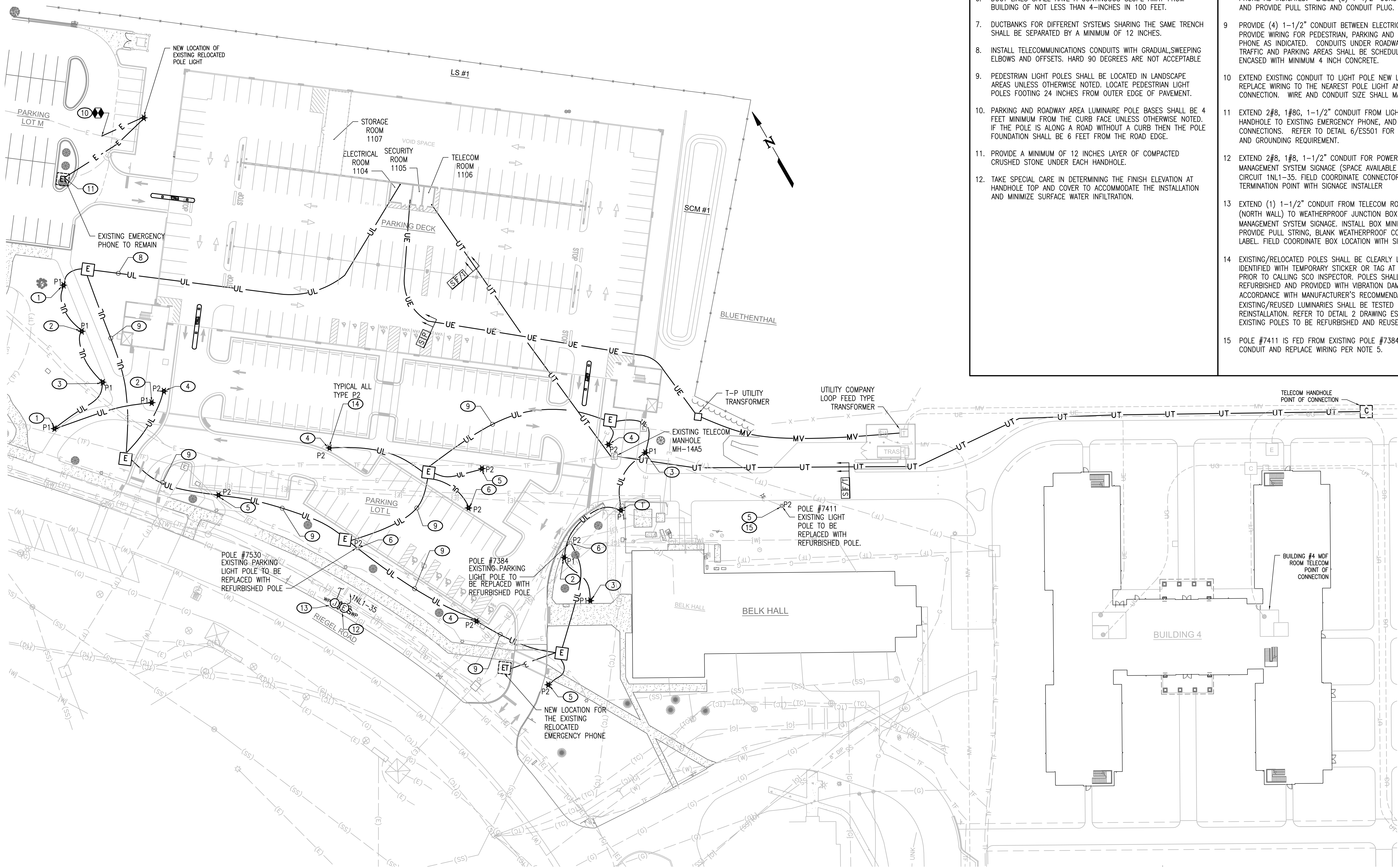


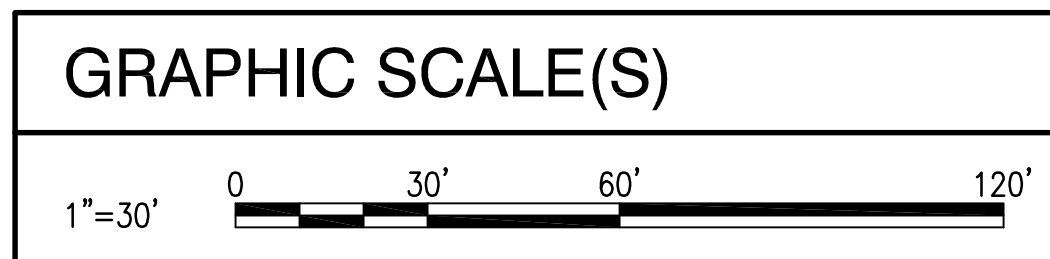
DUCTBANK CONDUIT SCHEDULE	
TAG	DESCRIPTION
P	600V, 4" WAY-SECONDARY POWER FROM UTILITY TRANSFORMER
F/T	4" WAY WITH (3) 1-1/4" ID INNERDUCTS (MAXCELL OR HDPE INNERDUCT) ONE FOR COPPER, ONE FOR FIBER AND ONE SPARE
S	4" WAY SPARE FOR FUTURE USE

- ### GENERAL NOTES
- COORDINATE UNDERGROUND CONDUIT ROUTINGS IN FIELD AND AVOID INTERFERENCE WITH OTHER TRADES. CONDUITS ARE SHOWN DIAGRAMMATICALLY, FINAL ROUTING TO BE DETERMINED IN THE FIELD.
 - THE MEDIUM VOLTAGE AND PRIMARY DISTRIBUTION SYSTEM PROVIDED BY UTILITY COMPANY SHALL BE UNDERGROUND, AND SHALL INCLUDE MEDIUM VOLTAGE AND PRIMARY CONDUCTORS, SWITCHES, TRANSFORMERS, GROUNDING AND TERMINATIONS. CONCRETE PAD BY CONTRACTOR.
 - COORDINATE TRANSFORMER SECONDARY CONDUIT SIZES WITH ELECTRICAL RISER DIAGRAMS AND COORDINATE CONDUIT TERMINATION POINTS WITH PARKING GARAGE FLOOR PLANS BEFORE CONSTRUCTION.
 - PROTECT PARTIALLY COMPLETED DUCT LINES FROM THE ENTRANCE OF DEBRIS AND DIRT WITH SUITABLE CONDUIT PLUGS. AT THE COMPLETION OF EACH SECTION OF DUCT LINE, CONDUIT SHALL BE CLEANED WITH A STIFF BRISTLE BRUSH HAVING THE SAME DIAMETER AS THE CONDUIT AND SHALL BE PULLED THROUGH EACH CONDUIT UNTIL CLEAR, THEN PLUGGED WITH TEMPORARY END PLUGS.
 - PROVIDE PULL STRING IN ALL EMPTY CONDUITS.
 - DUCT LINES SHALL HAVE A CONTINUOUS SLOPE AWAY FROM BUILDING OF NOT LESS THAN 4-INCHES IN 100 FEET.
 - DUCTBANKS FOR DIFFERENT SYSTEMS SHARING THE SAME TRENCH SHALL BE SEPARATED BY A MINIMUM OF 12 INCHES.
 - INSTALL TELECOMMUNICATIONS CONDUITS WITH GRADUAL SWEEPING ELBOWS AND OFFSETS. HARD 90 DEGREES ARE NOT ACCEPTABLE.
 - PEDESTRIAN LIGHT POLES SHALL BE LOCATED IN LANDSCAPE AREAS UNLESS OTHERWISE NOTED. LOCATE PEDESTRIAN LIGHT POLES FOOTING 24 INCHES FROM OUTER EDGE OF PAVEMENT.
 - PARKING AND ROADWAY AREA LUMINAIRE POLE BASES SHALL BE 4 FEET MINIMUM FROM THE CURB FACE UNLESS OTHERWISE NOTED. IF THE POLE IS ALONG A ROAD WITHOUT A CURB THEN THE POLE FOUNDATION SHALL BE 6 FEET FROM THE ROAD EDGE.
 - PROVIDE A MINIMUM OF 12 INCHES LAYER OF COMPACTED CRUSHED STONE UNDER EACH HANDHOLE.
 - TAKE SPECIAL CARE IN DETERMINING THE FINISH ELEVATION AT HANDHOLE TOP AND COVER TO ACCOMMODATE THE INSTALLATION AND MINIMIZE SURFACE WATER INFILTRATION.

- ### NOTES
- PROVIDE 2#6, 1#8G FOR POWER TO SITE PEDESTRIAN LIGHTING. USE CIRCUIT NHDP-7. CONNECT VIA CONTACTOR LC1
 - PROVIDE 2#6, 1#8G FOR POWER TO SITE PEDESTRIAN LIGHTING. USE CIRCUIT NHDP-9. CONNECT VIA CONTACTOR LC1
 - PROVIDE 2#6, 1#8G FOR POWER TO SITE PEDESTRIAN LIGHTING. USE CIRCUIT NHDP-11. CONNECT VIA CONTACTOR LC1
 - PROVIDE 2#6, 1#8G FOR POWER TO SITE PARKING LIGHTING. USE CIRCUIT NHDP-32,34. CONNECT VIA CONTACTOR LC1
 - PROVIDE 2#6, 1#8G FOR POWER TO SITE PARKING LIGHTING. USE CIRCUIT NHDP-34,36. CONNECT VIA CONTACTOR LC1
 - PROVIDE 2#6, 1#8G FOR POWER TO SITE PARKING LIGHTING. USE CIRCUIT NHDP-32,36. CONNECT VIA CONTACTOR LC1
 - PROVIDE 2#8, 1#8G FOR POWER TO EXISTING RELOCATED EMERGENCY PHONE. USE CIRCUIT NHDP-30.
 - PROVIDE (6) 1-1/2" CONDUIT FROM ELECTRICAL ROOM NORTH WALL (LIGHTING CONTACTOR LOCATION) TO ELECTRICAL HANDHOLE. PROVIDE WIRING FOR PEDESTRIAN, PARKING, AND EMERGENCY PHONE AS INDICATED. LABEL (3) 1-1/2" CONDUIT AS SPARE, AND PROVIDE PULL STRING AND CONDUIT PLUG.
 - PROVIDE (4) 1-1/2" CONDUIT BETWEEN ELECTRICAL HANDHOLES. PROVIDE WIRING FOR PEDESTRIAN, PARKING, AND EMERGENCY PHONE AS INDICATED. CONDUITS UNDER ROADWAYS, HEAVY TRAFFIC AND PARKING AREAS SHALL BE SCHEDULE 80 PVC AND ENCASED WITH MINIMUM 4 INCH CONCRETE.
 - EXTEND EXISTING CONDUIT TO LIGHT POLE NEW LOCATION, REPLACE WIRING TO THE NEAREST POLE LIGHT AND MAKE CONNECTION. WIRE AND CONDUIT SIZE SHALL MATCH EXISTING.
 - EXTEND 2#8, 1#8G, 1-1/2" CONDUIT FROM LIGHT POLE HANDHOLE TO EXISTING EMERGENCY PHONE, AND MAKE CONNECTIONS. REFER TO DETAIL 6/ES501 FOR CONDUIT, BASE AND GROUNDING REQUIREMENT.
 - EXTEND 2#8, 1#8, 1-1/2" CONDUIT FOR POWER TO THE PARKING MANAGEMENT SYSTEM SIGNAGE (SPACE AVAILABLE SIGN). USE CIRCUIT 1N1-35. FIELD COORDINATE CONNECTOR AND TERMINATION POINT WITH SIGNAGE INSTALLER.
 - EXTEND (1) 1-1/2" CONDUIT FROM TELECOM ROOM BACK WALL (NORTH WALL) TO WEATHERPROOF JUNCTION BOX FOR PARKING MANAGEMENT SYSTEM SIGNAGE. INSTALL BOX MINIMUM 10" AFG, PROVIDE PULL STRING, BLANK WEATHERPROOF COVER PLATE AND LABEL. FIELD COORDINATE BOX LOCATION WITH SIGNAGE INSTALLER.
 - EXISTING/RELOCATED POLES SHALL BE CLEARLY LABELED AND IDENTIFIED WITH TEMPORARY STICKER OR TAG AT EACH POLE PRIOR TO CALLING SCO INSPECTOR. POLES SHALL BE REFURBISHED AND PROVIDED WITH VIBRATION DAMPER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. EXISTING/REUSED LUMINAIRES SHALL BE TESTED PRIOR TO REINSTALLATION. REFER TO DETAIL 2 DRAWING ES502 FOR EXISTING POLES TO BE REFURBISHED AND REUSED.
 - POLE #7411 IS FED FROM EXISTING POLE #7384. KEEP EXISTING CONDUIT AND REPLACE WIRING PER NOTE 5.



ELECTRICAL SITE PLAN
SCALE: 1" = 30'



UNIVERSITY OF NORTH CAROLINA WILMINGTON
601 SOUTH COLLEGE ROAD
WILMINGTON, NORTH CAROLINA 28403

PARKING DECK II AND SURFACE
PARKING (DESIGN-BUILD)
SOUTH CAMPUS - 4965 RIEGEL ROAD

SCO ID NUMBER: 18-19226-01A
CODE: 441828
ITEM: 301

CONTRACTOR
Balfour Beatty Construction

DESIGNER
CLARK NEXSEN
1523 ELIZABETH AVENUE, SUITE 300
CHARLOTTE, NORTH CAROLINA 28204
704-377-8800
CLARK NEXSEN LICENSE NUMBER: C-1028

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PROFESSIONAL SEAL
NOT FOR CONSTRUCTION
SEAL 027766
REGISTERED PROFESSIONAL ENGINEER
STATE OF NORTH CAROLINA

NC CORPORATE ENGINEERING LICENSE #C-1028

DATE: 03/25/2019
75% CONSTRUCTION DOCUMENTS

REVISIONS

KEY PLAN

SHEET
ELECTRICAL SITE PLAN

ES101

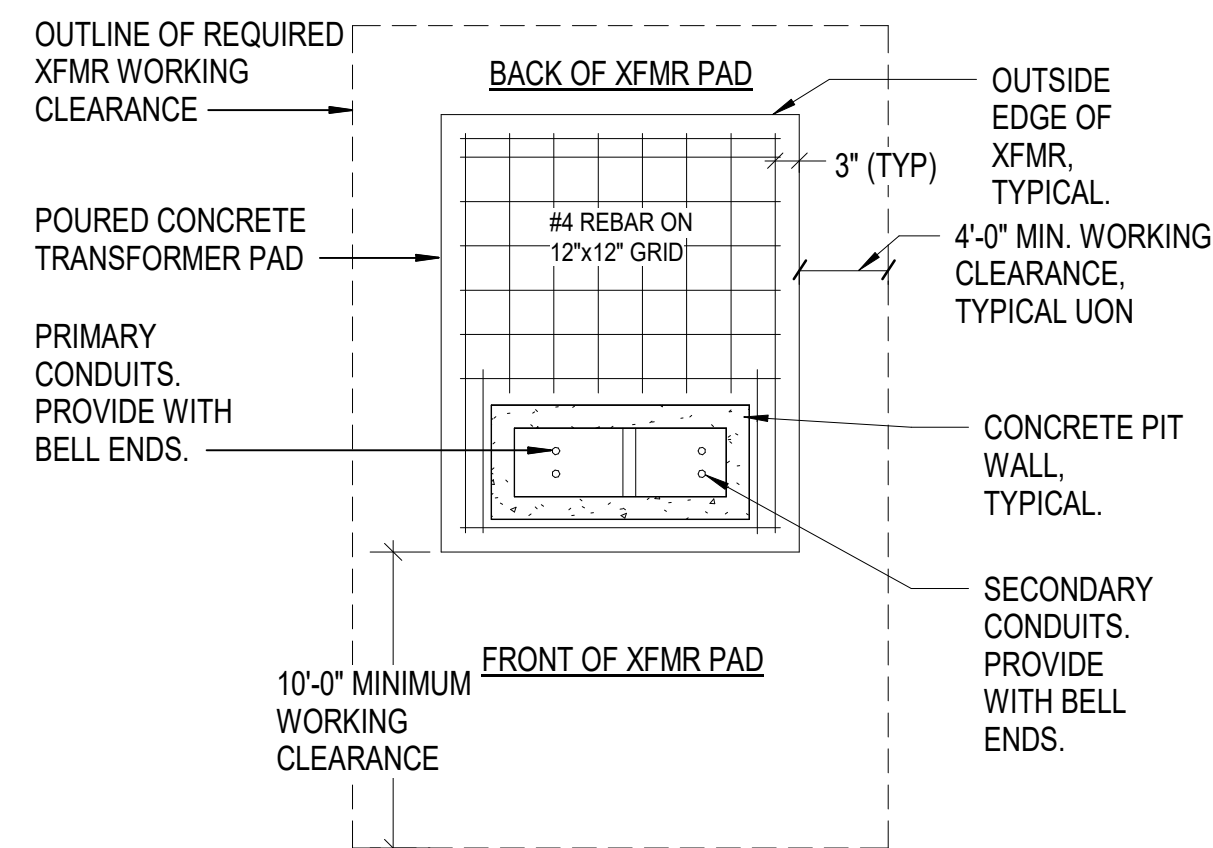
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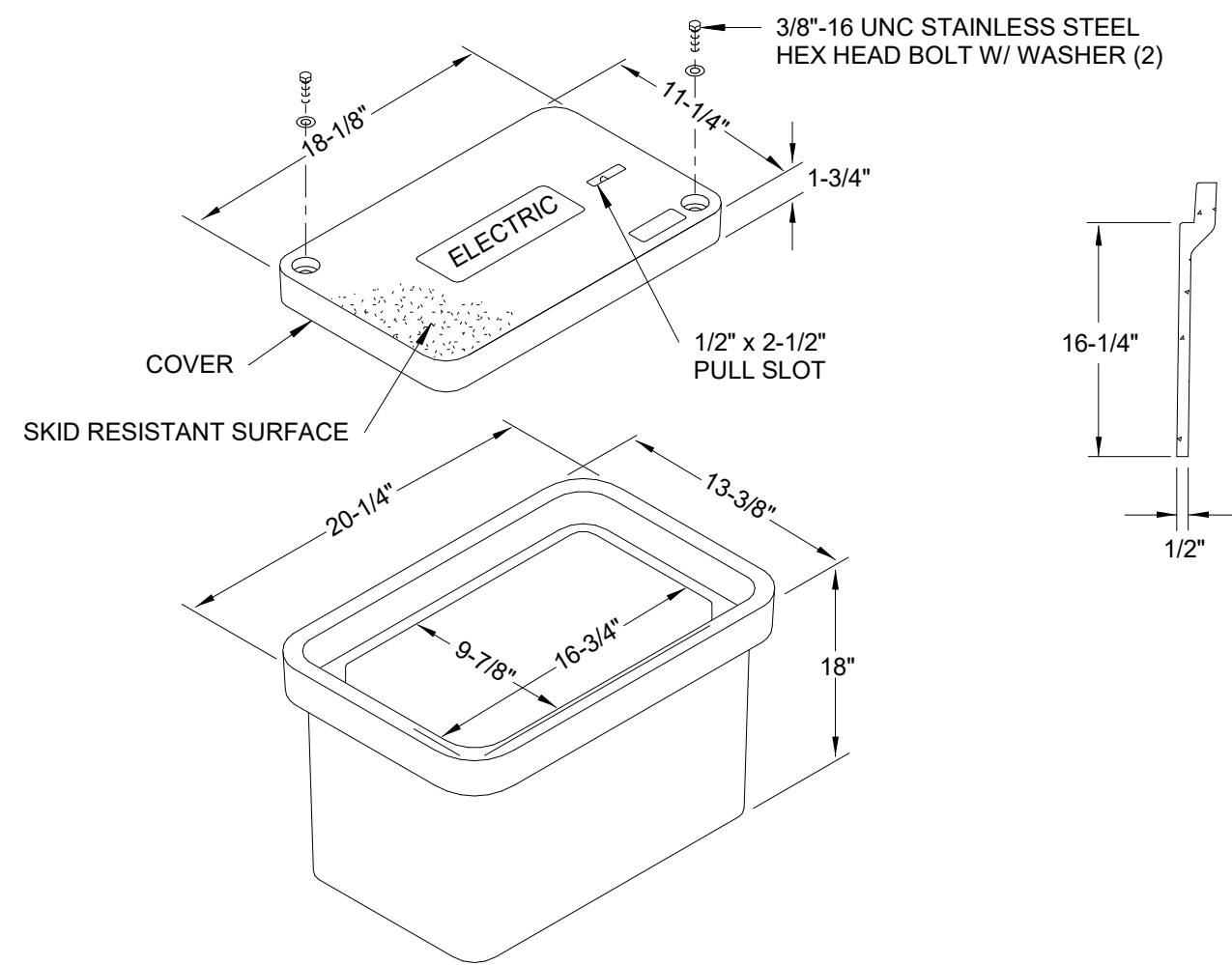
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**TRANSFORMER PAD
INSTALLATION GENERAL NOTES**

