

VICINITY MAP
N.T.S.

7728 MERRILL ROAD, JACKSONVILLE, FL



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3	FD1	FOUNDATION DETAILS
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9	ES1	ELECTRICAL SECTIONS
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27	LV2	LOW VOLTAGE DIAGRAM


MERRILL ROAD 69kV / 26kV SUBSTATION

ME2024

20410

8009313 - T1 REPLACEMENT & FEEDER 477 & 478 ADDITIONS
8008922 - 69kV 6T2 BREAKER REPLACEMENT

JEA\PROJECTS\2024\08\03\ CV1.dwg 2024-08-12 11:12



DELIVERING SUSTAINABLE CHANGE

ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19610
FL COA 8777

PROFESSIONAL ENGINEER'S SEAL

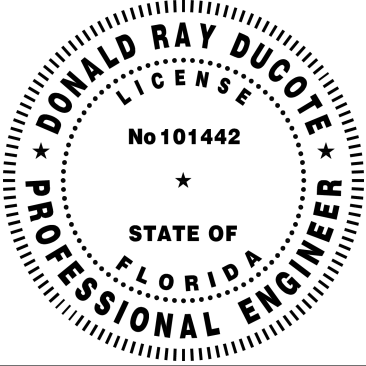
LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF

PE: DONALD RAY DUCOTE

U.C. NO.: 101442

STATE: FL

DATE: 08/19/25




REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	08/19/25	8009313 8008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020
						BY RMS
						REVIEW JWR
						DRAFTING
						DATE 9/2020
						BY RMS
						REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS

COVER SHEET

MERRILL ROAD 69kV / 26kV SUBSTATION

TRANSMISSION & SUBSTATION PROJECTS - 20410

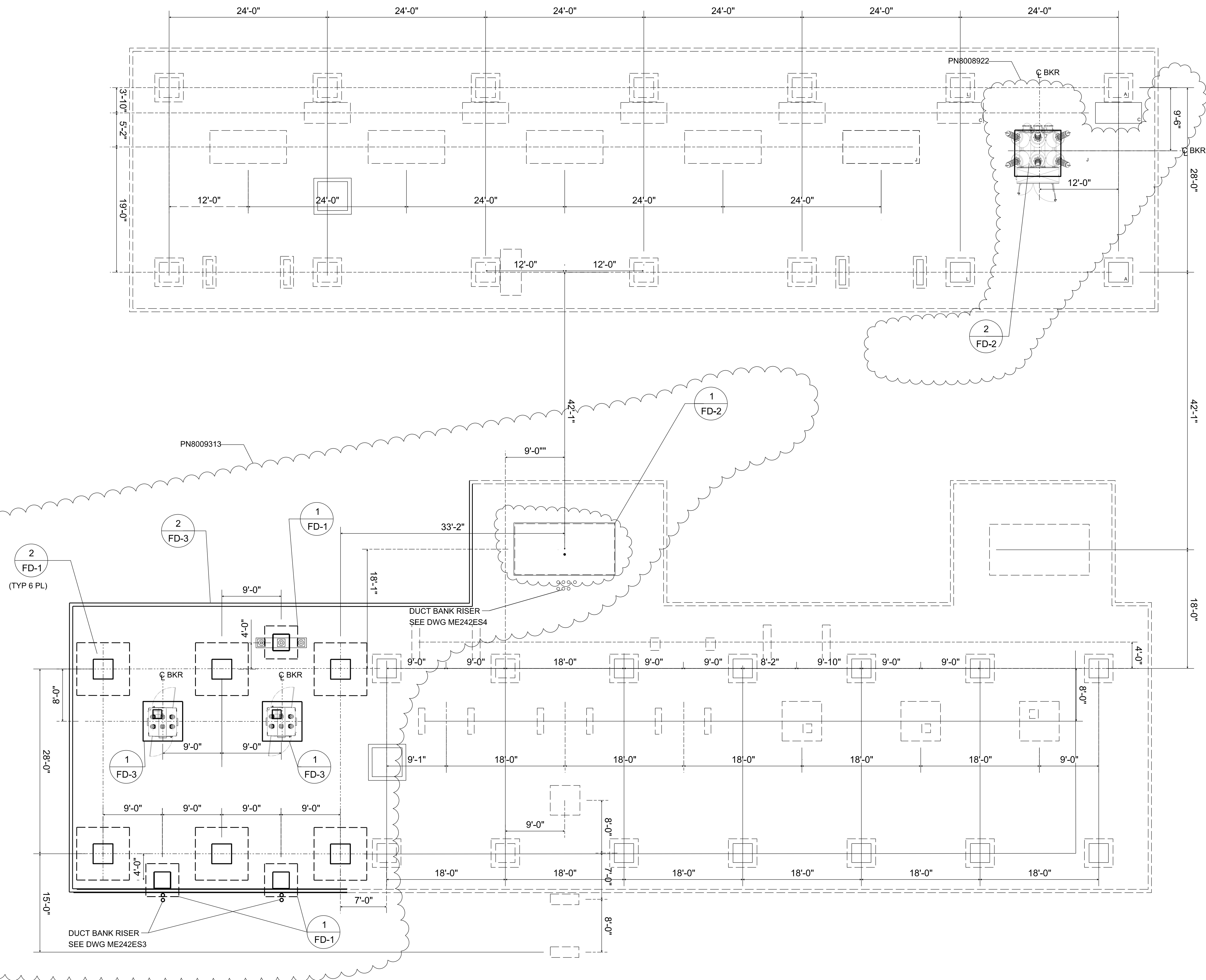


PROJECT ID: ME2024

SEQUENCE #: 1 OF 27

SHEET NUMBER: CV1

PROJ #: 8009313 & 8008922



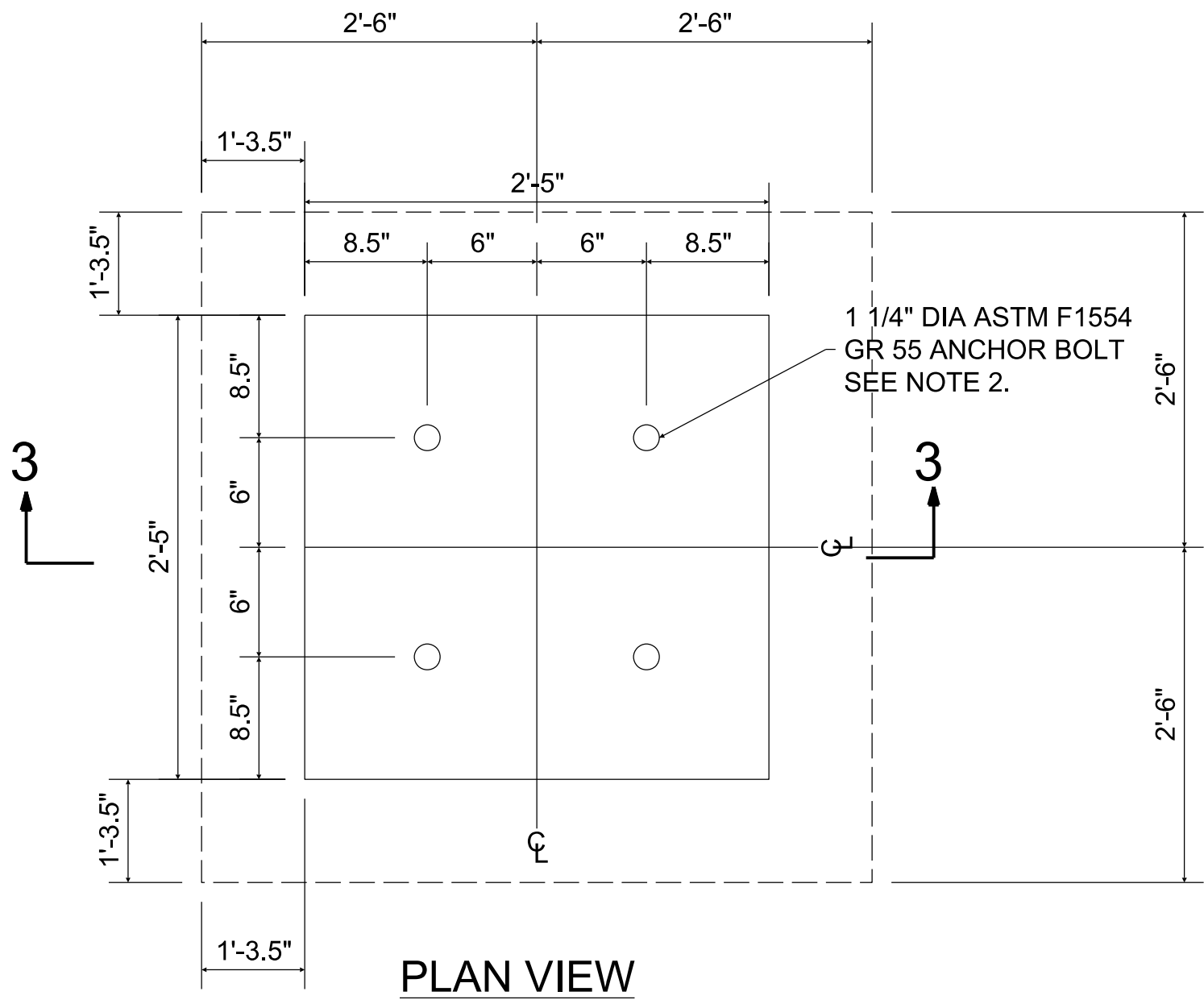
1. ALL WORK SHALL CONFORM TO CONSTRUCTION SPECIFICATIONS.
2. ALL CONCRETE WORK SHALL CONFORM TO THE ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (LATEST EDITION).
3. CONCRETE MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE 4500 PSI.
4. REINFORCING STEEL.
 - A. ASTM A615, GRADE 60
 - B. HOOKS SHALL BE 90°
 - C. NO MECHANICAL SPLICES WILL BE PERMITTED
 - D. MINIMUM LAP LENGTH
 - #5 REBAR IS 2'-0"
 - #6 REBAR IS 2'-5"
 - #7 REBAR IS 3'-0"
 - #8 REBAR IS 3'-0"
5. MINIMUM CONCRETE COVER SHALL BE MINIMUM:
 - A. TOP: 1 1/2"
 - B. BOTTOM: 3"
 - C. SIDES: 1 1/2"
6. ALL REINFORCEMENT SHALL BE HELD SECURELY IN PLACE WITH STANDARD ACCESSORIES DURING THE PLACEMENT OF CONCRETE.
7. CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4".
8. REFERENCE THE CONDUIT AND GROUNDING PLANS FOR COORDINATION OF EMBEDDED ITEMS AND FOUNDATION GROUNDING.
9. THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH ALL REFERENCE DRAWINGS.
10. VERIFY ALL ANCHOR BOLT PLACEMENTS, STRUCTURAL OPENINGS, AND CONDUIT PENETRATIONS WITH EQUIPMENT PURCHASED BY OWNER PRIOR TO FOUNDATION PLACEMENT.
11. CONTRACTOR SHALL REFERENCE DWG SP-1 FOR ESTABLISHED BASELINES.

