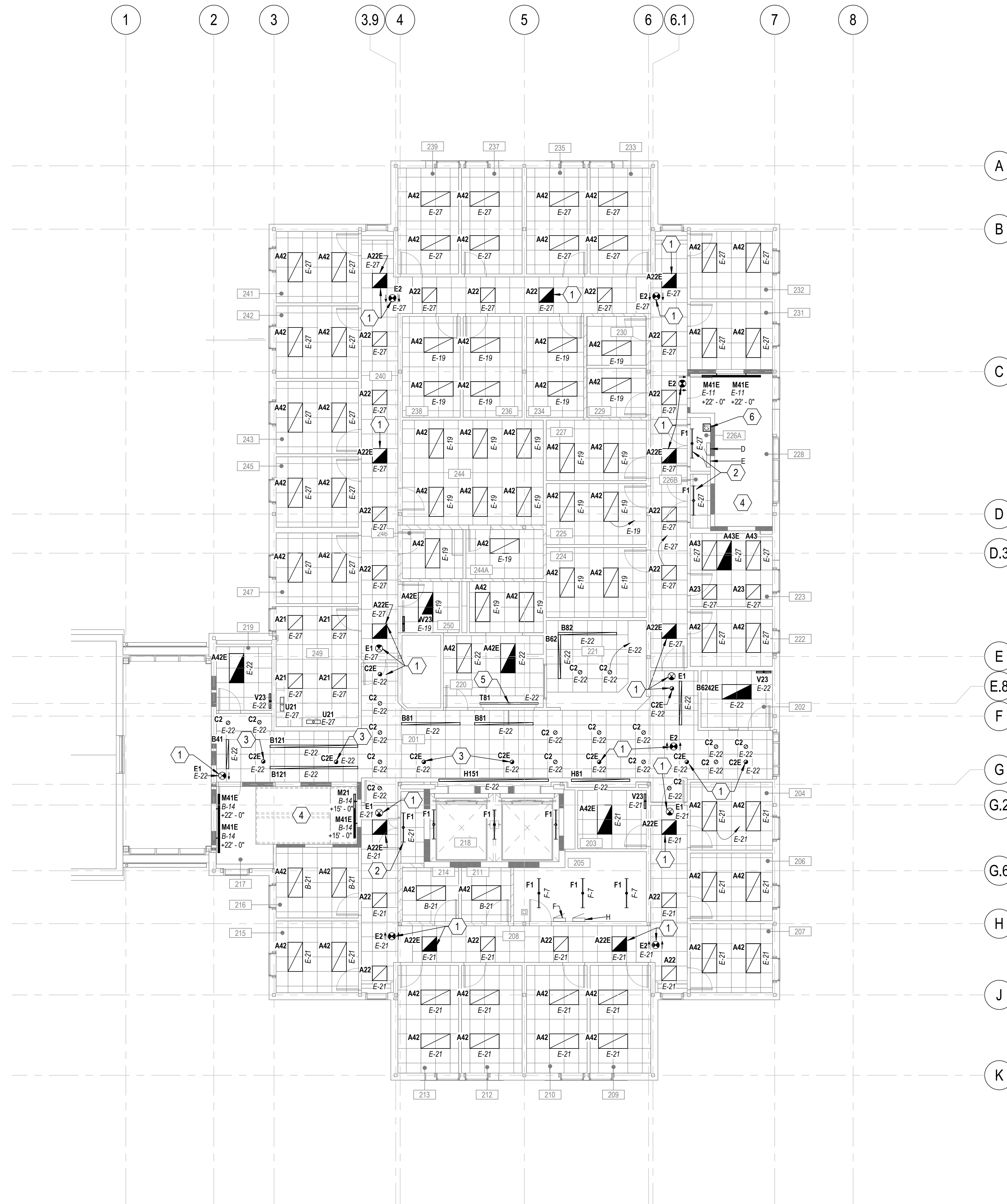
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9

10



| ROOM NUMBER KEY |                         |
|-----------------|-------------------------|
| NUMBER          | NAME                    |
| 201             | CORR                    |
| 202             | RR                      |
| 203             | RR                      |
| 204             | OFFICE                  |
| 205             | COMM / EHRM             |
| 206             | OFFICE                  |
| 207             | OFFICE                  |
| 208             | CORRIDOR                |
| 209             | OFFICE                  |
| 210             | OFFICE                  |
| 211             | STOR                    |
| 212             | OFFICE                  |
| 213             | OFFICE                  |
| 214             | MED ROOM                |
| 215             | OFFICE                  |
| 216             | OFFICE                  |
| 217             | STAIR A                 |
| 218             | ELEV                    |
| 219             | RR                      |
| 220             | RECEPTION / WORKSTATION |
| 221             | WAITING                 |
| 222             | PHARM D                 |
| 223             | GENERAL TREATMENT       |
| 224             | WORK ROOM               |
| 225             | FLEX OFFICE             |
| 226A            | ELEC                    |
| 226B            | TELEHEALTH              |
| 227             | OFFICE                  |
| 228             | STAIR B                 |
| 229             | CLEAN LINEN             |
| 230             | SOILED LINEN            |
| 231             | OFFICE                  |
| 232             | OFFICE                  |
| 233             | OFFICE                  |
| 234             | OFFICE                  |
| 235             | OFFICE                  |
| 236             | OFFICE                  |
| 237             | OFFICE                  |
| 238             | OFFICE                  |
| 239             | OFFICE                  |
| 240             | CORRIDOR                |
| 241             | OFFICE                  |
| 242             | OFFICE                  |
| 243             | OFFICE                  |
| 244             | CONF ROOM               |
| 244A            | STOR                    |
| 245             | OFFICE                  |
| 246             | HAC                     |
| 247             | OFFICE                  |
| 248             | CLOSET                  |
| 249             | STAFF LOUNGE            |
| 250             | RR                      |



| PANEL NAMES |            |             |
|-------------|------------|-------------|
| PANEL ID    | PANEL NAME | ROOM NUMBER |
| A           | 52A-N1A-1  | 128         |
| B           | 52A-N1A-2  | 128         |
| C           | 52A-N1B-1  | 109         |
| D           | 52A-N2A-1  | 226A        |
| E           | 52A-N2A-2  | 226A        |
| F           | 52A-N2B-1  | 205         |
| G           | 52A-N1B-2  | 109         |
| H           | 52A-N2B-2  | 205         |

**CONTRACT DOCUMENTS SUBMISSION**  
**FULLY SPRINKLERED**

|         |                    |            |              |                                                                                                         |                                                                                       |                                                                                       |                                   |                    |                                                     |                         |
|---------|--------------------|------------|--------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------|--------------------|-----------------------------------------------------|-------------------------|
| 0       | 100% BID DOCUMENTS | 05/26/2023 | CONSULTANTS: | ARCHITECT/ENGINEERS:                                                                                    | STAMP:                                                                                |  | Drawing Title                     | Phase              | Project Title                                       | Project Number          |
|         |                    |            |              |                    |  |                                                                                       | ELECTRICAL LIGHTING RCP - LEVEL 2 | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH OUTPATIENT BLDG 52 ADDITION | 437-316                 |
|         |                    |            |              | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 550-6307<br>WWW.VALHALLAENGINEERING.COM | VEG 21.05                                                                             |                                                                                       | Approved: Project Director        |                    | Location<br>2101 ELM STREET, FARGO, ND 58102        | Building Number<br>52   |
|         |                    |            |              |                                                                                                         |                                                                                       |                                                                                       |                                   |                    | Issue Date<br>05/26/2023                            | Checked<br>RA           |
|         |                    |            |              |                                                                                                         |                                                                                       |                                                                                       |                                   |                    | Drawn<br>JEE                                        | Drawing Number<br>EL121 |
|         |                    |            |              |                                                                                                         |                                                                                       |                                                                                       |                                   |                    |                                                     | DWG 165 of 188          |
| Number: | Revisions:         | Date:      |              |                                                                                                         |                                                                                       |                                                                                       |                                   |                    |                                                     |                         |



| ROOM NUMBER KEY |                         |  |
|-----------------|-------------------------|--|
| NUMBER          | NAME                    |  |
| 201             | CORR                    |  |
| 202             | RR                      |  |
| 203             | RR                      |  |
| 204             | OFFICE                  |  |
| 205             | COMM / EHRM             |  |
| 206             | OFFICE                  |  |
| 207             | OFFICE                  |  |
| 208             | CORRIDOR                |  |
| 209             | OFFICE                  |  |
| 210             | OFFICE                  |  |
| 211             | STOR                    |  |
| 212             | OFFICE                  |  |
| 213             | OFFICE                  |  |
| 214             | MED ROOM                |  |
| 215             | OFFICE                  |  |
| 216             | OFFICE                  |  |
| 217             | STAIR A                 |  |
| 218             | ELEV                    |  |
| 219             | RR                      |  |
| 220             | RECEPTION / WORKSTATION |  |
| 221             | WAITING                 |  |
| 222             | PHARM D                 |  |
| 223             | GENERAL TREATMENT       |  |
| 224             | WORK ROOM               |  |
| 225             | FLEX OFFICE             |  |
| 226A            | ELEC                    |  |
| 226B            | TELEHEALTH              |  |
| 227             | OFFICE                  |  |
| 228             | STAIR B                 |  |
| 229             | CLEAN LINEN             |  |
| 230             | SOILED LINEN            |  |
| 231             | OFFICE                  |  |
| 232             | OFFICE                  |  |
| 233             | OFFICE                  |  |
| 234             | OFFICE                  |  |
| 235             | OFFICE                  |  |
| 236             | OFFICE                  |  |
| 237             | OFFICE                  |  |
| 238             | OFFICE                  |  |
| 239             | OFFICE                  |  |
| 240             | CORRIDOR                |  |
| 241             | OFFICE                  |  |
| 242             | OFFICE                  |  |
| 243             | OFFICE                  |  |
| 244             | CONF ROOM               |  |
| 244A            | STOR                    |  |
| 245             | OFFICE                  |  |
| 246             | HAC                     |  |
| 247             | OFFICE                  |  |
| 248             | CLOSET                  |  |
| 249             | STAFF LOUNGE            |  |
| 250             | RR                      |  |

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GENERAL NOTES

- A. ALL LIGHTING CONTROL POWER PACKS SHALL BE MOUNTED NEAR DOOR ABOVE THE CEILING IN ROOMS WITH ACCESSIBLE CEILINGS UNLESS OTHERWISE NOTED. MOUNT POWER PACKS IN A FLUSH MOUNTED BOX IN ROOMS WITH INACCESSIBLE CEILING. POWER PACK TAGGING SHALL BE PROVIDED AS SPECIFIED IN SECTION 26 0923.
- B. MAINTAIN 4'-0" RECOMMENDED MANUFACTURER CLEARANCE BETWEEN OCCUPANCY SENSOR AND MECHANICAL DIFFUSERS FOR PROPER OCCUPANCY SENSOR FUNCTION. FIELD COORDINATE.
- C. COORDINATE LIGHTING CONTROL DEVICE LOCATIONS WITH INTERIOR FEATURES AND FURNISHINGS TO ASSURE READY ACCESS AND PROPER SENSOR PERFORMANCE.
- D. ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.

KEYNOTES

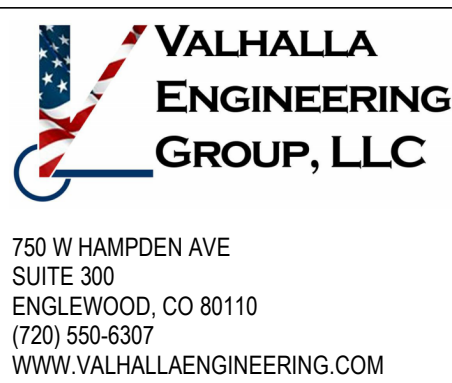
1. GENERAL LIGHTING IN ALL CORRIDORS AND WAITING ROOMS ON THIS LEVEL TO BE CONTROLLED VIA CONTRACTOR #C2. (ROOM #201, 208, 221, AND 240.)
2. LIGHTING IN THE STAIRWELL TO BE CONTROLLED WITH INTEGRAL OCCUPANCY SENSOR MOUNTED IN LIGHT FIXTURES.
3. LIGHT FIXTURES IN STAIRWELLS TO BE CONNECTED TO UNSWITCHED PORTION OF CIRCUIT.
4. 4 POLE LIGHTING CONTACTOR #C2 TO CONTROL ALL LIGHTING LOCATED IN SECOND LEVEL CORRIDORS AND WAITING ROOMS. 3 POLES OF THE CONTACTOR TO BE SET TO NORMALLY OPEN AND ONE CONTACTOR TO BE SET TO NORMALLY CLOSED.

CONTRACT DOCUMENTS SUBMISSION  
FULLY SPRINKLERED

|         |                    |            |
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| 0       | 100% BID DOCUMENTS | 05/26/2023 |
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|         |                    |            |
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| Number: | Revisions:         | Date:      |

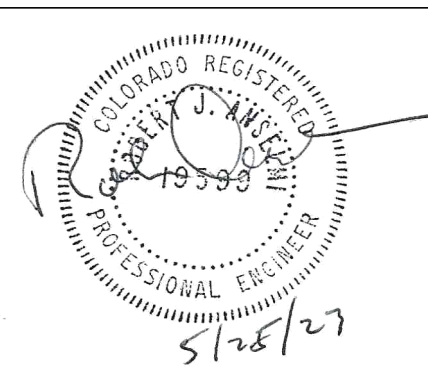
CONSULTANTS:

ARCHITECT/ENGINEERS:



VEG 21.05

STAMP:



Drawing Title  
ELECTRICAL LIGHTING CONTROLS  
RCP - LEVEL 2

Approved: Project Director

Phase  
100% BID DOCUMENTS

Project Title  
CONSTRUCT MENTAL HEALTH  
OUTPATIENT BLDG 52 ADDITION

Location  
2101 ELM STREET, FARGO, ND 58102

Issue Date  
05/26/2023

Checked  
RA

Drawn  
JEE

Project Number  
437-316

Building Number  
52

Drawing Number  
EL122

DWG 166 of 188





**CONTRACT DOCUMENTS SUBMISSION**  
**FULLY SPRINKLERED**

|       |                |
|-------|----------------|
|       | Drawing Number |
| Drawn | EL131          |
| JEE   | DWG 167 of 188 |



## GENERAL NOTES

ELECTRICAL SITE WORK PHASING PLAN.

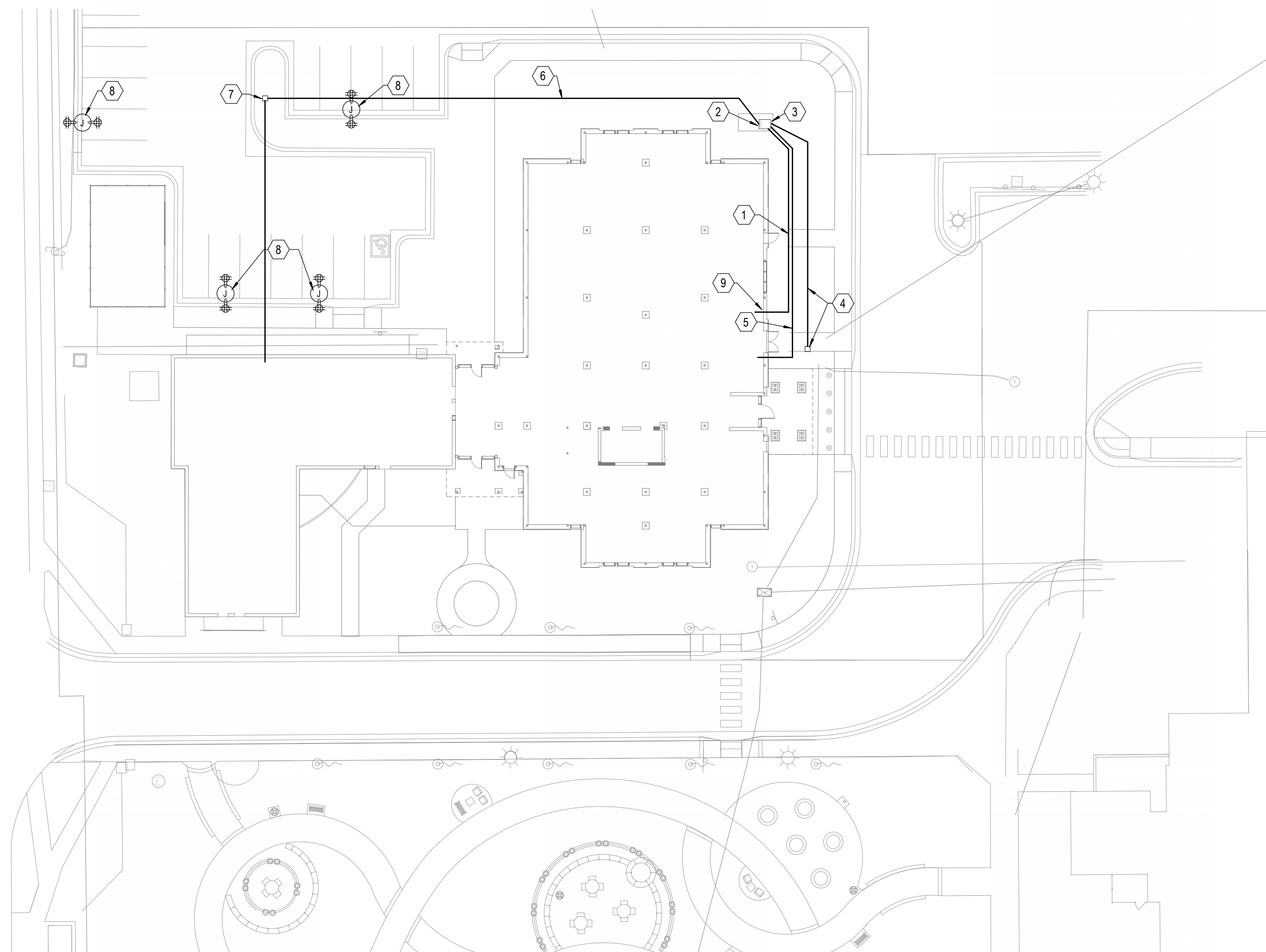
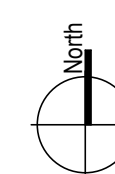
- A. INSTALL NEW 750 KVA UTILITY TRANSFORMER.
- B. PROVIDE CONDUCTORS AND RACEWAY BACKFEEDING EXISTING BUILDING 52 FROM NEW TRANSFORMER TO BUILDING 52.
- C. PROVIDE CONDUCTORS AND RACEWAY FROM NEW TRANSFORMER TO BUILDING 52A AND DISTRIBUTION EQUIPMENT.
- D. PROVIDE CONDUCTORS AND RACEWAY FROM NEW TRANSFORMER TO FIRE PUMP EQUIPMENT.
- E. ONCE NEW RACEWAY AND CONDUCTORS ARE PLACED, SCHEDULE A WEEKEND OUTAGE AND TRANSITION FROM EXISTING TO NEW.
- F. REMOVE EXISTING DISTRIBUTION AS REQUIRED.
- G. NOT ALL UTILITIES ARE SHOWN FOR CLARITY. REFER TO DRAWING CU101 FOR EXISTING UTILITIES.



1. PROVIDE NEW SECONDARY FEEDERS FROM NEW TRANSFORMER TO NEW MDP.
2. LOCATION FOR NEW 750KVA TRANSFORMER. PROVIDE NEW PAD. REFERENCE ELECTRICAL DETAILS FOR TRANSFORMER PAD SIZING. PROVIDE MEDIUM VOLTAGE WIRING AND SPLICE BACK AT MANHOLE. VERIFY EXACT LOCATION AND REQUIREMENTS WITH CIVIL AND LANDSCAPING DRAWINGS.
3. CONNECT NEW TRANSFORMER TO EXISTING SITE UTILITY FEED. PROVIDE SPLICES AS REQUIRED.
4. NEW 18"x18"x12" SPLICE BOX. INTERCEPT EXISTING 300 KVA TRANSFORMER PRIMARY FEEDERS AND EXTEND TO NEW TRANSFORMER LOCATION.
5. ELECTRICAL FEED TO NEW FIRE PUMP. REFER TO SHEETS EP111 AND E-602 FOR MORE INFORMATION.
6. EXTEND NEW FEEDER TO BUILDING 52. NEW FEEDER TO MATCH EXISTING. VERIFY EXACT LOCATION AND ROUTING WITH VA PRIOR TO ROUGH-IN. REMOVE TEMPORARY GENERATOR AFTER FINAL CONNECTIONS MADE TO REFEED BUILDING 52.
7. NEW 18"x18"x12" SPLICE BOX.
8. NEW LOCATION FOR EXISTING I-BEAM WITH WEATHERPROOF GFCI RECEPTACLES REMOVED DURING DEMOLITION. EXTEND EXISTING CIRCUITRY PROTECTED DURING DEMOLITION TO NEW LOCATION. REFER TO DEMOLITION ELECTRICAL SITE PLAN, SHEET ED102, FOR MORE INFORMATION.
9. COORDINATE WITH FOUNDATION WORK AND STEEL ERECTION FOR CONCRETE ENCASED ELECTRODE AND OTHER GROUNDING REQUIREMENTS. REFER TO ONE-LINE DIAGRAM, E-500 SHEET SERIES DETAILS, AND SPECIFICATIONS.