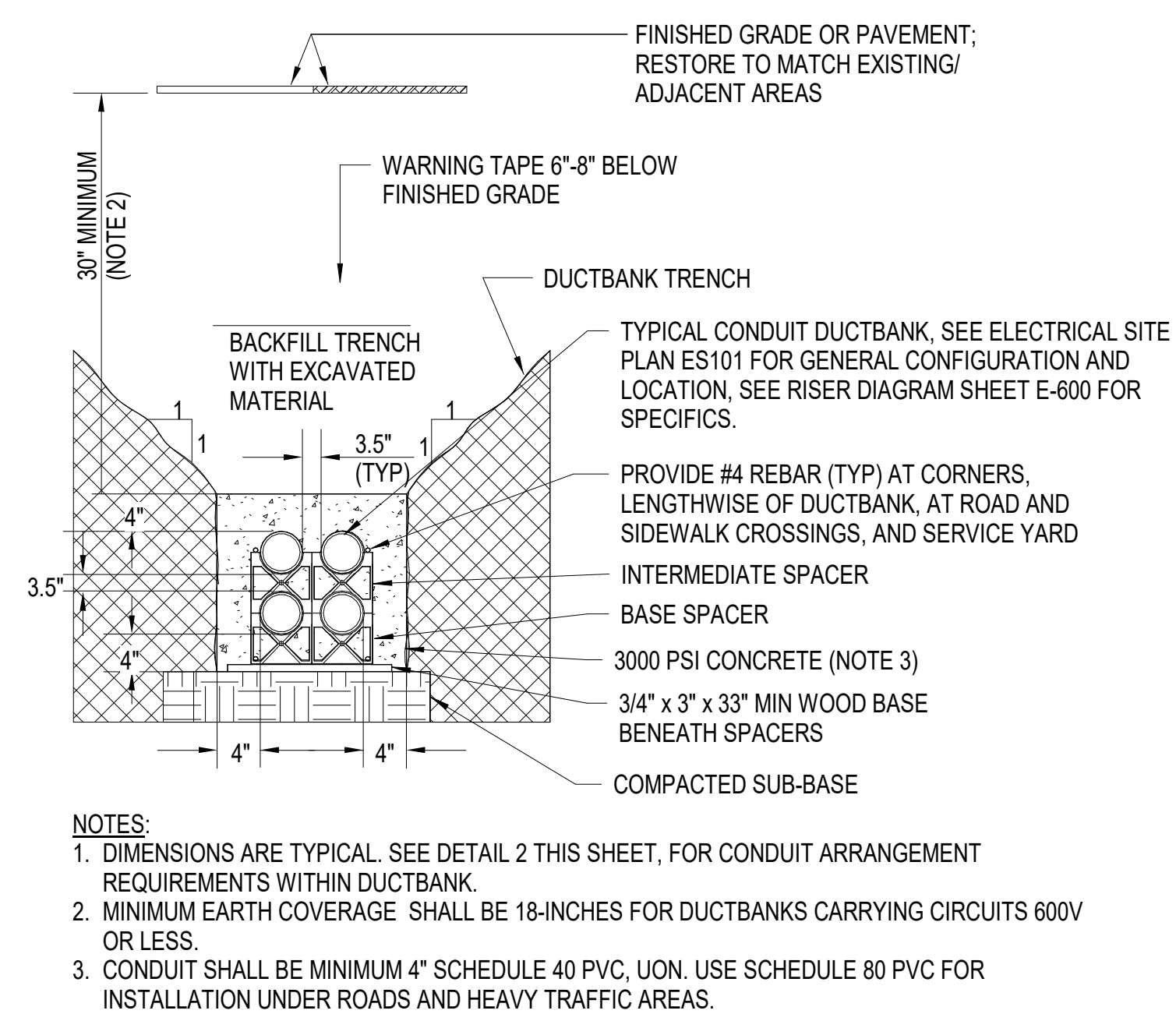
1. TRANSFORMER PADS SHALL BE INSTALLED IN A LOCATION TO REMAIN READILY ACCESSIBLE FOR LINE TRUCKS.
2. SOIL UNDERNEATH PADS SHALL BE FREE OF ROOTS AND OTHER ORGANIC MATERIALS AND BE THOROUGHLY TAMPED TO PREVENT WASHING. EXERCISE CARE IN BACKFILLING AND GRADING AROUND PAD.
3. REINFORCE WITH #4 REBARS ON A 12" x 12" GRID TIED SECURELY 3" ABOVE BASE ON CLEAN CONCRETE OR BRICK SUPPORTS. END OF REBARS TO BE 3" FROM OUTSIDE EDGE OF PAD.
4. CONCRETE TO BE 6-12% AIR-ENTRAINED WITH A MINIMUM 28 DAY STRENGTH OF 3000 PSI. MIXTURE TO BE 1:2:4 PROPORTIONS OF CEMENT, SAND AND GRAVEL. USE NO MORE THAN 6 GALLONS OF WATER PER SACK OF CONCRETE.
5. SERVICE CONDUIT SHALL BE LOCATED IN THE EXTREME RIGHT SIDE OF THE SECONDARY COMPARTMENT.
6. TOP SURFACE TO BE LEVEL SMOOTH AND BEVELED APPROXIMATELY 3/8".
7. ACTUAL PAD DIMENSIONS VARY. CONTRACTOR SHALL COORDINATE REQUIRED PAD DIMENSIONS WITH UTILITY COMPANY.
8. PAD SHALL EXTEND 12" BEYOND FOOTPRINT OF TRANSFORMER PROVIDED.



**7 SERVICE TRANSFORMER PAD DETAIL PLAN
NO SCALE**

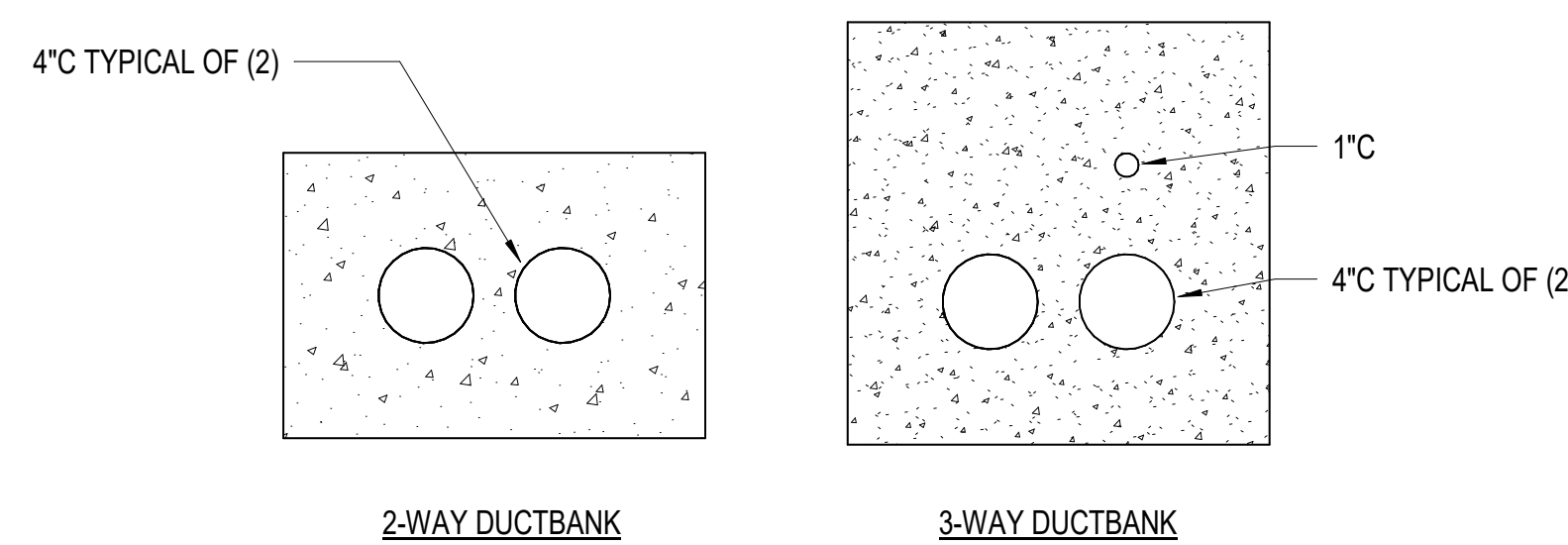


**5 HANDHOLE DETAIL
NO SCALE**

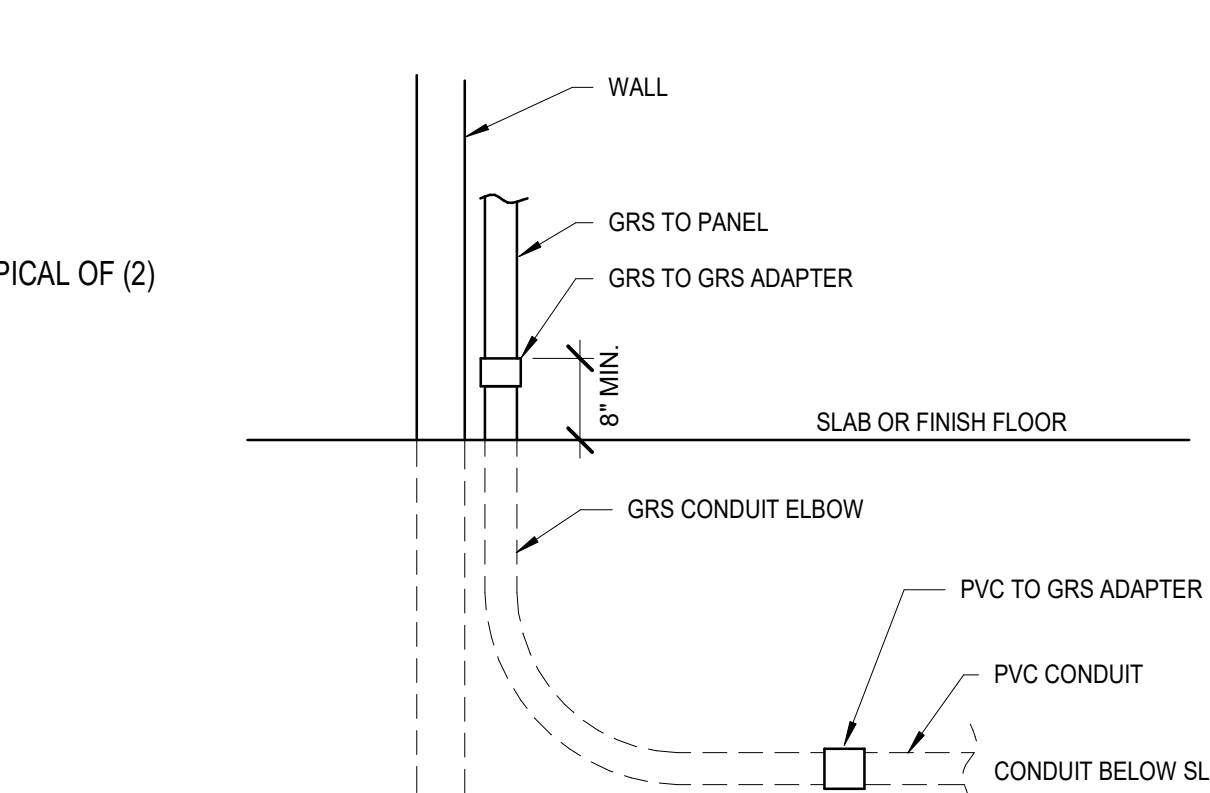


- NOTES:**
1. DIMENSIONS ARE TYPICAL. SEE DETAIL 2 THIS SHEET, FOR CONDUIT ARRANGEMENT REQUIREMENTS WITHIN DUCTBANK.
 2. MINIMUM EARTH COVERAGE SHALL BE 18-INCHES FOR DUCTBANKS CARRYING CIRCUITS 600V OR LESS.
 3. CONDUIT SHALL BE MINIMUM 4" SCHEDULE 40 PVC, UON. USE SCHEDULE 80 PVC FOR INSTALLATION UNDER ROADS AND HEAVY TRAFFIC AREAS.

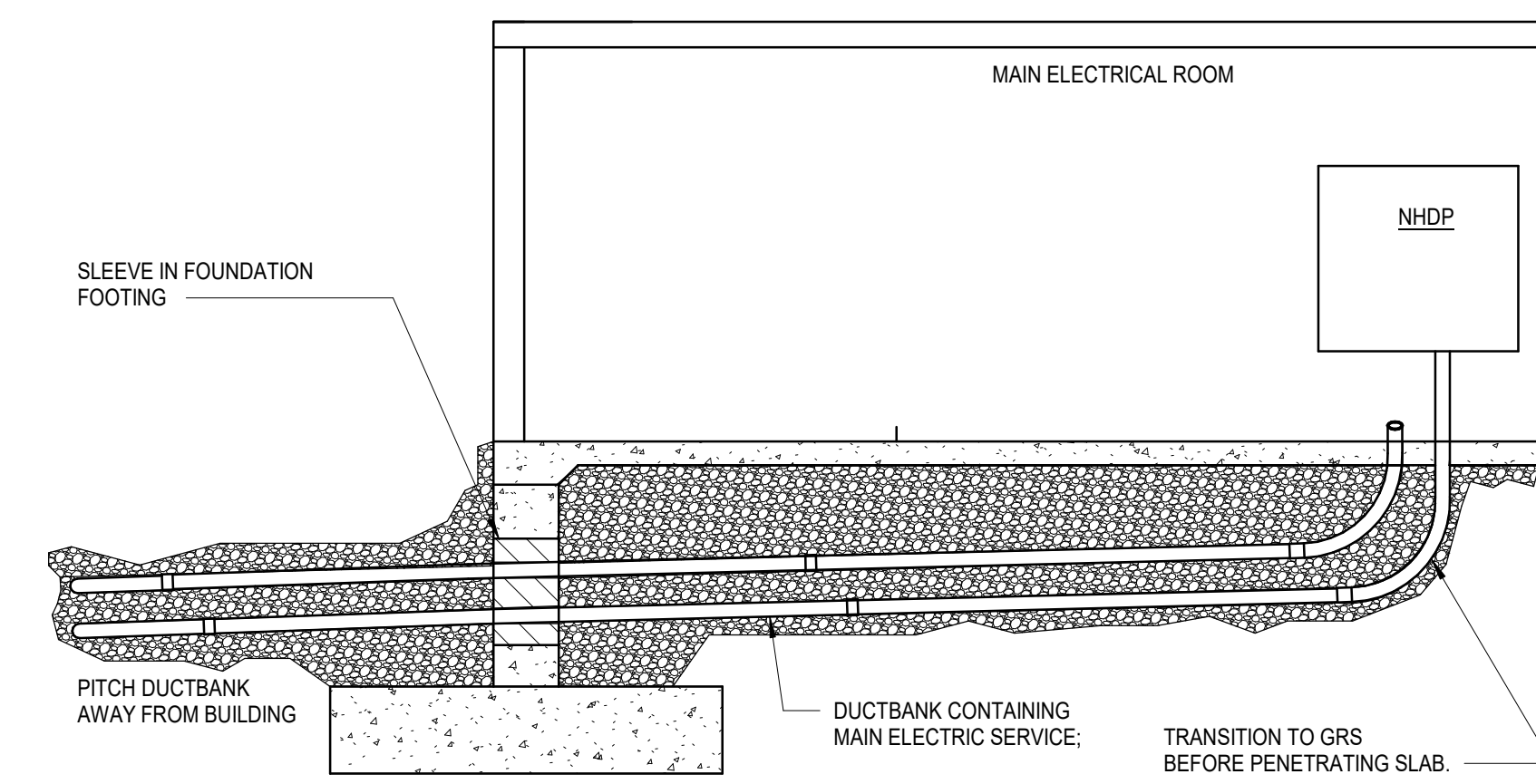
**1 TYPICAL CONCRETE ENCASED DUCTBANK DETAIL
NO SCALE**