1. FD1 FOUNDATION DETAILS
2. FD2 FOUNDATION DETAILS
3. FD3 FOUNDATION DETAILS
4. FP1_DEMO
5. SP1 SITE PLAN

1/8" = 1'-0"

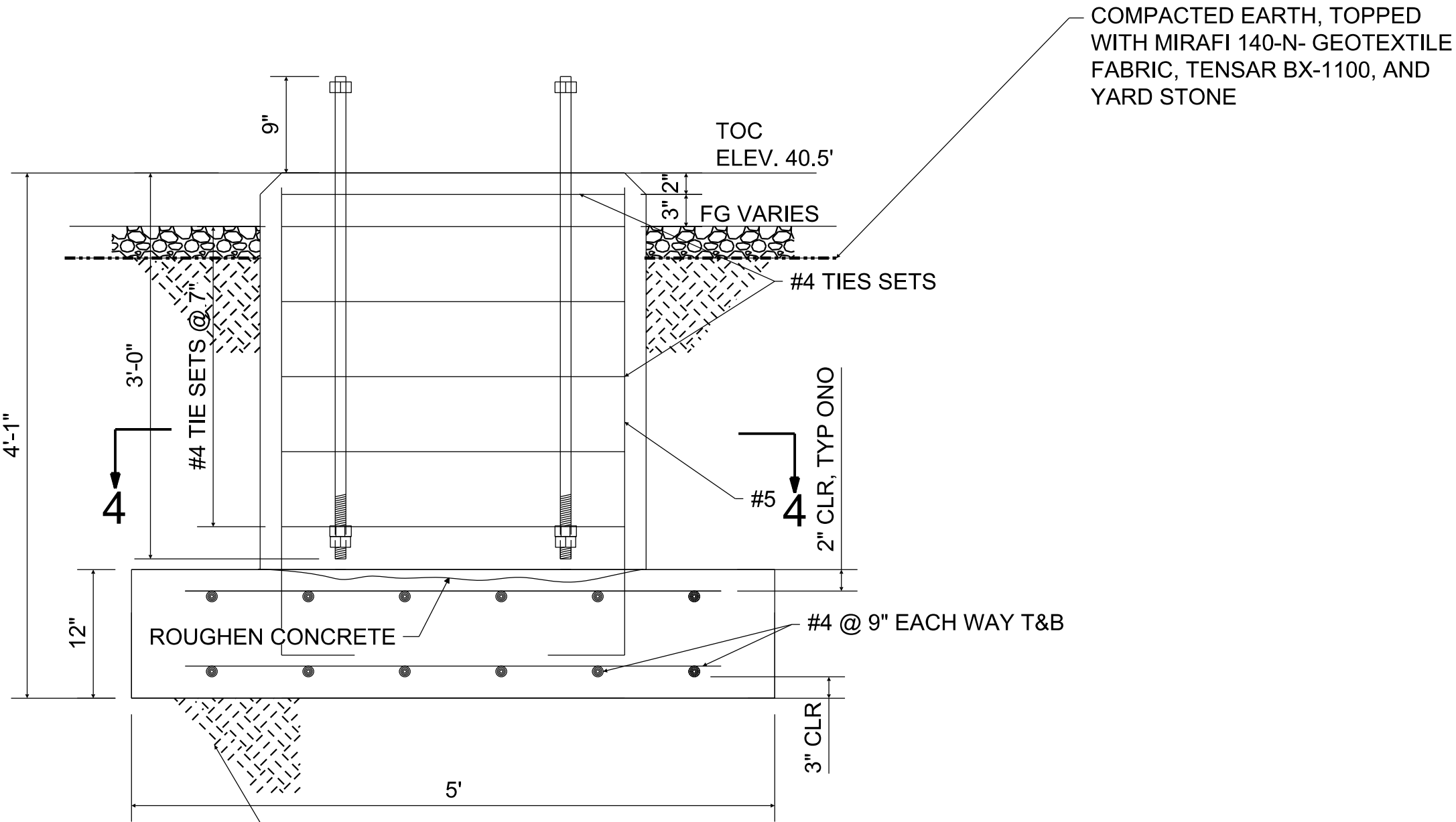
0 8' 16'

JEA ARCH-D 24X36 (06/15) FP1.dgn 2025-8-8 - 17:42

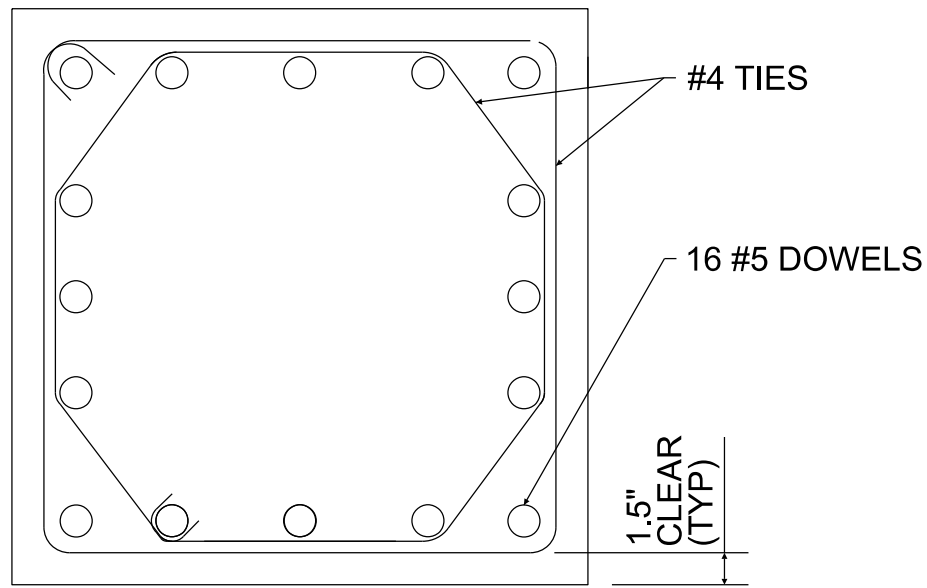


PLAN VIEW

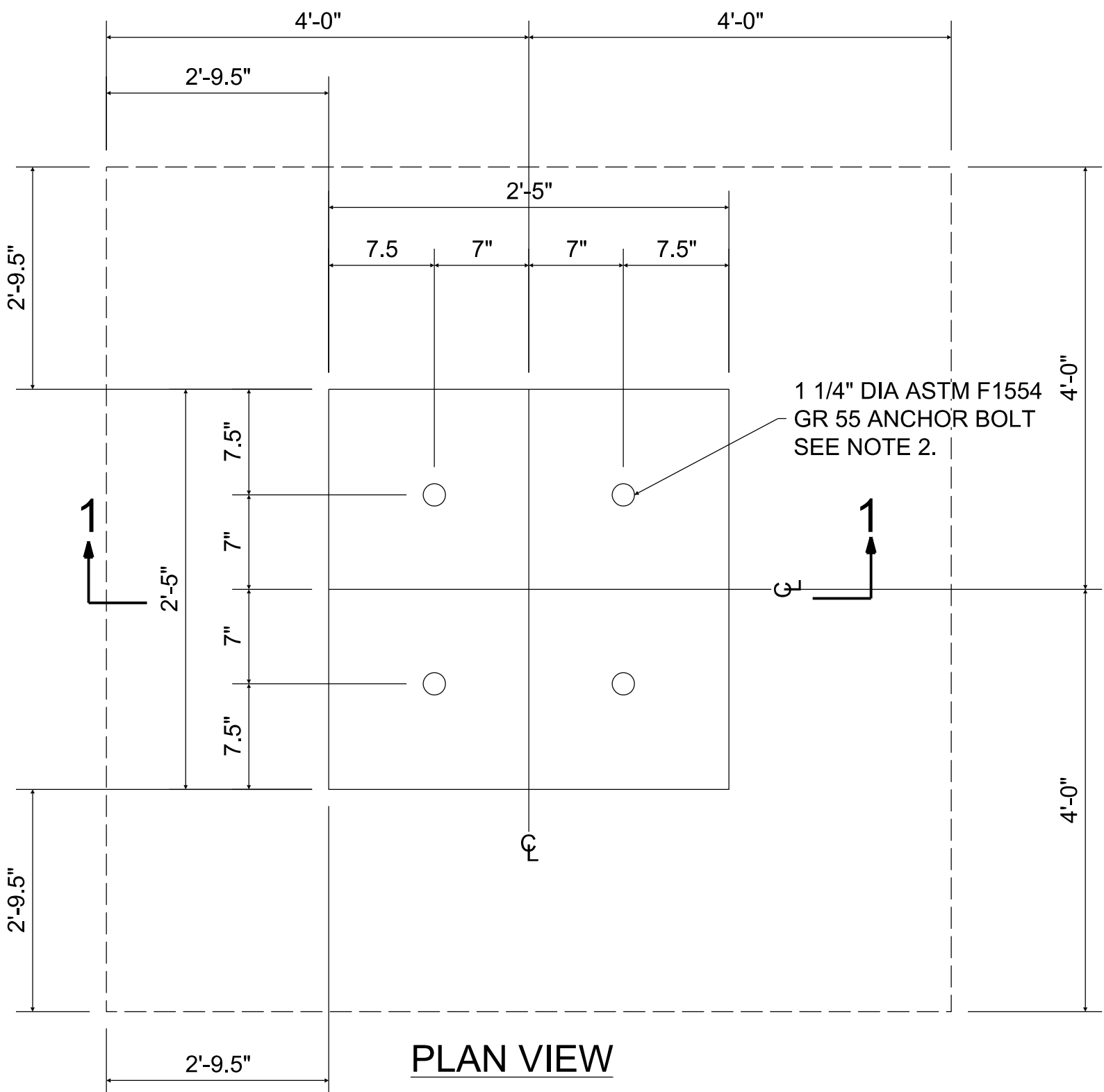
1 PT AND URD STANDS FDN
FD1 N.T.S.



SECTION 3-3
SCALE: 1"=1'