**CONTRACT DOCUMENTS SUBMISSION**  
**FULLY SPRINKLERED**

|                                                                                |                      |                     |                                                  |  |
|--------------------------------------------------------------------------------|----------------------|---------------------|--------------------------------------------------|--|
| <b>Project Title</b><br>CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION |                      |                     | <b>Project Number</b><br>437-316                 |  |
| <b>Location</b><br>2101 ELM STREET, FARGO, ND 58102                            |                      |                     | <b>Building Number</b><br>52                     |  |
| <b>Issue Date</b><br>05/26/2023                                                | <b>Checked</b><br>RA | <b>Drawn</b><br>MLS | <b>Drawing Number</b><br>EP101<br>DWG 168 of 188 |  |


$$1'' = 20'-0''$$
$$1'' = 20'-0''$$


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| 0              | 100% BID DOCUMENTS | 05/26/2023   |
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|                |                    |              |
| <b>Number:</b> | <b>Revisions:</b>  | <b>Date:</b> |

CONSULTANTS:

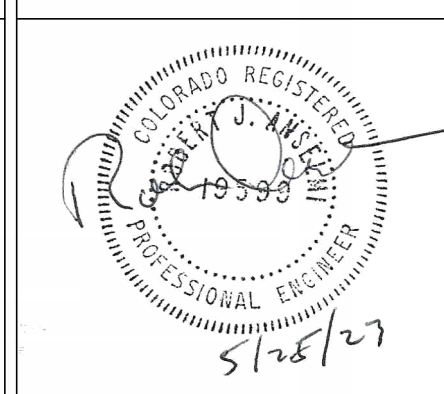
ARCHITECT/ENGINEERS:



750 W HAMPDEN AVE  
SUITE 300  
ENGLEWOOD, CO 80110  
(720) 550-6307  
WWW.VALHALLAENGINEERING.COM

VEG 21.05

STAMP:

U.S. Department  
of Veterans Affairs

|  |               |
|--|---------------|
|  | Drawing Title |
|--|---------------|

ELECTRICAL POWER SITE PLAN

Approved: Project Director

|     | Phase     |
|-----|-----------|
| 1   | Phase 1   |
| 2   | Phase 2   |
| 3   | Phase 3   |
| 4   | Phase 4   |
| 5   | Phase 5   |
| 6   | Phase 6   |
| 7   | Phase 7   |
| 8   | Phase 8   |
| 9   | Phase 9   |
| 10  | Phase 10  |
| 11  | Phase 11  |
| 12  | Phase 12  |
| 13  | Phase 13  |
| 14  | Phase 14  |
| 15  | Phase 15  |
| 16  | Phase 16  |
| 17  | Phase 17  |
| 18  | Phase 18  |
| 19  | Phase 19  |
| 20  | Phase 20  |
| 21  | Phase 21  |
| 22  | Phase 22  |
| 23  | Phase 23  |
| 24  | Phase 24  |
| 25  | Phase 25  |
| 26  | Phase 26  |
| 27  | Phase 27  |
| 28  | Phase 28  |
| 29  | Phase 29  |
| 30  | Phase 30  |
| 31  | Phase 31  |
| 32  | Phase 32  |
| 33  | Phase 33  |
| 34  | Phase 34  |
| 35  | Phase 35  |
| 36  | Phase 36  |
| 37  | Phase 37  |
| 38  | Phase 38  |
| 39  | Phase 39  |
| 40  | Phase 40  |
| 41  | Phase 41  |
| 42  | Phase 42  |
| 43  | Phase 43  |
| 44  | Phase 44  |
| 45  | Phase 45  |
| 46  | Phase 46  |
| 47  | Phase 47  |
| 48  | Phase 48  |
| 49  | Phase 49  |
| 50  | Phase 50  |
| 51  | Phase 51  |
| 52  | Phase 52  |
| 53  | Phase 53  |
| 54  | Phase 54  |
| 55  | Phase 55  |
| 56  | Phase 56  |
| 57  | Phase 57  |
| 58  | Phase 58  |
| 59  | Phase 59  |
| 60  | Phase 60  |
| 61  | Phase 61  |
| 62  | Phase 62  |
| 63  | Phase 63  |
| 64  | Phase 64  |
| 65  | Phase 65  |
| 66  | Phase 66  |
| 67  | Phase 67  |
| 68  | Phase 68  |
| 69  | Phase 69  |
| 70  | Phase 70  |
| 71  | Phase 71  |
| 72  | Phase 72  |
| 73  | Phase 73  |
| 74  | Phase 74  |
| 75  | Phase 75  |
| 76  | Phase 76  |
| 77  | Phase 77  |
| 78  | Phase 78  |
| 79  | Phase 79  |
| 80  | Phase 80  |
| 81  | Phase 81  |
| 82  | Phase 82  |
| 83  | Phase 83  |
| 84  | Phase 84  |
| 85  | Phase 85  |
| 86  | Phase 86  |
| 87  | Phase 87  |
| 88  | Phase 88  |
| 89  | Phase 89  |
| 90  | Phase 90  |
| 91  | Phase 91  |
| 92  | Phase 92  |
| 93  | Phase 93  |
| 94  | Phase 94  |
| 95  | Phase 95  |
| 96  | Phase 96  |
| 97  | Phase 97  |
| 98  | Phase 98  |
| 99  | Phase 99  |
| 100 | Phase 100 |

100% BID DOCUMENTS

| Project Title | Project Manager | Project Status | Project Start Date | Project End Date | Project Budget | Project Description   |
|---------------|-----------------|----------------|--------------------|------------------|----------------|-----------------------|
| Project A     | John Doe        | Completed      | 2023-01-01         | 2023-03-31       | \$100,000      | Project A Description |
| Project B     | Jane Smith      | In Progress    | 2023-04-01         | 2023-06-30       | \$200,000      | Project B Description |
| Project C     | Mike Johnson    | On Hold        | 2023-07-01         | 2023-09-30       | \$150,000      | Project C Description |
| Project D     | Sarah Brown     | Planned        | 2023-10-01         | 2023-12-31       | \$300,000      | Project D Description |

CONSTRUCT MENTAL HEALTH  
OUTPATIENT BLDG 52 ADDITION

|  |                 |
|--|-----------------|
|  |                 |
|  | <b>Location</b> |

2101 ELM STREET

Issue Date

05/00/2000

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|         |    |
|---------|----|
| Checked | DA |
|---------|----|

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|   |       |    |
|---|-------|----|
| 2 | Drawn | MI |
|---|-------|----|

|                |         |
|----------------|---------|
| Project Number | 437-316 |
|----------------|---------|

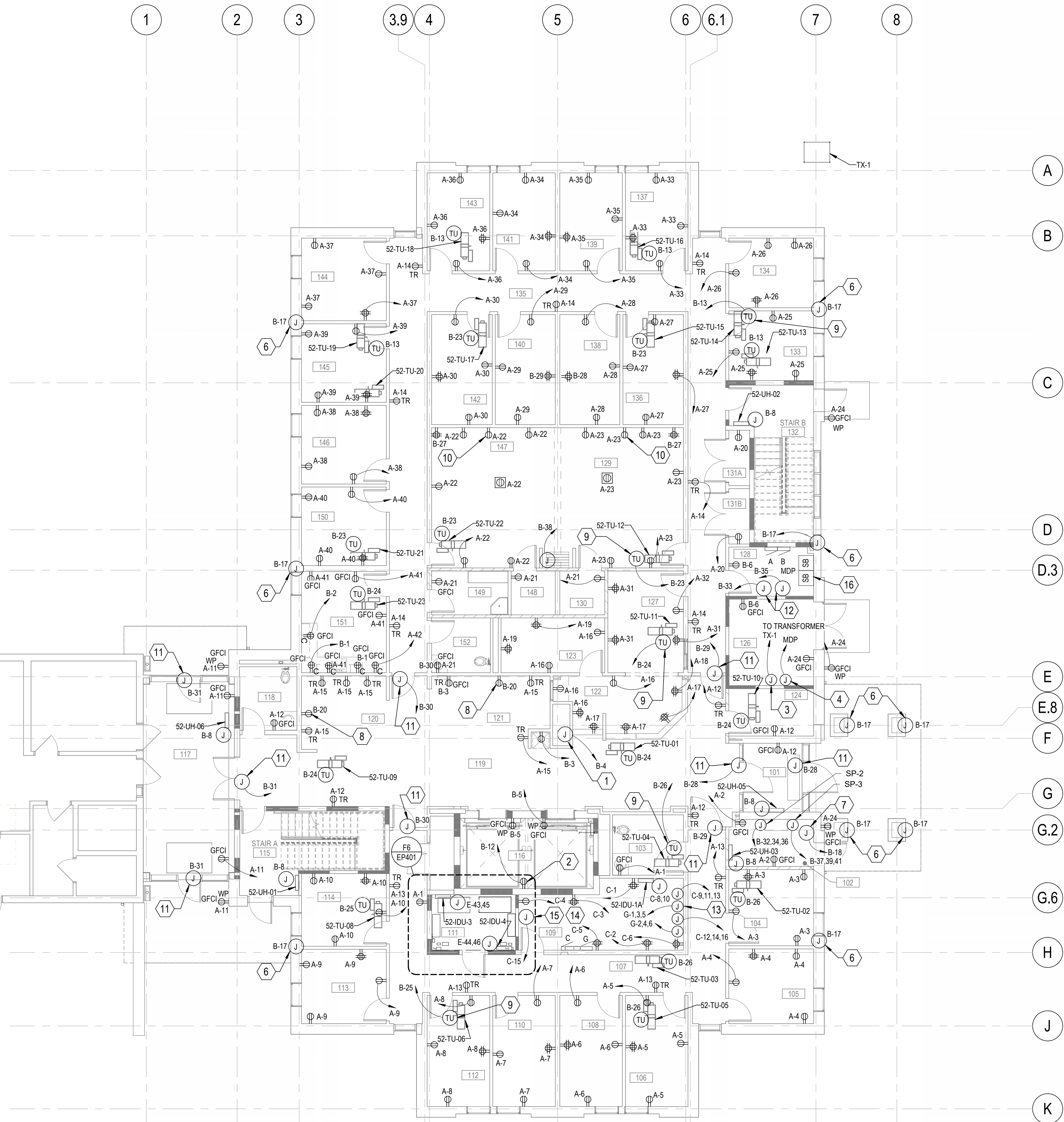
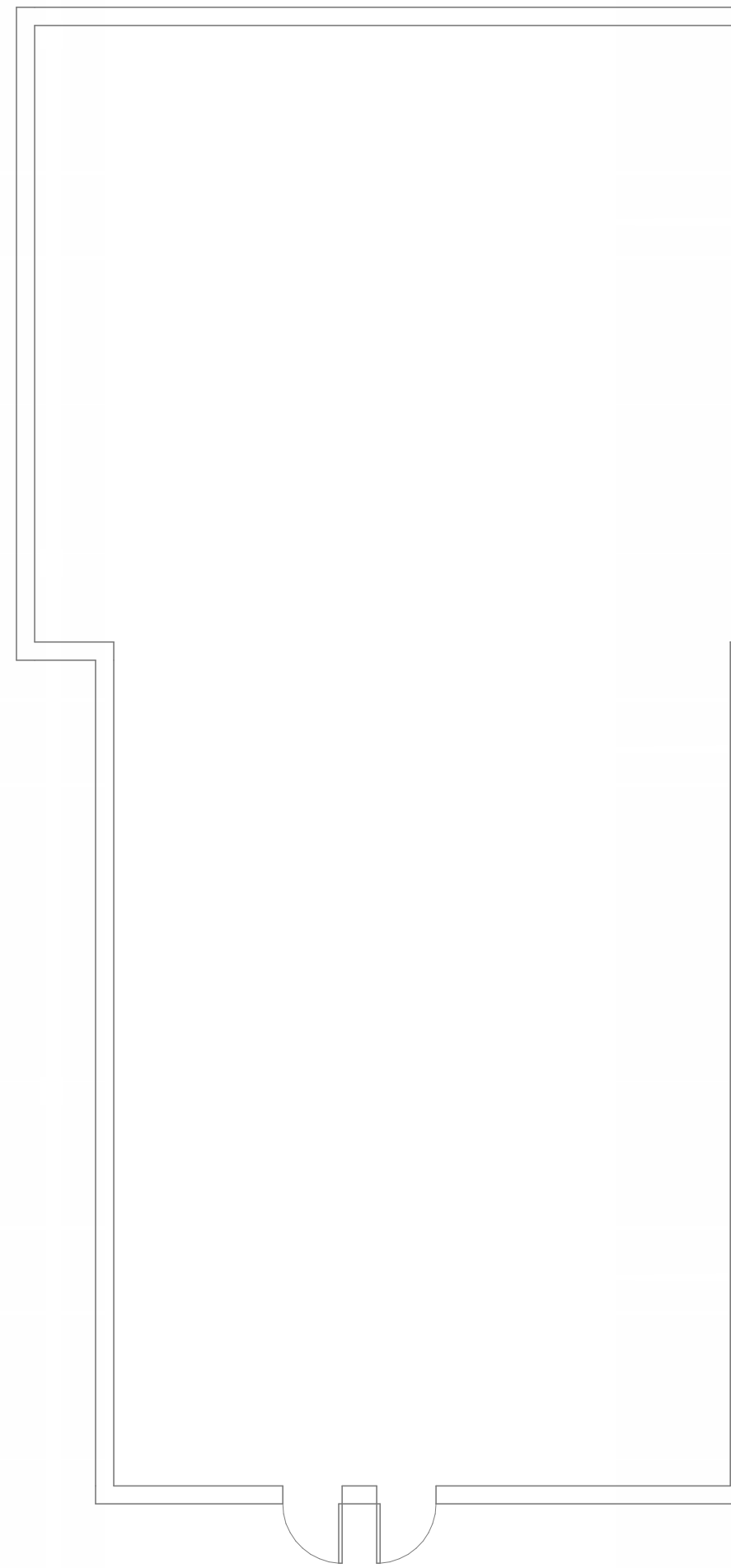
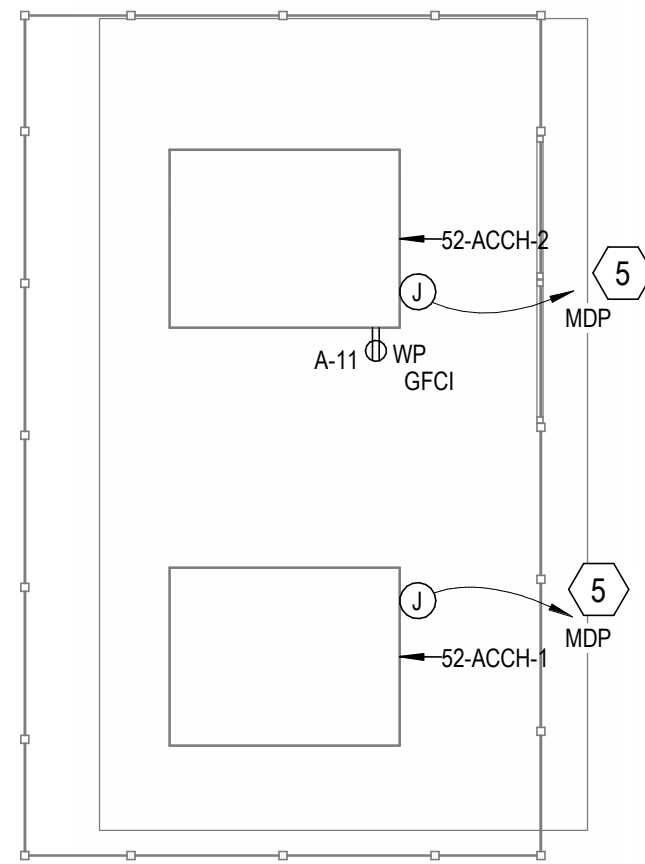
|                 |    |
|-----------------|----|
| Building Number | 52 |
|-----------------|----|

|  |                       |
|--|-----------------------|
|  |                       |
|  | <b>Drawing Number</b> |

EP101



| ROOM NUMBER KEY |                  |
|-----------------|------------------|
| NUMBER          | NAME             |
| 101             | VESTIBULE        |
| 102             | MECH             |
| 103             | BARIATRIC RR     |
| 104             | BARIATRIC OFFICE |
| 105             | OFFICE           |
| 106             | OFFICE           |
| 107             | CORR             |
| 108             | OFFICE           |
| 109             | COMM / EHRM      |
| 110             | OFFICE           |
| 111             | ELEV. EQUIP.     |
| 112             | OFFICE           |
| 113             | OFFICE           |
| 114             | OFFICE           |
| 115             | STAIR A          |
| 116             | ELEV             |
| 117             | VESTIBULE        |
| 118             | RR               |
| 119             | CORR             |
| 120             | WAITING          |
| 121             | WAITING          |
| 122             | RECEPTION        |
| 123             | ADMIN            |
| 124             | STOR             |
| 126             | FIRE PUMP        |
| 127             | WORKRM / STOR    |
| 128             | ELEC             |
| 129             | GROUP THERAPY    |
| 130             | STOR             |
| 131A            | ELEC             |
| 131B            | TELEHEALTH       |
| 132             | STAIR B          |
| 133             | OFFICE           |
| 134             | OFFICE           |
| 135             | CORR             |
| 136             | OFFICE           |
| 137             | OFFICE           |
| 138             | OFFICE           |
| 139             | OFFICE           |
| 140             | OFFICE           |
| 141             | OFFICE           |
| 142             | OFFICE           |
| 143             | OFFICE           |
| 144             | OFFICE           |
| 145             | OFFICE           |
| 146             | OFFICE           |
| 147             | GROUP THERAPY    |
| 148             | STOR             |
| 149             | HAC              |
| 150             | OFFICE           |
| 151             | LOUNGE           |
| 152             | RR               |
| 153             | CLOSET           |
| 154             | ELEVATOR CAR 1   |
| 155             | ELEVATOR CAR 2   |
| 156             | TEMP VESTIBULE   |



- ### KEYNOTES
1. PROVIDE POWER FEED TO SIDE ROLL ROLL-UP GATE. VERIFY EXACT LOCATION AND REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
  2. PROVIDE POWER FEED TO SUMP PUMP CONTROLLER. VERIFY EXACT LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
  3. POWER FEED TO FIRE PUMP CONTROLLER. REFER TO ONE-LINE DIAGRAM, SHEET E-602, FOR MORE INFORMATION.
  4. POWER FEED TO JOCKEY PUMP CONTROLLER.
  5. ROUTE ELECTRICAL FEEDER CONDUIT THROUGH SAME TRENCH AS MECHANICAL PIPING.
  6. PROVIDE POWER CONNECTION TO HEAT TRACE FOR OVERFLOW PIPING AT WALL PENETRATION. VERIFY EXACT LOCATION AND REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
  7. PROVIDE POWER CONNECTION TO HEAT TRACE CONTROL PANEL. VERIFY EXACT LOCATION AND REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
  8. PROVIDE RECESSED CLOCK TYPE RECEPTACLE AT 60" AFF FOR TELEVISION. VERIFY EXACT LOCATION AND REQUIREMENTS WITH VA PRIOR TO ROUGH-IN.
  9. PROVIDE 100VA, 120/24V CONTROL TRANSFORMER TO SERVE VAVS. CIRCUIT TRANSFORMER AS INDICATED ON MECHANICAL CONNECTION SCHEDULE. REFER TO SHEET E-601. COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATION OF VAVS TO CREATE MOST EFFECTIVE PATHWAYS.
  10. PROVIDE RECESSED CLOCK TYPE RECEPTACLE AT 96" AFF FOR TELEVISION. VERIFY EXACT LOCATION AND REQUIREMENTS WITH VA PRIOR TO ROUGH-IN.
  11. PROVIDE POWER CONNECTION TO DOOR OPERATOR. VERIFY EXACT LOCATION AND REQUIREMENTS WITH DOOR SUPPLIER AND VA PRIOR TO ROUGH-IN.
  12. PROVIDE POWER CONNECTION TO FIRE ALARM POWER SUPPLY. VERIFY EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT SUPPLIER/INSTALLER.
  13. PROVIDE POWER CONNECTION TO IT RACK. MOUNT JUNCTION BOX AT +96" AFF. VERIFY EXACT LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. TYPICAL FOR 4.
  14. PROVIDE GROUNDING FOR THE STATIC DISSIPATIVE FLOORING. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
  15. PROVIDE POWER FEED TO ACCESS CONTROL PANELS. VERIFY EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT SUPPLIER.
  16. COORDINATE WITH STRUCTURAL.

| PANEL NAMES |            |             |
|-------------|------------|-------------|
| PANEL ID    | PANEL NAME | ROOM NUMBER |
| A           | 52A-N1A-1  | 128         |
| B           | 52A-N1A-2  | 128         |
| C           | 52A-N1B-1  | 109         |
| D           | 52A-N2A-1  | 226A        |
| E           | 52A-N2A-2  | 226A        |
| F           | 52A-N2B-1  | 205         |
| G           | 52A-N1B-2  | 109         |
| H           | 52A-N2B-2  | 205         |