**2 DUCTBANK CONFIGURATION DETAILS
NO SCALE**

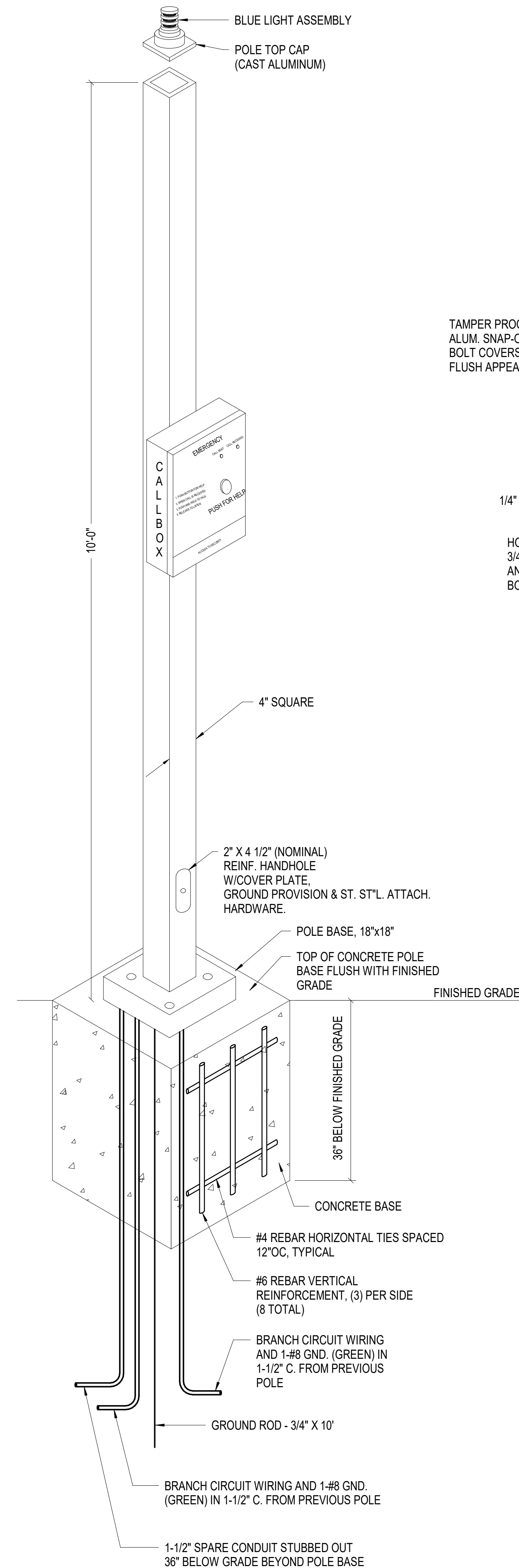


**3 CONDUIT TRANSITION DETAIL (THROUGH SLAB)
NO SCALE**

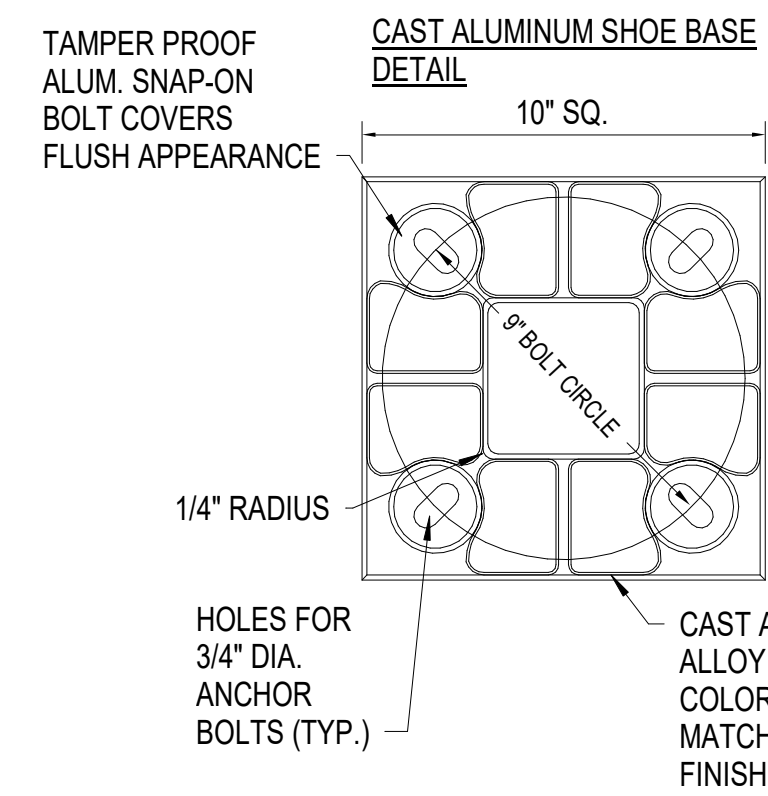


**4 SECONDARY DUCTBANK ENTRY INTO GARAGE
NO SCALE**

**6 EMERGENCY PHONE DETAIL (FOR EXISTING RELOCATED PHONES)
NO SCALE**



EXISTING:
SQUARE ALUMINUM NON-TAPERED POLE
CATALOG #C24-14A-S410-SSU-TS
SHAFT: MANUFACTURED FROM ALUMINUM ALLOY 6063-T6 WITH AN OVERALL HEIGHT OF 10'-0", A WALL THICKNESS OF 0.125", AND IT SHALL BE 4" SQUARE.
BASE: MANUFACTURED FROM 356-T6 ALUMINUM ALLOY. IT SHALL BE 10" SQUARE AND HAVE A 9" BOLT CIRCLE DIAMETER WITH TAMPER PROOF BOLT COVERS.
FINISH: POLE ASSEMBLY AND ALL CORRESPONDING ACCESSORIES TO RECEIVE A POWDER COAT FINISH. S.W. UHS8-9023 "SMOOTH OYSTER" 80% GLOSS.



NOTE:
ALL HARDWARE - 18-8 STAINLESS STEEL

ANCHORAGE: 3/4" DIA. X 18" LONG ANCHOR BOLTS WITH 3" HOOK AND 3" THREAD. MATERIAL PER ASTM F1554 GR55/A576, TOP 8" THREADED PORTION GALVANIZED PER ASTM A-153, WITH LWS, FWS AND NUTS ALL GALV.



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SUBMITTAL

03/29/2019

**75% CONSTRUCTION
DOCUMENTS**

REVISIONS

KEY PLAN

SHEET
ELECTRICAL SITE DETAILS

ES501

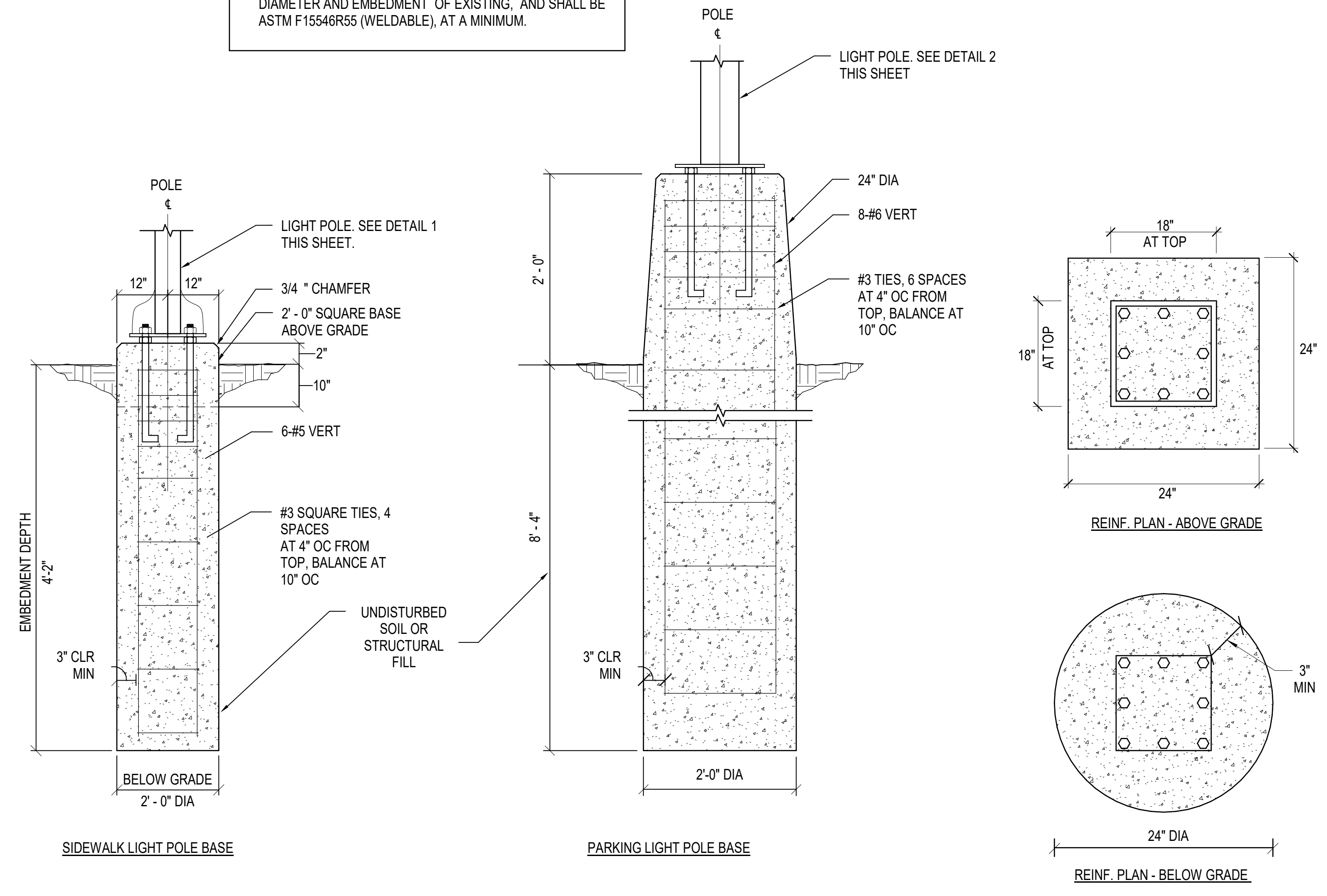
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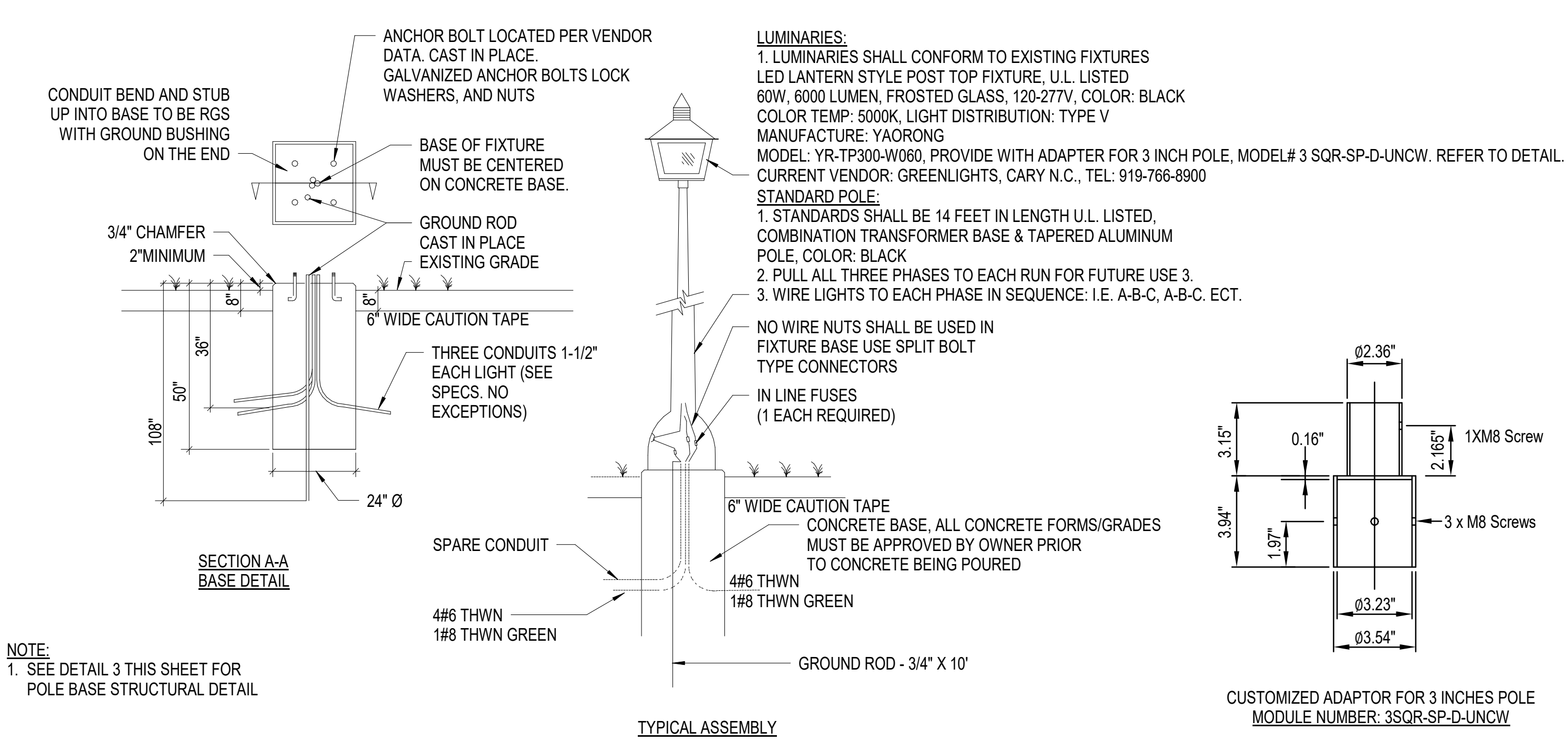


NO.	DESCRIPTION

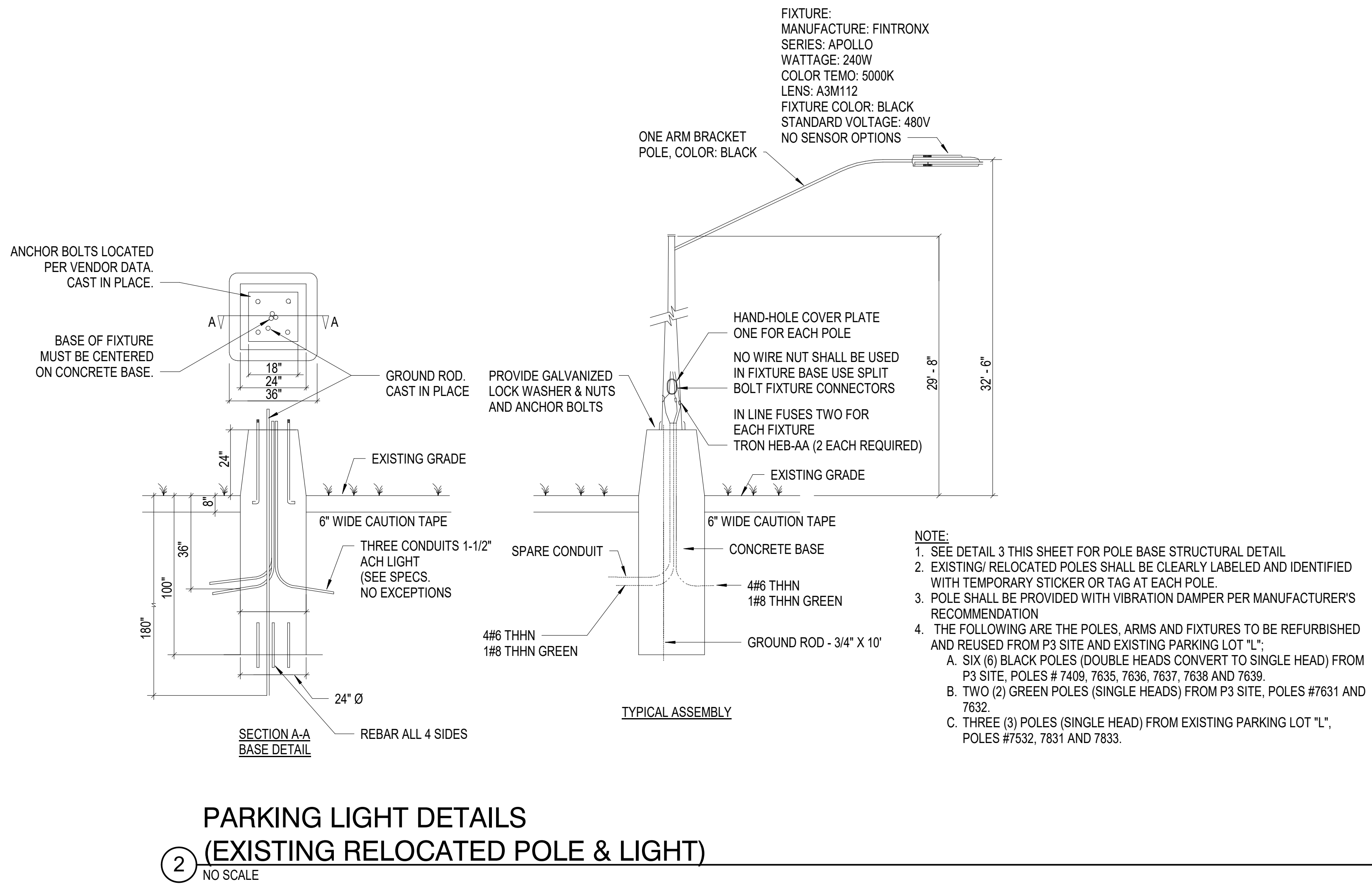
NOTE:
1. CONCRETE SHALL HAVE MINIMUM STRENGTH OF 4000 PSI AND MAXIMUM WATER/CEMENT RATIO OF 0.45. CONCRETE EXPOSED ABOVE GRADE SHALL CONTAIN ENTRAINED AIR.
2. ANCHOR BOLTS FOR RELOCATED LIGHT POLES SHALL MATCH DIAMETER AND EMBEDMENT OF EXISTING, AND SHALL BE ASTM F1554GR55 (WELDABLE), AT A MINIMUM.



3 POLE BASE STRUCTURAL DETAILS
NO SCALE



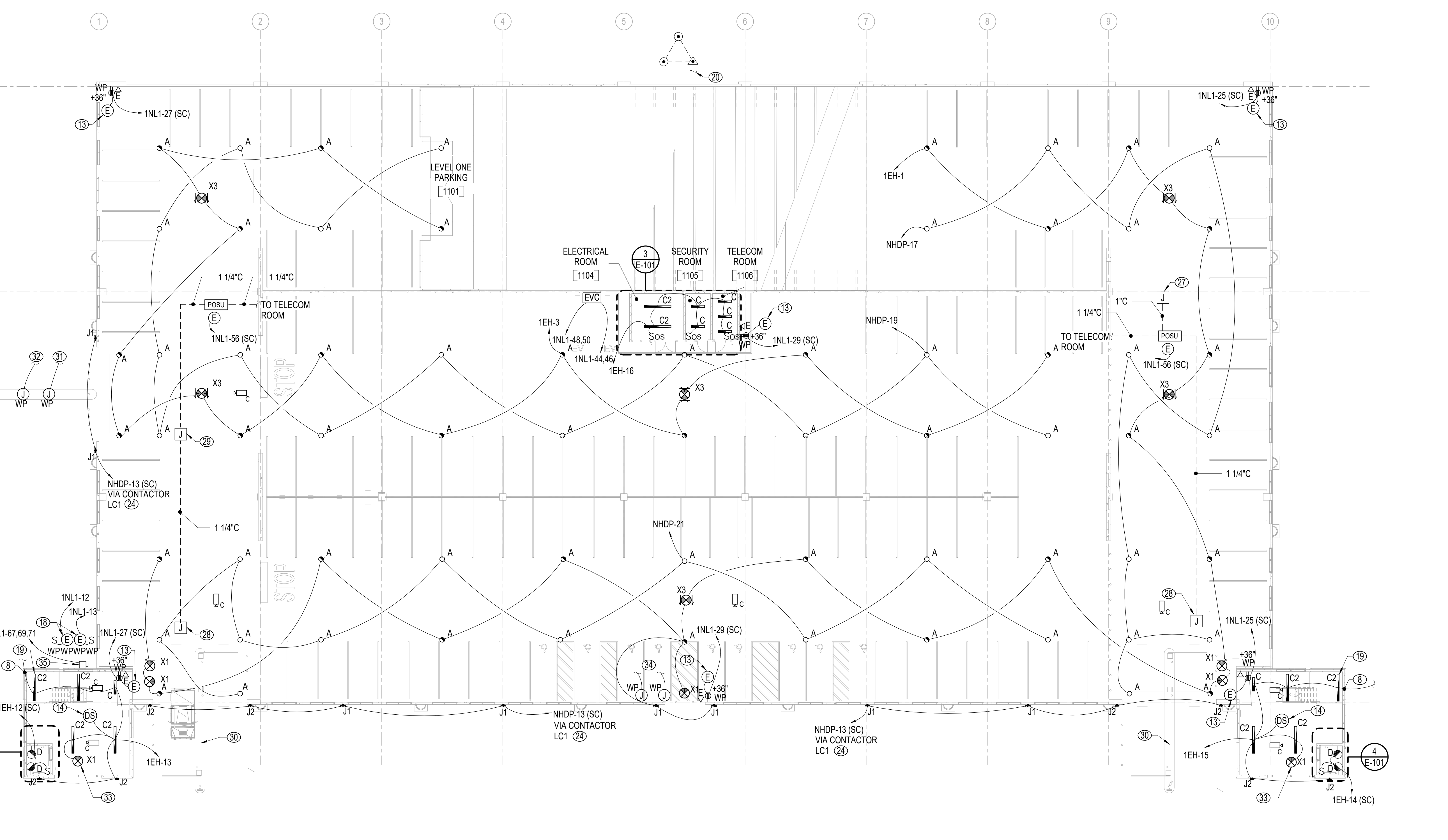
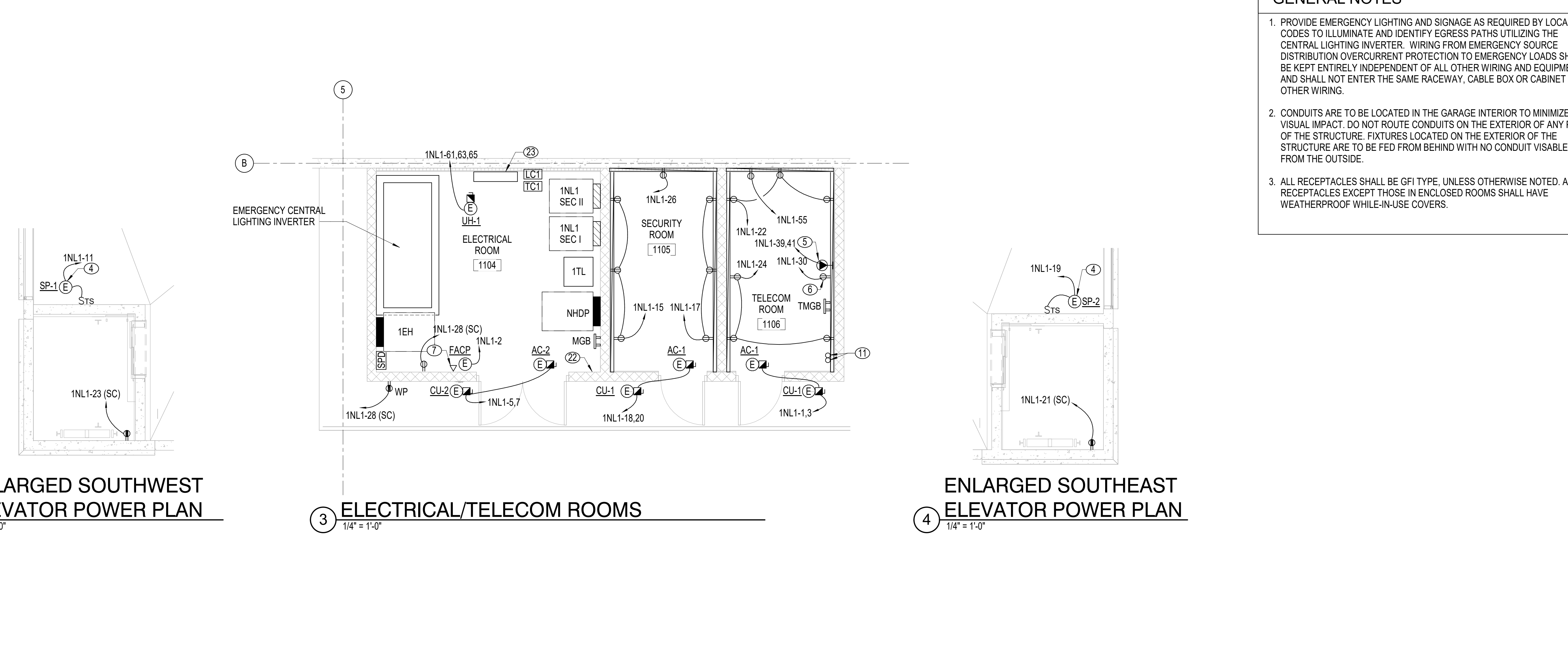
1 SIDEWALK LIGHTING DETAILS
NO SCALE