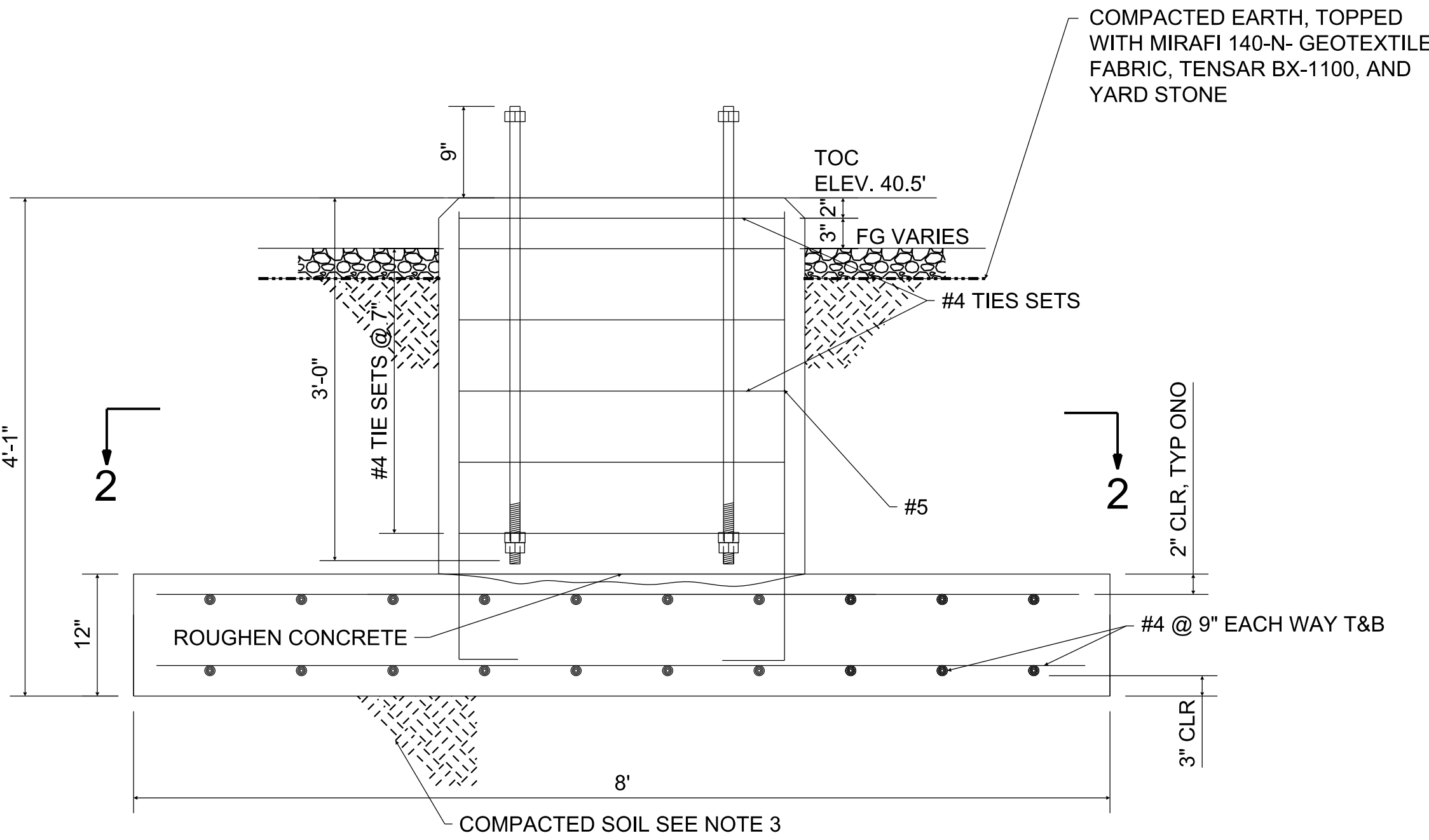


SECTION 4-4
SCALE: 1"=1'

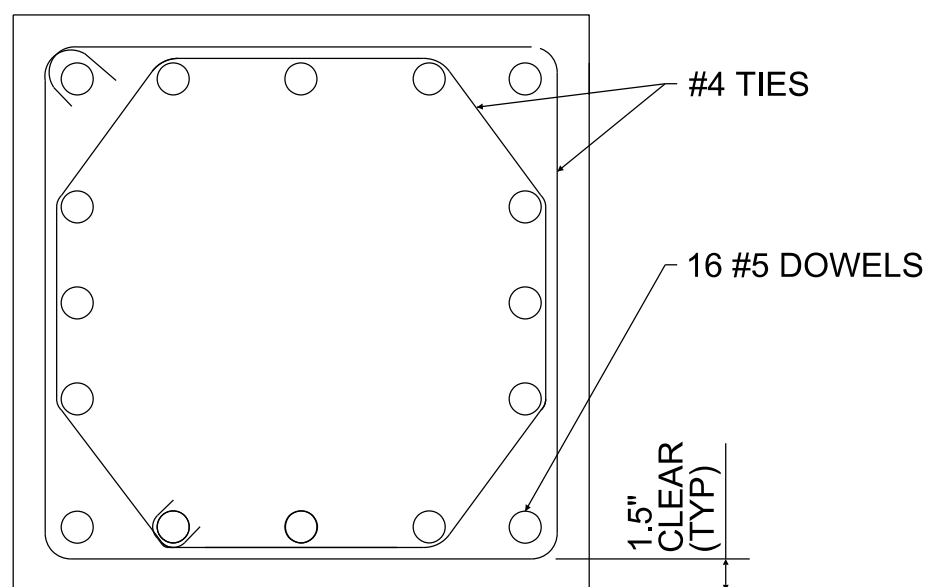


PLAN VIEW

2 DISTRIBUTION STRUCTURE FDN
FD-1 N.T.S.



SECTION 1-1
SCALE: 1"=1'



SECTION 2-2
SCALE: 1"=1'

- NOTES:
- FOR GENERAL NOTES SEE DRAWING FP1
 - ANCHORS, NUTS, WASHERS SUPPLIED BY SUBSTATION ENTERPRISES.
 - BEARING LEVEL SOIL, AFTER COMPACTION, SHOULD EXHIBIT DENSITY EQUIVALENT TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) TO A DEPTH OF AT LEAST 1 FOOT BELOW THE FOUNDATION BEARING LEVELS.

REFERENCE DRAWINGS:

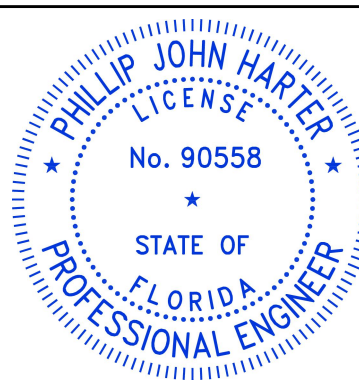
- FP1 FOUNDATION PLAN
- FD2 FOUNDATION DETAILS
- FD3 FOUNDATION DETAILS
- FD4 FOUNDATION DETAILS
- SP1 SITE PLAN



ISSUED FOR CONSTRUCTION

PROFESSIONAL
ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: PHILLIP JOHN HARTER
LIC. NO.: 90558
STATE: FLORIDA
DATE: 27-JUNE-2025



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	6/27/25	8009313	ISSUED FOR CONSTRUCTION	KEN	PJH	DATE -
1	8/11/25	8009313	ISSUED FOR CONSTRUCTION - TITLEBLOCK UPDATED PER CLIENT COMMENTS	KEN	PJH	BY -
						REVIEW -
						DRAFTING
						DATE -
						BY -
						REVIEW -

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
69kV / 26kV
FOUNDATION DETAILS
MERRILL ROAD 69kV / 26kV SUBSTATION

SCALE: N.T.S. TRANSMISSION & SUBSTATION PROJECTS - 20410



SHEET NUMBER:

FD1

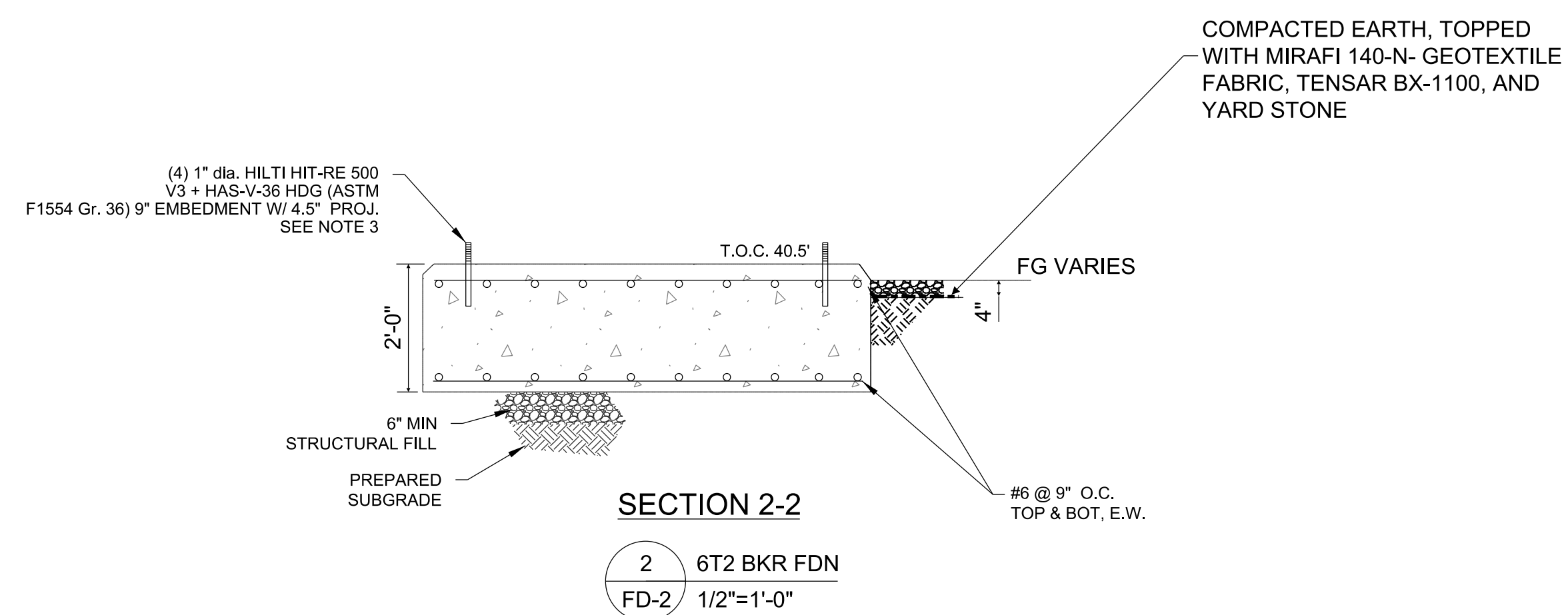
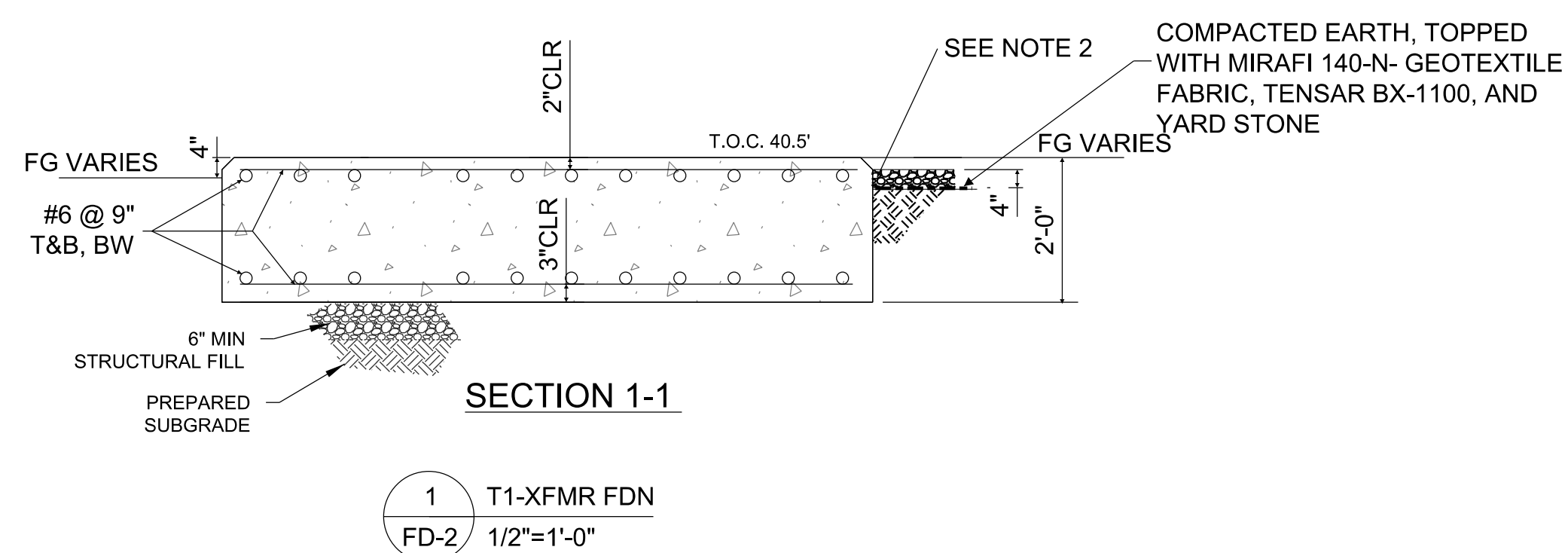
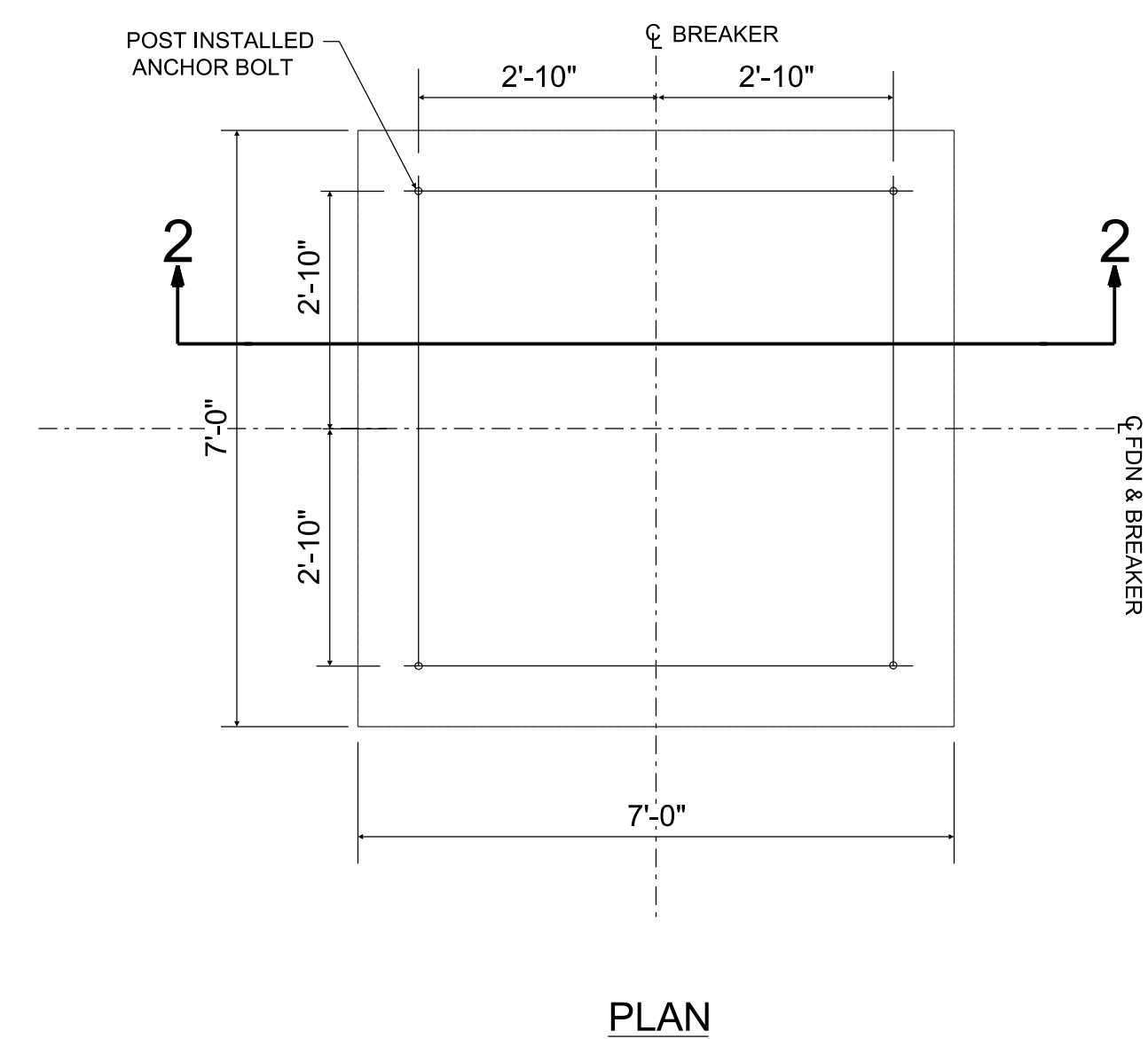
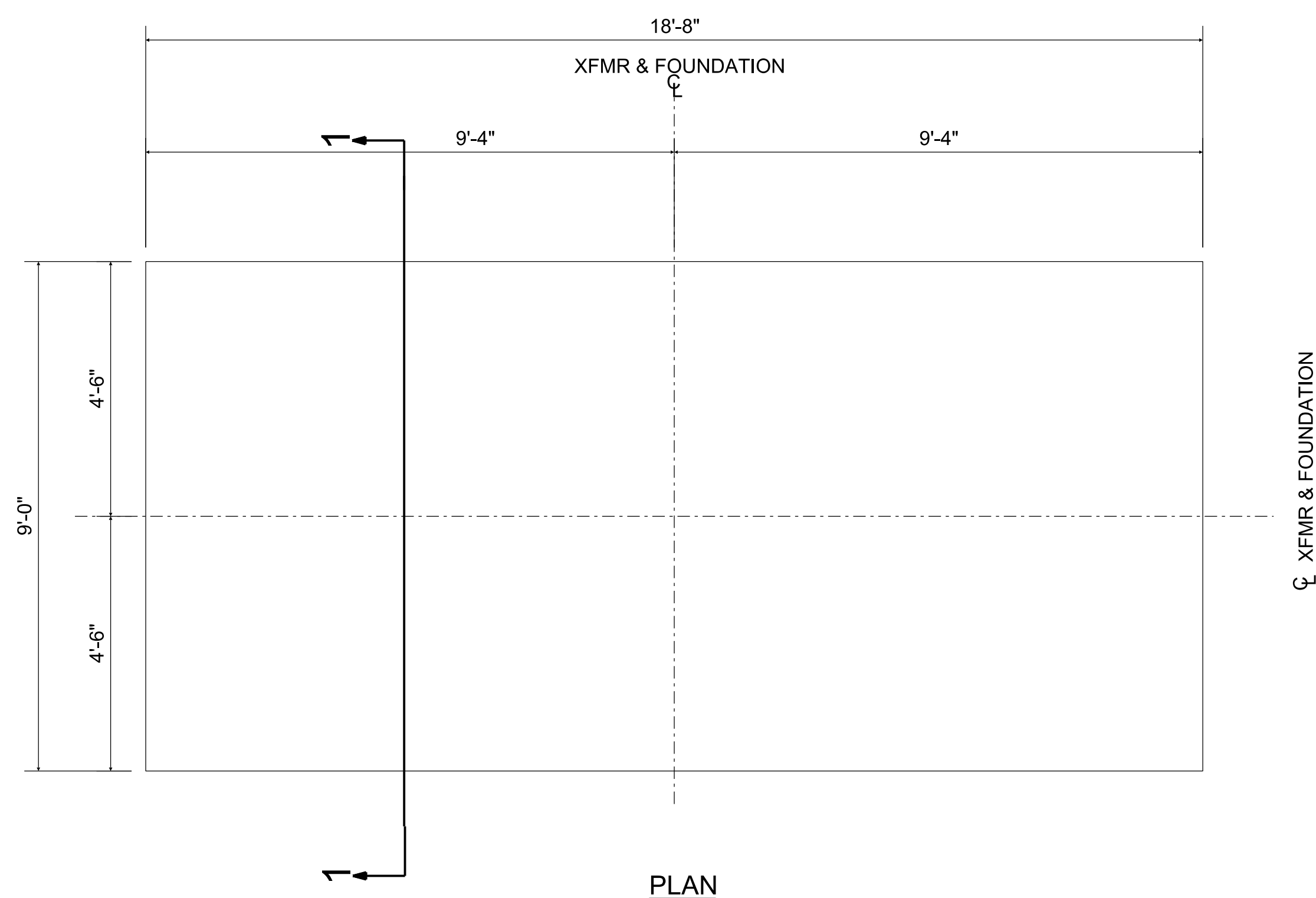
PROJECT ID:

ME2024

SEQUENCE #:

3 OF 27

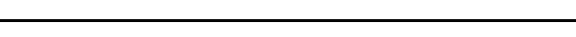
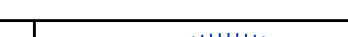
1. FOR GENERAL NOTES SEE DRAWING FP1.
2. ANCHORS, NUTS, WASHERS SUPPLIED BY SUBSTATION ENTERPRISES
3. BEARING LEVEL SOIL AFTER COMPACTION, SHOULD EXHIBIT DENSITIES EQUIVALENT TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557 TO A DEPTH AT LEAST ONE FOOT BELOW THE FOUNDATION BEARING LEVELS.



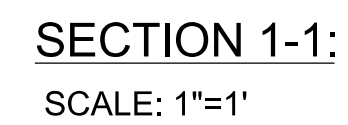
REFERENCE DRAWINGS:

1. FD1 FOUNDATION DETAILS
2. FP1_DEMO FDN DEMO
3. FD3 FOUNDATION DETAILS
4. FP1 FOUNDATION PLAN
5. SP1 SITE PLAN



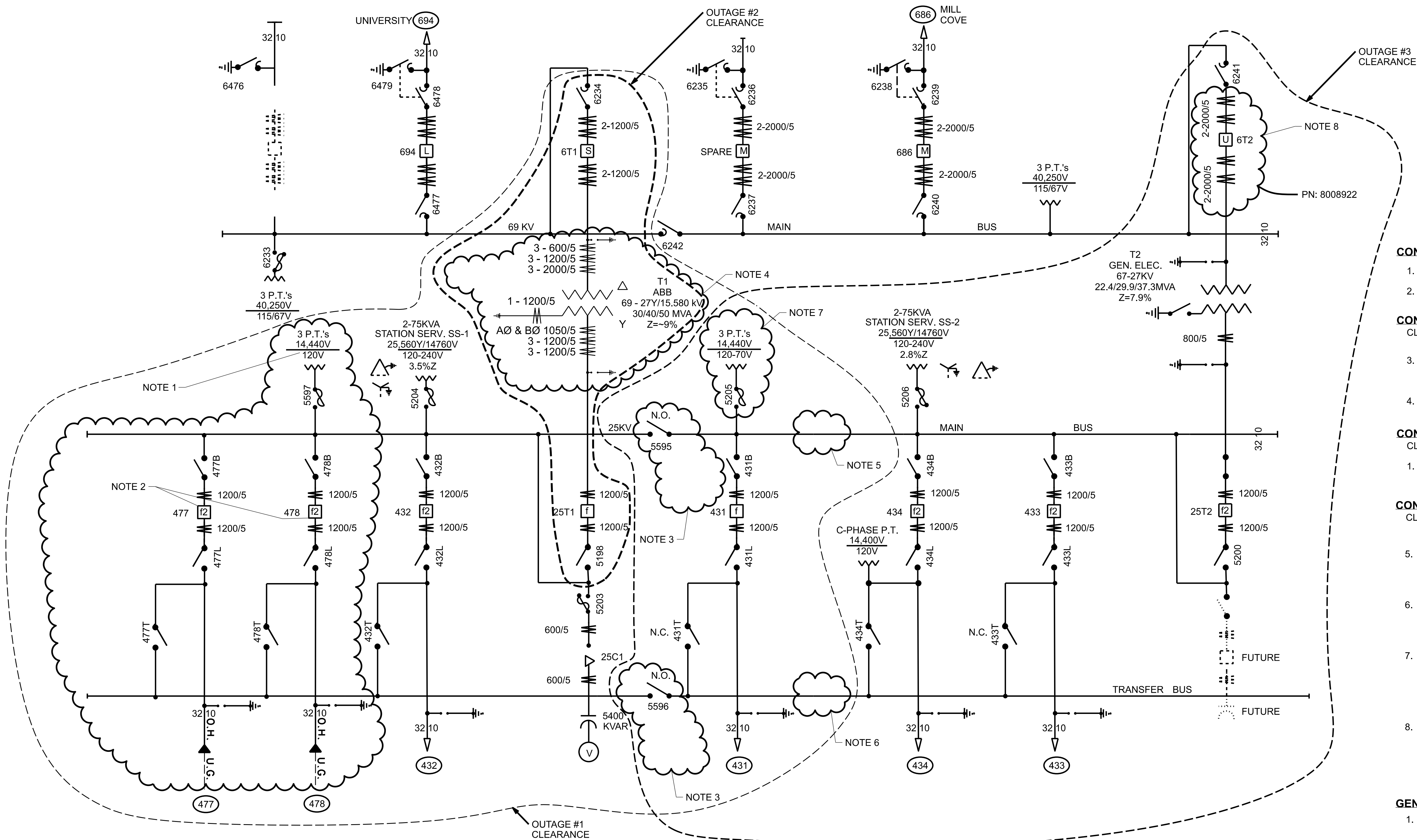
 <p>worley DELIVERING SUSTAINABLE CHANGE</p> <p>ONE MERIDIAN BOULEVARD, SUITE 2002, WYOMISSING, PA. 19610 FL 00A 8777</p>	<p>PROFESSIONAL ENGINEER'S SEAL</p> <p>LATEST REVISION ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF:</p> <p>PE: <u>PHILIP JOHN HARTER</u></p> <p>LIC. NO.: <u>90558</u></p> <p>STATE: <u>FL</u> <u>OR</u> <u>PA</u></p> <p>DATE: <u>07-JUNE-2025</u></p>		<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>PROJ #</th> <th>REVISION DESCRIPTION</th> <th>BY</th> <th>REVIEW</th> <th>ENGINEERING</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>6/27/25</td> <td>8009313</td> <td>ISSUED FOR CONSTRUCTION</td> <td>KEN</td> <td>PJH</td> <td>DATE -</td> </tr> <tr> <td>1</td> <td>8/11/25</td> <td>8009313</td> <td>ISSUED FOR CONSTRUCTION - TITLEBLOCK UPDATED PER CLIENT COMMENTS</td> <td>KEN</td> <td>PJH</td> <td>BY -</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>REVIEW -</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DRAFTING</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DATE -</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>BY -</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>REVIEW -</td> </tr> </tbody> </table>	REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING	0	6/27/25	8009313	ISSUED FOR CONSTRUCTION	KEN	PJH	DATE -	1	8/11/25	8009313	ISSUED FOR CONSTRUCTION - TITLEBLOCK UPDATED PER CLIENT COMMENTS	KEN	PJH	BY -							REVIEW -							DRAFTING							DATE -							BY -							REVIEW -	<p>T1 REPLACEMENT AND TWO FEEDER ADDITIONS</p> <p>69kV / 26kV</p> <p>FOUNDATION DETAILS</p> <p>MERRILL ROAD 69kV / 26kV SUBSTATION</p>		<p>SHEET NUMBER:</p> <p>FD2</p>
	REV		DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING																																																						
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<p>ISSUED FOR CONSTRUCTION</p>						<p>SCALE: AS SHOWN</p>	<p>TRANSMISSION & SUBSTATION PROJECTS - 20410</p>	<p>PROJ #: 8009313</p>	<p>PROJECT ID:</p> <p>ME2024</p> <p>SEQUENCE #:</p> <p>4 OF 27</p>																																																					

1. FOR GENERAL NOTES SEE DRAWING FP1.
2. BEARING LEVEL SOIL, AFTER COMPACTION, SHOULD EXHIBIT DENSITIES EQUIVALENT TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) TO A DEPTH OF AT LEAST ONE FOOT BELOW THE FOUNDATION BEARING LEVELS
3. ANCHORS, NUTS, WASHERS SUPPLIED BY SUBSTATION ENTERPRISES



1. FD1 FOUNDATION DETAILS
2. FD2 FOUNDATION DETAILS
3. FD3 FOUNDATION DETAILS
4. FP1 FOUNDATION DETAILS
5. SP1 SITE PLAN

JEA ARCH-D 24X36 (06/15) FD4.dgn 2024.7-24 - 12:49



- CONSTRUCTION PRE-OUTAGE**
- NEW PTs AND FUSED DISCONNECTS FOR TRANSFORMER T1.
 - NEW CIRCUIT BREAKERS FOR ADDITION OF DISTRIBUTION CIRCUITS 477 & 478.
- CONSTRUCTION OUTAGE #1**
CLEARANCE: SW-6234, SW-5201, SW-5202, SW-5204, SW-5595, SW-5596, SW-5597, FEEDER 431, FEEDER 432.
- NEW SWITCHES AND LOCATION OF HOOK-STICK SW-5595 & SW-5596. THIS WORK SHALL BE PERFORMED DURING THE T1 POWER OUTAGE (i.e., POWER OUTAGE PHASE #1).
 - CONNECT NEW MAIN AND TRANSFER BUS SECTION. PREPARE 477 AND 478 FOR SERVICE.
- CONSTRUCTION OUTAGE #2**
CLEARANCE: SW-6234, 5198
- REPLACEMENT OF T1 TRANSFORMER.
- CONSTRUCTION OUTAGE #3**
CLEARANCE: SW-6241, SW-5295, SW-5296, SW-5207, SW-5206, SW-5205, FEEDER 434, FEEDER 433, FEEDER 431
- ADD SECTIONS OF NEW BUS TO CLOSE THE OPENING LEFT BY THE REMOVAL OF THE 3 HOOK-STICK TIE SWITCHES NO 5201. THIS WORK SHALL BE PERFORMED DURING THE T2 POWER OUTAGE (i.e., POWER OUTAGE PHASE #2).
 - ADD SECTIONS OF NEW BUS TO CLOSE THE OPENING LEFT BY THE REMOVAL OF THE 3 HOOK-STICK TIE SWITCHES NO 5202. THIS WORK SHALL BE PERFORMED DURING THE T2 POWER OUTAGE (i.e., POWER OUTAGE PHASE #2).
 - EXISTING PTs CONNECTED TO T1 BUS TRANSFERRED TO THE T2 SECONDARY BUS. PROVIDE NEW WIRING AS REQUIRED TO REWIRE THE PT SECONDARIES TO SUPPLY VOLTAGES TO ALL DEVICES NEEDING A VOLTAGE INPUT FROM THE T2 BUS. THIS WORK SHALL BE PERFORMED DURING THE T2 POWER OUTAGE (POWER OUTAGE PHASE #2).
 - REPLACE EXISTING OIL FILLED 69KV CIRCUIT BREAKER WITH NEW 69KV VACUUM CIRCUIT BREAKER.

- GENERAL NOTES:**
- REFER TO DRAWING NO. SL01_DEMO (DEMO SINGLE LINE DIAGRAM) FOR DEMOLITION WORK ASSOCIATED WITH CONSTRUCTION PHASES & OUTAGES.

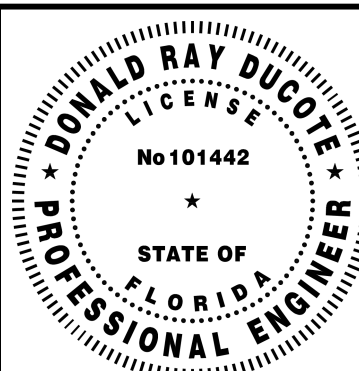
1 SINGLE LINE DIAGRAM
SL01 NTS



ISSUED FOR
CONSTRUCTION

PROFESSIONAL
ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 08/18/25



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	08/18/25	8009313 8008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/20/20 BY RMS REVIEW JWR
						DRAFTING
						DATE 9/20/20 BY RMS REVIEW JWR