### CONTRACT DOCUMENTS SUBMISSION FULLY SPRINKLERED

|         |                    |            |              |                                                                                             |                                     |                                 |                    |                                                     |                      |
|---------|--------------------|------------|--------------|---------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------|--------------------|-----------------------------------------------------|----------------------|
| 0       | 100% BID DOCUMENTS | 05/26/2023 | CONSULTANTS: | ARCHITECT/ENGINEERS:                                                                        | STAMP:                              | Drawing Title                   | Phase              | Project Title                                       | Project Number       |
|         |                    |            |              | VALHALLA ENGINEERING GROUP, LLC                                                             | U.S. Department of Veterans Affairs | ELECTRICAL POWER PLAN - LEVEL 1 | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH OUTPATIENT BLDG 52 ADDITION | 437-316              |
|         |                    |            |              | 750 W HAMPODEN AVE SUITE 300 ENGLEWOOD, CO 80110 (720) 550-6307 WWW.VALHALLAENGINEERING.COM |                                     | Approved: Project Director      |                    | Location 2101 ELM STREET, FARGO, ND 58102           | Building Number 52   |
| Number: | Revisions:         | Date:      |              |                                                                                             |                                     |                                 |                    | Issue Date 05/26/2023                               | Drawing Number EP111 |
|         |                    |            |              |                                                                                             |                                     |                                 |                    | Checked RA                                          | DWG 169 of 188       |
|         |                    |            |              |                                                                                             |                                     |                                 |                    | Drawn KEG                                           |                      |



| ROOM NUMBER KEY |                         |
|-----------------|-------------------------|
| NUMBER          | NAME                    |
| 201             | CORR                    |
| 202             | RR                      |
| 203             | RR                      |
| 204             | OFFICE                  |
| 205             | COMM / EHRM             |
| 206             | OFFICE                  |
| 207             | OFFICE                  |
| 208             | CORRIDOR                |
| 209             | OFFICE                  |
| 210             | OFFICE                  |
| 211             | STOR                    |
| 212             | OFFICE                  |
| 213             | OFFICE                  |
| 214             | MED ROOM                |
| 215             | OFFICE                  |
| 216             | OFFICE                  |
| 217             | STAIR A                 |
| 218             | ELEV                    |
| 219             | RR                      |
| 220             | RECEPTION / WORKSTATION |
| 221             | WAITING                 |
| 222             | PHARM D                 |
| 223             | GENERAL TREATMENT       |
| 224             | WORK ROOM               |
| 225             | FLEX OFFICE             |
| 226A            | ELEC                    |
| 226B            | TELEHEALTH              |
| 227             | OFFICE                  |
| 228             | STAIR B                 |
| 229             | CLEAN LINEN             |
| 230             | SOILED LINEN            |
| 231             | OFFICE                  |
| 232             | OFFICE                  |
| 233             | OFFICE                  |
| 234             | OFFICE                  |
| 235             | OFFICE                  |
| 236             | OFFICE                  |
| 237             | OFFICE                  |
| 238             | OFFICE                  |
| 239             | OFFICE                  |
| 240             | CORRIDOR                |
| 241             | OFFICE                  |
| 242             | OFFICE                  |
| 243             | OFFICE                  |
| 244             | CONF ROOM               |
| 244A            | STOR                    |
| 245             | OFFICE                  |
| 246             | HAC                     |
| 247             | OFFICE                  |
| 248             | CLOSET                  |
| 249             | STAFF LOUNGE            |
| 250             | RR                      |

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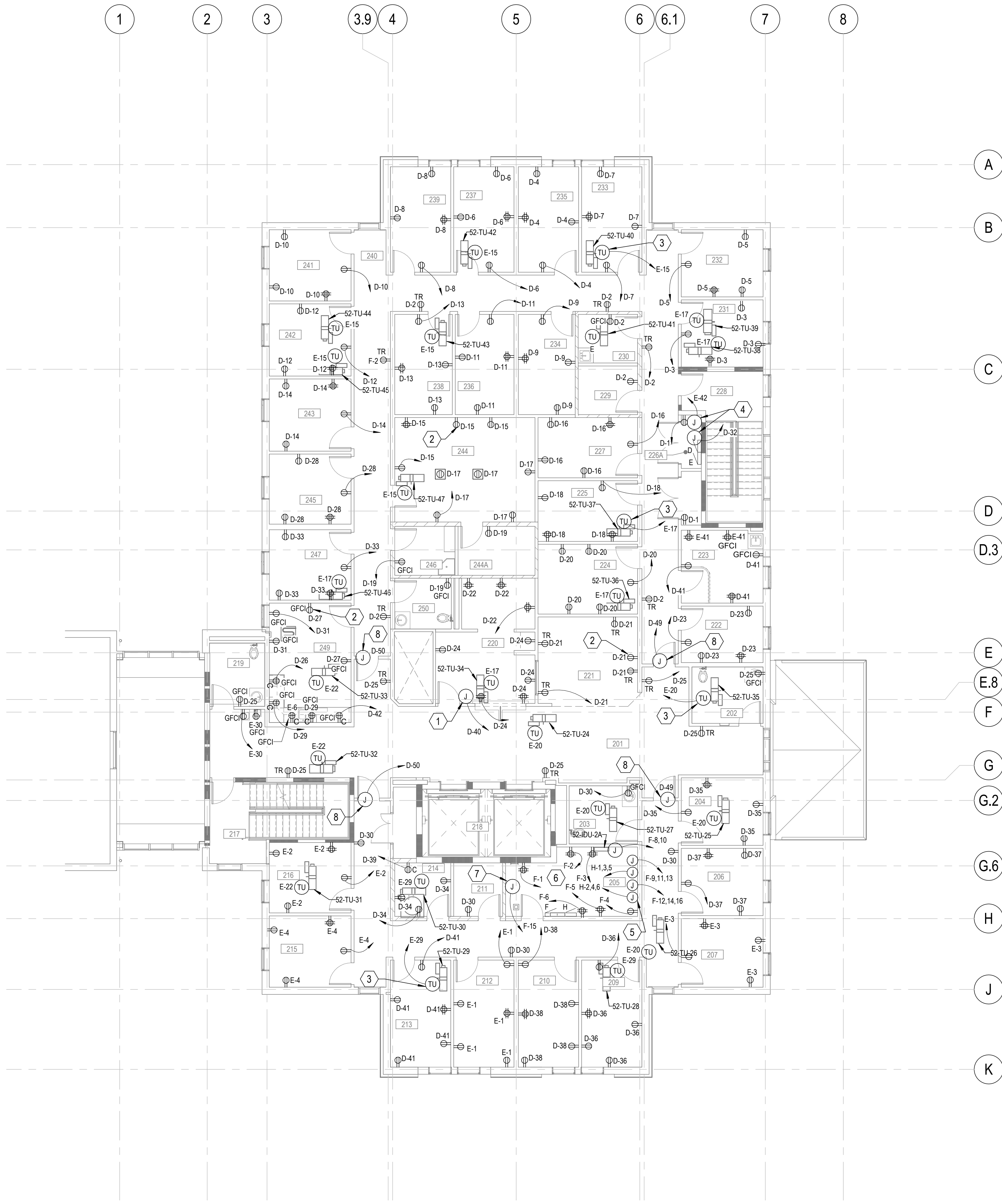
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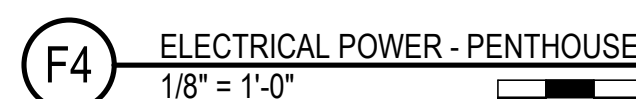
| PANEL NAMES |            |             |
|-------------|------------|-------------|
| PANEL ID    | PANEL NAME | ROOM NUMBER |
| A           | 52A-N1A-1  | 128         |
| B           | 52A-N1A-2  | 128         |
| C           | 52A-N1B-1  | 109         |
| D           | 52A-N2A-1  | 226A        |
| E           | 52A-N2A-2  | 226A        |
| F           | 52A-N2B-1  | 205         |
| G           | 52A-N1B-2  | 109         |
| H           | 52A-N2B-2  | 205         |

- ### KEYNOTES
- PROVIDE POWER FEED TO ROLL-UP GATE. VERIFY EXACT LOCATION AND REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
  - PROVIDE RECESSED CLOCK TYPE RECEPTACLE AT 60" AFF FOR TELEVISION. VERIFY EXACT LOCATION AND REQUIREMENTS WITH VA PRIOR TO ROUGH-IN.
  - PROVIDE 100VA, 120/24V CONTROL TRANSFORMER TO SERVE VAVS. CIRCUIT TRANSFORMER AS INDICATED ON MECHANICAL CONNECTION SCHEDULE. REFER TO SHEET E-601. COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATION OF VAVS TO CREATE MOST EFFECTIVE PATHWAYS.
  - PROVIDE POWER CONNECTION TO FIRE ALARM POWER SUPPLY. VERIFY EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT SUPPLIER/INSTALLER.
  - PROVIDE POWER CONNECTION TO IT RACK. MOUNT JUNCTION BOX AT +96" AFF. VERIFY EXACT LOCATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. TYPICAL FOR 4.
  - PROVIDE GROUNDING FOR THE STATIC DISSIPATIVE FLOORING. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
  - PROVIDE POWER FEED TO ACCESS CONTROL PANELS. VERIFY EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT SUPPLIER.
  - PROVIDE POWER FEED TO ACCESS CONTROL PANELS. VERIFY EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT SUPPLIER.

### CONTRACT DOCUMENTS SUBMISSION FULLY SPRINKLERED

|   |                    |            |              |                                                                                                         |                                        |                                    |                    |                                                        |                 |
|---|--------------------|------------|--------------|---------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------|--------------------|--------------------------------------------------------|-----------------|
| 0 | 100% BID DOCUMENTS | 05/26/2023 | CONSULTANTS: | ARCHITECT/ENGINEERS:                                                                                    | STAMP:                                 | Drawing Title                      | Phase              | Project Title                                          | Project Number  |
|   |                    |            |              | VALHALLA<br>ENGINEERING<br>GROUP, LLC                                                                   | U.S. Department<br>of Veterans Affairs | ELECTRICAL POWER PLAN - LEVEL<br>2 | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION | 437-316         |
|   |                    |            |              | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 560-6307<br>WWW.VALHALLAENGINEERING.COM |                                        | Approved: Project Director         |                    | Location                                               | Building Number |
|   |                    |            |              |                                                                                                         |                                        |                                    |                    | 2101 ELM STREET, FARGO, ND 58102                       | 52              |
|   |                    |            |              |                                                                                                         |                                        |                                    |                    | Issue Date                                             | Drawing Number  |
|   |                    |            |              |                                                                                                         |                                        |                                    |                    | 05/26/2023                                             | EP121           |
|   |                    |            |              |                                                                                                         |                                        |                                    |                    | Checked                                                | DWG 170 of 188  |
|   |                    |            |              |                                                                                                         |                                        |                                    |                    | RA                                                     |                 |
|   |                    |            |              |                                                                                                         |                                        |                                    |                    | Drawn                                                  |                 |
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CONSULTANTS:

ARCHITECT/ENGINEERS:

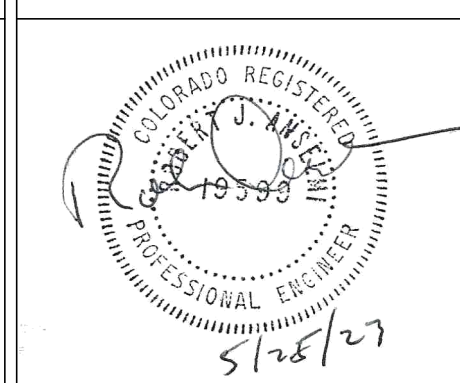


VALHALLA  
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VEG 21.05

STAMP:



U.S. Department  
of Veterans Affairs

|  | Drawing Title |
|--|---------------|
|--|---------------|

ELECTRICAL POWER PLAN -  
PENTHOUSE

Approved: Project Director

|     | Phase     |
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| 1   | Phase 1   |
| 2   | Phase 2   |
| 3   | Phase 3   |
| 4   | Phase 4   |
| 5   | Phase 5   |
| 6   | Phase 6   |
| 7   | Phase 7   |
| 8   | Phase 8   |
| 9   | Phase 9   |
| 10  | Phase 10  |
| 11  | Phase 11  |
| 12  | Phase 12  |
| 13  | Phase 13  |
| 14  | Phase 14  |
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| 100 | Phase 100 |

100% BID DOCUMENTS

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|  | <b>Project Title</b> |
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CONSTRUCT MENTAL HEALTH  
OUTPATIENT BLDG 52 ADDITION

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|  |          |
|  | Location |

2101 ELM STREET, F  
Issue Date  
05/26/2023

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| Project Number |
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437-316

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| Building Number | 52 |
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|  | <b>Drawing Number</b> |

EP131  
DWG 171 of 18



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TELECOM UTILITY NOTES

- A. INSTALL NEW REDUNDANT INDOOR/OUTDOOR 24 STRAND FIBER OPTIC BACKBONE AND COPPER TELECOMMUNICATIONS FROM BUILDING 1 MCR. CROSS CONNECT TO BUILDING 52A 1ST FLOOR TR. A-RING AND B-RING FIBER TO FOLLOW DIVERSE CAMPUS PATHWAYS FROM BUILDING ENTRANCE POINTS AT MINIMUM 50' SEPERATION.
- B. CONTRACTOR TO COORDINATE WITH CAMPUS WIDE EHRM UPGRADE PROJECT.

KEYNOTES

1. A-RING FIBER.
2. B-RING FIBER.
3. MANHOLES PROVIDED BY SEPARATE EHRM INFRASTRUCTURE PROJECT.

CONTRACT DOCUMENTS SUBMISSION  
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CONSULTANTS:

ARCHITECT/ENGINEERS:

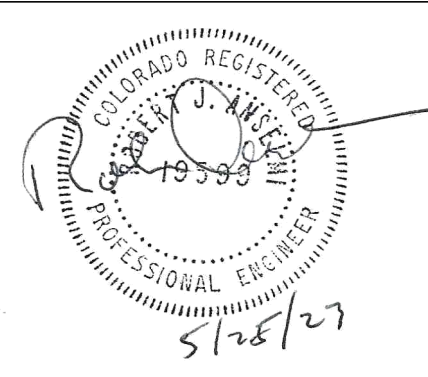


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of Veterans Affairs

Drawing Title  
ELECTRICAL TELECOM SITE PLAN

Approved: Project Director

Phase  
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Project Title  
CONSTRUCT MENTAL HEALTH  
OUTPATIENT BLDG 52 ADDITION

Location  
2101 ELM STREET, FARGO, ND 58102

Issue Date  
05/26/2023

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Project Number  
437-316  
Building Number  
52

Drawing Number  
ET101  
DWG 172 of 188



A

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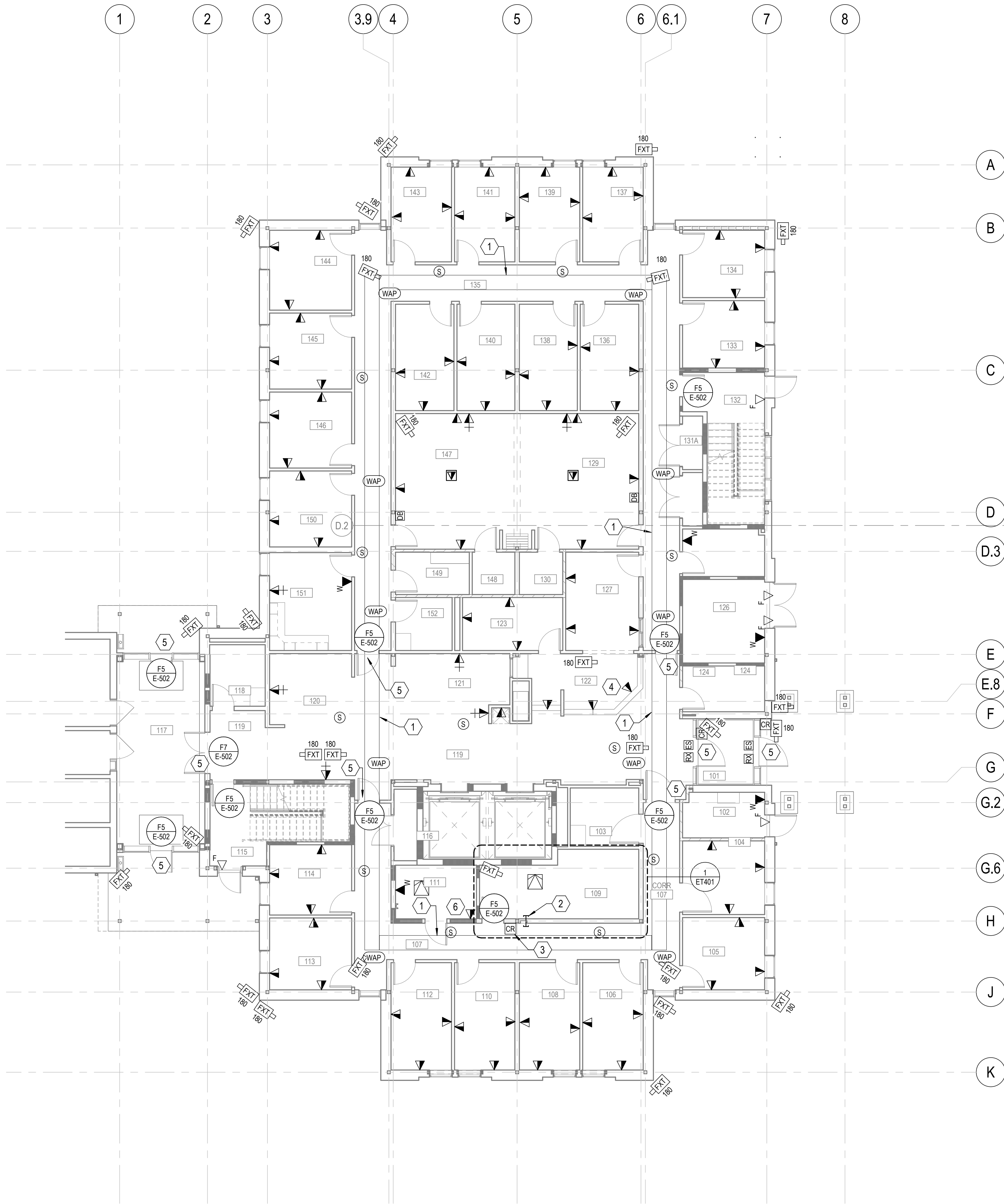
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ROOM NUMBER KEY

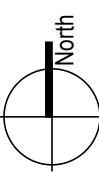
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|--------|------------------|
| 101    | VESTIBULE        |
| 102    | MECH             |
| 103    | BARIATRIC RR     |
| 104    | BARIATRIC OFFICE |
| 105    | OFFICE           |
| 106    | OFFICE           |
| 107    | CORR             |
| 108    | OFFICE           |
| 109    | COMM / EHRM      |
| 110    | OFFICE           |
| 111    | ELEV. EQUIP.     |
| 112    | OFFICE           |
| 113    | OFFICE           |
| 114    | OFFICE           |
| 115    | STAIR A          |
| 116    | ELEV             |
| 117    | VESTIBULE        |
| 118    | RR               |
| 119    | CORR             |
| 120    | WAITING          |
| 121    | WAITING          |
| 122    | RECEPTION        |
| 123    | ADMIN            |
| 124    | STOR             |
| 126    | FIRE PUMP        |
| 127    | WORKRM / STOR    |
| 128    | ELEC             |
| 129    | GROUP THERAPY    |
| 130    | STOR             |
| 131A   | ELEC             |
| 131B   | TELEHEALTH       |
| 132    | STAIR B          |
| 133    | OFFICE           |
| 134    | OFFICE           |
| 135    | CORR             |
| 136    | OFFICE           |
| 137    | OFFICE           |
| 138    | OFFICE           |
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| 142    | OFFICE           |
| 143    | OFFICE           |
| 144    | OFFICE           |
| 145    | OFFICE           |
| 146    | OFFICE           |
| 147    | GROUP THERAPY    |
| 148    | STOR             |
| 149    | HAC              |
| 150    | OFFICE           |
| 151    | LOUNGE           |
| 152    | RR               |
| 153    | CLOSET           |
| 154    | ELEVATOR CAR 1   |
| 155    | ELEVATOR CAR 2   |
| 156    | TEMP VESTIBULE   |



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ELECTRICAL TELECOM PLAN - LEVEL 1  
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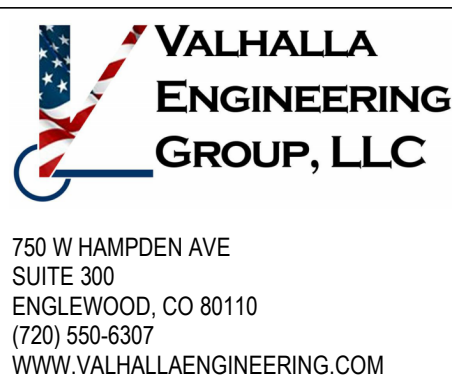
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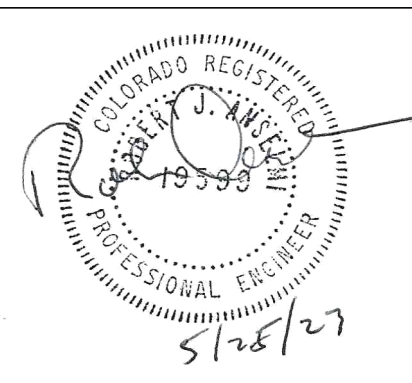
CONSULTANTS:

ARCHITECT/ENGINEERS:



VEG 21.05

STAMP:



U.S. Department  
of Veterans Affairs

Drawing Title

ELECTRICAL TELECOM PLAN -  
LEVEL 1

Approved: Project Director

Phase

100% BID DOCUMENTS

Project Title

CONSTRUCT MENTAL HEALTH  
OUTPATIENT BLDG 52 ADDITION

Location

2101 ELM STREET, FARGO, ND 58102

Issue Date

05/26/2023

Checked

MD

Drawn

KEG

Project Number

437-316

Building Number

52

Drawing Number

ET111

DWG 173 of 188

GENERAL NOTES

- EXTERIOR CAMERA MOUNTING HEIGHTS SHALL BE 10'-0" ABOVE FINISHED GRADE UNLESS NOTED OTHERWISE. COORDINATE FINAL MOUNTING HEIGHT WITH VA COR. PROVIDE EXTERIOR CAMERAS TO WITHSTAND ENVIROMENT INCLUDING ADEQUATE POWER TO ANY REQUIRED HEATER.
- CONTRACTOR TO CONDUCT PREDICTIVE SURVEY FOR WIRELESS ACCESS POINT LOCATIONS AND INSTALL CABLING TO LOCATIONS TO ENSURE FULL WIFI COVERAGE OF FACILITY. COORDINATE WITH VA OIT.