**2 PARKING LIGHT DETAILS
(EXISTING RELOCATED POLE & LIGHT)**
NO SCALE

3/28/2019 3:40:16 PM
Client: Proj056172_UNCW Parking Deck II E77_Benton.Davis@clarknexsen.com

1 2 3 4 5 6



1 FIRST LEVEL - LIGHTING, POWER, AND SYSTEMS PLAN
1/16" = 1'-0"

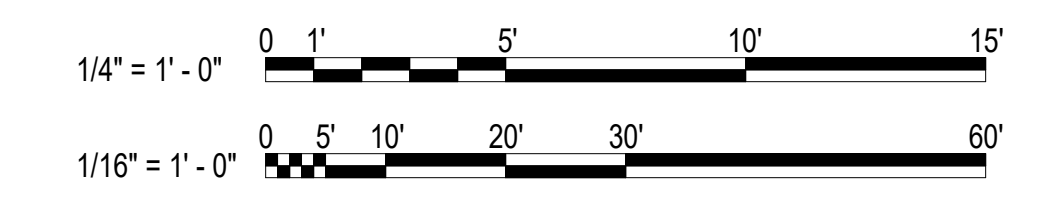
GENERAL NOTES

1. PROVIDE EMERGENCY LIGHTING AND SIGNAGE AS REQUIRED BY LOCAL CODES TO ILLUMINATE AND IDENTIFY EGRESS PATHS UTILIZING THE CENTRAL LIGHTING INVERTER. WIRING FROM EMERGENCY SOURCE DISTRIBUTION OVERCURRENT PROTECTION TO EMERGENCY LOADS SHALL BE KEPT ENTIRELY INDEPENDENT OF ALL OTHER WIRING AND EQUIPMENT AND SHALL NOT ENTER THE SAME RACEWAY, CABLE BOX OR CABINET WITH OTHER WIRING.
2. CONDUITS ARE TO BE LOCATED IN THE GARAGE INTERIOR TO MINIMIZE VISUAL IMPACT. DO NOT ROUTE CONDUITS ON THE EXTERIOR OF ANY PART OF THE STRUCTURE. FIXTURES LOCATED ON THE EXTERIOR OF THE STRUCTURE ARE TO BE FED FROM BEHIND WITH NO CONDUIT VISIBLE FROM THE OUTSIDE.
3. ALL RECEPTACLES SHALL BE GFI TYPE, UNLESS OTHERWISE NOTED. ALL RECEPTACLES EXCEPT THOSE IN ENCLOSED ROOMS SHALL HAVE WEATHERPROOF WHITE-IN-USE COVERS.

NOTES

1. ELEVATOR MOTOR FUSED DISCONNECT. FUSE PER MANUFACTURER'S RECOMMENDATION. REFER TO RISER DIAGRAM E-600 FOR ADDITIONAL INFORMATION. DISCONNECT SHALL BE LOCKABLE IN THE OPEN POSITION.
2. ELEVATOR CAB LIGHT AND CONTROL FUSED DISCONNECT. PROVIDE 120V, 30A, 20A FUSE LOCKABLE IN THE OPEN POSITION.
3. PROVIDE (1) VOICE LINE FOR EACH ELEVATOR. FIELD COORDINATE SPECIFICS AND FINAL LOCATION WITH ELEVATOR SUPPLIER.
4. SUMP PUMP CONTROLLER. COORDINATE LOCATION WITH SUMP PUMP SUPPLIER.
5. PROVIDE NEMA L6-20R, 208V, TWIST-LOCK STYLE RECEPTACLE. LOCATE BELOW THE PROPOSED TELECOMMUNICATIONS CABINET. REFER TO DRAWING E-600 FOR CABINET REQUIREMENTS.
6. PROVIDE NEMA-S-20R, 120V, 20A, RECEPTACLE. LOCATE BELOW THE PROPOSED WALL MOUNT TELECOMMUNICATIONS CABINET. REFER TO DRAWING E-600 FOR CABINET REQUIREMENTS.
7. VOICE LINE FOR FIRE ALARM DIGITAL COMMUNICATOR. COORDINATE SPECIFICS WITH FIRE ALARM SYSTEM SUPPLIER.
8. CONNECT TO STAIR LUMINAIRE ON TIER ABOVE AND TIER BELOW.
9. CONNECT TO STAIR LUMINAIRE ON TIER ABOVE AND TIER BELOW.
10. (2) 4" INCOMING TELECOM CONDUITS FROM MANHOLE MH-14A5. REFER TO DRAWING ES101 FOR CONTINUATION.
11. REFER TO LUMINAIRE SCHEDULE FOR MOUNTING SPECIFICS OF LUMINAIRE LOCATED AT TOP OF ELEVATOR SHAFT.
12. PROVIDE CONNECTION TO EMERGENCY PHONE. EXTEND 2#12, #12, 3/4" FROM RECEPTACLE JUNCTION BOX TO BUTTON OF CALL BOX.
13. DAYLIGHT SENSOR FOR DAYLIGHT HARVESTING. PROVIDE ONE SENSOR PER STAIR TOWER AND CONNECT TO FOUR (3) TYPE C2 AND (1) TYPE C LUMINAIRES ON EACH TIER AND (2) TYPE C2 AND (2) TYPE C LUMINAIRES ON THE TOP TIER FIFTH LEVEL. LOCATE SENSOR ON GROUND TIER LEVEL PER MANUFACTURER RECOMMENDATIONS. DO NOT CONNECT LAMINAR TYPE C2 AT THE STAIR LOWER LANDING TO THE DAYLIGHT SENSOR.
14. COORDINATE ANCHOR BOLT PATTERN OF POLE WITH DECK MANUFACTURER PRIOR TO ORDERING POLE. COORDINATE DRILL PATTERN AND BOLT PATTERN OF LUMINAIRE MOUNT WITH POLE MANUFACTURER PRIOR TO ORDERING POLE.
15. BOND LIGHT POLE WITH #4 BARE COPPER WIRE TO BASE OF COLUMN'S VERTICAL REINFORCING BARS (IF NOT LESS THAN 1/2" IN DIAMETER), INSTALLED IN MULTIPLE PIECES AND CONNECTED TOGETHER BY THE USUAL STEEL TIE WIRES, WELDING, EXOTHERMIC WELDING, OR OTHER EFFECTIVE MEANS TO CREATE A CONTINUOUS PATH TO EARTH.
16. COORDINATE STEEL VERTICAL REINFORCING BAR CONNECTION TO ENSURE CONTINUOUS PATH TO EARTH WITH CONTRACTOR PRIOR TO CONCRETE IS POURED FOR EACH LIGHT POLE LOCATION.
17. PROVIDE CONNECTION TO HEATED BACKFLOW AND IRRIGATION ENCLOSURE AND ASSOCIATED HEAT TRACING. COORDINATE CONNECTION REQUIREMENT WITH EQUIPMENT INSTALLER. REFER TO SITE DRAWING GS100 AND PLUMBING DRAWINGS P101 AND P201 FOR LOCATION.
18. CONNECT LUMINAIRE A HEAD OF LOCAL CONTROL.
19. GROUND TRIAD, LOCATE MINIMUM 5' FROM BUILDING. EXTEND 1-1/4" FROM GROUND TEST WELL TO MAIN GROUND ROD LOCATED IN THE ELECTRICAL ROOM 1104 (MGB). INSTALL CONDUIT MINIMUM 30" BELOW FINISHED GRADE. REFER TO DETAILS 1 AND 2 DRAWING E-500 FOR ADDITIONAL REQUIREMENT.
20. PHOTOCELL FOR BRANCH CIRCUITS VIA LIGHTING CONTACTOR LC1. MOUNT PHOTOCELL UNDER ROOF EAVE OF STAIR TOWER. ORIENT FACING NORTH.
21. MOUNT A COPY OF THE ELECTRICAL POWER RISER DIAGRAM, UNDER CLEAR PROTECTIVE MATERIAL AT THIS LOCATION.
22. PROVIDE NEMA1 SCREW-OVER WIREWAY, 8" WIDE X 8" HIGH X 36" LONG FOR SITE LIGHTING UNDERGROUND CONDUIT TERMINATIONS. MOUNT 24" AFF.
23. TYPE J1 AND J2 CONNECTED VIA LIGHTING CONTACTOR LC1 LUMINAIRES SHALL NOT BE PROVIDED WITH INTEGRAL PHOTOCELL. REFER TO LUMINAIRE SCHEDULE'S NOTES.
24. MOUNT LUMINAIRE AT 17' AFF TO CENTER. COORDINATE LOCATION WITH ARCHITECTURAL DRAWINGS. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.
25. JUNCTION BOXES FOR FUTURE ELECTRIC VEHICLE CHARGER. REFER TO SYMBOL LEGEND FOR ADDITIONAL INFORMATION. TYPICAL FOR SECOND AND THIRD LEVELS ONLY.
26. PROVIDE TWO-GANG JUNCTION BOX FOR CONNECTION TO VEHICLE COUNTING SENSORS. EXTEND LOW VOLTAGE CABLE 1" CONDUIT TO EACH SENSOR AND MAKE CONNECTIONS. COORDINATE LOCATION WITH STRUCTURAL DRAWINGS AG401 AND AG402 AND SYSTEM VENDOR.
27. PROVIDE TWO-GANG JUNCTION BOX FOR CONNECTION TO LIGHTED SIGNS HANGING FROM BOTTOM OF DOUBLE TEES OVER EACH LANE (GREEN ARROW / X) AND EXTERIOR LIGHTED SIGNS, (ENTER/EXIT) OVER EACH LANE. COORDINATE SIGNAGE LOCATION WITH STRUCTURAL DRAWINGS, AG401 AND AG402 AND SYSTEM VENDOR. EXTEND LOW VOLTAGE CABLE IN 1" CONDUIT TO EACH SIGN.
28. REFER TO DETAIL 9 DRAWING E-500 FOR POWER AND DATA REQUIREMENTS.
29. EXTEND (1) 1" CONDUIT UNDERGROUND FROM WEATHERPROOF JUNCTION BOX TO ELECTRICAL ROOM PANEL 1NLI SECTION II FOR FUTURE GATE AND TERMINATE AT BOTH ENDS. MOUNT JUNCTION BOX 12" AFF PROVIDE WEATHERPROOF COVER PLATE AND LABEL.
30. EXTEND (1) 1-1/2" CONDUIT UNDERGROUND FROM WEATHERPROOF JUNCTION BOX TO TELECOM ROOM EAST WALL FOR FUTURE GATE. MOUNT JUNCTION BOX 10" AFF. PROVIDE WEATHERPROOF COVER PLATE AND LABEL. STUB-UP CONDUIT IN TELECOM ROOM 10" AFF.
31. REFER TO ARCHITECTURAL CURTAIN WALL DETAIL DRAWING FOR EXIT SIGN MOUNTING LOCATION.
32. EXTEND (1) 1" CONDUIT FOR POWER AND (1) 1" CONDUIT FOR DATA, SAME AS NOTES 31 AND 32 EXCEPT FOR FUTURE PAY BY SPACE MACHINE. COORDINATE FINAL LOCATION WITH UNOW PRIOR TO INSTALLATION.
33. PROVIDE HEAVY DUTY NEMA 4X, 240 V, 30 AMP NON-FUSED DISCONNECT FOR BOOSTER PUMP. EXTEND 3#8, 1#6 G, 1" CONDUIT UNDERGROUND FROM DISCONNECT TO PANEL 1NLI SECTION II TO CIRCUIT INDICATED, AND EXTEND 3#12, #12 G, 3/4" CONDUIT FROM DISCONNECT TO PUMP AND MAKE CONNECTIONS. PUMP HEATED ENCLOSURE SHALL BE CONNECTED TO THE BACKFLOW HEATED ENCLOSURE CIRCUIT 1NLI-12 AT THIS LOCATION. REFER TO KEY NOTE 18 FOR ADDITIONAL INFORMATION.

GRAPHIC SCALE(S)



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DESIGNER

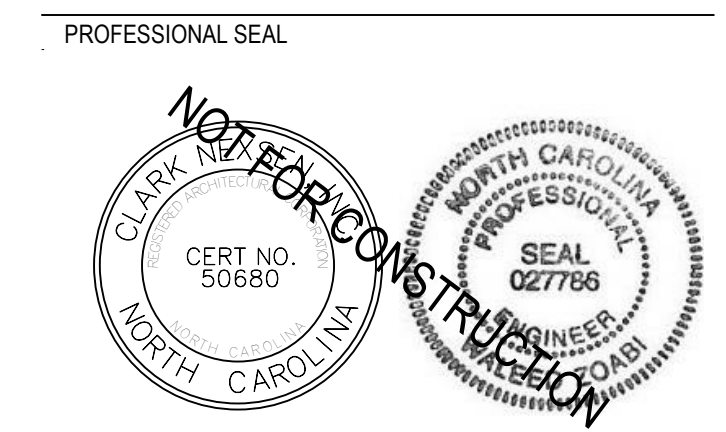
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SUBMITTAL
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75% CONSTRUCTION DOCUMENTS

REVISIONS

KEY PLAN

SHEET
FIRST LEVEL - LIGHTING, POWER AND SYSTEMS PLAN

E-101

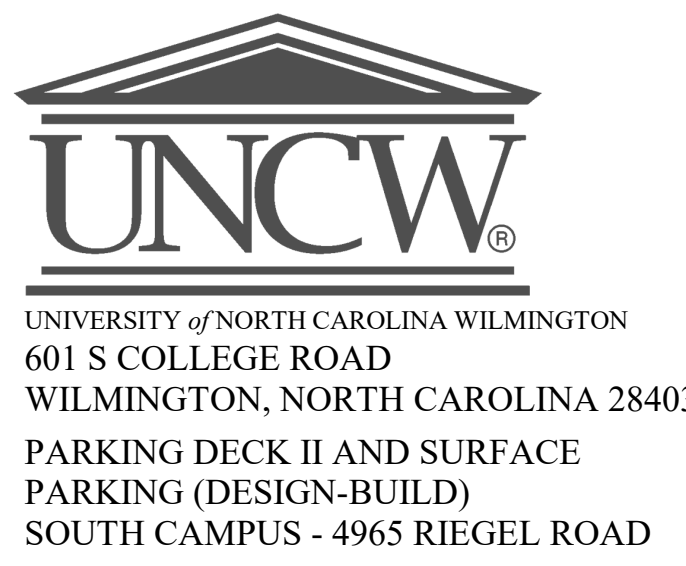
DESIGN: JE
DRAWN: KAW
REVIEW: WAZ
CN 8112

GENERAL NOTES

1. PROVIDE EMERGENCY LIGHTING AND SIGNAGE AS REQUIRED BY LOCAL CODES TO ILLUMINATE AND IDENTIFY EGRESS PATHS UTILIZING THE CENTRAL LIGHTING INVERTER. WIRING FROM EMERGENCY SOURCE DISTRIBUTION OVERCURRENT PROTECTION TO EMERGENCY LOADS SHALL BE KEPT ENTIRELY INDEPENDENT OF ALL OTHER WIRING AND EQUIPMENT AND SHALL NOT ENTER THE SAME RACEWAY, CABLE BOX OR CABINET WITH OTHER WIRING.
2. CONDUITS ARE TO BE LOCATED IN THE GARAGE INTERIOR TO MINIMIZE VISUAL IMPACT. DO NOT ROUTE CONDUITS ON THE EXTERIOR OF ANY PART OF THE STRUCTURE. FIXTURES LOCATED ON THE EXTERIOR OF THE STRUCTURE ARE TO BE FED FROM BEHIND WITH NO CONDUIT VISIBLE FROM THE OUTSIDE.
3. ALL RECEPTACLES SHALL BE GFI TYPE, UNLESS OTHERWISE NOTED. ALL RECEPTACLES EXCEPT THOSE IN ENCLOSED ROOMS SHALL HAVE WEATHERPROOF WHILE-IN-USE COVERS.