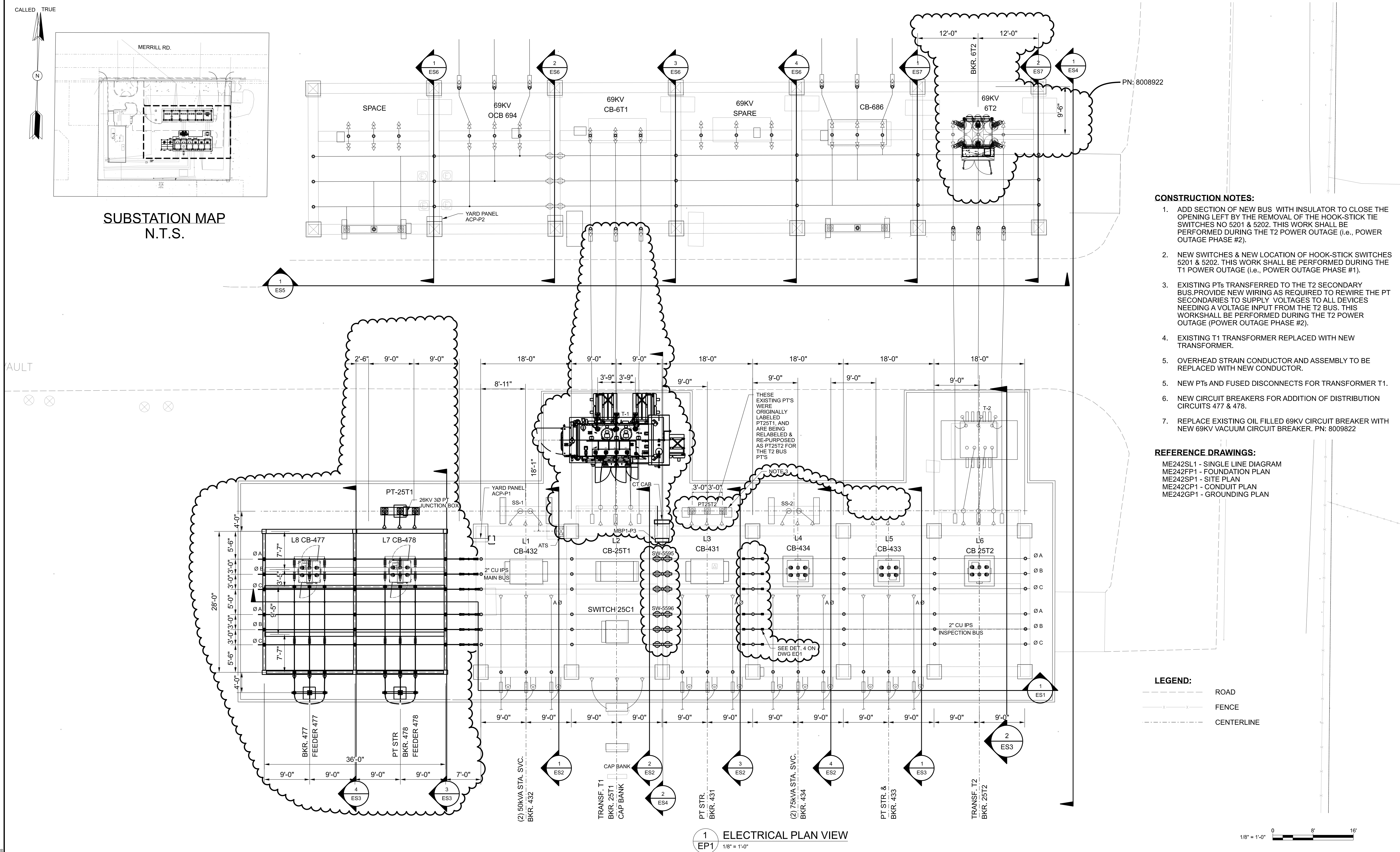
T1 REPLACEMENT AND TWO FEEDER ADDITIONS
SINGLE LINE DIAGRAM

MERRILL ROAD 69KV / 26KV SUBSTATION

TRANSMISSION & SUBSTATION PROJECTS - 20410



SHEET NUMBER:	SL01
PROJECT ID:	ME2024
SEQUENCE #:	6 OF 27



- CONSTRUCTION NOTES:**
1. ADD SECTION OF NEW BUS WITH INSULATOR TO CLOSE THE OPENING LEFT BY THE REMOVAL OF THE HOOK-STICK TIE SWITCHES NO 5201 & 5202. THIS WORK SHALL BE PERFORMED DURING THE T2 POWER OUTAGE (i.e., POWER OUTAGE PHASE #2).
 2. NEW SWITCHES & NEW LOCATION OF HOOK-STICK SWITCHES 5201 & 5202. THIS WORK SHALL BE PERFORMED DURING THE T1 POWER OUTAGE (i.e., POWER OUTAGE PHASE #1).
 3. EXISTING PTs TRANSFERRED TO THE T2 SECONDARY BUS. PROVIDE NEW WIRING AS REQUIRED TO REWIRE THE PT SECONDARIES TO SUPPLY VOLTAGES TO ALL DEVICES NEEDING A VOLTAGE INPUT FROM THE T2 BUS. THIS WORKSHALL BE PERFORMED DURING THE T2 POWER OUTAGE (POWER OUTAGE PHASE #2).
 4. EXISTING T1 TRANSFORMER REPLACED WITH NEW TRANSFORMER.
 5. OVERHEAD STRAIN CONDUCTOR AND ASSEMBLY TO BE REPLACED WITH NEW CONDUCTOR.
 5. NEW PTs AND FUSED DISCONNECTS FOR TRANSFORMER T1.
 6. NEW CIRCUIT BREAKERS FOR ADDITION OF DISTRIBUTION CIRCUITS 477 & 478.
 7. REPLACE EXISTING OIL FILLED 69KV CIRCUIT BREAKER WITH NEW 69KV VACUUM CIRCUIT BREAKER. PN: 8009822
- REFERENCE DRAWINGS:**
- ME242SL1 - SINGLE LINE DIAGRAM
 - ME242FP1 - FOUNDATION PLAN
 - ME242SP1 - SITE PLAN
 - ME242CP1 - CONDUIT PLAN
 - ME242GP1 - GROUNDING PLAN

- LEGEND:**
- ROAD
 - FENCE
 - CENTERLINE





ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19150
FL COA 8777

PROFESSIONAL
ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 9/18/25



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	9/18/25	8009313	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/20/20 BY RMS REVIEW JWR
						DRAFTING
						DATE 9/20/20 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
26KV / 69KV ELECTRICAL PLAN

MERRILL ROAD 69KV / 26KV SUBSTATION

SCALE: AS SHOWN

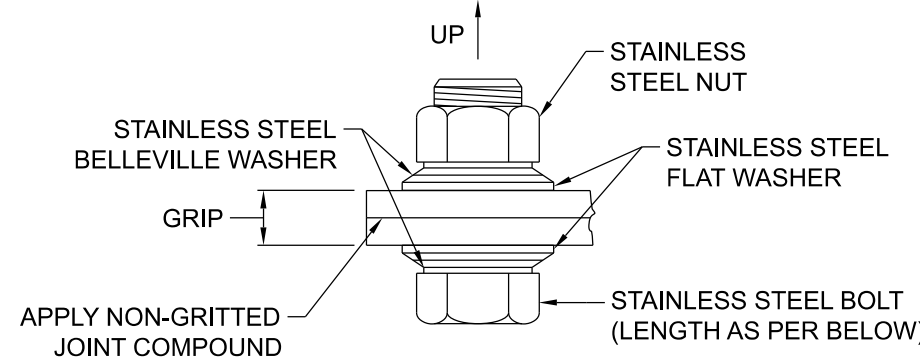
SHEET NUMBER:
EP1

PROJECT ID:
ME2024

SEQUENCE #:
7 OF 27



PROJ #: 8009313 & 8009822

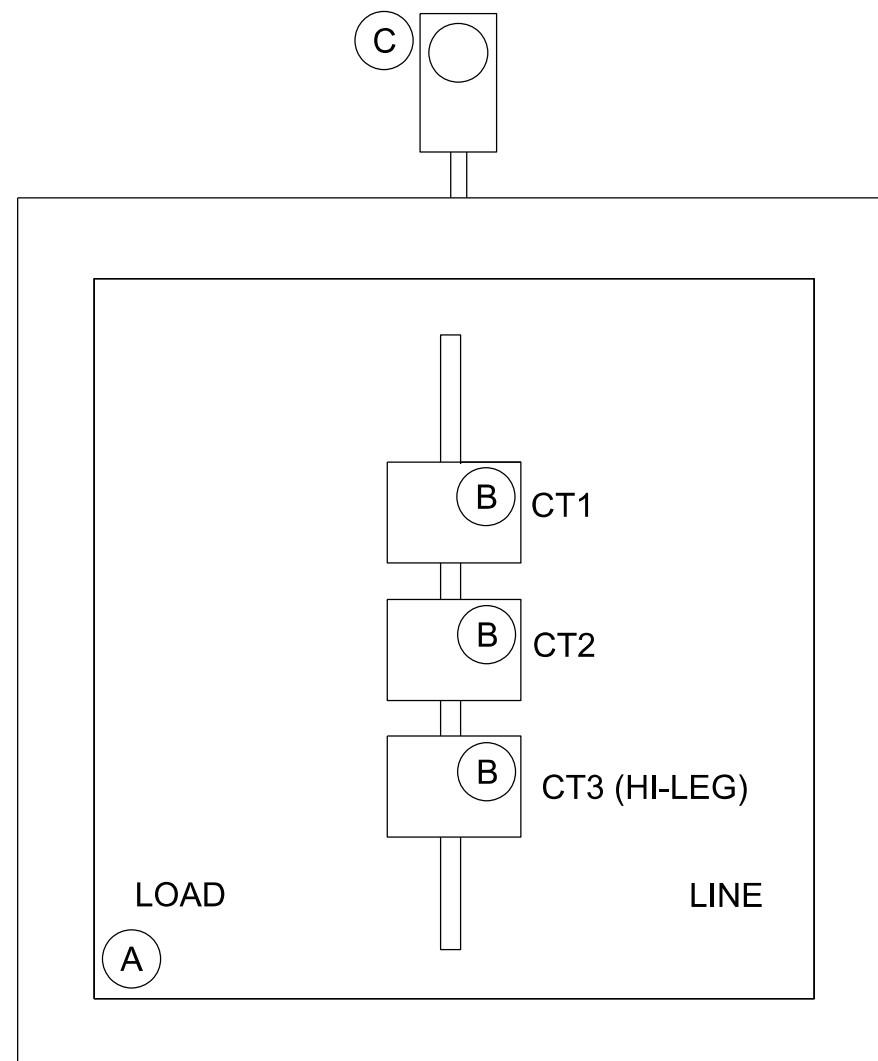


UP TO GRIP	BOLT LENGTH
1/2"	1.5"
1"	2"
1.5"	2.5"
2"	3"
2.5"	3.5"
3"	4"

NOTE: GRIP OF FW/FW/BW/BW/NUT IS APPROXIMATELY 13/16". AS SUCH, BOLT LENGTH SHALL BE AT LEAST 1" BEYOND REQUIRED GRIP LENGTH.

1 ELECTRICAL CONNECTION

ED1 TYPICAL SCALE: NTS



METER CABINET

N.T.S

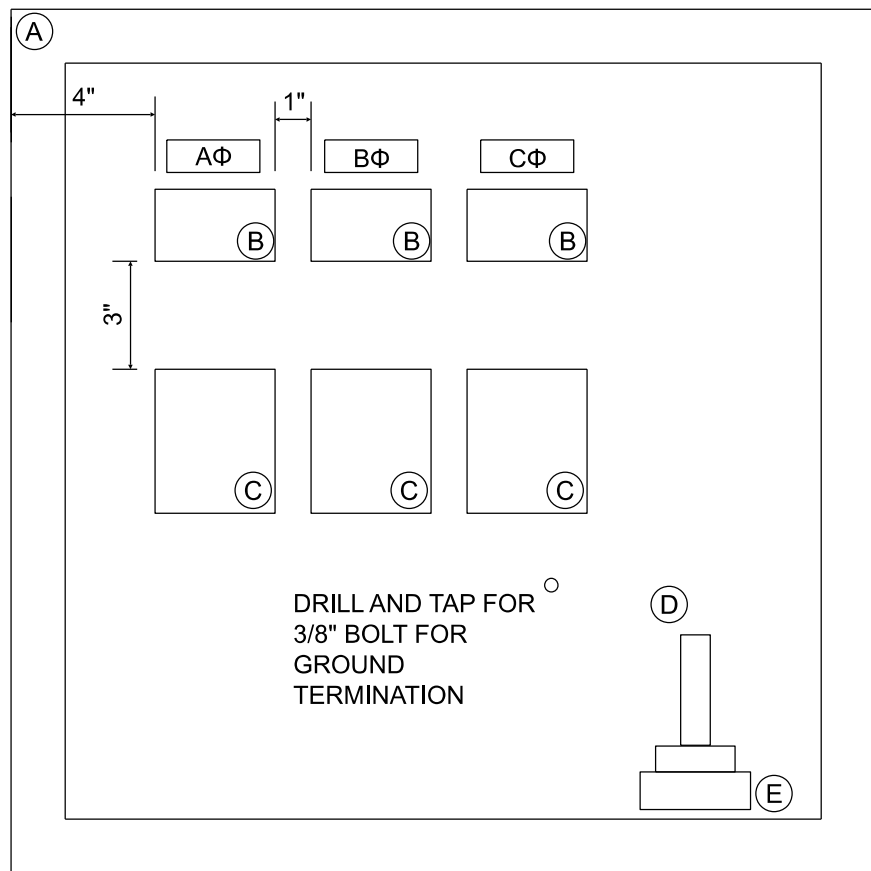
METERING CABINET NOTES:

- CT #3 TO CONTAIN THE HIGH LEG MARKED WITH ORANGE PHASING TAPE AND BE LOWER-MOST IN THE CT CABINET. CT'S MUST BE SOLIDLY MOUNTED AND BONDED FROM SINGLE POINT BONDING SYSTEM.
- CONDUITS ENTERING CT CABINET FROM POINT OF SERVICE SHALL BE MARKED "LINE" AND CONDUITS LEAVING CT CABINET TO SERVICE EQUIPMENT SHALL BE MARKED "LOAD".
- CT'S MUST BE SOLIDLY MOUNTED AND BONDED FROM SINGLE POINT BONDING SYSTEM.
- THE CONTRACTOR SHALL SUPPLY ALL NECESSARY HARDWARE SUPPORT CHANNELS/FITTINGS NECESSARY FOR FASTENING THE PANELS TO THE STRUCTURE SUPPORT BRACKETS AS NEEDED. THE CONTRACTOR SHALL SUPPLY THE SUPPORT STRUCTURES.
- METER CTS SHALL BE TESTED BY JEA PERSONNEL. COORDINATE WITH JEA REPRESENTATIVE.
- AFTER INSTALLATION JEA SHALL INSPECT THE CT CABINET AND METERING SOCKET.
- THIS DESIGN REFERENCES JEA'S RULES AND REGULATIONS FOR ELECTRIC SERVICE 2021. FIGURE 7.08 ON PAGE 152 OF 166.