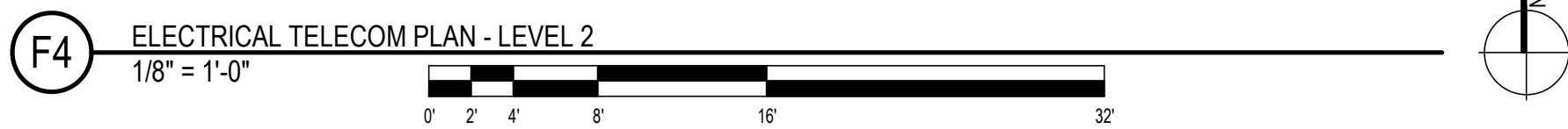
KEYNOTES

- 18"x4" WIRE BASKET TRAY.
- FOUR (4) 4" (FOUR INCH) FIRE RATED MECHANICAL SLEEVES. HEIGHT TO MATCH BASKET TRAY IN HALLWAY.
- DUAL AUTHENTICATION KEYPAD/CARDREADER.
- INDIVIDUAL RELEASE BUTTONS LOCATED AT RECEPTION DESK TO RELEASE AND ACTIVATE DOOR AUTO-OPENER (SEE KEYNOTE 5), ONE PER DOOR.
- RELEASE AND ACTIVATION OF DOOR AUTO-OPENER TO BE ACTIVATED BY CARD READER, PIV VALIDATION, OR REMOTE CONTROLLED AT RECEPTION DESK (SEE KEYNOTE 4).
- COORDINATE LOCATION WITH ELEVATOR EQUIPMENT.

CONTRACT DOCUMENTS SUBMISSION  
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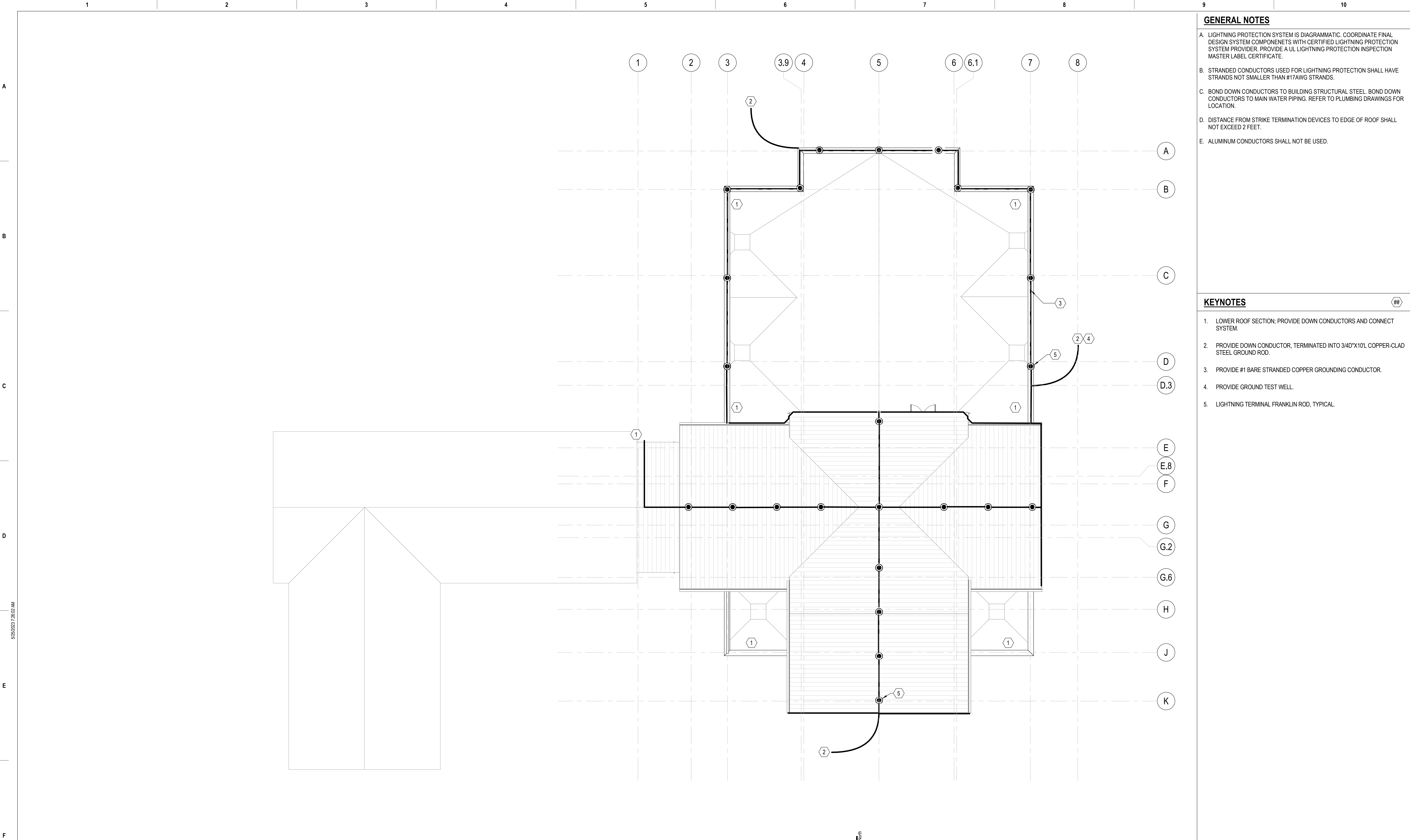


A. CONTRACTOR TO CONDUCT PREDICTIVE SURVEY FOR WIRELESS ACCESS POINT LOCATIONS AND INSTALL CABLING TO LOCATIONS TO ENSURE FULL WIFI COVERAGE OF FACILITY. COORDINATE WITH VA OIT.

1. 18"x4" WIRE BASKET TRAY.
2. FOUR (4) 4" (FOUR INCH) FIRE RATED MECHANICAL SLEEVES. HEIGHT TO MATCH BASKET TRAY IN HALLWAY.
3. DUAL AUTHENTICATION KEYPAD/CARDREADER.
4. INDIVIDUAL RELEASE BUTTONS LOCATED AT RECEPTION DESK TO RELEASE AND ACTIVATE DOOR AUTO-OPENER (SEE KEYNOTE 3), ONE PER DOOR.
5. RELEASE AND ACTIVATION OF DOOR AUTO-OPENER TO BE ACTIVATED BY CARD READER, PIN VALIDATION, OR REMOTE CONTROLLED AT RECEPTION DESK (SEE KEYNOTE 4).

|                                                                                |                      |                     |                                  |  |
|--------------------------------------------------------------------------------|----------------------|---------------------|----------------------------------|--|
| <b>Project Title</b><br>CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION |                      |                     | <b>Project Number</b><br>437-316 |  |
| <b>Location</b><br>2101 ELM STREET, FARGO, ND 58102                            |                      |                     | <b>Drawing Number</b><br>52      |  |
| <b>Issue Date</b><br>05/26/2023                                                | <b>Checked</b><br>MD | <b>Drawn</b><br>MLS | ET121<br>DWG 174 of 188          |  |



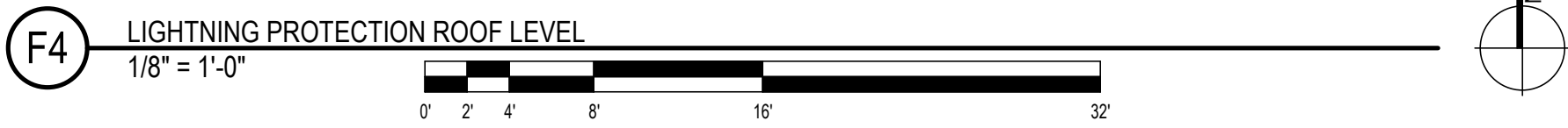


GENERAL NOTES

- A. LIGHTNING PROTECTION SYSTEM IS DIAGRAMMATIC. COORDINATE FINAL DESIGN SYSTEM COMPONENTS WITH CERTIFIED LIGHTNING PROTECTION SYSTEM PROVIDER. PROVIDE A UL LIGHTNING PROTECTION INSPECTION MASTER LABEL CERTIFICATE.
- B. STRANDED CONDUCTORS USED FOR LIGHTNING PROTECTION SHALL HAVE STRANDS NOT SMALLER THAN #17AWG STRANDS.
- C. BOND DOWN CONDUCTORS TO BUILDING STRUCTURAL STEEL. BOND DOWN CONDUCTORS TO MAIN WATER PIPING. REFER TO PLUMBING DRAWINGS FOR LOCATION.
- D. DISTANCE FROM STRIKE TERMINATION DEVICES TO EDGE OF ROOF SHALL NOT EXCEED 2 FEET.
- E. ALUMINUM CONDUCTORS SHALL NOT BE USED.

KEYNOTES

1. LOWER ROOF SECTION; PROVIDE DOWN CONDUCTORS AND CONNECT SYSTEM.
2. PROVIDE DOWN CONDUCTOR, TERMINATED INTO 3/4D"x10'L COPPER-CLAD STEEL GROUND ROD.
3. PROVIDE #1 BARE STRANDED COPPER GROUNDING CONDUCTOR.
4. PROVIDE GROUND TEST WELL.
5. LIGHTNING TERMINAL FRANKLIN ROD, TYPICAL.



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|   |                    |            |              | VALHALLA<br>ENGINEERING<br>GROUP, LLC                                                                   |                                        | LIGHTNING PROTECTION PLANS | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION | 437-316         |
|   |                    |            |              | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 550-6307<br>WWW.VALHALLAENGINEERING.COM | U.S. Department<br>of Veterans Affairs | Approved: Project Director |                    | Location                                               | Building Number |
|   |                    |            |              |                                                                                                         |                                        |                            |                    | 2101 ELM STREET, FARGO, ND 58102                       | 52              |
|   |                    |            |              |                                                                                                         |                                        |                            |                    | Issue Date                                             | Drawing Number  |
|   |                    |            |              |                                                                                                         |                                        |                            |                    | 05/26/2023                                             | EK101           |
|   |                    |            |              |                                                                                                         |                                        |                            |                    | Checked                                                | DWG 175 of 188  |
|   |                    |            |              |                                                                                                         |                                        |                            |                    | RA                                                     |                 |
|   |                    |            |              |                                                                                                         |                                        |                            |                    | Drawn                                                  |                 |
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| ARCHITECT/ENGINEERS:                                                                                                                                                                                                                                                                     |
| <div><div><div><div><div></div><div>VALHALLA</div></div><div><div>ENGINEERING</div><div>GROUP, LLC</div></div></div></div><div><div>750 W HAMPDEN AVE</div><div>SUITE 300</div><div>ENGLEWOOD, CO 80110</div><div>(720) 550-6307</div><div>WWW.VALHALLAENGINEERING.COM</div></div></div> |
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| Drawing Title                                     |
| ELECTRICAL POWER ENLARGED ELEVATOR EQUIPMENT ROOM |
| Approved: Project Director                        |

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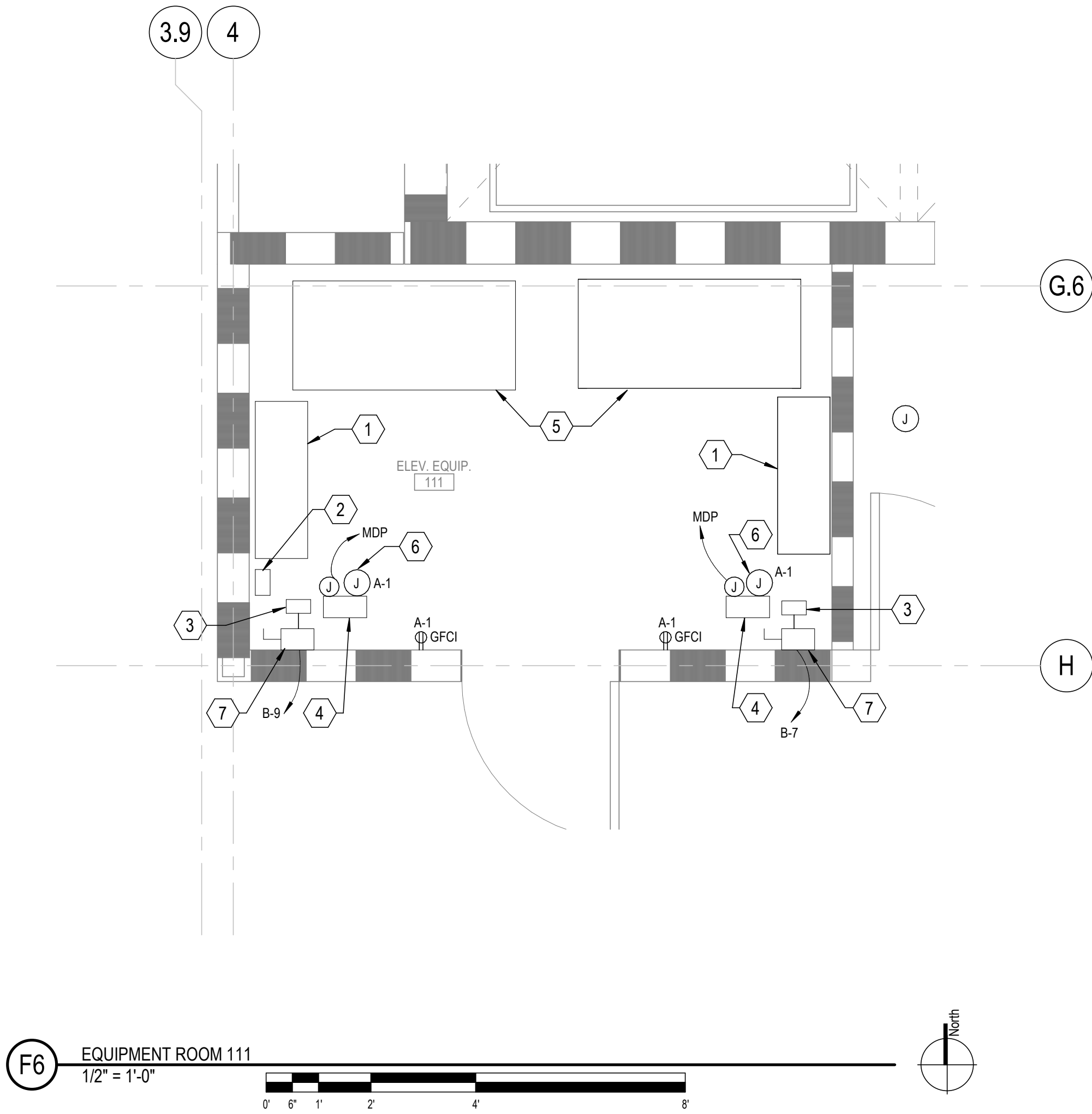
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| Project Title                                       |
| CONSTRUCT MENTAL HEALTH OUTPATIENT BLDG 52 ADDITION |
| Location                                            |
| 2101 ELM STREET, FARGO, ND 58102                    |
| Issue Date                                          |
| 05/26/2023                                          |
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| Project Number  |
| 437-316         |
| Building Number |
| 52              |
| Drawing Number  |
| EP401           |
| DWG 176 of 188  |

GENERAL NOTES

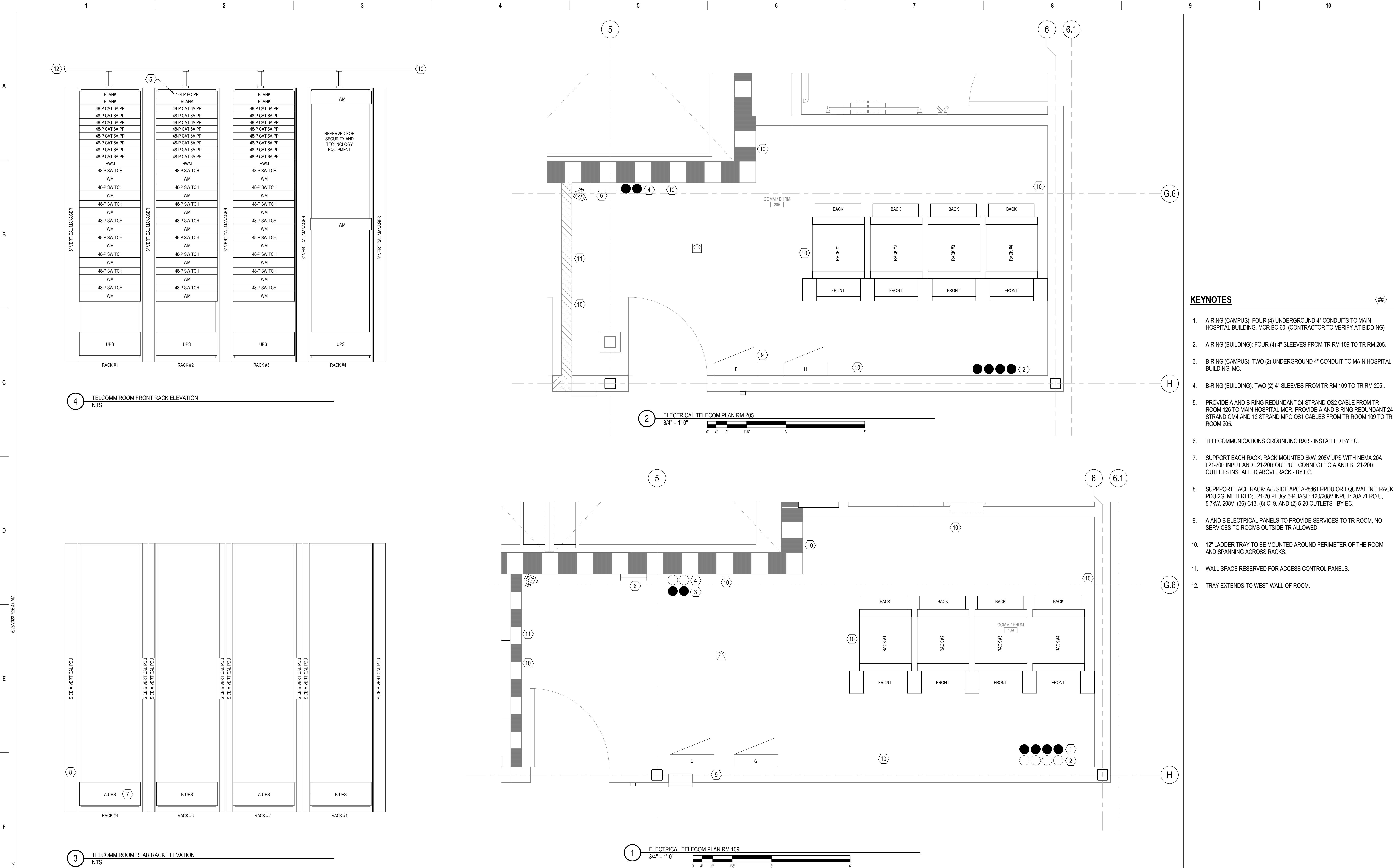
KEYNOTES

1. ELEVATOR CONTROLLER WITH INTERFACE MODULES FOR PRIMARY RECALL, ALTERNATE FLOOR RECALL, FLASHING FIRE HAT, AND SHUNT TRIP DISCONNECT.
2. FIRE PANEL/INTERFACE CONTROL MODULE.
3. CAB LIGHT SWITCH.
4. MAIN LINE SHUNT TRIP DISCONNECT.
5. POWER UNIT FOR ELEVATOR.
6. PROVIDE 120V POWER FEED TO SHUNT TRIP.
7. 30A1P FUSED DISCONNECT SWITCH WITH 20A FUSE.