NOTES

1. ELEVATOR MOTOR FUSED DISCONNECT. FUSE PER MANUFACTURER'S RECOMMENDATION. REFER TO RISER DIAGRAM E-600 FOR ADDITIONAL INFORMATION. DISCONNECT SHALL BE LOCKABLE IN THE OPEN POSITION.
2. ELEVATOR CAB LIGHT AND CONTROL FUSED DISCONNECT. PROVIDE 120V, 30A, 20A FUSE LOCKABLE IN THE OPEN POSITION.
3. PROVIDE (1) VOICE LINE FOR EACH ELEVATOR. FIELD COORDINATE SPECIFICS AND FINAL LOCATION WITH ELEVATOR SUPPLIER.
4. SUMP PUMP CONTROLLER. COORDINATE LOCATION WITH SUMP PUMP SUPPLIER.
5. PROVIDE NEMA 16-20R, 208V, TWIST-LOCK STYLE RECEPTACLE. LOCATE BELOW THE PROPOSED TELECOMMUNICATIONS CABINET. REFER TO DRAWING E-600 FOR CABINET REQUIREMENTS.
6. PROVIDE NEMA-5-20R, 120V, 20A, RECEPTACLE. LOCATE BELOW THE PROPOSED WALL MOUNT TELECOMMUNICATIONS CABINET. REFER TO DRAWING E-600 FOR CABINET REQUIREMENTS.
7. VOICE LINE FOR FIRE ALARM DIGITAL COMMUNICATOR. COORDINATE SPECIFICS WITH FIRE ALARM SYSTEM SUPPLIER.
8. CONNECT TO STAIR LUMINAIRE ON TIER ABOVE.
9. CONNECT TO STAIR LUMINAIRE ON TIER ABOVE AND TIER BELOW.
10. CONNECT TO STAIR LUMINAIRE ON TIER BELOW.
11. (2) 4" INCOMING TELECOM CONDUITS FROM MANHOLE MH-14A5. REFER TO DRAWING ES101 FOR CONTINUATION.
12. REFER TO LUMINAIRE SCHEDULE FOR MOUNTING SPECIFICS OF LUMINAIRE LOCATED AT TOP OF ELEVATOR SHAFT.
13. PROVIDE CONNECTION TO EMERGENCY PHONE. EXTEND 2#12, #12, 3/4" C FROM RECEPTACLE JUNCTION BOX TO BUTTON OF CALL BOX.
14. DAYLIGHT SENSOR FOR DAYLIGHT HARVESTING. PROVIDE ONE SENSOR PER STAIR TOWER AND CONNECT TO FOUR (3) TYPE C2 AND (1) TYPE C LUMINAIRES ON EACH TIER AND (2) TYPE C2 AND (2) TYPE C LUMINAIRES ON THE TOP TIER FIFTH LEVEL. LOCATE SENSOR ON GROUND TIER LEVEL PER MANUFACTURER RECOMMENDATIONS. DO NOT CONNECT LAMINAR TYPE C2 AT THE STAIR LOWER LANDING TO THE DAYLIGHT SENSOR.
15. COORDINATE ANCHOR BOLT PATTERN OF POLE WITH DECK MANUFACTURER PRIOR TO ORDERING POLE. COORDINATE DRILL PATTERN AND BOLT PATTERN OF LUMINAIRE MOUNT WITH POLE MANUFACTURER PRIOR TO ORDERING POLE.
16. BOND LIGHT POLE WITH #4 BARE COPPER WIRE TO BASE OF COLUMN'S VERTICAL REINFORCING BARS (IF NOT LESS THAN 1/2" IN DIAMETER), INSTALLED IN MULTIPLE PIECES AND CONNECTED TOGETHER BY THE USUAL STEEL TIE WIRES, WELDING, EXOTHERMIC WELDING, OR OTHER EFFECTIVE MEANS TO CREATE A CONTINUOUS PATH TO EARTH.
17. COORDINATE STEEL VERTICAL REINFORCING BAR CONNECTION TO ENSURE CONTINUOUS PATH TO EARTH WITH CONTRACTOR PRIOR TO CONCRETE IS POURED FOR EACH LIGHT POLE LOCATION.
18. PROVIDE CONNECTION TO HEATED BACKFLOW AND IRRIGATION ENCLOSURE AND ASSOCIATED HEAT TRACING. COORDINATE CONNECTION REQUIREMENT WITH EQUIPMENT INSTALLER. REFER TO SITE DRAWING CG100 AND PLUMBING DRAWINGS P101 AND P201 FOR LOCATION.
19. CONNECT LUMINAIRE A HEAD OF LOCAL CONTROL.
20. GROUND TRIAD. LOCATE MINIMUM 5' FROM BUILDING. EXTEND 1-1/4" C FROM GROUND TEST WELL TO MAIN GROUND ROD LOCATED IN THE ELECTRICAL ROOM 1104 (MGB). INSTALL CONDUIT MINIMUM 30" BELOW FINISHED GRADE. REFER TO DETAILS 1 AND 2 DRAWING E-500 FOR ADDITIONAL REQUIREMENT.
21. PHOTOCELL FOR BRANCH CIRCUITS VIA LIGHTING CONTACTOR LC1. MOUNT PHOTOCELL UNDER ROOF EAVE OF STAIR TOWER. ORIENT FACING NORTH.
22. MOUNT A COPY OF THE ELECTRICAL POWER RISER DIAGRAM, UNDER CLEAR PROTECTIVE MATERIAL AT THIS LOCATION.
23. PROVIDE NEMA1 SCREW-OVER WIREWAY, 8" WIDE X 8" HIGH X 36" LONG FOR SITE LIGHTING UNDERGROUND CONDUIT TERMINATIONS. MOUNT 24" AFF.
24. TYPE J1 AND J2 CONNECTED VIA LIGHTING CONTACTOR LC1 LUMINAIRES SHALL NOT BE PROVIDED WITH INTEGRAL PHOTOCELL. REFER TO LUMINAIRE SCHEDULE'S NOTES.
25. MOUNT LUMINAIRE AT 17" AFF TO CENTER. COORDINATE LOCATION WITH ARCHITECTURE IN DRAWINGS. REFER TO LUMINAIRE SCHEDULE FOR ADDITIONAL INFORMATION.
26. JUNCTION BOXES FOR FUTURE ELECTRIC VEHICLE CHARGER. REFER TO SYMBOL LEGEND FOR ADDITIONAL INFORMATION. TYPICAL FOR SECOND AND THIRD LEVELS ONLY.
27. PROVIDE TWO-GANG JUNCTION BOX FOR CONNECTION TO VEHICLE COUNTING SENSORS. EXTEND LOW VOLTAGE CABLE 1" CONDUIT TO EACH SENSOR AND MAKE CONNECTIONS. COORDINATE LOCATION WITH STRUCTURAL DRAWINGS AG401 AND AG402 AND SYSTEM VENDOR.
28. PROVIDE TWO-GANG JUNCTION BOX FOR CONNECTION TO LIGHTED SIGNS HANGING FROM BOTTOM OF DOUBLE TEES OVER EACH LANE (GREEN ARROW / X) AND EXTERIOR LIGHTED SIGNS, (ENTER/ EXIT) OVER EACH LANE. COORDINATE SIGNAGE LOCATION WITH STRUCTURAL DRAWINGS, AG401 AND AG402 AND SYSTEM VENDOR. EXTEND LOW VOLTAGE CABLE IN 1" CONDUIT TO EACH SIGN.
29. PROVIDE TWO-GANG JUNCTION BOX FOR CONNECTION TO LIGHTED SIGNS HANGING FROM BOTTOM OF DOUBLE TEES OVER EACH LANE (GREEN ARROW / X). COORDINATE SIGNAGE LOCATION WITH STRUCTURAL DRAWINGS, AG401 AND AG402 AND SYSTEM VENDOR. EXTEND LOW VOLTAGE CABLE IN 1" CONDUIT TO EACH SIGN.
30. REFER TO DETAIL 9 DRAWING E-500 FOR POWER AND DATA REQUIREMENTS.
31. EXTEND (1) 1" CONDUIT UNDERGROUND FROM WEATHERPROOF JUNCTION BOX TO ELECTRICAL ROOM PANEL 1N11 SECTION II FOR FUTURE GATE AND TERMINATE AT BOTH ENDS. MOUNT JUNCTION BOX 12" AFF PROVIDE WEATHERPROOF COVER PLATE AND LABEL.
32. EXTEND (1) 1-1/2" CONDUIT UNDERGROUND FROM WEATHERPROOF JUNCTION BOX TO TELECOM ROOM EAST WALL FOR FUTURE GATE. MOUNT JUNCTION BOX 10" AFF. PROVIDE WEATHERPROOF COVER PLATE AND LABEL. STUB-UP CONDUIT IN TELECOM ROOM 10" AFF.
33. REFER TO ARCHITECTURAL CURTAIN WALL DETAIL DRAWING FOR EXIT SIGN MOUNTING LOCATION.
34. EXTEND (1) 1" CONDUIT FOR POWER AND (1) 1" CONDUIT FOR DATA, SAME AS NOTES 31 AND 32 EXCEPT FOR FUTURE PAY BY SPACE MACHINE. COORDINATE FINAL LOCATION WITH UNCW PRIOR TO INSTALLATION.
35. PROVIDE HEAVY DUTY NEMA 4X, 240 V, 30 AMP NON-FUSED DISCONNECT FOR BOOSTER PUMP. EXTEND 3#8, 1#8 G, 1" CONDUIT UNDERGROUND FROM DISCONNECT TO PANEL 1N11 SECTION II TO CIRCUIT INDICATED, AND EXTEND 3#12, 1#12 G, 3/4" CONDUIT FROM DISCONNECT TO PUMP AND MAKE CONNECTIONS. PUMP HEATED ENCLOSURE SHALL BE CONNECTED TO THE BACKFLOW HEATED ENCLOSURE CIRCUIT 1N11-12 AT THIS LOCATION. REFER TO KEY NOTE 18 FOR ADDITIONAL INFORMATION.



SCO ID NUMBER: 18-19226-01A
CODE: 441828
ITEM: 301



CONTRACTOR
Balfour Beatty Construction

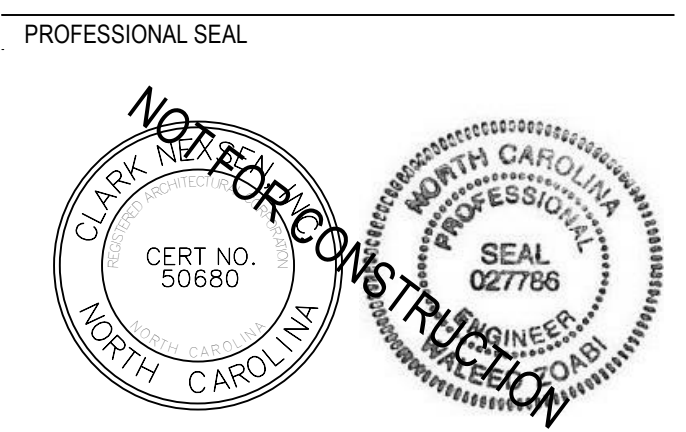
DESIGNER
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NC CORPORATE ENGINEERING LICENSE #C-1028

SUBMITTAL
03/29/2019
75% CONSTRUCTION DOCUMENTS

REVISIONS

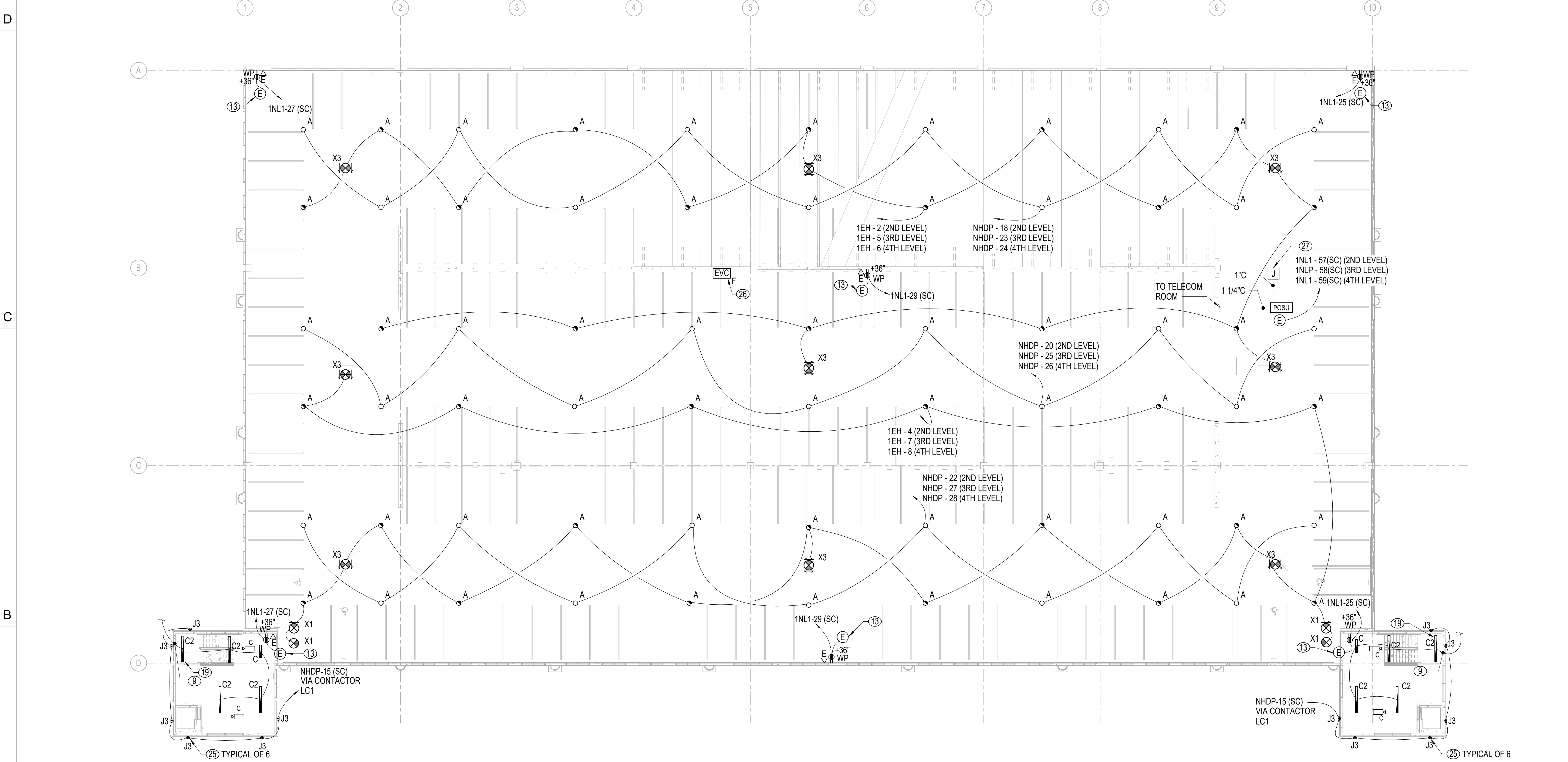
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KEY PLAN

SHEET
TYPICAL LEVELS SECOND-FOURTH - LIGHTING, POWER AND SYSTEMS PLAN

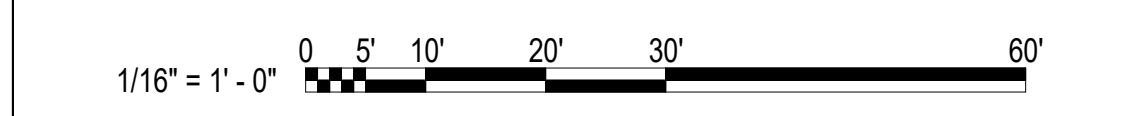
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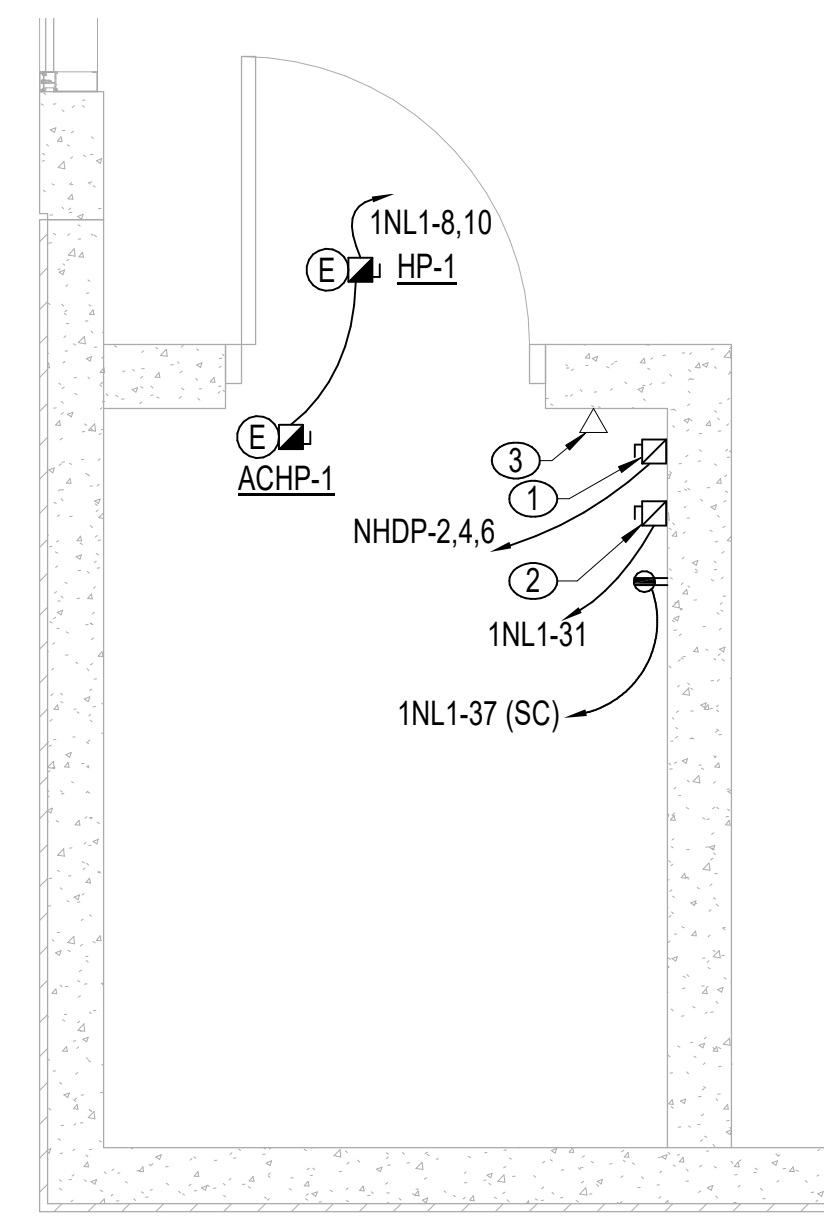
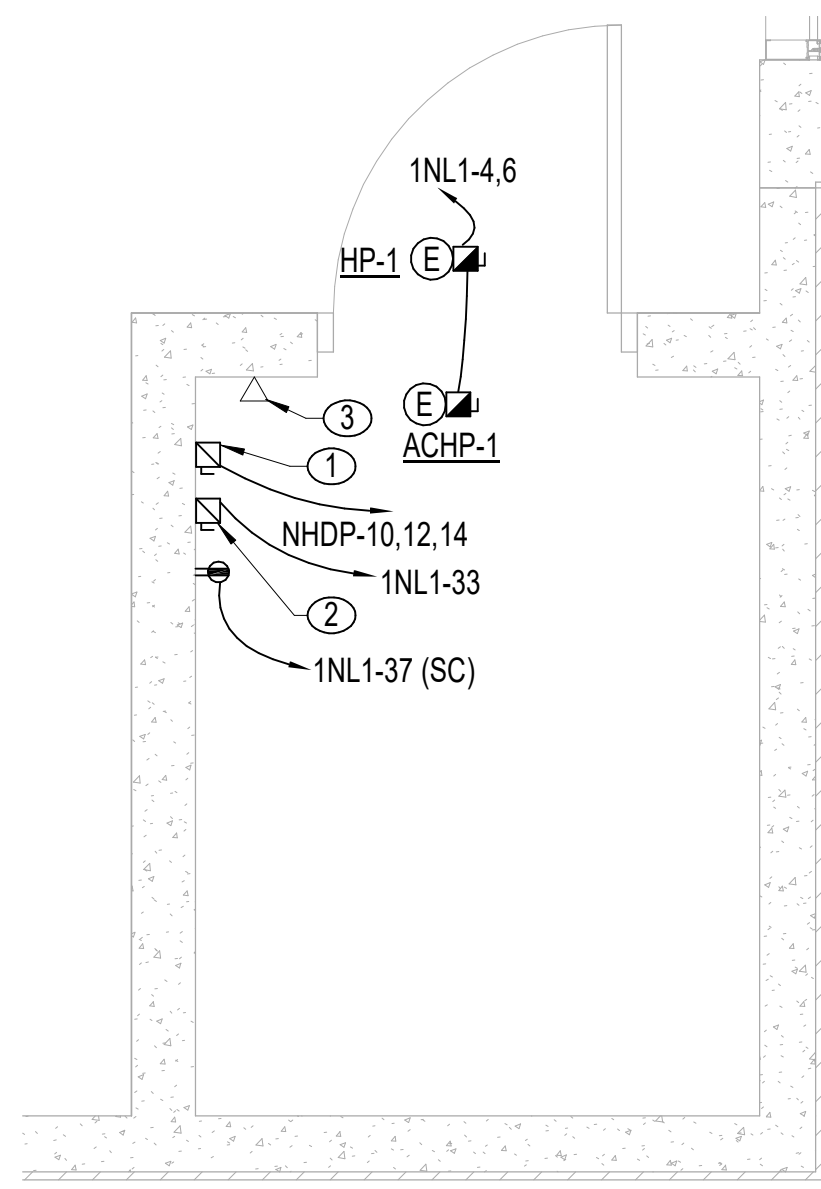
DESIGN: JE
DRAWN: KAW
REVIEW: WAZ
CN 8112