CONTRACT DOCUMENTS SUBMISSION  
FULLY SPRINKLERED





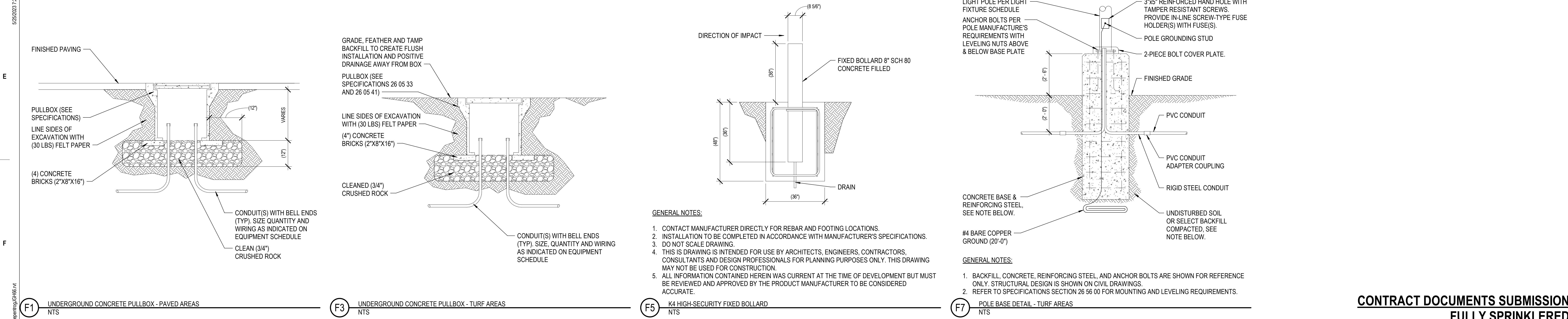
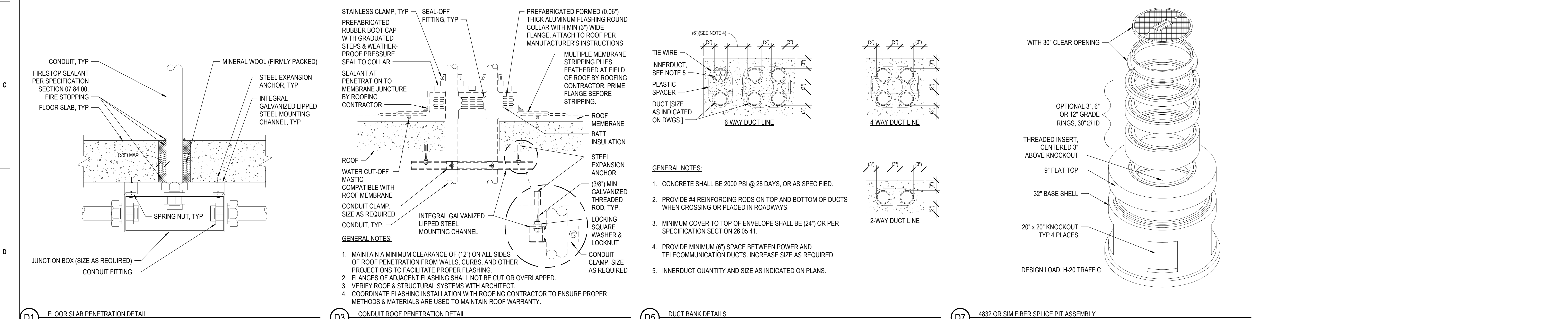
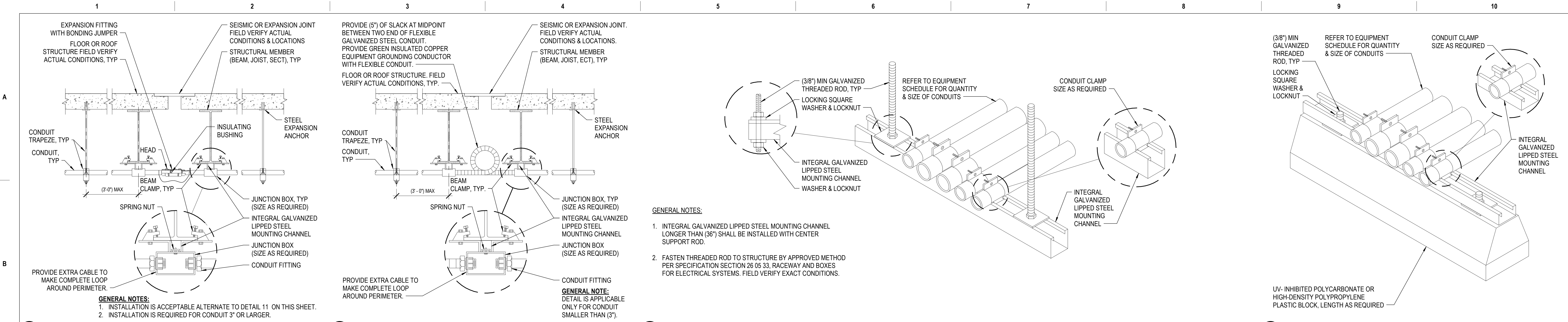
KEYNOTES

1. A-RING (CAMPUS): FOUR (4) UNDERGROUND 4" CONDUITS TO MAIN HOSPITAL BUILDING, MCR BC-60. (CONTRACTOR TO VERIFY AT BIDDING)
2. A-RING (BUILDING): FOUR (4) 4" SLEEVES FROM TR RM 109 TO TR RM 205.
3. B-RING (CAMPUS): TWO (2) UNDERGROUND 4" CONDUIT TO MAIN HOSPITAL BUILDING, MC.
4. B-RING (BUILDING): TWO (2) 4" SLEEVES FROM TR RM 109 TO TR RM 205.
5. PROVIDE A AND B RING REDUNDANT 24 STRAND OS2 CABLE FROM TR ROOM 126 TO MAIN HOSPITAL MCR. PROVIDE A AND B RING REDUNDANT 24 STRAND OM4 AND 12 STRAND MPO OS1 CABLES FROM TR ROOM 109 TO TR ROOM 205.
6. TELECOMMUNICATIONS GROUNDING BAR - INSTALLED BY EC.
7. SUPPORT EACH RACK: RACK MOUNTED 5KW, 208V UPS WITH NEMA 20A L21-20P INPUT AND L21-20R OUTPUT. CONNECT TO A AND B L21-20R OUTLETS INSTALLED ABOVE RACK - BY EC.
8. SUPPORT EACH RACK: A/B SIDE APC AP8861 RPDU OR EQUIVALENT: RACK PDU 2G, METERED; L21-20 PLUG: 3-PHASE: 120/208V INPUT: 20A ZERO U, 5.7KW, 208V, (36) C13, (6) C19, AND (2) 5-20 OUTLETS - BY EC.
9. A AND B ELECTRICAL PANELS TO PROVIDE SERVICES TO TR ROOM, NO SERVICES TO ROOMS OUTSIDE TR ALLOWED.
10. 12" LADDER TRAY TO BE MOUNTED AROUND PERIMETER OF THE ROOM AND SPANNING ACROSS RACKS.
11. WALL SPACE RESERVED FOR ACCESS CONTROL PANELS.
12. TRAY EXTENDS TO WEST WALL OF ROOM.

CONTRACT DOCUMENTS SUBMISSION  
FULLY SPRINKLERED

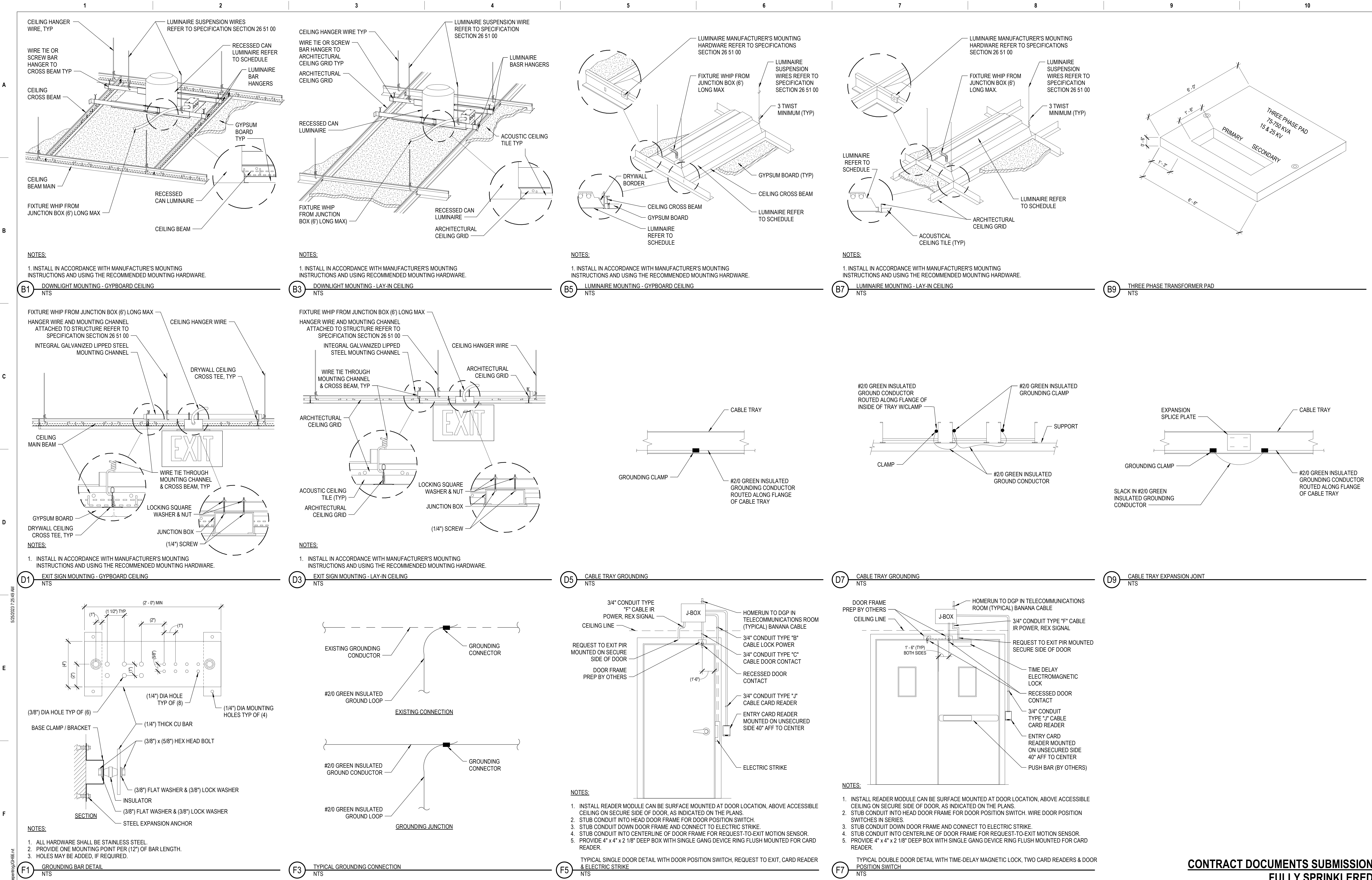
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| Number: |  | Revisions:         | Date:      |              |                      |        |                                                       |                             |                                                                         |                           |
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| 0100 BID DOCUMENTS |  | 05/26/2023 | CONSULTANTS: |  | ARCHITECT/ENGINEERS:                                                                                    |  | STAMP:                                 |  | Drawing Title<br>ELECTRICAL DETAILS |  | Phase<br>100% BID DOCUMENTS |  | Project Title<br>CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION |  | Project Number<br>437-316 |  |
|                    |  |            |              |  | VALHALLA<br>ENGINEERING<br>GROUP, LLC                                                                   |  | U.S. Department<br>of Veterans Affairs |  | Approved: Project Director          |  |                             |  | Location<br>2101 ELM STREET, FARGO, ND 58102                            |  | Building Number<br>52     |  |
|                    |  |            |              |  | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 590-6307<br>WWW.VALHALLAENGINEERING.COM |  | VEG 21.05                              |  |                                     |  |                             |  | Issue Date<br>05/26/2023                                                |  | Checked<br>RA             |  |
|                    |  |            |              |  |                                                                                                         |  |                                        |  |                                     |  |                             |  | Drawn<br>KEG                                                            |  | Drawing Number<br>E-501   |  |
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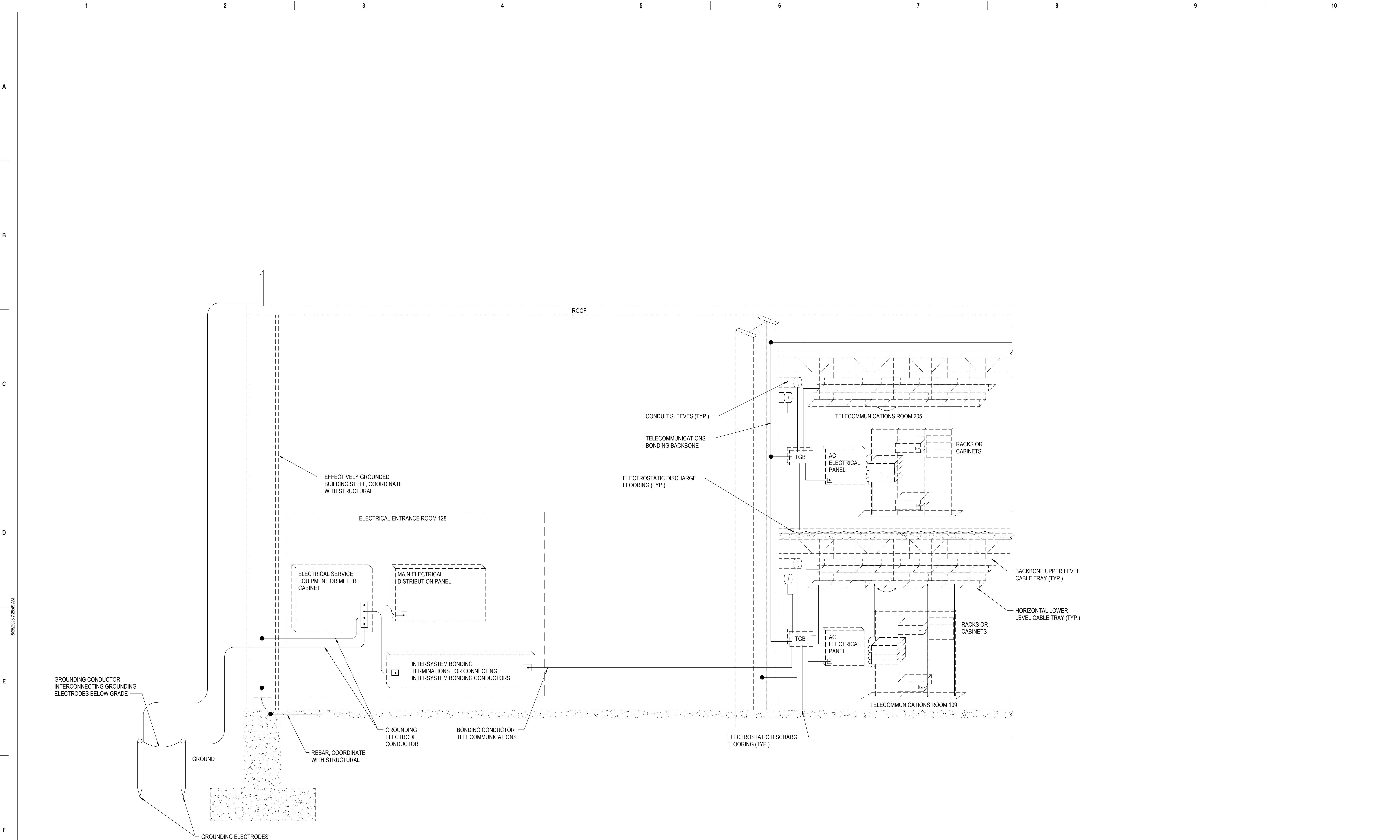
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| CONSULTANTS: |  | ARCHITECT/ENGINEERS:                                                                                    |  | STAMP:                              |  |
|              |  | VALHALLA ENGINEERING GROUP, LLC                                                                         |  | U.S. Department of Veterans Affairs |  |
|              |  | 750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 590-6307<br>WWW.VALHALLAENGINEERING.COM |  | VEG 21.05                           |  |

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| Drawing Title              |  | Phase              |  |
| ELECTRICAL DETAILS         |  | 100% BID DOCUMENTS |  |
| Approved: Project Director |  |                    |  |

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| Project Title                                       |  | Project Number  |  |
| CONSTRUCT MENTAL HEALTH OUTPATIENT BLDG 52 ADDITION |  | 437-316         |  |
| Location                                            |  | Building Number |  |
| 2101 ELM STREET, FARGO, ND 58102                    |  | 52              |  |
| Issue Date                                          |  | Drawing Number  |  |
| 05/26/2023                                          |  | E-502           |  |
| Checked                                             |  | DWG 179 of 188  |  |
| RA                                                  |  |                 |  |
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F1

TELECOMMUNICATIONS GROUNDING AND BONDING

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100% BID DOCUMENTS

05/26/2023

CONSULTANTS:

ARCHITECT/ENGINEERS:

STAMP:

VALHALLA  
ENGINEERING  
GROUP, LLC

750 W HAMPTON AVE  
SUITE 300  
ENGLEWOOD, CO 80110  
(720) 550-6307  
WWW.VALHALLAENGINEERING.COM

VEG 21.05

U.S. Department  
of Veterans Affairs

Drawing Title

ELECTRICAL DETAILS

Approved: Project Director

Phase

100% BID DOCUMENTS

Project Title

CONSTRUCT MENTAL HEALTH  
OUTPATIENT BLDG 52 ADDITION

Location

2101 ELM STREET, FARGO, ND 58102

Issue Date

05/26/2023

Checked

RA

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Project Number

437-316

Building Number

52

Drawing Number

E-503

DWG 180 of 188

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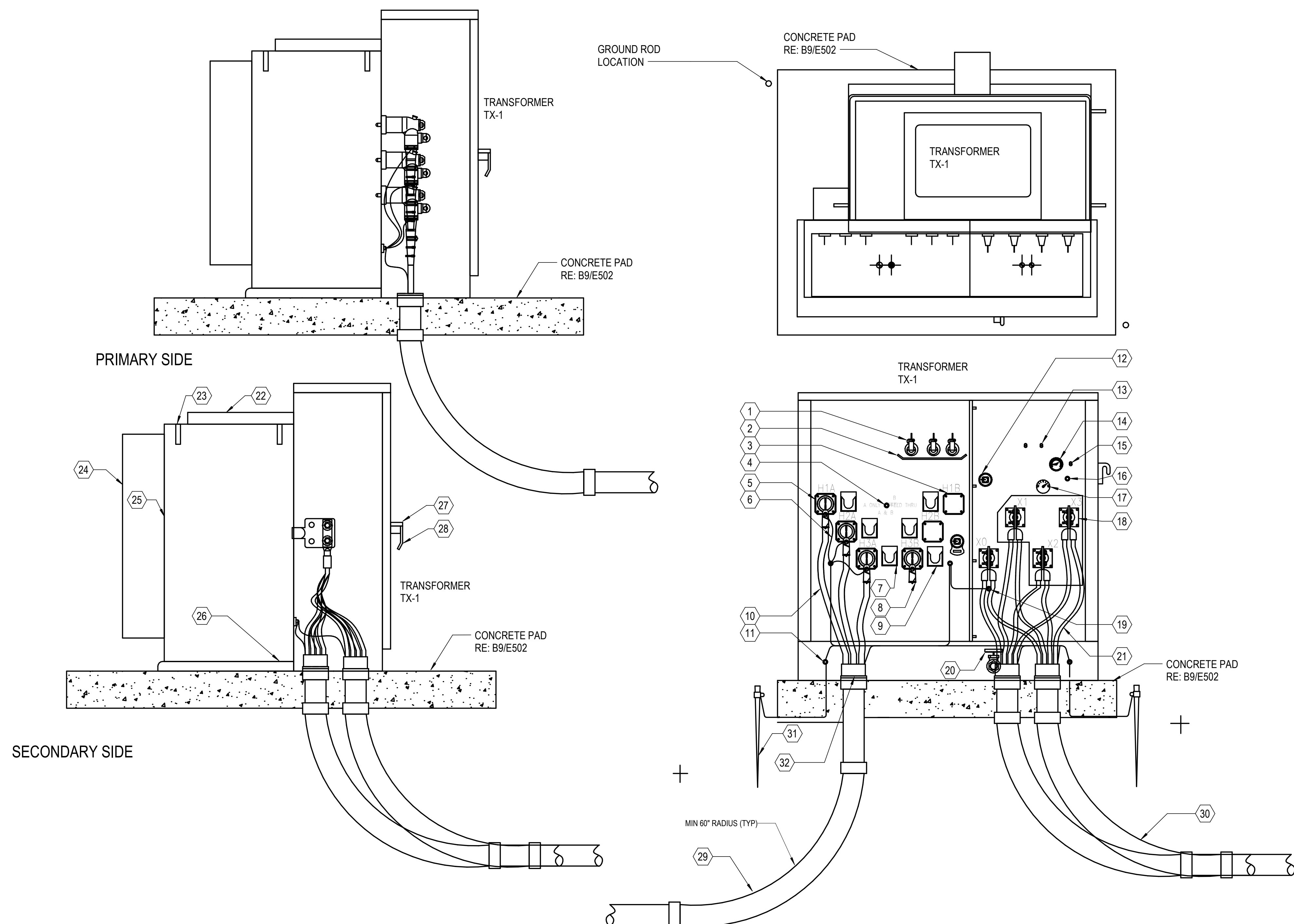
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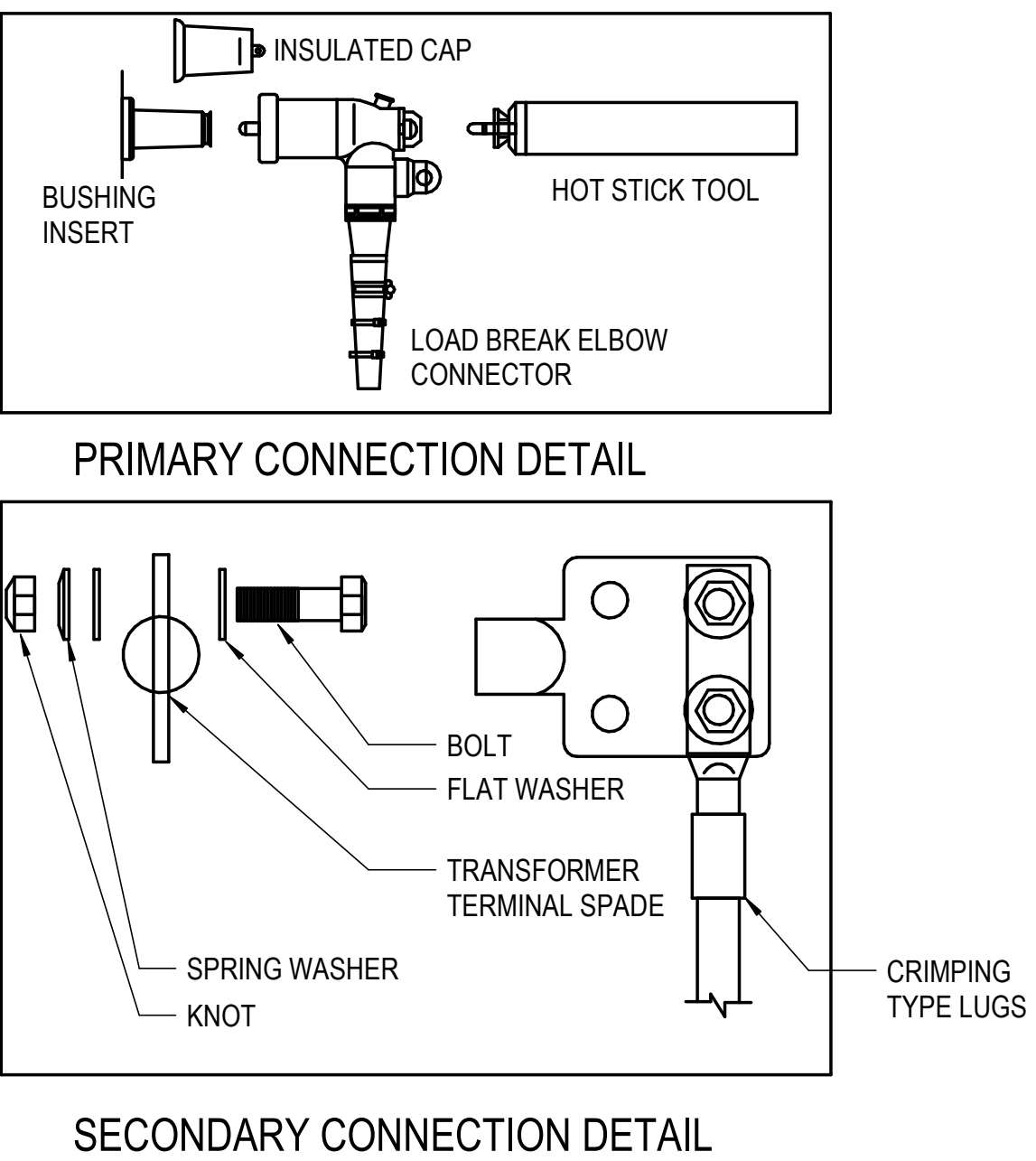
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F2 THREE PHASE OIL-FILLED TRANSFORMER NTS



KEYNOTES

1. BAYONET FUSE HOLDER
2. CLIP ON DRIP SHIELD
3. LOAD BREAK PARKING STAND
4. LOAD BREAK SWITCH
5. LOAD BREAK ELBOW CONNECTOR
6. #4AWG GROUNDING WIRE
7. LOAD BREAK PARKING STAND
8. LIGHTNING ARRESTER ELBOW TYPE
9. TAP CHANGER HANDLE
10. 3C - 6 MEDIUM VOLTAGE CABLE
11. 1/2 - 13 GROUND PAD
12. 2" MAG LLG
13. NP ON DOOR, SERIAL ON TANK
14. PRESSURE VAC. GAUGE
15. PRESSURE RELIEF VALVE
16. OIL LEVEL PLUG
17. DIAL THERM WITH MAX POINTER
18. LOW VOLTAGE BUSHING AND FOUR HOLE SPADE
19. 1/2 - 13 GROUND PAD
20. ONE DRAIN VALVE AND SAMPLER
21. 4C - 300MCM LOW VOLTAGE CABLE
22. HANDHOLE AND SECURITY COVER
23. LIFTING LUGS
24. TANK
25. COOLING RADIATORS
26. LIFTING LUGS
27. 3 PT LATCHPENTA SEC BOLT
28. PADLOCKABLE DOOR HANDLE
29. 1-1/2" SCHEDULE 80 PVC CONDUIT
30. 3" SCHEDULE 80 PVC CONDUIT
31. 3/4"x10" GROUND ROD AND CLAMP
32. END BELL

CONTRACT DOCUMENTS SUBMISSION  
FULLY SPRINKLERED

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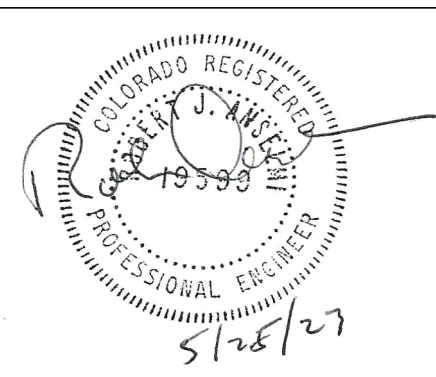
CONSULTANTS:

ARCHITECT/ENGINEERS:

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750 W HAMPTON AVE  
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ENGLEWOOD, CO 80110  
(720) 590-6307  
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VEG 21.05

STAMP:



U.S. Department  
of Veterans Affairs

Drawing Title

ELECTRICAL DETAILS

Approved: Project Director

Phase

100% BID DOCUMENTS

Project Title

CONSTRUCT MENTAL HEALTH  
OUTPATIENT BLDG 52 ADDITION

Location

2101 ELM STREET, FARGO, ND 58102

Issue Date

05/26/2023

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Project Number

437-316

Building Number

52

Drawing Number

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DWG 181 of 188

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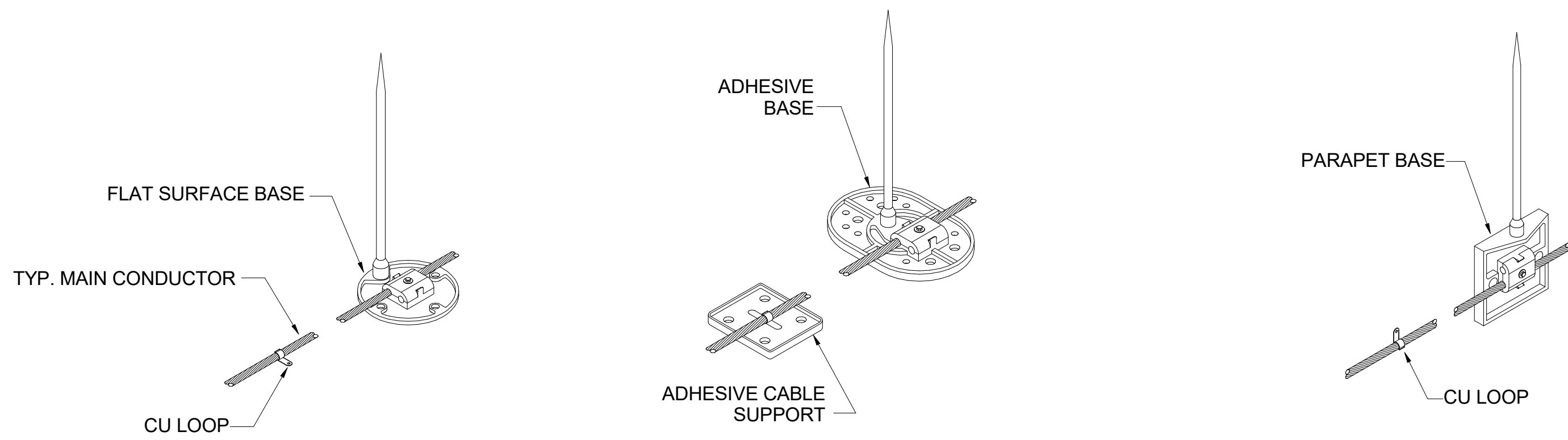
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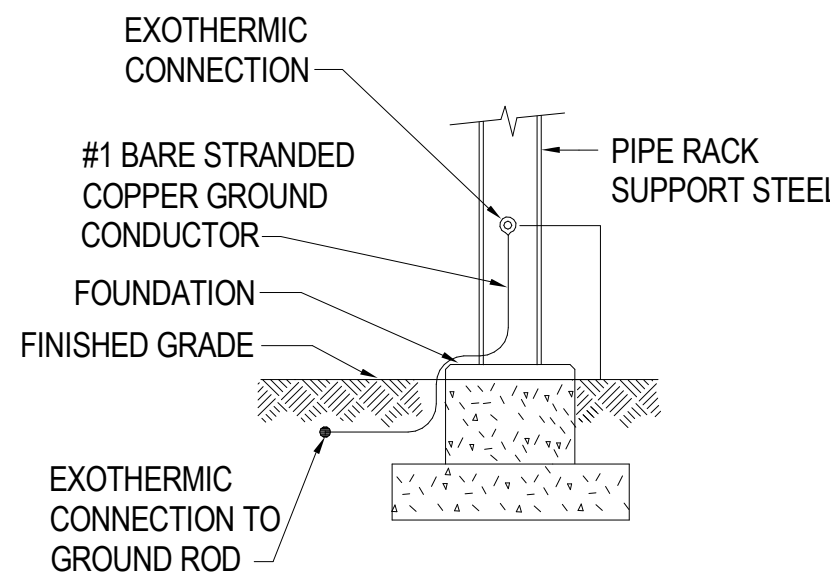


B2 LPS DETAILS 7 TYPICAL FLAT, ADHESIVE, & PARAPET BASE LIGHTNING TERMINAL DETAILS  
NTS

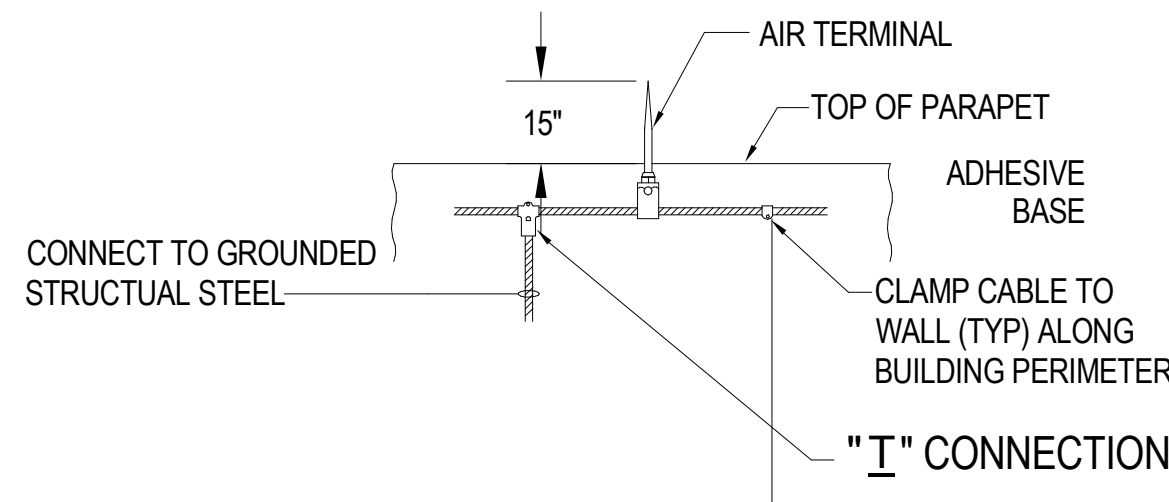
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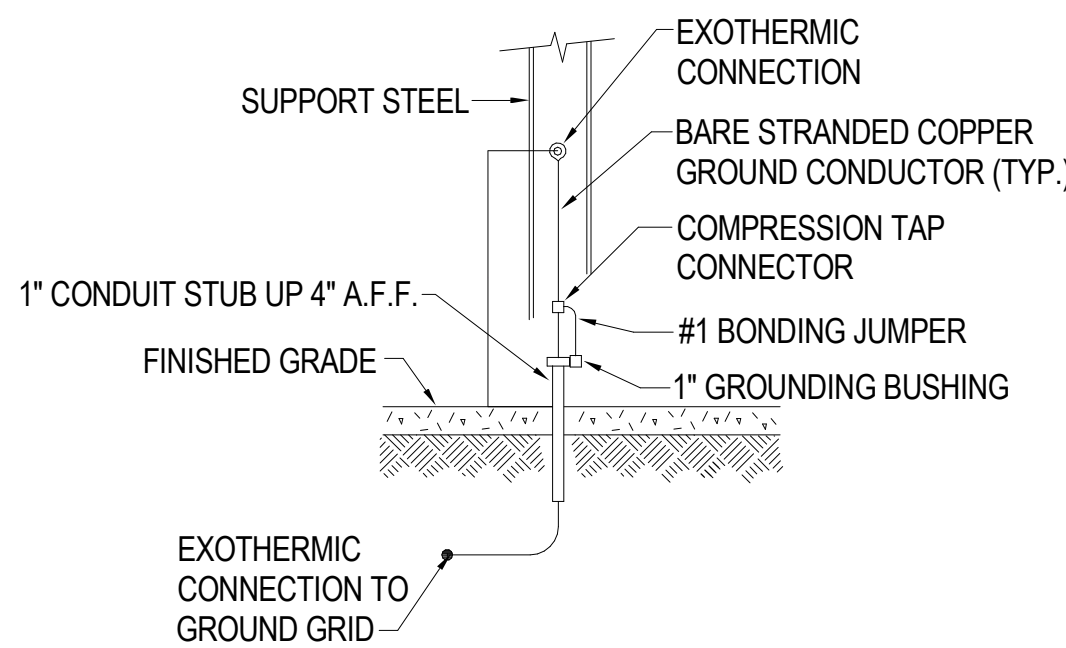
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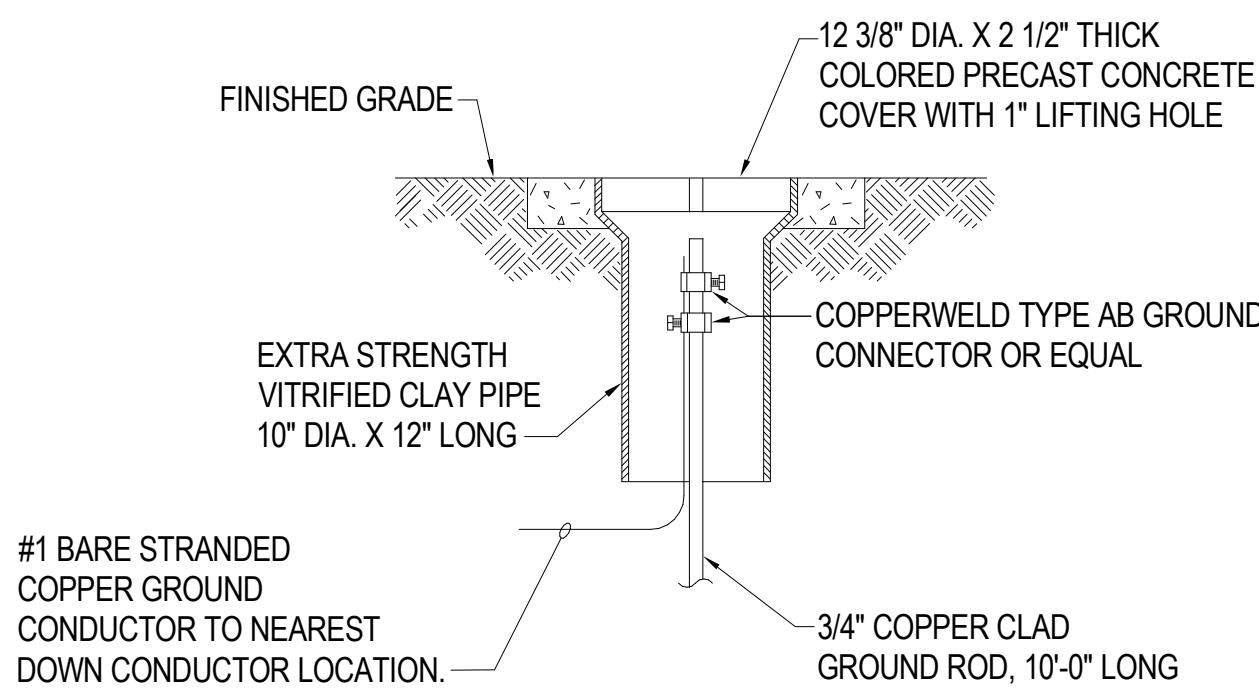
STRUCTURAL STEEL GROUNDING DETAILS