1 TYPICAL LEVELS SECOND-FOURTH - LIGHTING, POWER, AND SYSTEMS PLAN
1/16" = 1'-0"

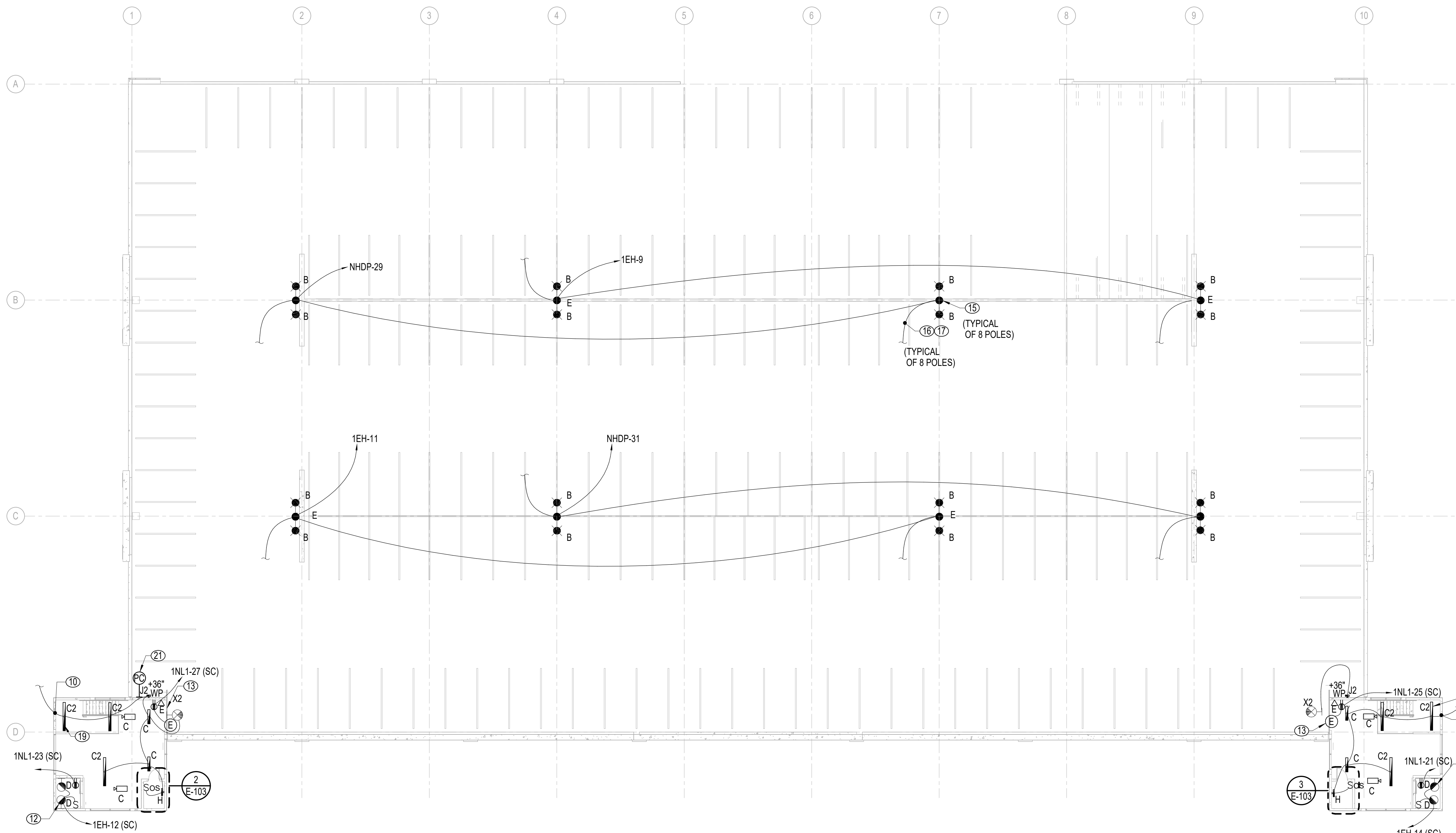
GRAPHIC SCALE(S)





2 ENLARGED SOUTHWEST ELEVATOR CLOSET POWER PLAN
1/2" = 1'-0"

3 ENLARGED SOUTHEAST ELEVATOR CLOSET POWER PLAN
1/2" = 1'-0"



1 FIFTH LEVEL - LIGHTING, POWER, AND SYSTEMS PLAN
1/16" = 1'-0"

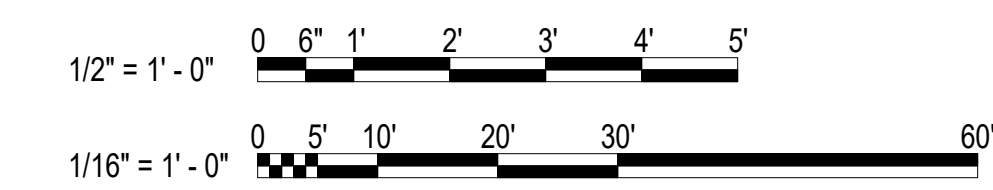
GENERAL NOTES

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3. PROVIDE (1) VOICE LINE FOR EACH ELEVATOR. FIELD COORDINATE SPECIFICS AND FINAL LOCATION WITH ELEVATOR SUPPLIER.
4. SUMP PUMP CONTROLLER. COORDINATE LOCATION WITH SUMP PUMP SUPPLIER.
5. PROVIDE NEMA LB-20R, 208V, TWIST-LOCK STYLE RECEPTACLE. LOCATE BELOW THE PROPOSED TELECOMMUNICATIONS CABINET. REFER TO DRAWING E-600 FOR CABINET REQUIREMENTS.
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22. MOUNT A COPY OF THE ELECTRICAL POWER RISER DIAGRAM, UNDER CLEAR PROTECTIVE MATERIAL AT THIS LOCATION.
23. PROVIDE NEMA1 SCREW-OVER WIREWAY, 8" WIDE X 8" HIGH X 36" LONG FOR SITE LIGHTING UNDERGROUND CONDUIT TERMINATIONS. MOUNT 24" AFF.
24. TYPE J1 AND J2 CONNECTED VIA LIGHTING CONTACTOR LC1 LUMINAIRES SHALL NOT BE PROVIDED WITH INTEGRAL PHOTOCELL. REFER TO LUMINAIRE SCHEDULE'S NOTES.
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30. REFER TO DETAIL 9 DRAWING E-500 FOR POWER AND DATA REQUIREMENTS.
31. EXTEND (1) 1" CONDUIT UNDERGROUND FROM WEATHERPROOF JUNCTION BOX TO ELECTRICAL ROOM PANEL 1NL1 SECTION II FOR FUTURE GATE AND TERMINATE AT BOTH ENDS. MOUNT JUNCTION BOX 12" AFF PROVIDE WEATHERPROOF COVER PLATE AND LABEL.
32. EXTEND (1) 1-1/2" CONDUIT UNDERGROUND FROM WEATHERPROOF JUNCTION BOX TO TELECOM ROOM EAST WALL FOR FUTURE GATE. MOUNT JUNCTION BOX 10" AFF. PROVIDE WEATHERPROOF COVER PLATE AND LABEL. STUB-UP CONDUIT IN TELECOM ROOM 10" AFF.
33. REFER TO ARCHITECTURAL CURTAIN WALL DETAIL DRAWING FOR EXIT SIGN MOUNTING LOCATION.
34. EXTEND (1) 1" CONDUIT FOR POWER AND (1) 1" CONDUIT FOR DATA, SAME AS NOTES 31 AND 32 EXCEPT FOR FUTURE PAY BY SPACE MACHINE. COORDINATE FINAL LOCATION WITH UNCW PRIOR TO INSTALLATION.
35. PROVIDE HEAVY DUTY NEMA 4X, 240 V, 30 AMP NON-FUSED DISCONNECT FOR BOOSTER PUMP. EXTEND 3#8, #8 G, 1" CONDUIT UNDERGROUND FROM DISCONNECT TO PANEL 1NL1 SECTION II TO CIRCUIT INDICATED, AND EXTEND 3#12, #12 G, 3/4" CONDUIT FROM DISCONNECT TO PUMP AND MAKE CONNECTIONS. PUMP HEATED ENCLOSURE SHALL BE CONNECTED TO THE BACKFLOW HEATED ENCLOSURE CIRCUIT 1NL1-12 AT THIS LOCATION. REFER TO KEY NOTE 18 FOR ADDITIONAL INFORMATION.

GRAPHIC SCALE(S)



UNIVERSITY of NORTH CAROLINA WILMINGTON
601 S COLLEGE ROAD
WILMINGTON, NORTH CAROLINA 28403
PARKING DECK II AND SURFACE
PARKING (DESIGN-BUILD)
SOUTH CAMPUS - 4965 RIEGEL ROAD

SCO ID NUMBER: 18-19226-01A
CODE: 441828
ITEM: 301

CONTRACTOR
Balfour Beatty Construction

DESIGNER

CLARK NEXSEN
1523 ELIZABETH AVENUE, SUITE 300
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CLARK NEXSEN LICENSE NUMBER: C-1028



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910.343.1048

PROFESSIONAL SEAL



NC CORPORATE ENGINEERING LICENSE #C-1028

SUBMITTAL

03/29/2019

75% CONSTRUCTION DOCUMENTS

REVISIONS

NO.	DATE	DESCRIPTION

KEY PLAN

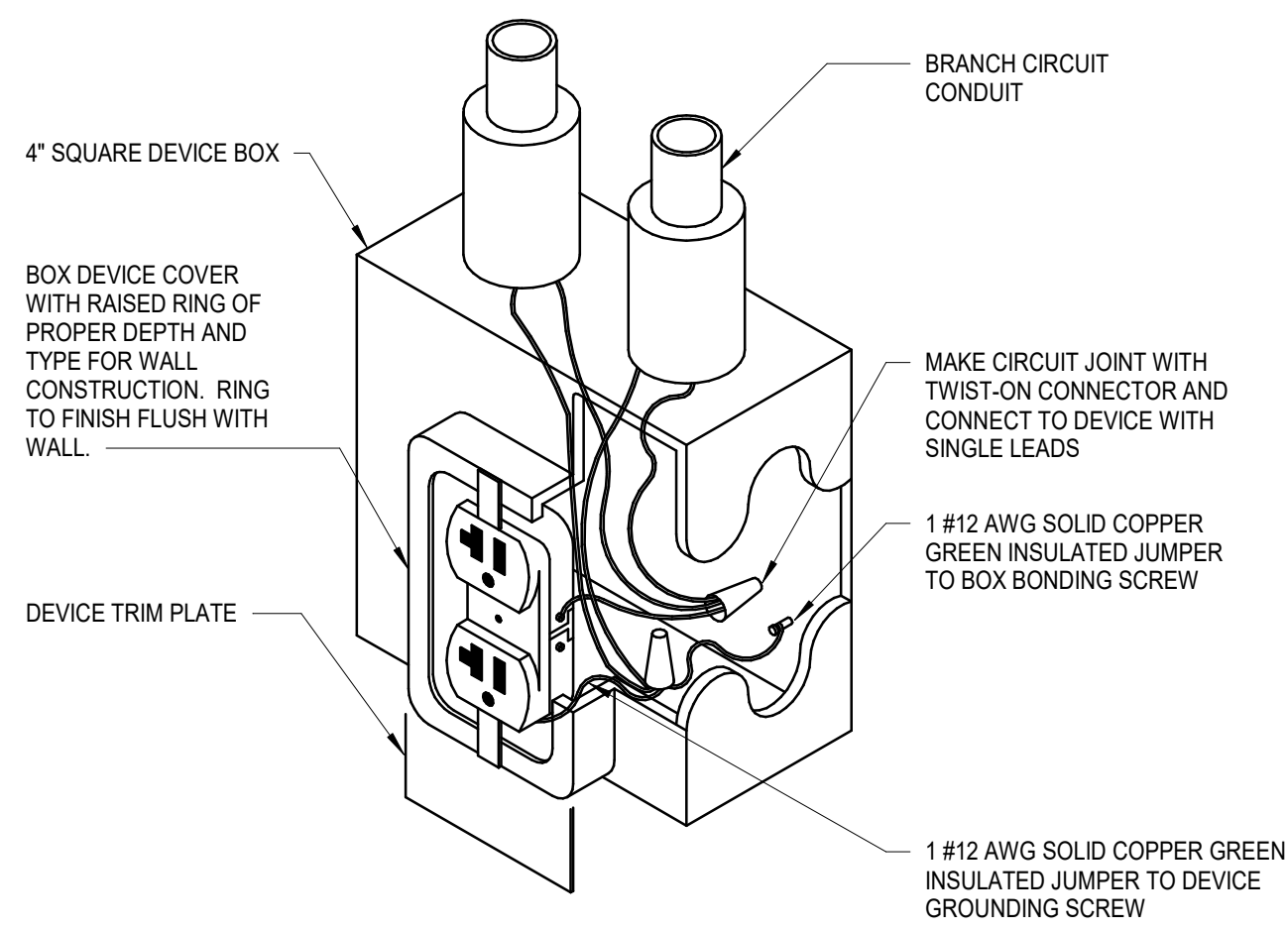
SHEET

FIFTH LEVEL - LIGHTING,
POWER AND SYSTEMS PLAN

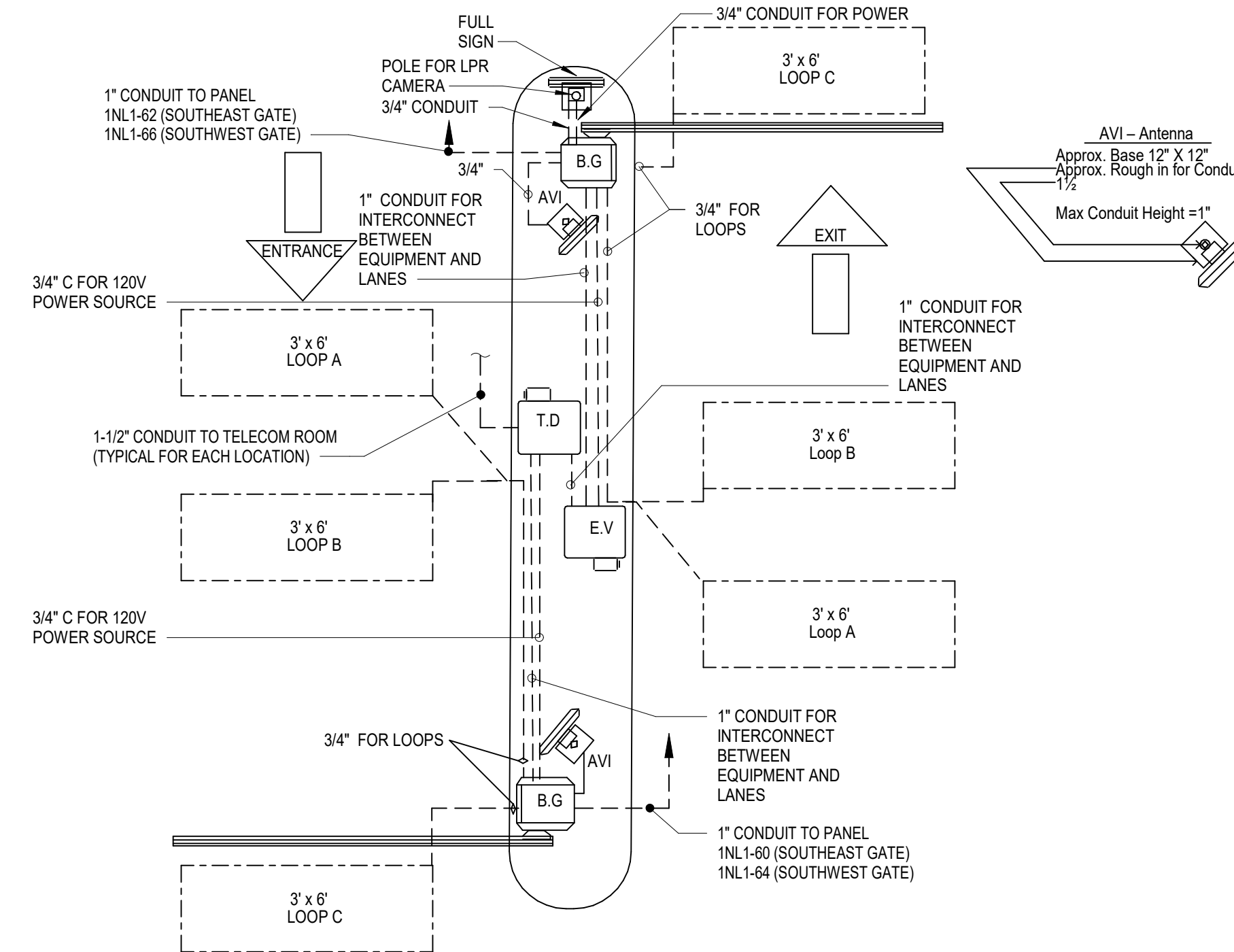
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DESIGN: JE
DRAWN: KAW
REVIEW: WAZ