PARAPET GROUNDING DETAILS

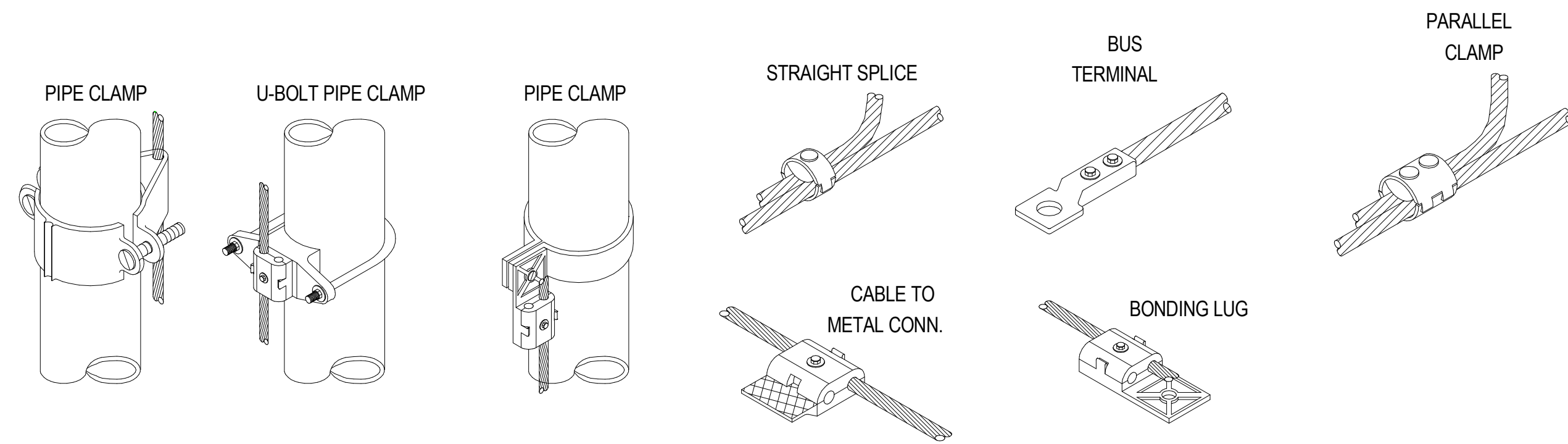


STEEL GROUNDING DETAILS

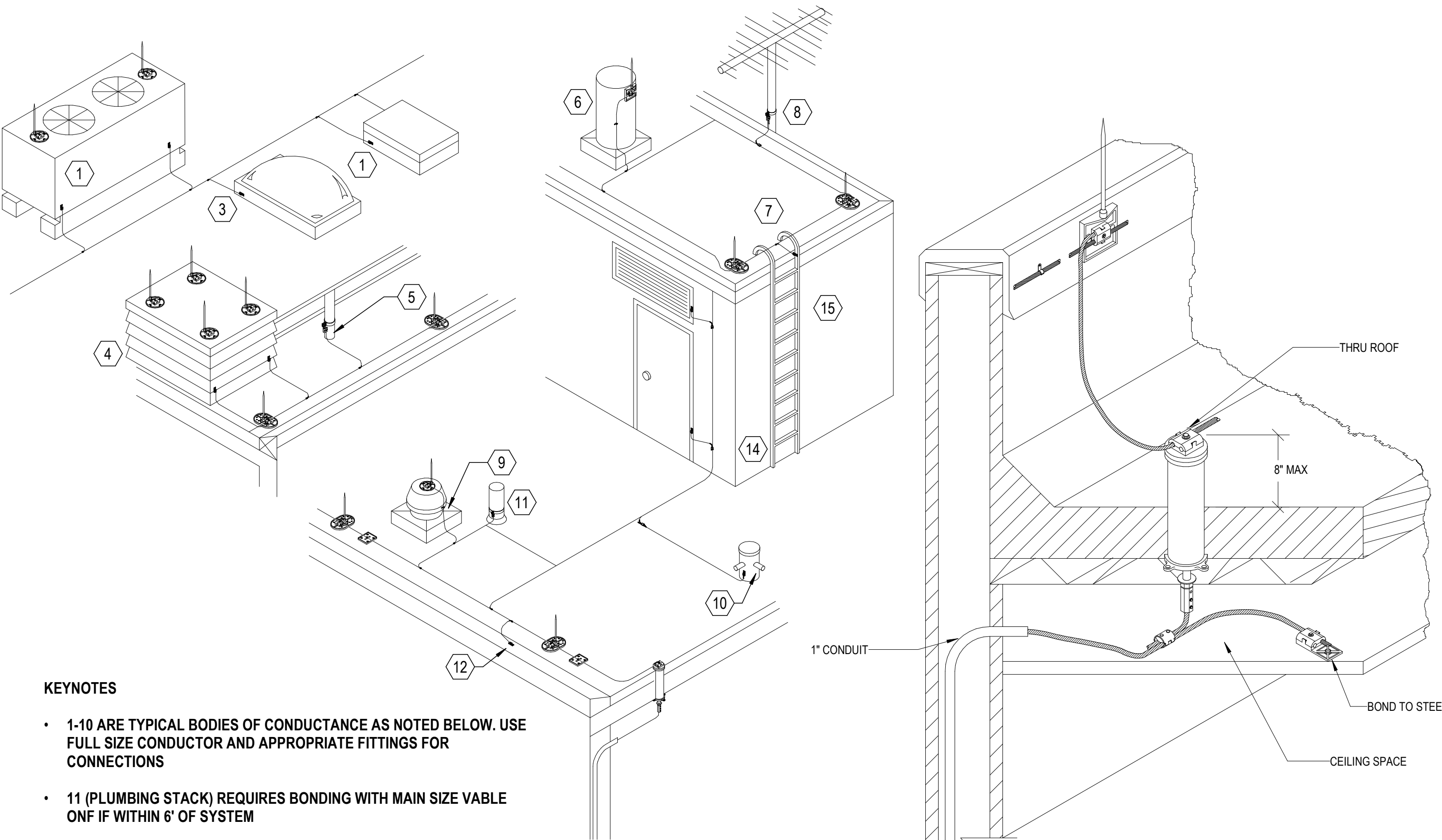


ELECTRICAL TEST WELL GROUNDING DETAIL

F2 LPS DETAILS 5  
NTS

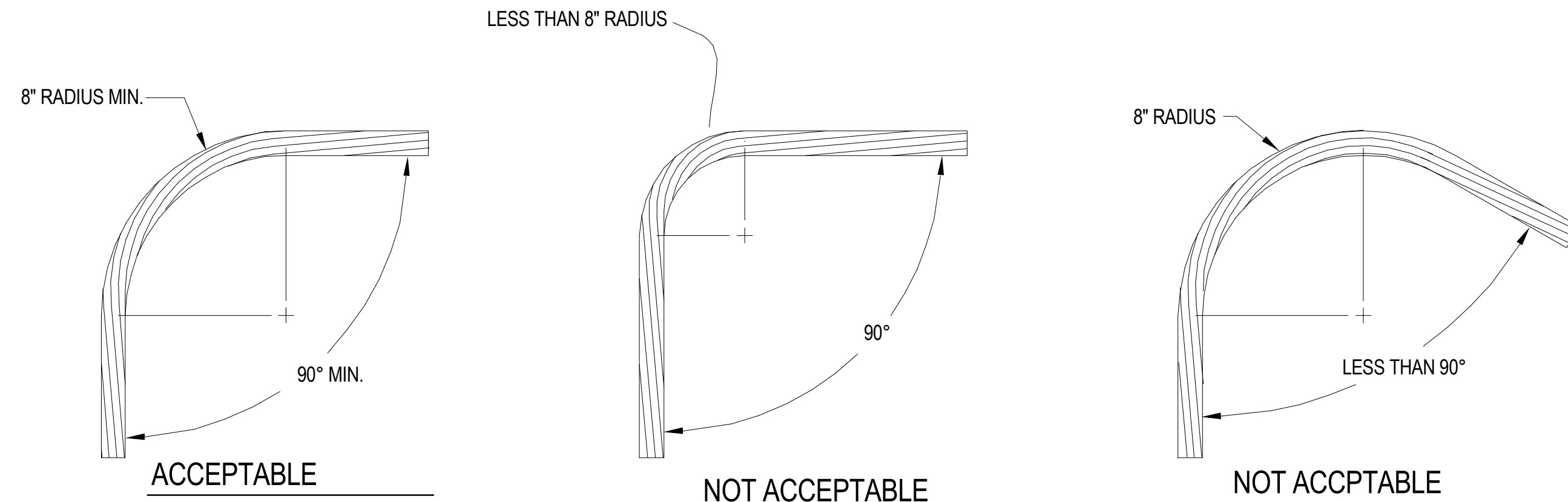


B6 LPS DETAILS 3 TYPICAL BONDS & CLAMPS #2/0 RUNS WITH #2 TAP  
NTS



- KEYNOTES
- 1-10 ARE TYPICAL BODIES OF CONDUCTANCE AS NOTED BELOW. USE FULL SIZE CONDUCTOR AND APPROPRIATE FITTINGS FOR CONNECTIONS
  - 11 (PLUMBING STACK) REQUIRES BONDING WITH MAIN SIZE VABLE ONF IF WITHIN 6' OF SYSTEM
  - 12-15 TYPICAL BODIES OF INDUCTANCE. USE SECONDARY SIZE SMALLER CONDUCTOR AND APPROPRIATE FITTINGS SHOWN FOR CONNECTION, (ITEM 12 TYPICALLY OCCURS AT EACH DOWN-LEAD AND ROOF LEVEL CHANGE AS SHOWN)
  - BONDING CONNECTIONS AND FITTINGS SHOWN ARE TYPICAL EXAMPLES - MAKE ALL CONNECTIONS REQUIRED TO MEET SPECIFICATION 26 05 33

E6 LPS DETAILS 6 BONDING DETAIL  
NTS



F6 TYPICAL EXAMPLE OF CONDUCTOR BENDS  
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CONTRACT DOCUMENTS SUBMISSION  
FULLY SPRINKLERED

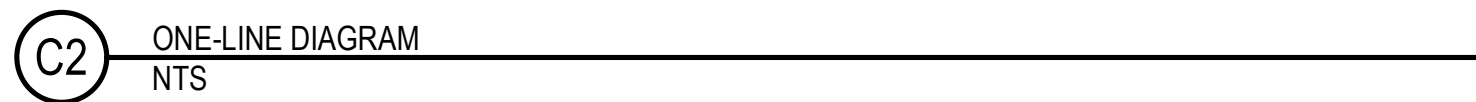
|         |                    |            |              |                                                                                                                                                                                                  |                                                                                                  |                            |                    |                                                        |                         |
|---------|--------------------|------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------|--------------------|--------------------------------------------------------|-------------------------|
| 0       | 100% BID DOCUMENTS | 05/26/2023 | CONSULTANTS: | ARCHITECT/ENGINEERS:                                                                                                                                                                             | STAMP:                                                                                           | Drawing Title              | Phase              | Project Title                                          | Project Number          |
|         |                    |            |              | <br>750 W HAMPODEN AVE<br>SUITE 300<br>ENGLEWOOD, CO 80110<br>(720) 550-6307<br>WWW.VALHALLAENGINEERING.COM | <br>5/26/23 | ELECTRICAL DETAILS         | 100% BID DOCUMENTS | CONSTRUCT MENTAL HEALTH<br>OUTPATIENT BLDG 52 ADDITION | 437-316                 |
|         |                    |            |              | VEG 21.05                                                                                                                                                                                        |                                                                                                  | Approved: Project Director |                    | Location<br>2101 ELM STREET, FARGO, ND 58102           | Building Number<br>52   |
| Number: | Revisions:         | Date:      |              |                                                                                                                                                                                                  |                                                                                                  |                            |                    | Issue Date<br>05/26/2023                               | Drawing Number<br>E-505 |
|         |                    |            |              |                                                                                                                                                                                                  |                                                                                                  |                            |                    | Checked<br>RA                                          | DWG 182 of 188          |
|         |                    |            |              |                                                                                                                                                                                                  |                                                                                                  |                            |                    | Drawn<br>KEG                                           |                         |



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DWG 183 of 188





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VA FORM 88-6231

| PANELBOARD: 52A-N2A-1 / D         |  |  |  |             |    |                                  |       |            |       |            |       |                            |     |    |      |                                        |  |
|-----------------------------------|--|--|--|-------------|----|----------------------------------|-------|------------|-------|------------|-------|----------------------------|-----|----|------|----------------------------------------|--|
| LOCATION: ELECTRICAL CLOSET 226A  |  |  |  |             |    | VOLTAGE: 120/208 Wye V, 3 ø 4 W. |       |            |       |            |       |                            |     |    |      |                                        |  |
| MOUNTING: Surface Type 1          |  |  |  |             |    | A.I.C. RATING: 22,000            |       |            |       |            |       |                            |     |    |      |                                        |  |
| MAIN DEVICE: 400 A                |  |  |  |             |    | SPECIAL:                         |       |            |       |            |       |                            |     |    |      |                                        |  |
| BUS AMPS:                         |  |  |  |             |    |                                  |       |            |       |            |       |                            |     |    |      |                                        |  |
| LOAD DESCRIPTION                  |  |  |  | BKR         | P  | CKT                              | A     |            | B     |            | C     |                            | CKT | P  | BKR  | LOAD DESCRIPTION                       |  |
| (2) RECPMT RM 229                 |  |  |  | 20 A        | 1  | 1                                | 0.360 | 1.440      |       |            |       |                            | 2   | 1  | 20 A | Receptacle CORRIDOR 242                |  |
| (4) RECPMT RM 233                 |  |  |  | 20 A        | 1  | 3                                |       |            | 0.900 | 0.900      |       |                            | 4   | 1  | 20 A | Receptacle OFFICE 237                  |  |
| (4) RECPMT RM 234                 |  |  |  | 20 A        | 1  | 5                                |       |            |       |            | 0.900 | 0.900                      | 6   | 1  | 20 A | Receptacle OFFICE 239                  |  |
| (5) RECPMT RM 235                 |  |  |  | 20 A        | 1  | 7                                | 0.900 | 0.900      |       |            |       |                            | 8   | 1  | 20 A | Receptacle OFFICE 241                  |  |
| (5) RECPMT RM 236                 |  |  |  | 20 A        | 1  | 9                                |       |            | 0.900 | 0.900      |       |                            | 10  | 1  | 20 A | Receptacle OFFICE 243                  |  |
| (5) RECPMT RM 238                 |  |  |  | 20 A        | 1  | 11                               |       |            |       |            | 0.900 | 0.900                      | 12  | 1  | 20 A | Receptacle OFFICE 244                  |  |
| (5) RECPMT RM 240                 |  |  |  | 20 A        | 1  | 13                               | 0.900 | 0.900      |       |            |       |                            | 14  | 1  | 20 A | Receptacle OFFICE 245                  |  |
| (4) RECPMT RM 246                 |  |  |  | 20 A        | 1  | 15                               |       |            | 0.900 | 1.080      |       |                            | 16  | 1  | 20 A | Receptacle OFFICE 230                  |  |
| (5) RECPMT RM 246                 |  |  |  | 20 A        | 1  | 17                               |       |            |       |            | 0.540 | 1.080                      | 18  | 1  | 20 A | Receptacle OFFICE 228                  |  |
| (3) RECPMT RM 246A,248,250        |  |  |  | 20 A        | 1  | 19                               | 0.540 | 0.900      |       |            |       |                            | 20  | 1  | 20 A | Receptacle GEN TX 226                  |  |
| (4) RECPMT RM 223                 |  |  |  | 20 A        | 1  | 21                               |       |            | 0.900 | 1.080      |       |                            | 22  | 1  | 20 A | Receptacle RECEPTION / WORKSTATION 222 |  |
| (5) RECPMT RM 224                 |  |  |  | 20 A        | 1  | 23                               |       |            |       |            | 0.900 | 1.260                      | 24  | 1  | 20 A | Receptacle RECEPTION / WORKSTATION 222 |  |
| (7) RECPMT RM 201,202,220         |  |  |  | 20 A        | 1  | 25                               | 1.260 | 0.180      |       |            |       |                            | 26  | 1  | 20 A | Receptacle STAFF LOUNGE 221            |  |
| Receptacle STAFF LOUNGE 221       |  |  |  | 20 A        | 1  | 27                               |       |            | 0.360 | 0.900      |       |                            | 28  | 1  | 20 A | Receptacle OFFICE 247                  |  |
| Receptacle STAFF LOUNGE 221       |  |  |  | 20 A        | 1  | 29                               |       |            |       |            | 0.360 | 0.900                      | 30  | 1  | 20 A | Receptacle Room 203, 211, 213, 208     |  |
| Receptacle STAFF LOUNGE 221       |  |  |  | 20 A        | 1  | 31                               | 0.360 | 0.500      |       |            |       |                            | 32  | 1  | 20 A | Power ELECTRICAL CLOSET 226A           |  |
| Receptacle OFFICE 249             |  |  |  | 20 A        | 1  | 33                               |       |            | 0.900 | 0.540      |       |                            | 34  | 1  | 20 A | Receptacle MED ROOM 215                |  |
| Receptacle OFFICE 204             |  |  |  | 20 A        | 1  | 35                               |       |            |       |            | 0.900 | 1.080                      | 36  | 1  | 20 A | Receptacle OFFICE 209                  |  |
| Receptacle OFFICE 206             |  |  |  | 20 A        | 1  | 37                               | 0.900 | 1.080      |       |            |       |                            | 38  | 1  | 20 A | Receptacle OFFICE 210                  |  |
| Receptacle MED ROOM 215           |  |  |  | 20 A        | 1  | 39                               |       |            | 0.180 | 1.000      |       |                            | 40  | 1  | 20 A | Power GATE RECEPTION / WORKSTATION 222 |  |
| Receptacle OFFICE 214             |  |  |  | 20 A        | 1  | 41                               |       |            |       |            | 1.080 | 0.180                      | 42  | 1  | 20 A | Receptacle STAFF LOUNGE 221            |  |
| Power MECH PENTHOUSE 301 52-BHW-1 |  |  |  | 20 A        | 3  | 43                               | 2.402 | 2.402      |       |            |       |                            | 44  | 3  | 20 A | Power MECH PENTHOUSE 301 52-BHW-2      |  |
| --                                |  |  |  | --          | -- | 45                               |       |            | 2.402 | 2.402      |       |                            | 46  | -- | --   | --                                     |  |
| --                                |  |  |  | --          | -- | 47                               |       |            |       |            | 2.402 | 2.402                      | 48  | -- | --   | --                                     |  |
| DOOR OPERATORS                    |  |  |  | 20 A        | 1  | 49                               | 1.000 | 1.000      |       |            |       |                            | 50  | 1  | 20 A | DOOR OPERATORS                         |  |
|                                   |  |  |  |             |    | 51                               |       |            |       |            |       |                            | 52  |    |      |                                        |  |
|                                   |  |  |  |             |    | 53                               |       |            |       |            |       |                            | 54  |    |      |                                        |  |
|                                   |  |  |  |             |    | 55                               |       |            |       |            |       |                            | 56  |    |      |                                        |  |
|                                   |  |  |  |             |    | 57                               |       |            |       |            |       |                            | 58  |    |      |                                        |  |
|                                   |  |  |  |             |    | 59                               |       |            |       |            |       |                            | 60  |    |      |                                        |  |
|                                   |  |  |  |             |    | 61                               |       |            |       |            |       |                            | 62  |    |      |                                        |  |
|                                   |  |  |  |             |    | 63                               |       |            |       |            |       |                            | 64  |    |      |                                        |  |
|                                   |  |  |  |             |    | 65                               |       |            |       |            |       |                            | 66  |    |      |                                        |  |
|                                   |  |  |  |             |    | 67                               |       |            |       |            |       |                            | 68  |    |      |                                        |  |
|                                   |  |  |  |             |    | 69                               |       |            |       |            |       |                            | 70  |    |      |                                        |  |
|                                   |  |  |  |             |    | 71                               |       |            |       |            |       |                            | 72  |    |      |                                        |  |
|                                   |  |  |  |             |    | 73                               |       |            |       |            |       |                            | 74  |    |      |                                        |  |
|                                   |  |  |  |             |    | 75                               |       |            |       |            |       |                            | 76  |    |      |                                        |  |
|                                   |  |  |  |             |    | 77                               |       |            |       |            |       |                            | 78  |    |      |                                        |  |
|                                   |  |  |  |             |    | 79                               |       |            |       |            |       |                            | 80  |    |      |                                        |  |
|                                   |  |  |  |             |    | 81                               |       |            |       |            |       |                            | 82  |    |      |                                        |  |
|                                   |  |  |  |             |    | 83                               |       |            |       |            |       |                            | 84  |    |      |                                        |  |
|                                   |  |  |  | TOTAL LOAD: |    | 17.924 kVA                       |       | 16.244 kVA |       | 16.684 kVA |       |                            |     |    |      |                                        |  |
|                                   |  |  |  | TOTAL AMPS: |    | 150 A                            |       | 135 A      |       | 140 A      |       |                            |     |    |      |                                        |  |
| LOAD CLASSIFICATION               |  |  |  | CONNECTED   |    | DEMAND                           |       | ESTIMATED  |       |            |       | PANEL TOTALS               |     |    |      |                                        |  |
| Power                             |  |  |  | 17912 VA    |    | 100.00%                          |       | 17912 VA   |       |            |       | CONNECTED LOAD: 50852 VA   |     |    |      |                                        |  |
| RCPT                              |  |  |  | 0 VA        |    | 0.00%                            |       | 0 VA       |       |            |       | ESTIMATED DEMAND: 39382 VA |     |    |      |                                        |  |
|                                   |  |  |  |             |    |                                  |       |            |       |            |       | CONNECTED CURRENT: 141 A   |     |    |      |                                        |  |
|                                   |  |  |  |             |    |                                  |       |            |       |            |       | EST. DEMAND CURRENT: 109 A |     |    |      |                                        |  |
| NOTES:                            |  |  |  |             |    |                                  |       |            |       |            |       |                            |     |    |      |                                        |  |

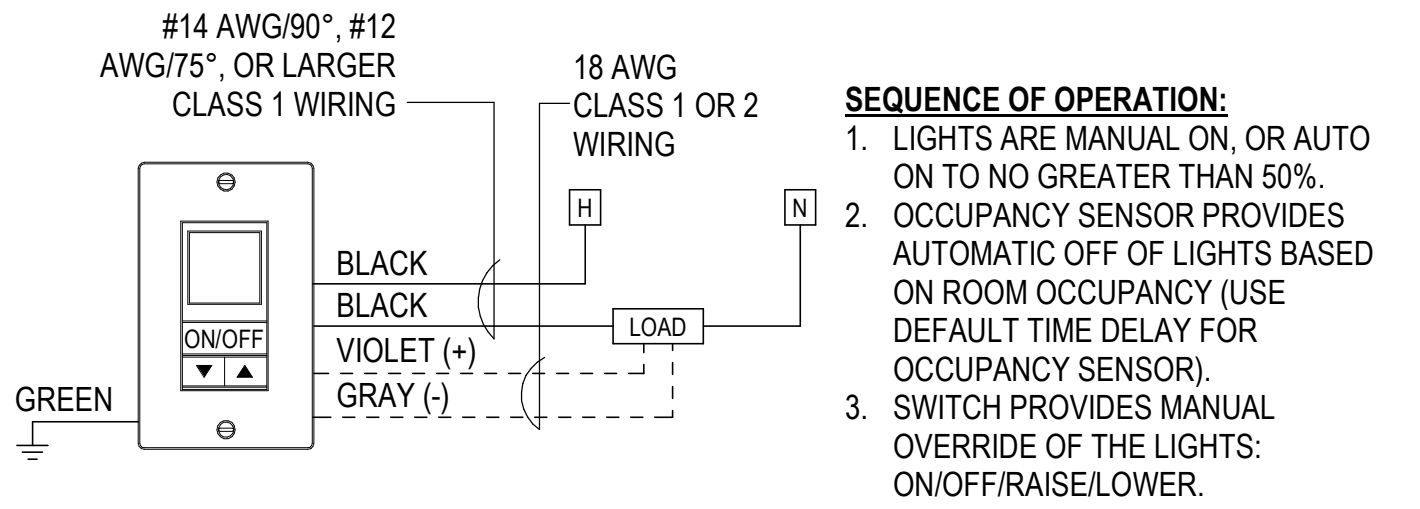
| PANELBOARD: 52A-N2A-2 / E                       |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|-------------------------------------------------|--|-----------|---------|------|----|----------------------------------|----------------------------|------------|-------|------------|----|------|-----------------------|-----------------------------------------|--|
| LOCATION: ELECTRICAL CLOSET 226A                |  |           |         |      |    | VOLTAGE: 120/208 Wye V, 3 ø 4 W. |                            |            |       |            |    |      |                       |                                         |  |
| MOUNTING: Surface Type 1                        |  |           |         |      |    | A.I.C. RATING: 22,000            |                            |            |       |            |    |      |                       |                                         |  |
| MAIN DEVICE: 400 A                              |  |           |         |      |    | SPECIAL:                         |                            |            |       |            |    |      |                       |                                         |  |
| BUS AMPS:                                       |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
| LOAD DESCRIPTION                                |  |           |         | BKR  | P  | CKT                              | A                          | B          | C     | CKT        | P  | BKR  | LOAD DESCRIPTION      |                                         |  |
| Receptacle OFFICE 212                           |  |           |         | 20 A | 1  | 1                                | 1.080                      | 0.900      |       | 2          | 1  | 20 A | Receptacle OFFICE 217 |                                         |  |
| Receptacle OFFICE 207                           |  |           |         | 20 A | 1  | 3                                |                            | 0.900      | 0.900 |            | 4  | 1    | 20 A                  | Receptacle OFFICE 216                   |  |
| Receptacle MECH PENTHOUSE 301                   |  |           |         | 20 A | 1  | 5                                |                            |            | 0.900 | 0.180      | 6  | 1    | 20 A                  | Receptacle STAFF LOUNGE 221             |  |
| Receptacle MECH PENTHOUSE 301 - 52-UH-04        |  |           |         | 20 A | 1  | 7                                | 1.042                      | 0.500      |       |            | 8  | 1    | 20 A                  | Power MECH PENTHOUSE 301 - BAS PANEL    |  |
| Receptacle MECH PENTHOUSE 301 52-GF-2           |  |           |         | 20 A | 1  | 9                                |                            | 0.180      | 0.791 |            | 10 | 2    | 20 A                  | Power MECH PENTHOUSE 301 - 52-HWP-2     |  |
| Power MECH PENTHOUSE 301 - 52-HWP-1             |  |           |         | 20 A | 2  | 11                               |                            |            | 0.791 | 0.791      | 12 | --   | --                    | --                                      |  |
| --                                              |  |           |         | --   | -- | 13                               | 0.791                      | 0.781      |       |            | 14 | 3    | 20 A                  | Power MECH PENTHOUSE 301 - 52-EF-01     |  |
| Power Room 244, 233, 237, 238, 242              |  |           |         | 20 A | 1  | 15                               |                            | 0.090      | 0.781 |            | 16 | --   | --                    | --                                      |  |
| Power Room 220, 224, 225, 231, 247              |  |           |         | 20 A | 1  | 17                               |                            |            | 0.090 | 0.781      | 18 | --   | --                    | --                                      |  |
| Power MECH PENTHOUSE 301 - 52-SH-1              |  |           |         | 20 A | 1  | 19                               | 0.307                      | 0.075      |       |            | 20 | 1    | 20 A                  | Power Room 201, 202, 203, 204           |  |
| Power MECH PENTHOUSE 301 CHP-1                  |  |           |         | 90 A | 3  | 21                               |                            | 6.785      | 0.045 |            | 22 | 1    | 20 A                  | Power Room 249, 201, 216, 214, 209, 213 |  |
| --                                              |  |           |         | --   | -- | 23                               |                            |            | 6.785 | 6.785      | 24 | 3    | 90 A                  | Power MECH PENTHOUSE 301 CHP-2          |  |
| --                                              |  |           |         | --   | -- | 25                               | 6.785                      | 6.785      |       |            | 26 | --   | --                    | --                                      |  |
| Room 239, 237, 235, 233, 249, 231, 232, 222,... |  |           |         | 20 A | 1  | 27                               |                            | 1.678      | 6.785 |            | 28 | --   | --                    | --                                      |  |
| Power Room 214, 209, 213                        |  |           |         | 20 A | 1  | 29                               |                            |            | 0.045 | 0.360      | 30 | 1    | 20 A                  | Receptacle CORRIDOR 201                 |  |
| Power MECH PENTHOUSE 301 PP-2                   |  |           |         | 15 A | 3  | 31                               | 0.901                      | 0.901      |       |            | 32 | 3    | 15 A                  | Power MECH PENTHOUSE 301 PP-1           |  |
| --                                              |  |           |         | --   | -- | 33                               |                            | 0.901      | 0.901 |            | 34 | --   | --                    | --                                      |  |
| --                                              |  |           |         | --   | -- | 35                               |                            |            | 0.901 | 0.901      | 36 | --   | --                    | --                                      |  |
| Power MECH PENTHOUSE 301 - AHU LITS/PIWR        |  |           |         | 20 A | 1  | 37                               | 0.500                      | 1.200      |       |            | 38 | 1    | 20 A                  | Power MECH PENTHOUSE 301 - 52-WH-1.2    |  |
| LITES MECH PENTHOUSE 301                        |  |           |         | 20 A | 1  | 39                               |                            | 0.900      | 0.672 |            | 40 | 1    | 20 A                  | Power FOR ROOF DRAIN HEAT TRACE         |  |
| Receptacle GEN TREATMENT 205                    |  |           |         | 20 A | 1  | 41                               |                            |            | 1.440 | 0.500      | 42 | 1    | 20 A                  | Power ELECTRICAL CLOSET 226A FIRE ALARM |  |
| Power MECH PENTHOUSE 301 ...                    |  |           |         | 30 A | 2  | 43                               | 2.330                      | 2.330      |       |            | 44 | 2    | 30 A                  | Power MECH PENTHOUSE 301 -              |  |
| --                                              |  |           |         | --   | -- | 45                               |                            | 2.330      | 2.330 |            | 46 | --   | --                    | --                                      |  |
| --                                              |  |           |         |      |    | 47                               |                            |            |       |            | 48 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 49                               |                            |            |       |            | 50 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 51                               |                            |            |       |            | 52 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 53                               |                            |            |       |            | 54 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 55                               |                            |            |       |            | 56 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 57                               |                            |            |       |            | 58 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 59                               |                            |            |       |            | 60 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 61                               |                            |            |       |            | 62 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 63                               |                            |            |       |            | 64 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 65                               |                            |            |       |            | 66 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 67                               |                            |            |       |            | 68 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 69                               |                            |            |       |            | 70 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 71                               |                            |            |       |            | 72 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 73                               |                            |            |       |            | 74 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 75                               |                            |            |       |            | 76 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 77                               |                            |            |       |            | 78 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 79                               |                            |            |       |            | 80 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 81                               |                            |            |       |            | 82 |      |                       |                                         |  |
| --                                              |  |           |         |      |    | 83                               |                            |            |       |            | 84 |      |                       |                                         |  |
| TOTAL LOAD:                                     |  |           |         |      |    | 27.207 kVA                       |                            | 26.793 kVA |       | 21.249 kVA |    |      |                       |                                         |  |
| TOTAL AMPS:                                     |  |           |         |      |    | 234 A                            |                            | 230 A      |       | 177 A      |    |      |                       |                                         |  |
| LOAD CLASSIFICATION                             |  | CONNECTED | DEMAND  |      |    | ESTIMATED                        | PANEL TOTALS               |            |       |            |    |      |                       |                                         |  |
| Power                                           |  | 65286 VA  | 100.00% |      |    | 65286 VA                         | CONNECTED LOAD: 75237 VA   |            |       |            |    |      |                       |                                         |  |
| LITES                                           |  | 1012 VA   | 125.00% |      |    | 1264 VA                          | ESTIMATED DEMAND: 75837 VA |            |       |            |    |      |                       |                                         |  |
| LIGHTS                                          |  | 1012 VA   | 125.00% |      |    | 1962 VA                          | CONNECTED CURRENT: 209 A   |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  | EST. DEMAND CURRENT: 211 A |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
|                                                 |  |           |         |      |    |                                  |                            |            |       |            |    |      |                       |                                         |  |
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| Project Number<br>437-316                 |
| Building Number<br>52                     |
| Drawing Number<br>E-604<br>DWG 186 of 188 |

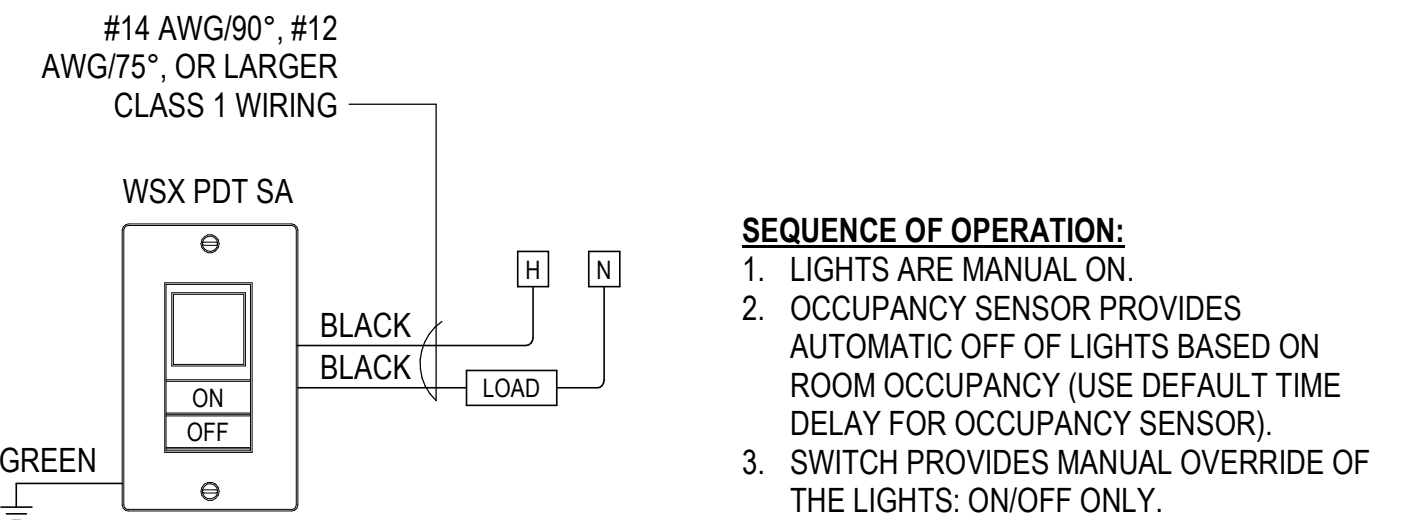


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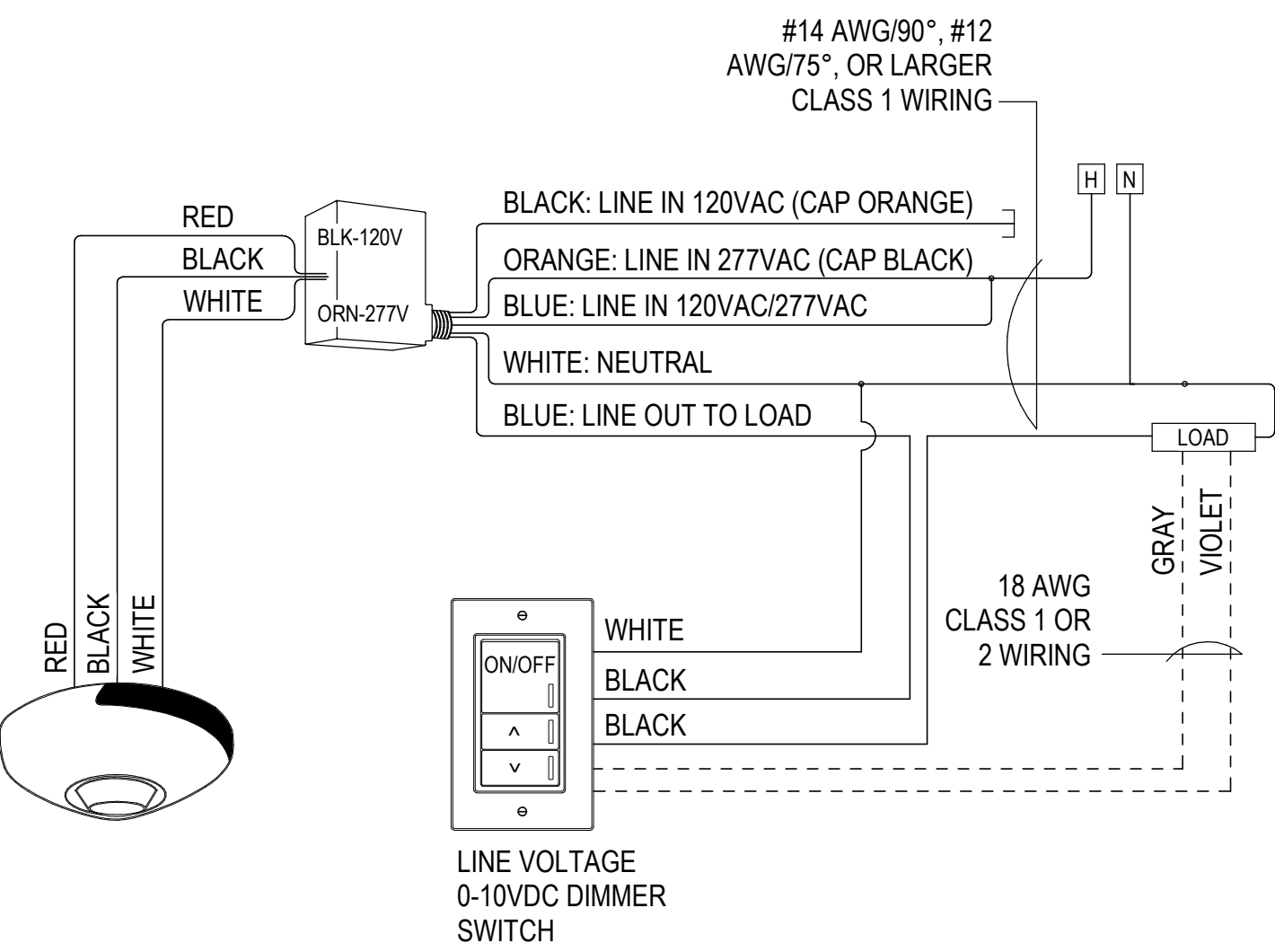
A1 LINE VOLTAGE DIMMER WITH INTEGRAL OCCUPANCY SENSOR (ANALOG)  
NTS

B



B1 LINE VOLTAGE SWITCH WITH INTERGRAL OCCUPANCY SENSOR  
NTS

C



SEQUENCE OF OPERATION:

1. LIGHTS ARE MANUAL ON.
2. OCCUPANCY SENSOR PROVIDES AUTOMATIC OFF OF LIGHTS BASED ON ROOM OCCUPANCY (USE DEFAULT TIME DELAY FOR OCCUPANCY SENSOR).
3. SWITCH PROVIDES MANUAL OVERRIDE OF THE LIGHTS: ON/OFF/RAISE/LOWER.

D1 LOW VOLTAGE DIMMER WITH CEILING OCCUPANCY SENSOR (ANALOG)  
NTS

| OPERATION TYPE | OPERATION DESCRIPTION                                                                                                                                                                                 |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A              | MANUAL ON TO 100%, TIME DELAY AUTO OFF OR MANUAL OFF.                                                                                                                                                 |
| C              | AUTOMATIC ON/OFF VIA LIGHTING CONTACTOR CONTROLLED BY OCCUPANCY SENSOR AND TIME SWITCH.                                                                                                               |
| D              | AUTOMATIC ON/OFF WITH INTERIOR PHOTOCELL                                                                                                                                                              |
| E              | AUTOMATIC ON/OFF VIA LIGHTING CONTACTOR CONTROLLED BY EXTERIOR PHOTOCELL AND TIME SWITCH.                                                                                                             |
| M              | MANUAL ON/OFF WITH LINE VOLTAGE SINGLE POLE SWITCH                                                                                                                                                    |
| F              | STAIRWELL FIXTURES TO BE CONTROLLED VIA INTEGRAL OCCUPANCY SENSOR. FIXTURES TO OPERATE AT 50% OUPUT WHEN STAIRWAY IS UNOCCUPIED AND AUTOMATICALLY INCREASE TO 100% OUPUT UPON DETECTION OF OCCUPANCY. |

| ROOM TYPE       | OPERATION TYPE | SCHEDULE NOTES |
|-----------------|----------------|----------------|
| ADMIN           | A              | 1              |
| COMM/EHRM       | A              |                |
| CONFERENCE ROOM | A              | 2              |
| CORRIDOR        | C              |                |
| ELEC ROOM       | M              |                |
| ELEV EQUIP      | M              |                |
| ELEVATOR        | M              |                |
| EXAM            | A              |                |
| EXTERIOR        | E              | 4              |
| FIRE PUMP       | M              |                |
| LOUNGE          | A              |                |
| MECH ROOM       | M              |                |
| MED ROOM        | A              |                |
| OFFICE          | A              |                |
| RESTROOM        | A              |                |
| STAIR           | F              |                |
| STORAGE         | A              |                |
| TELEHEALTH      | A              |                |
| UTILITY         | A              | 3              |
| VESTIBULE       | D              |                |
| WAITING         | C              |                |
| WEST ENTRANCE   | D              |                |
| WORKROOM        | A              |                |

- SCHEDULE NOTES:**
1. INCLUDES ADMIN, RECEPTION AND RECEPTION/WORKSTATION AREAS.
  2. INCLUDES CONFERENCE ROOM AND GROUP THERAPY ROOMS.
  3. INCLUCDES HAC, CLEAN LINEN, SOILED LINEN ROOMS.
  4. INCLUDES ALL BUILDING MOUNTED EXTERIOR LIGHTING.

| SYMBOL | MANUFACTURER                   | CATALOG NUMBER             | DESCRIPTION                                                                                                                         | VOLTAGE | SCHEDULE NOTES |
|--------|--------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------|----------------|
|        | SENSORSWITCH OR APPROVED EQUAL | CMR BAA                    | DIGITAL DUAL TECHNOLOGY PASSIVE INFRARED AND MICROPHONIC OR ULTRASONIC OCCUPANCY SENSOR, WIDE ANGLE LENS, MINIMUM 1000 SQUARE FEET. | 24 V    | 1, 2           |
|        | SENSORSWITCH OR APPROVED EQUAL | CMR PC                     | DIGITAL INTERIOR DAYLIGHT HARVEST PHOTOCELL, SINGLE CHANNEL.                                                                        | 24 V    | 1, 2           |
|        | SENSORSWITCH OR APPROVED EQUAL | WSXA PDT SA BAA WS xPODA   | LINE VOLTAGE 2 BUTTON ON/OFF, INTEGRAL DUAL TECH PASSIVE INFRARED/MICROPHONIC OCCUPANCY SENSOR                                      | 120 V   | 3              |
|        | SENSORSWITCH OR APPROVED EQUAL | WSXA PDT D SA BAA WS xPODA | LINE VOLTAGE 3 BUTTUN ON/OFF, INTEGRAL DUAL TECH PASSIVE INFRARED/MICROPHONIC OCCUPANCY SENSOR                                      | 120 V   | 3              |
|        | SENSORSWITCH OR APPROVED EQUAL | sPODMA SA BAA              | ANALOG LOW VOLTAGE SINGLE CHANNEL, 2 BUTTON ON/OFF SWITCH                                                                           | 24 V    | 2, 3, 4        |
|        | SENSORSWITCH OR APPROVED EQUAL | sPODMA D SA BAA WS xPODA   | ANALOG LOW VOLTAGE SINGLE CHANNEL, 3 BUTTON ON/OFF, RAISE/LOWER DIMMER SWITCH                                                       | 24 V    | 2, 3, 4        |
|        | SENSORSWITCH OR APPROVED EQUAL | PP20 BAA                   | ANALOG LOW VOLTAGE POWER PACK                                                                                                       | 115 V   | 1              |

- SCHEDULE NOTES:**
1. IN ROOMS WITH INACCESSIBLE CEILINGS, LOCATE THE LOW VOLTAGE LIGHTING CONTROL POWER PACKS OUTSIDE OF ROOM ABOVE NEAREST ACCESSIBLE CEILING.
  2. ALL LOW VOLTAGE LIGHTING CONTROL POWER PACKS FOR THIS SPACE WILL BE MOUNTED ABOVE AN ACCESSIBLE CEILING ABOVE SWITCH LOCATION.
  3. DEVICE COLOR WILL BE IVORY WITH STAINLESS STEEL DEVICE PLATE.

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ARCHITECT/ENGINEERS:

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(720) 590-6307  
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VEG 21.05

STAMP:

U.S. Department of Veterans Affairs

Drawing Title

**LIGHTING CONTROL SCHEDULES**

Approved: Project Director

Phase

**100% BID DOCUMENTS**

Project Title

**CONSTRUCT MENTAL HEALTH OUTPATIENT BLDG 52 ADDITION**

Location  
2101 ELM STREET, FARGO, ND 58102

Issue Date  
05/26/2023

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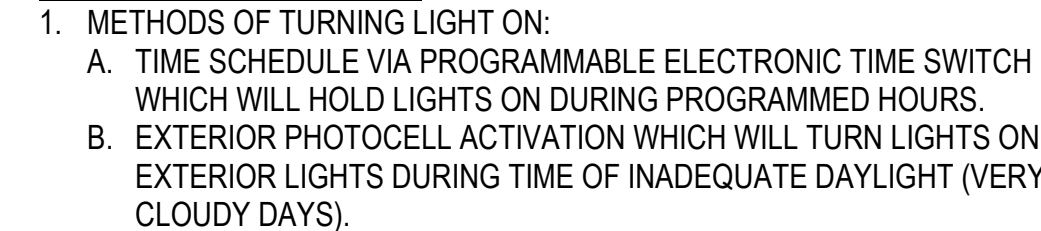
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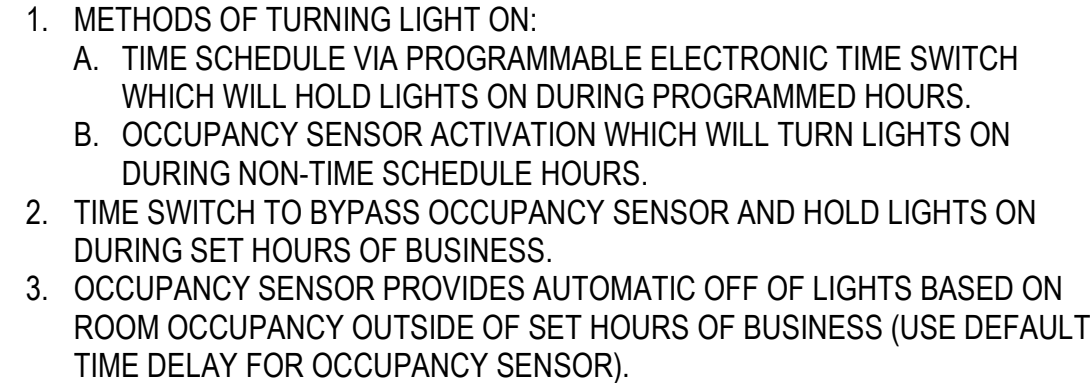
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Drawing Number  
**E-605**  
DWG 187 of 188





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E-606  
DWG 188 of 188

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