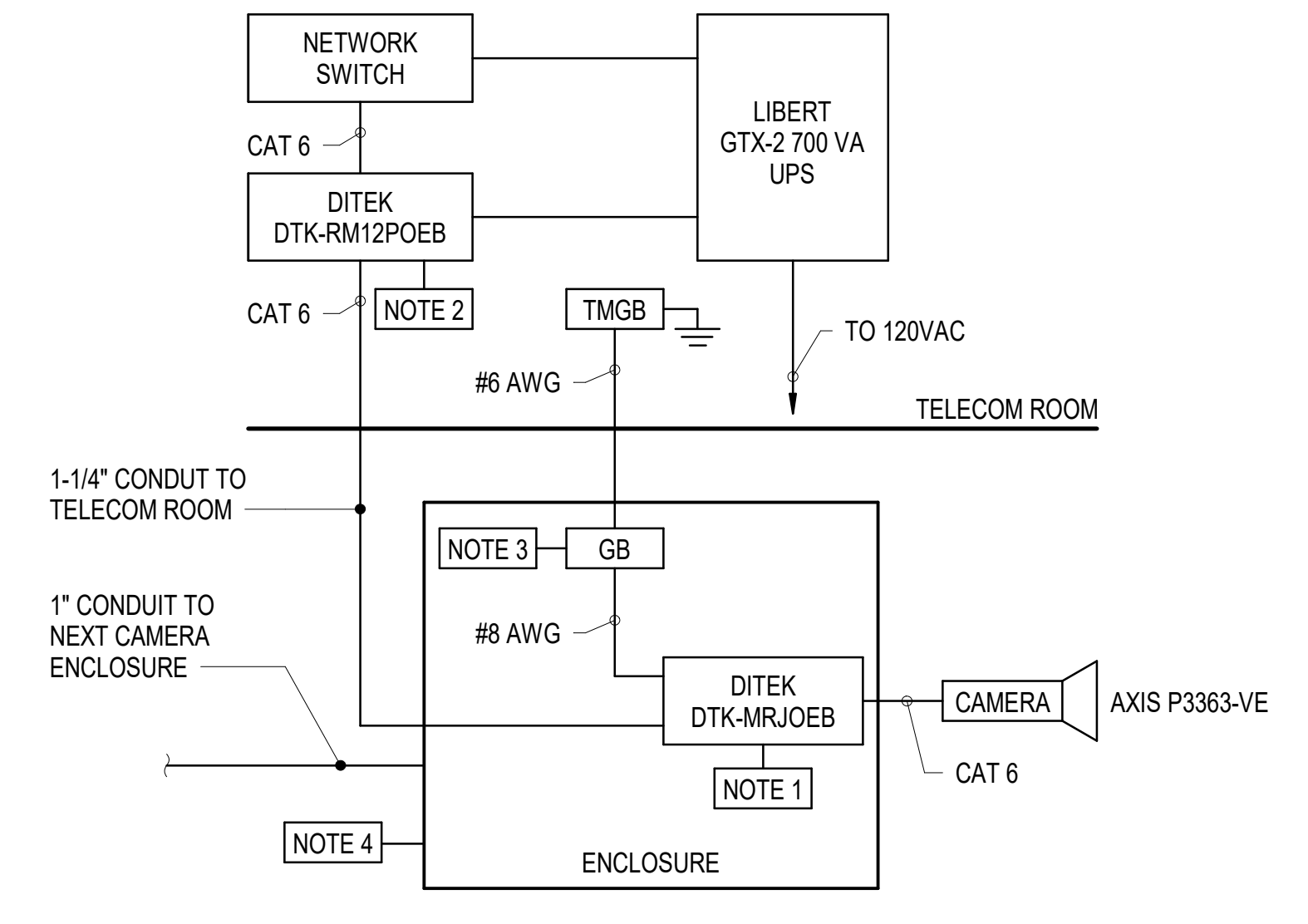
CN 8112



8 RECEPTACLE GROUNDING DETAIL
NO SCALE

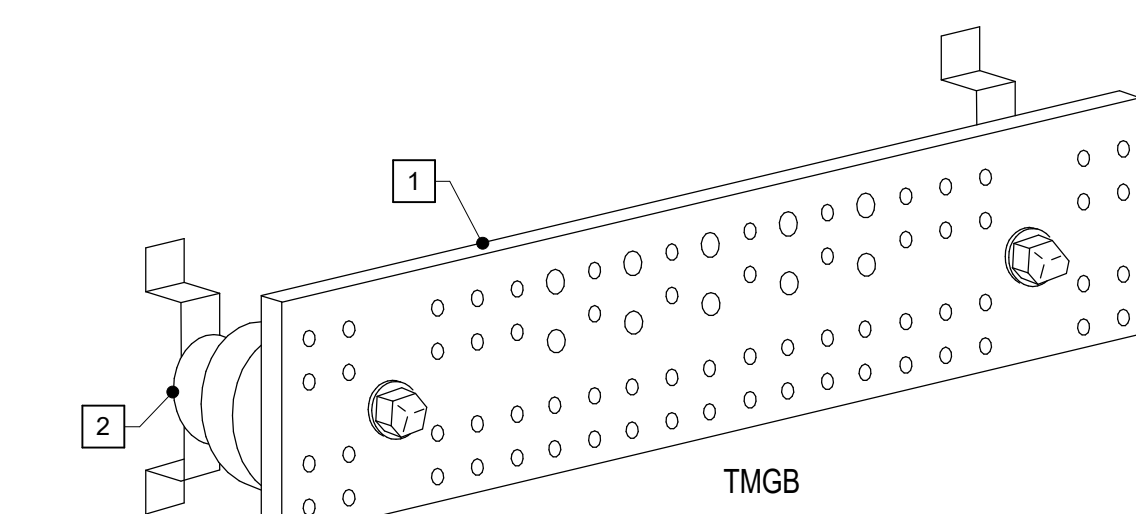


9 ENLARGED ENTRANCE GATE WIRING DETAIL (SOUTHEAST AND SOUTHWEST)
NO SCALE



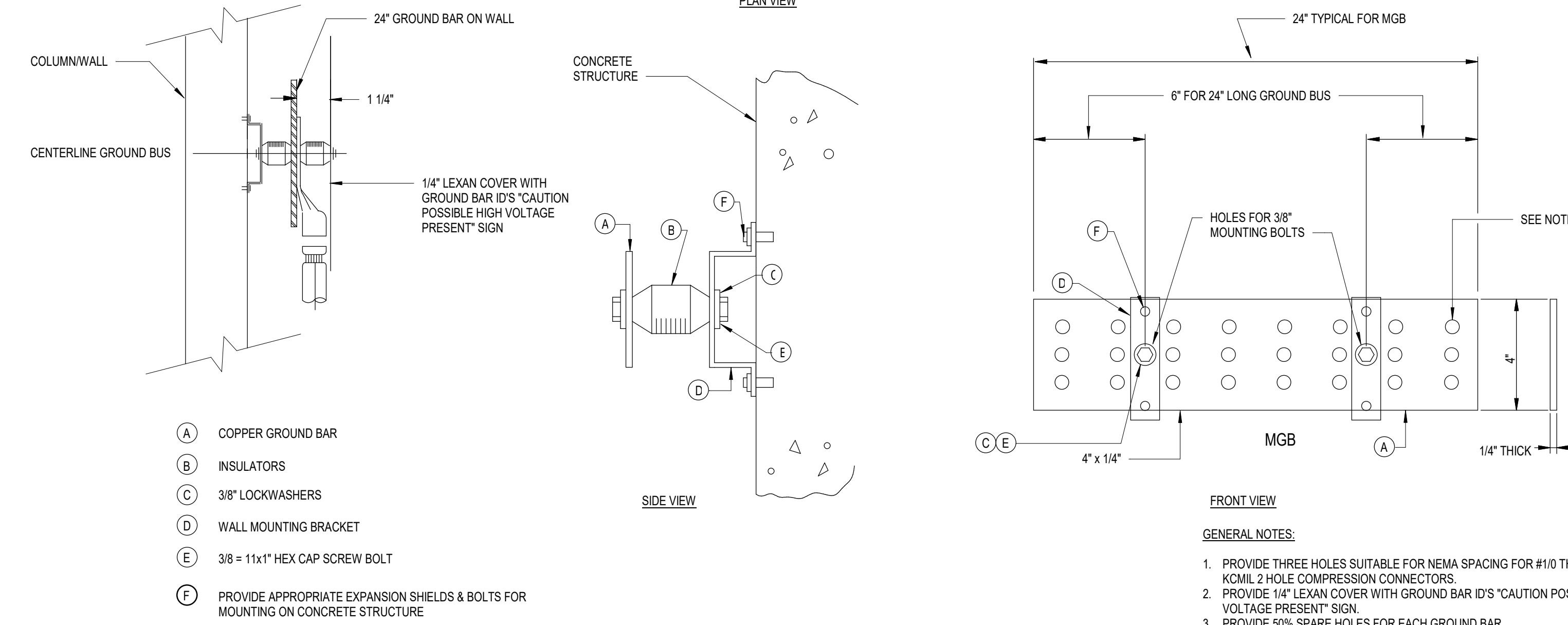
1. PROVIDE CAT 6 SURGE PROTECTOR (DTK-MR12P0E) IN AN ENCLOSURE LOCATED WITHIN 6 FEET OF EACH CAMERA.
2. PROVIDE RACK MOUNTED DITEK DTK-MR12P0E 12 PORT SURGE PROTECTION PATCH PANEL. SURGE PROTECTION PATCH PANEL SHALL BE GROUNDED USING #8 AWG WIRE TO TMGB.
3. PROVIDE GROUND BAR IN ENCLOSURE TO PROVIDE A CONNECTION TO GROUND FOR CAMERA SURGE PROTECTORS. THE DISTANCE BETWEEN THE DITEK MR12P0E MODULES AND GROUND SHOULD BE LESS THAN THE CABLE DISTANCE BETWEEN THE MODULE AND THE CAMERA IT PROTECTS. PROVIDE #8 AWG, GREEN, INSULATED, AND STRANDED GROUND CONDUCTOR FROM TMGB IN MAIN TELECOM ROOM TO GROUND BAR. PROVIDE #8 AWG, GREEN, INSULATED, AND STRANDED GROUND CONDUCTOR FROM GROUND BAR TO EACH CAMERA SURGE PROTECTOR.
4. PROVIDE HINGED ENCLOSURE LOCATED WITHIN 6 FEET OF EACH CAMERA TO HOUSE DTK-MR12P0EB AND GROUND BAR. HINGED ENCLOSURE SHALL BE 8" SQUARE AND 6" DEEP.

10 CAMERA STANDARDS DETAIL
NO SCALE



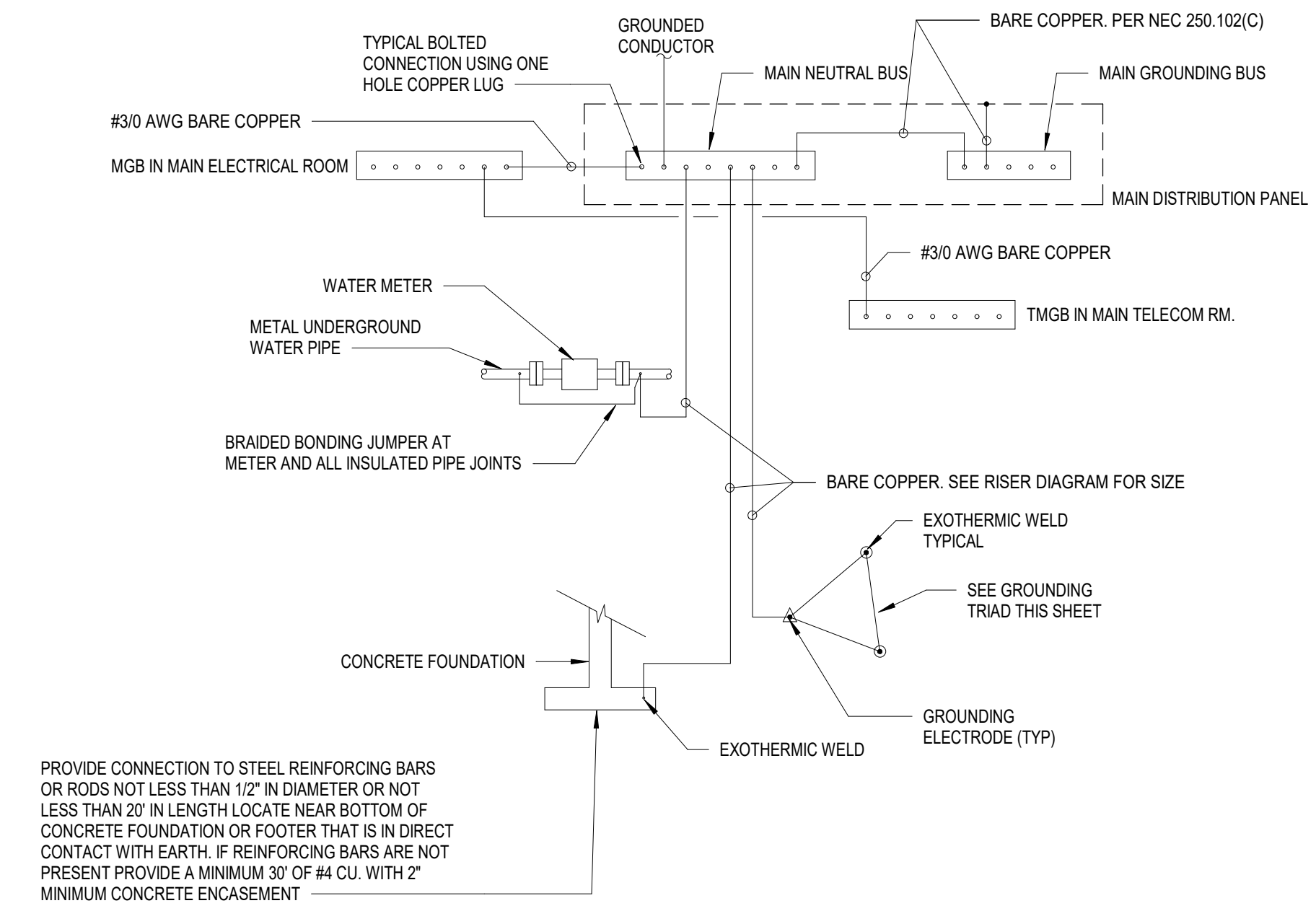
- NOTES:
1. COPPER GROUND BAR, DOUBLE LUG CONFIGURATION; TMGB 1/4" X 4" X 24". UL LISTED WITH PRE DRILLED HOLES IN BICSI PATTERN.
 2. STANDOFF BRACKET ASSEMBLY WITH INSULATORS, TYPICAL FOR TWO.

5 TELECOMMUNICATIONS GROUNDING BUSBAR DETAILS
NO SCALE



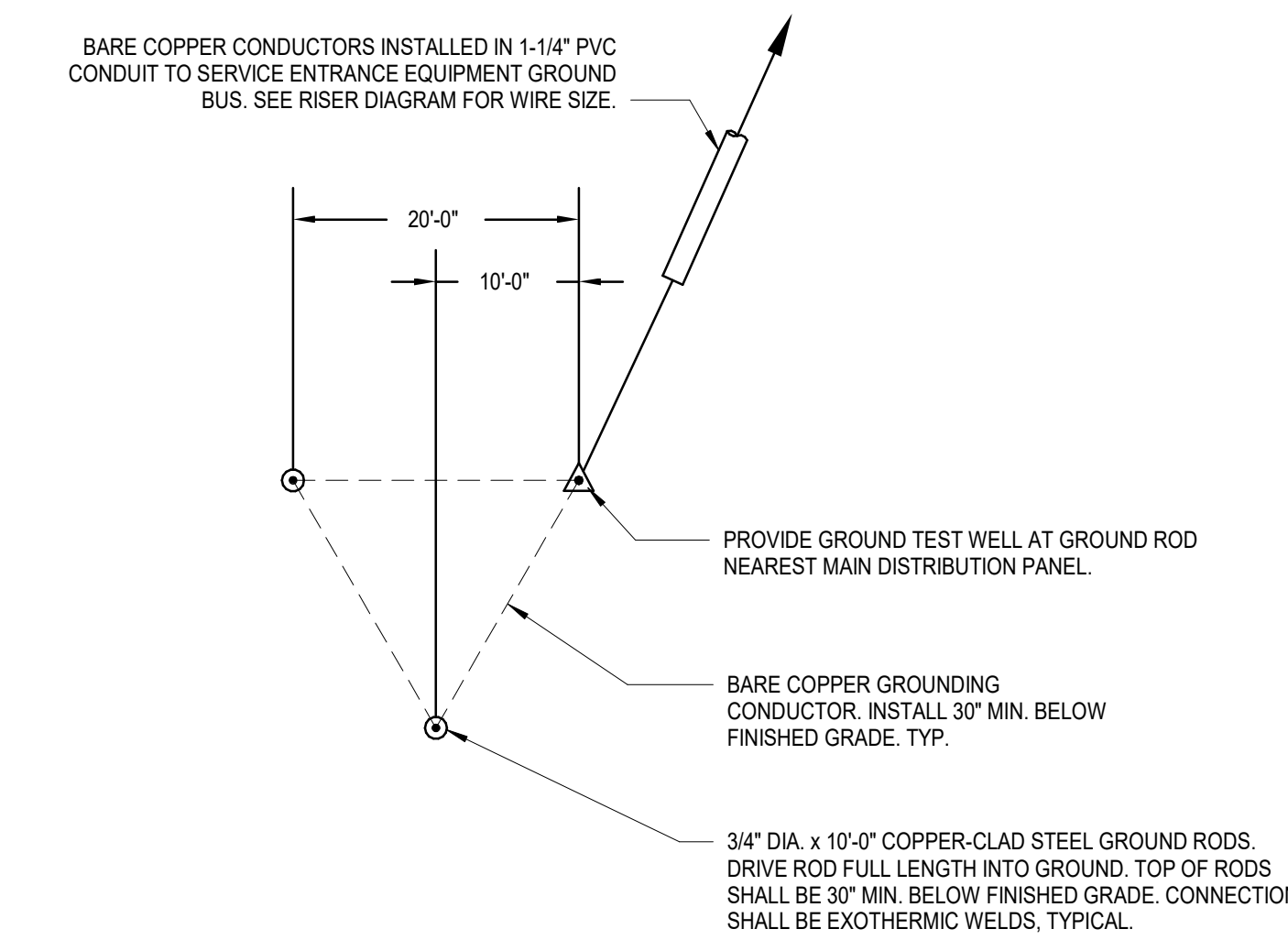
- GENERAL NOTES:
1. PROVIDE THREE HOLES SUITABLE FOR NEMA SPACING FOR #10 THROUGH 500 KOMIL 2 HOLE COMPRESSION CONNECTORS
 2. PROVIDE 1/4" LEXAN COVER WITH GROUND BAR ID'S 'CAUTION POSSIBLE HIGH VOLTAGE PRESENT' SIGN
 3. PROVIDE 50% SPARE HOLES FOR EACH GROUND BAR.

6 ELECTRICAL GROUNDING BUSBAR DETAIL
NO SCALE

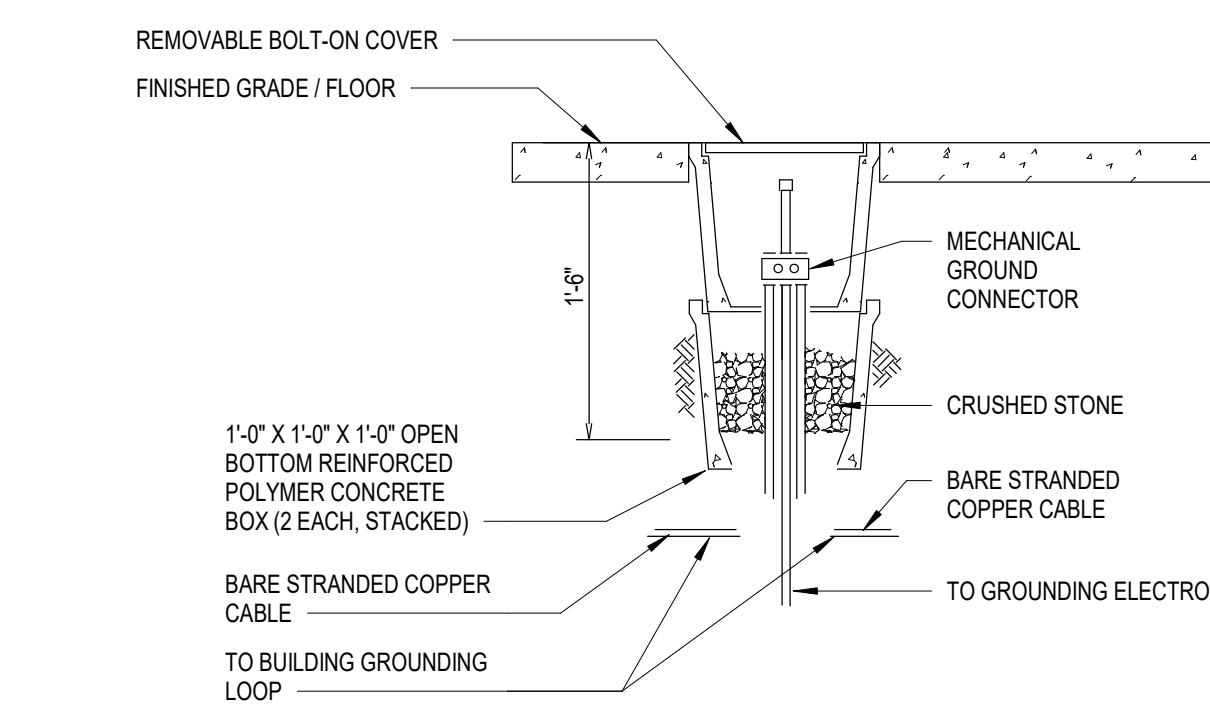


- NOTES:
1. GROUNDING ELECTRODE SYSTEM. CONFORM TO NEC ARTICLE 250.

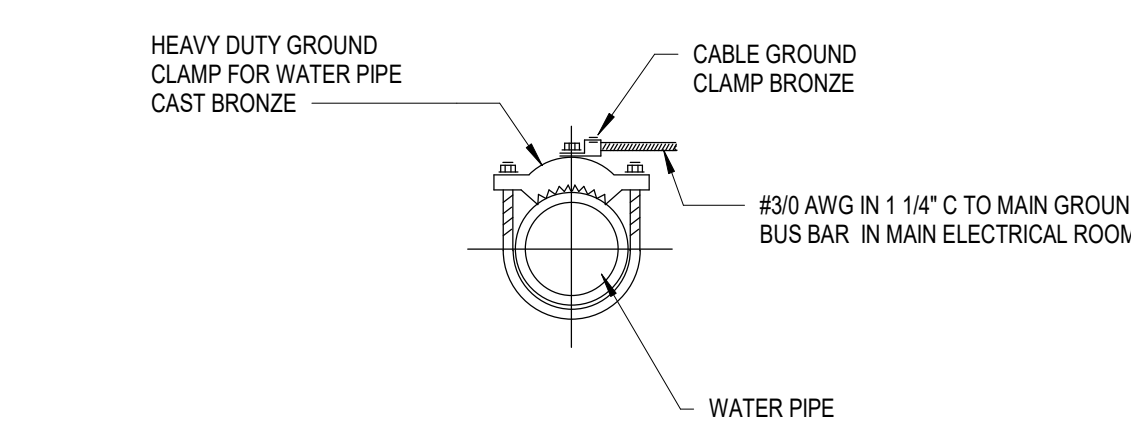
1 GROUNDING SYSTEM DETAIL
NO SCALE



2 GROUNDING TRIAD
NO SCALE



3 GROUNDING TEST WELL
NO SCALE



4 GROUND CABLE CONNECTION TO WATER PIPE
NO SCALE



UNIVERSITY OF NORTH CAROLINA WILMINGTON
601 S COLLEGE ROAD
WILMINGTON, NORTH CAROLINA 28403
PARKING DECK II AND SURFACE
PARKING (DESIGN-BUILD)
SOUTH CAMPUS - 4965 RIEGEL ROAD

SCO ID NUMBER: 18-19226-01A
CODE: 441828
ITEM: 301

CONTRACTOR
Balfour Beatty Construction

DESIGNER

CLARK NEXSEN
1523 ELIZABETH AVENUE, SUITE 300
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SUBMITTAL
03/29/2019

75% CONSTRUCTION
DOCUMENTS

REVISIONS

KEY PLAN

KEY PLAN
SHEET
ELECTRICAL DETAILS

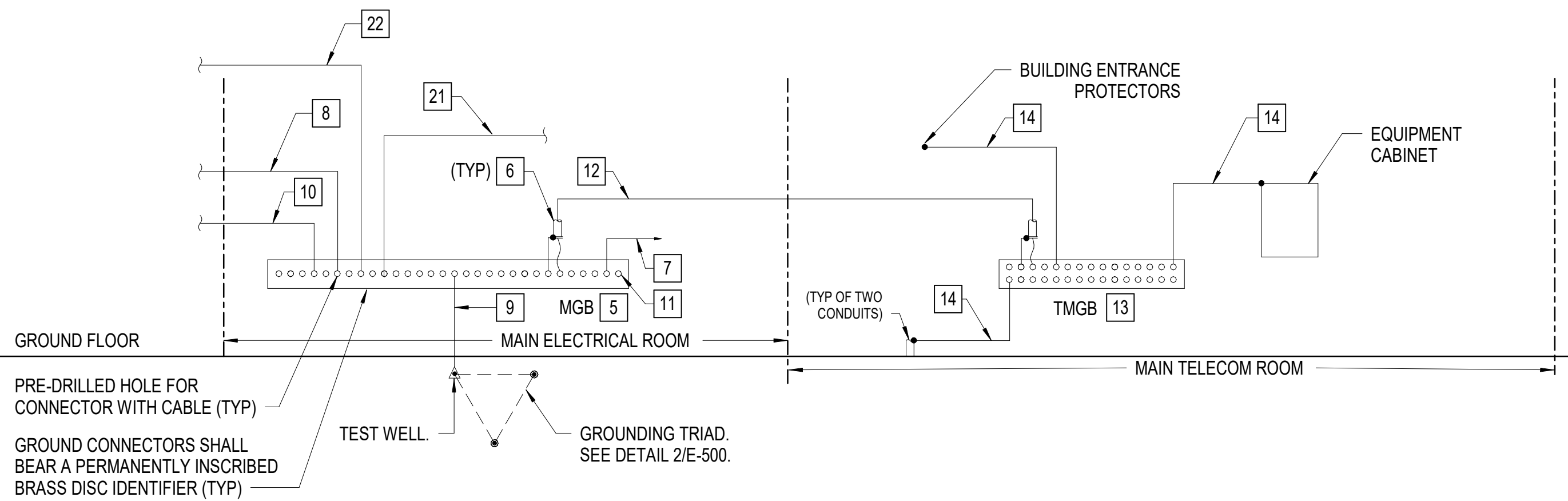
E-500

DESIGN: WAZ
DRAWN: KAW
REVIEW: WAZ

CN 8112

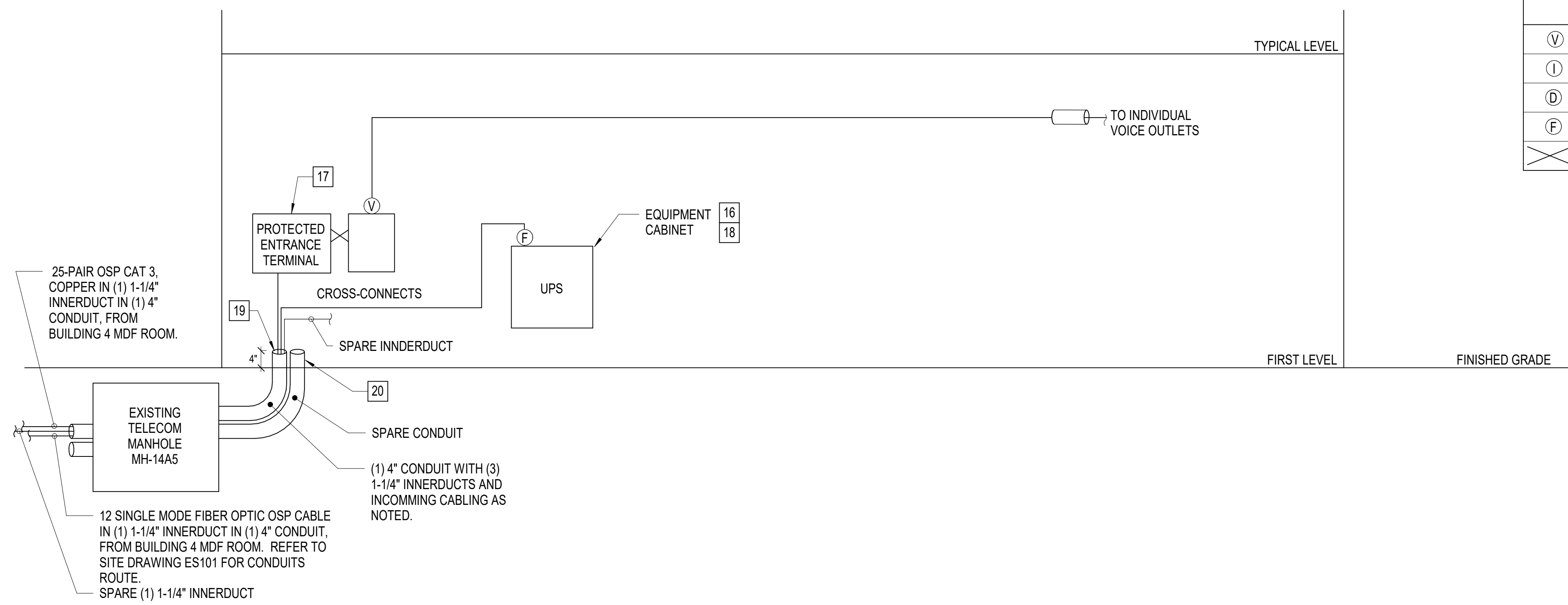
3/28/2019 4:10:24 PM C:\client\Projects\172\UNCW Parking Deck II E17_anno08\FPSV1.dwg

FEEDER SCHEDULE						
DESIGNATION	NO. OF SETS	CONDUCTORS				NOTES
		PHASE	NEUTRAL	GROUND	CONDUIT	
40	1	3#8	1#8	#8	1"	COPPER
40BS	1	3#6	1#6	#8	1"	COPPER
40VD	1	3#6	1#6	#8	1"	COPPER
50B	1	3#4	1#4	#8	1-1/4"	COPPER
110D	1	3#1	-	1#6	1-1/4"	COPPER
250TS	1	3-250 KCML	1-250 KCML	1#2	3"	COPPER
250US	1	3-300 KCML	1-300 KCML	-	4"	COPPER

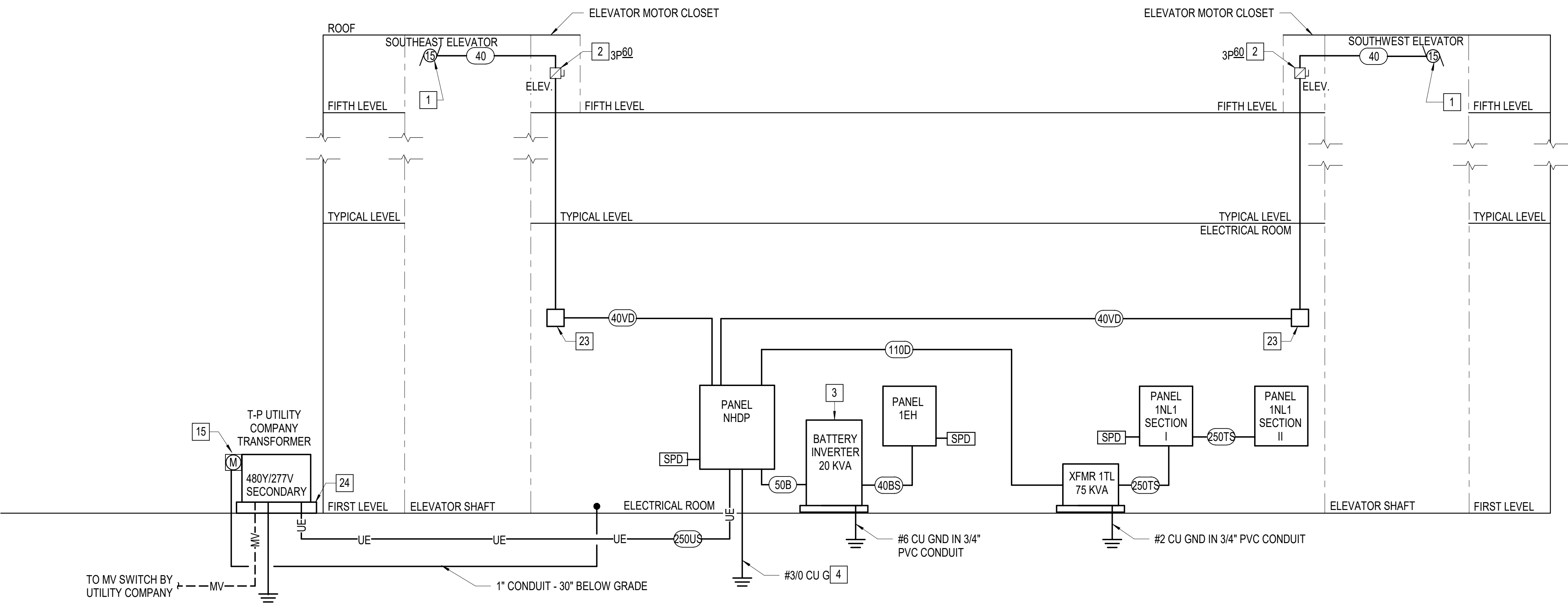


3 POWER & TELECOM GROUNDING RISER
NO SCALE

CABLE LEGEND	
(V)	PUNCH-DOWN TERMINATION FOR CATEGORY 5e VOICE CABLING.
(I)	PATCH PANEL TERMINATION FOR VOICE (VOIP) 6A CABLING.
(D)	PATCH PANEL TERMINATION FOR DATA 6A CABLING.
(F)	FIBER ENCLOSURE FOR FIBER OPTIC TERMINATION.
(X)	CROSS CONNECT CABLING



2 TELECOM RISER DIAGRAM
NO SCALE



1 POWER RISER DIAGRAM
NO SCALE

GENERAL NOTES

- FOR SITE PLAN AND DETAILS REFER TO DRAWING ES101, ES501 AND ES502.
- FOR ELECTRICAL DETAILS REFER TO DRAWING E-500.

NOTES

- COORDINATE ELEVATOR REQUIREMENTS WITH SPECIFICATION SECTION 142100 AND ELEVATOR SUPPLIER.
- HEAVY DUTY FUSE DISCONNECT. PROVIDE WITH CURRENT LIMITING CLASS RK1 FUSES, AND RATING PER MANUFACTURER RECOMMENDATION. DISCONNECT SHALL BE EQUIPPED WITH TWO AUXILIARY CONTACTS THAT ARE POSITIVELY OPENED WHEN POWER IS REMOVED FROM THE ELEVATOR SYSTEM.
- THREE-PHASE CENTRAL LIGHTING INVERTER, DOUBLE CONVERSION, 24 KW, 480Y/277V INPUT, 480Y/277V OUTPUT. PROVIDE WITH SEISMIC FLOOR KIT. PROVIDE FULL SELECTIVE COORDINATION OF THE EMERGENCY SYSTEM PER NEC-700.28 REQUIREMENT. EMERGENCY SYSTEM OVERCURRENT DEVICES SHALL BE SELECTIVELY COORDINATED WITH ALL SUPPLY SIDE OVERCURRENT PROTECTIVE DEVICES. INVERTER INPUT AND OUTPUT BREAKERS SHALL BE LSI TYPE. PROVIDE BREAKER FRAMES AND SENSOR UNITS PER THE COORDINATION STUDY RESULTS, AND TRIP UNITS AS INDICATED ON THE DRAWING. (INVERTER INPUT BREAKER AND OUTPUT BREAKER SHALL BE MINIMUM 18 KAIC). SEE SPECIFICATION SECTION 280573 FOR SELECTIVE COORDINATION REQUIREMENT. INVERTER SHALL COMPLY WITH UL 924, NFPA 101 AND NFPA 70. CRUCIAL POWER PRODUCTS MODEL# WR030H09LHT3-VA (OR APPROVED EQUAL).
- REFER TO GROUNDING SYSTEM DETAIL 1/E-500 FOR GROUNDING REQUIREMENTS.
- MAIN GROUNDING BUSBAR (MGB) 24". (SEE DETAIL 5 ON DRAWING E-500)
- RUN GROUNDING ELECTRODE CONDUCTOR BETWEEN THE MAIN AND LOCAL GROUND BUS BARS IN CONDUIT. BOND THE METAL CONDUIT AT EACH END TO THE GROUND BUS BARS.
- RUN ONE #10 AWG IN 3/4" TO FIRE ALARM PANELS. (REFER TO FA DRAWINGS FOR LOCATION OF FIRE ALARM PANELS)
- RUN ONE #30 AWG IN 1-1/4" TO MAIN WATER PIPE. (REFER TO PUMBING DRAWINGS FOR LOCATION OF MAIN WATER PIPE)
- RUN ONE #30 IN 1-1/4" TO GROUNDING TRIAD.
- BOND THE INTERIOR METALLIC PIPING TO THE GROUNDING SYSTEM. PROVIDE A BONDING JUMPER ACROSS THE WATER METER. (SEE PLUMBING DRAWINGS FOR LOCATION OF WATER METER)
- PROVIDE 50% SPARE HOLES. (TYP FOR ALL GROUND BUS BARS)
- GROUNDING CONDUCTORS BETWEEN THE MGB AND THE TMGB SHALL BE #30 AWG, UON. CONNECT GROUNDING CONDUCTORS USING COMPRESSION CONNECTORS.
- TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB). (SEE DETAIL 6 ON DRAWING E-500)
- #6 AWG BONDING JUMPER.
- NEW PAD MOUNTED TRANSFORMER, METER BASE, CURRENT TRANSFORMERS (CTS) AND REQUIRED METER SHALL BE PROVIDED AND INSTALLED BY UTILITY COMPANY. CONTRACTOR SHALL INSTALL ONE 1" EMPTY CONDUIT FROM METER BASE TO ELECTRICAL ROOM FOR INTERFACE WITH BUILDING MANAGEMENT SYSTEM. WIRING FROM METER BASE BY UNCW IT. TERMINATE CONDUIT 12" AFF NEAR PANEL NHDP. REFER TO SITE DRAWINGS FOR ADDITIONAL INFORMATION.
- WALL MOUNT TELECOMMUNICATIONS ENCLOSURE "CUBE-IT PLUS" CABINET, EQUIVALENT TO CHATSWORTH PRODUCTS INC. (CPI) PART #1840-736, 24" WIDTH X 24" DEPTH X 36" HEIGHT, STEEL, METAL DOOR, BLACK, WITH 19" EIA MOUNTING RAIL. PROVIDE A PUSHBUTTON LOCK BOX FOR ENCLOSURE'S KEYS STORAGE, AND MOUNT TO THE OUTSIDE OF THE WALL MOUNT ENCLOSURE.
- MOUNT PROTECTED ENTRANCE TERMINAL IN THE BACK OF THE WALL MOUNT ENCLOSURE AND LINK TO THE TERMINATION POINT.
- CABINET UPS WILL BE PROVIDED BY UNCW-IT.
- PROVIDE HOLE PLUG DESIGNED TO SEAL, AROUND EACH INDIVIDUAL INNERDUCT AND SEALED TO PREVENT LEAKAGE INTO THE BUILDING
- SEAL ALL DUCTS AT TERMINATIONS OR ALL CONDUIT ENTRY POINTS WITH EXPANDABLE REUSABLE CONDUIT PLUGS CAPABLE OF WITHSTANDING 15-PSI MINIMUM HYDRO STATIC PRESSURE IN MANHOLE AND BUILDING.
- TO ELECTRICAL EQUIPMENT, TRANSFORMER, BATTERY INVERTER. REFER TO POWER RISER DIAGRAM FOR CONDUCTOR SIZES AND QUANTITY.
- BOND EXPOSED METAL FRAME WORK AT EACH STAIR WITH MINIMUM #2 AWG IN 3/4" CONDUIT.
- PROVIDE 6" SQUARE PULL BOX BETWEEN THE HORIZONTAL AND VERTICAL CONDUIT RUN AND AS REQUIRED PER CODE.
- REFER TO DETAIL 7 DRAWING ES501 FOR TRANSFORMER CONCRETE PAD REQUIREMENTS.



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75% CONSTRUCTION DOCUMENTS

REVISIONS

KEY PLAN

SHEET

RISER DIAGRAMS

E-600

DESIGN: WAZ
DRAWN: KAW
REVIEW: WAZ

CN 8112