MATERIAL LIST						
ID	QTY	DESCRIPTION	JEA ITEM ID	MFG	PART #	FURNISHED BY
A	1	WEATHERPROOF ENCLOSURE, NEMA 3R STAINLESS STEEL WITH HINGED COVER	N/A	*AUSTIN	AB-363612WLX-T304 WITH SUBPANEL AB-3636TP	CONTRACTOR
B	3	TRANSFORMER, CURRENT, 400:5 AMPS, 600 VOLTS, 4.0 RF, 0.5 BURDEN	METCT002			JEA
C	1	METER SOCKET, B TERMINAL	METSO007			JEA
* OR APPROVED EQUAL						

5 METERING CABINET

ED2 TYPICAL SCALE: NTS



PT FUSE BOX FRONT VIEW
N.T.S.

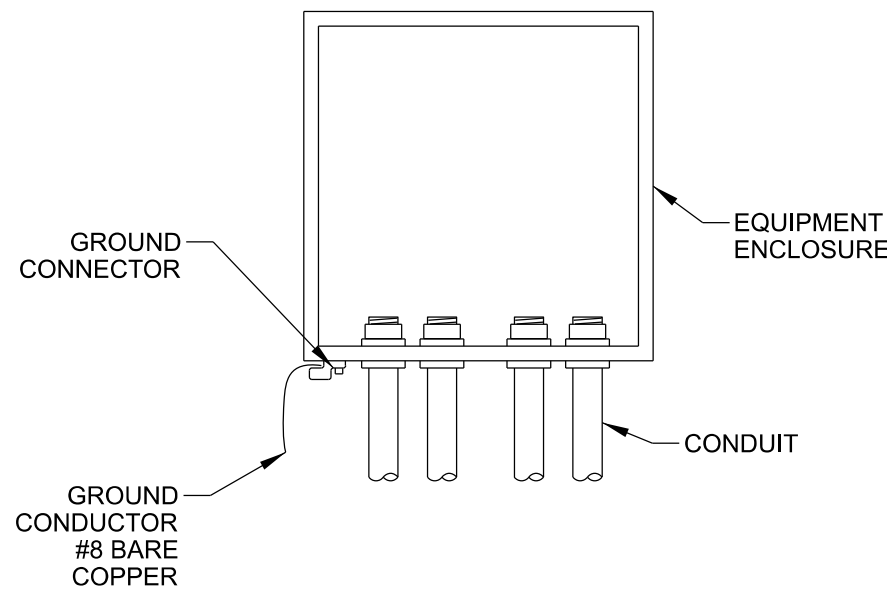
MATERIALS FOR PT FUSE BOX						
ID	QTY	DESCRIPTION	JEA ITEM ID	MFG	PART #	FURNISHED BY
A	1	ENCLOSURE, NEMA 4X, 24"x24"x8" WITH CAPTIVE CLAMPS AND MOUNTED AL BACK PANEL AND ALL STAINLESS STEEL HARDWARE	ELUEB001			JEA
B	3	TERMINAL BOARD, 6-CIRCUIT, WIRE SIZE 10-18 AWG, WITH WHITE MARKING STRIP	ELUTB001	G.E.	EB25A06W	JEA
C	1	FUSE BLOCK, PHENOLOIC, CATRIDGE CLASS "H" FUSE, 3-POLE, MAXIMUM 30A, 250V	FUSHO013			JEA
D	1	HEATER, EDISON SCREW BASE, 120V, 50W	TEMHE017	CHROMALOX	SCB-50-253809	JEA
E	1	LAMP HOLDER, 660W, 250V, PONY CLEAT PORCELAIN, MEDIUM BASE	LTGHR037	LEVITON	19062	JEA

PT JUNCTION BOX NOTES:

- DRILL AND TAP FOR 3/8" BOLT FOR GROUND TERMINATION IN JUNCTION BOXES AT LOCATIONS SHOWN. CONTRACTOR TO FURNISH AND INSTALL ALL GROUNDING PROVISIONS FOR JUNCTION BOXES TO BE CONNECTED TO STATION GRID. CONNECT 7#5 COPPERWELD TO EXTERIOR OF JUNCTION BOX AND #8 COPPER OR LARGER FROM 3/8" INTERIOR BOLT TO 7#5 COPPERWELD SPLIT BOLT CONNECTION.
- WHEN FACING JUNCTION BOX, THE TERMINAL BLOCKS SHALL BE ALIGNED LEFT TO RIGHT AS AΦ, BΦ, CΦ AND LABELED AS SUCH.
- LABEL THE NAME OF PT BOX ON OUTSIDE OF FRONT DOOR.
- CONTRACTOR RESPONSIBLE FOR FURNISHING MOUNTING MATERIALS AND BOX UNLESS OTHERWISE SPECIFIED.

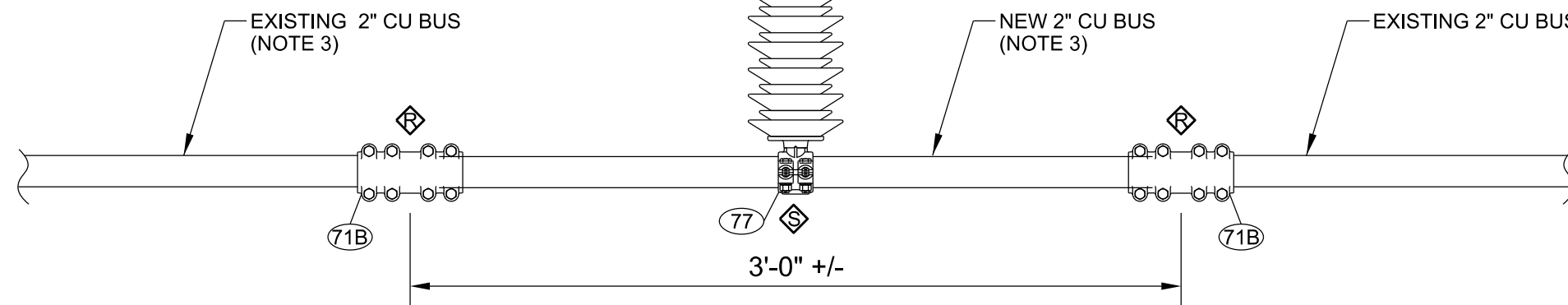
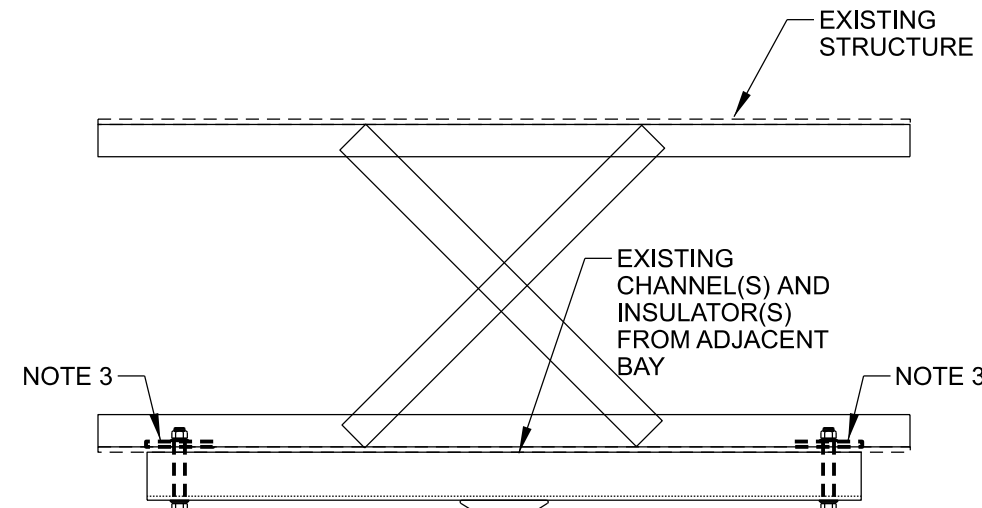
2 26KV 3Ø PT JUNCTION BOX

ED2 TYPICAL SCALE: NTS



3 METAL CABINET GROUNDING

ED2 TYPICAL SCALE: NTS



4 ELECTRICAL BUS DETAIL

ED2 TYPICAL SCALE: NTS

NOTES:

- CONNECTION DETAILS FOR THE STATION SERVICE, AUTOMATIC TRANSFER SWITCH AND MAIN AC AND DC DISTRIBUTION PANELS CAN BE FOUND ON OR REFERENCED WITHIN DRAWING LV1.
- ALL POTENTIAL TRANSFORMER (PT) JUNCTION BOXES SHOULD BE PLACED SUCH THAT WHEN LOOKING INTO THE JUNCTION BOX, THE A-PHASE PT WILL BE ON THE LEFT. IN ADDITION, WIRING INSIDE THE BOX SHOULD INDICATE PT PHASE POSITION ON THE INDIVIDUAL TERMINAL BLOCKS IN THE SAME FASHION.
- ADD BACKING PLATE FOR NEW HOLE LOCATION. FIELD DRILL AND APPLY CORROSION RESISTANT GALVANIC PAINT TO DRILLED AREAS.

LEGEND:

- SLIP BUS CONNECTION
- RIGID BUS CONNECTION
- EXPANSION BUS CONNECTION

NOTE: BUS CONNECTIONS NOT DESIGNATED ARE TO BE SLIP-FIT (DO NOT FIELD WELD)

REFERENCE DRAWINGS:

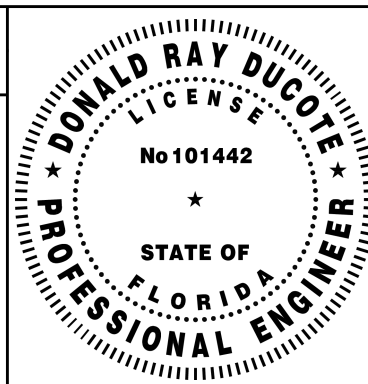
- ME242EP1 ELECTRICAL PLAN
- ME242CP1 CONDUIT PLAN
- ME242LV1 LOW VOLTAGE AC & DC DIAGRAMS



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LIC. NO.: 101442
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DATE: 06/27/25



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						DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS

ELECTRICAL DETAILS

MERRILL ROAD 69kV / 26kV SUBSTATION

SCALE: NONE

TRANSMISSION & SUBSTATION PROJECTS - 20410



PROJ #: 8009313 & 8008922

DRAWING #:

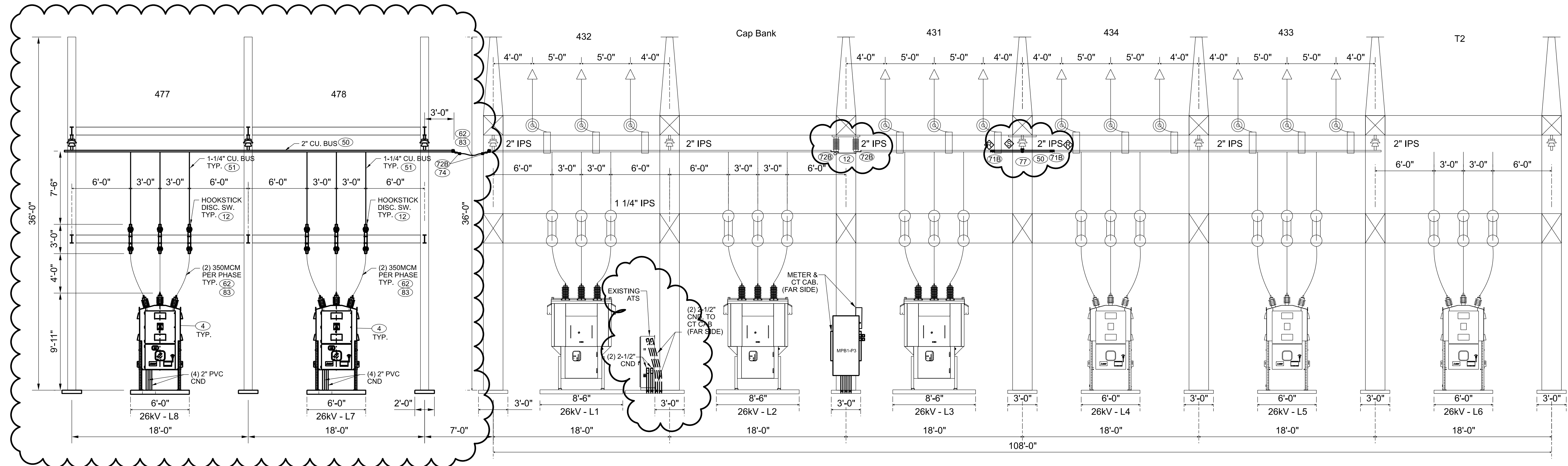
ED1

DRAWING SET

ME2024

SHEET#:

8 OF 27



1 26kV Breaker Yard North
ES1 3/16"=1'-0"

REFERENCE DRAWINGS:

EP1 - 26KV / 69KV ELECTRICAL PLAN
ES2 - 26KV BREAKER SECTION SHEET 2
ES3 - 26KV BREAKER SECTION SHEET 3
ES4 - 69KV / 26KV BREAKER SECTION SHEET 4
ES5 - 69KV BREAKER SECTION SHEET 5
ES7 - 69KV BREAKER SECTION SHEET 7
GP1 - 26KV / 69KV GROUNDING PLAN
CP1 - 26KV / 69KV CONDUIT PLAN

LEGEND:

- SLIP BUS CONNECTION
- RIGID BUS CONNECTION
- EXPANSION BUS CONNECTION

3/16" = 1'-0" 0 4' 8'

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DELIVERING SUSTAINABLE CHANGE
ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19610
FL COA 8777

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LIC. NO.: 101442
STATE: FL
DATE: 08/18/25

DONALD RAY DUCOTE
No 101442
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

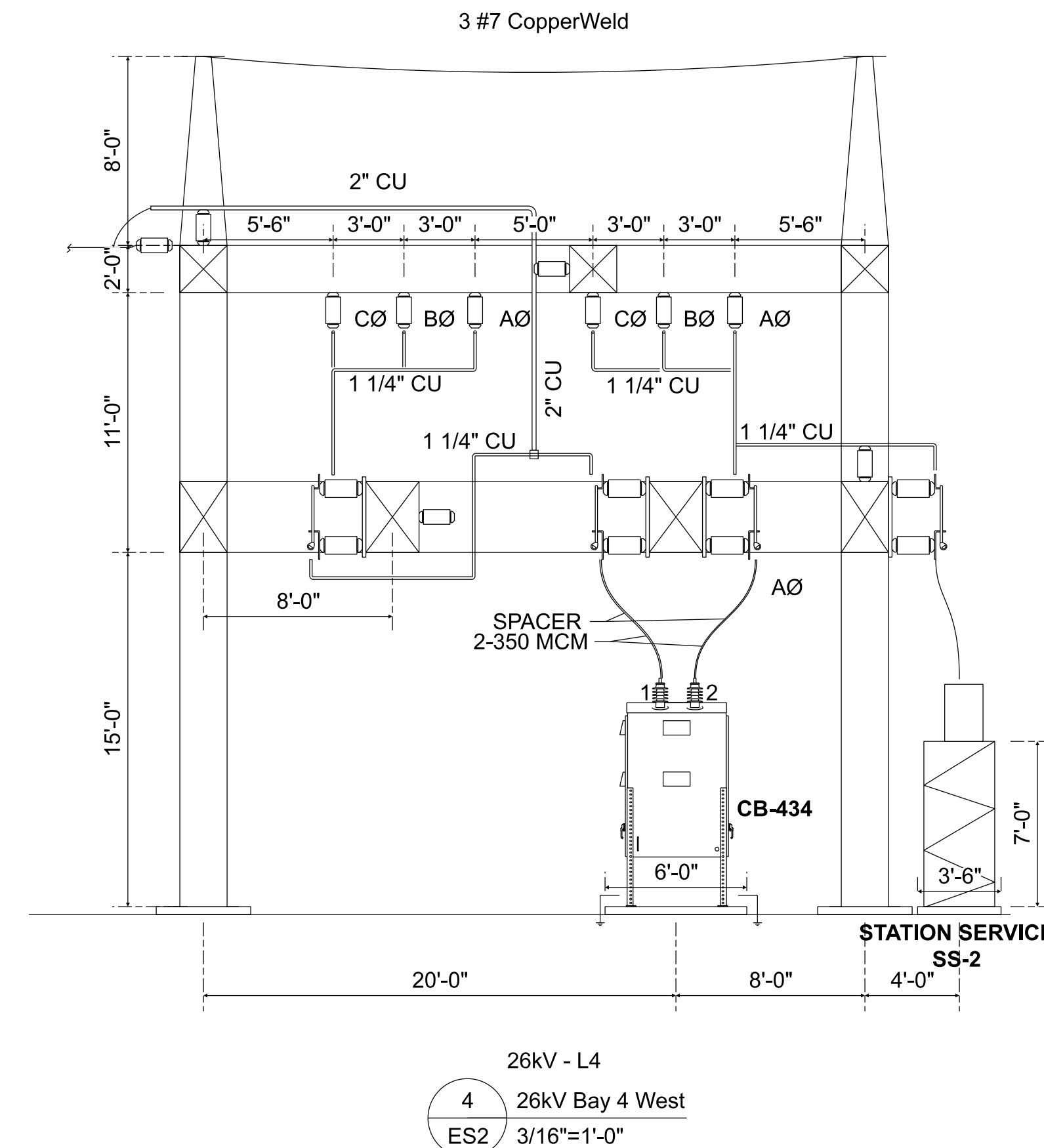
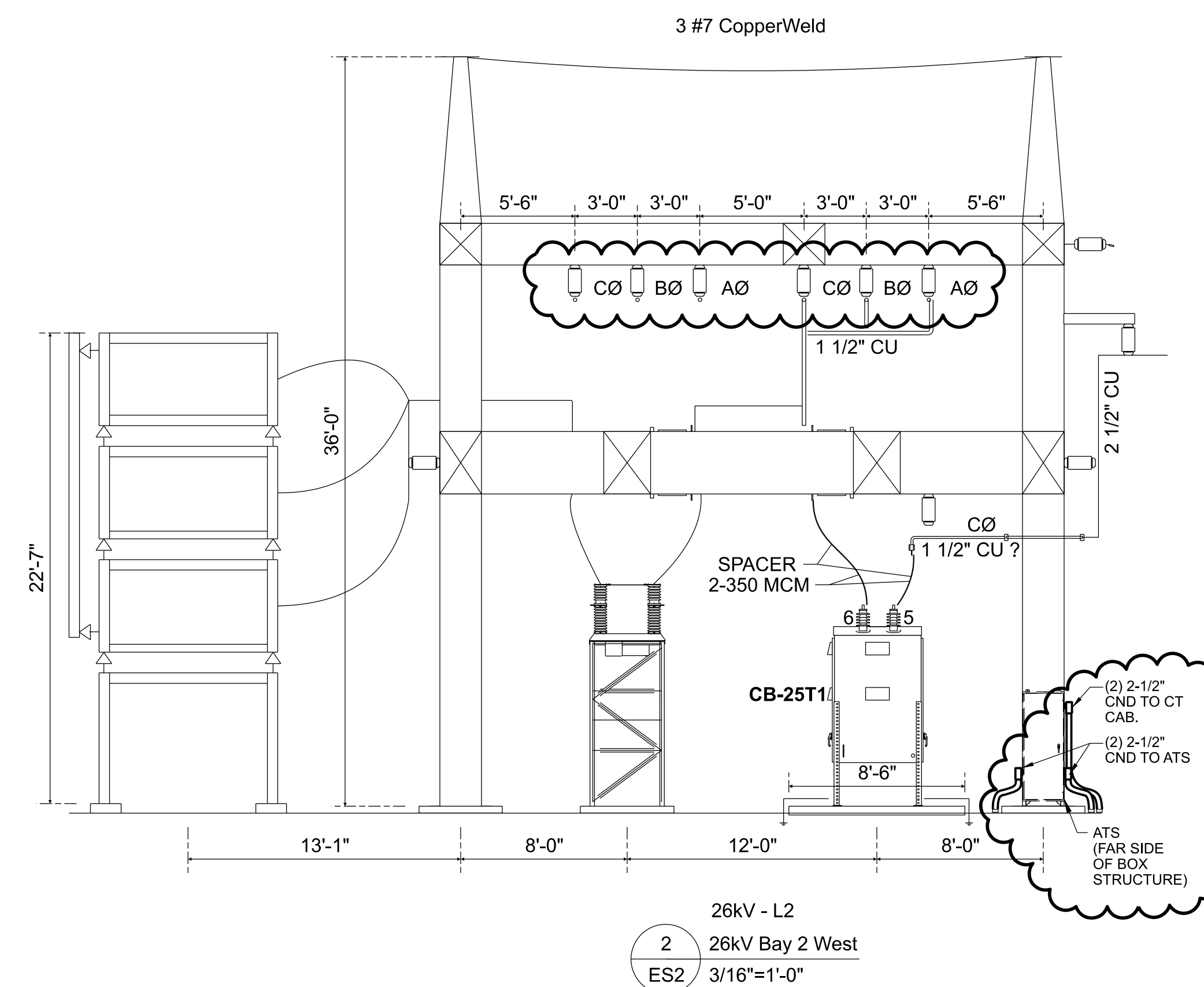
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T1 REPLACEMENT AND TWO FEEDER ADDITIONS
**26kV BREAKER SECTION
SHEET 1**
MERRILL ROAD 69KV / 26kV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410

JEA
BUILDING COMMUNITY

SHEET NUMBER:
ES1
PROJECT ID:
ME2024
SEQUENCE #:
9 OF 27

SCALE: AS SHOWN
PROJ #: 8009313 & 8008922



REFERENCE DRAWINGS:

EP1 - 26KV / 69KV ELECTRICAL PLAN
ES1 - 26KV BREAKER SECTION SHEET 1
ES3 - 26KV BREAKER SECTION SHEET 3
ES4 - 69KV / 26KV BREAKER SECTION SHEET 4
ES5 - 69KV BREAKER SECTION SHEET 5
ES7 - 69KV BREAKER SECTION SHEET 7
GP1 - 26KV / 69KV GROUNDING PLAN
CP1 - 26KV / 69KV CONDUIT PLAN



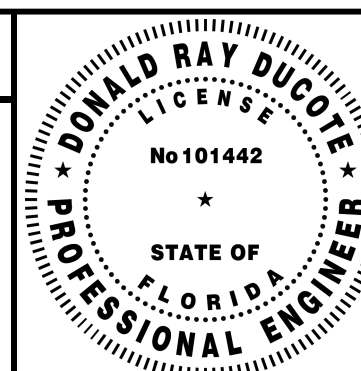
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STATE: FL
DATE: 08/19/25

[illegible]

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
26KV BREAKER SECTIONS
SHEET 2
MERRILL ROAD 69KV / 26KV SUBSTATION

SCALE:
AS SHOWN

TRANSMISSION & SUBSTATION PROJECTS - 20410	PROJ #: 80002312 & 80002313
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SHEET NUMBER

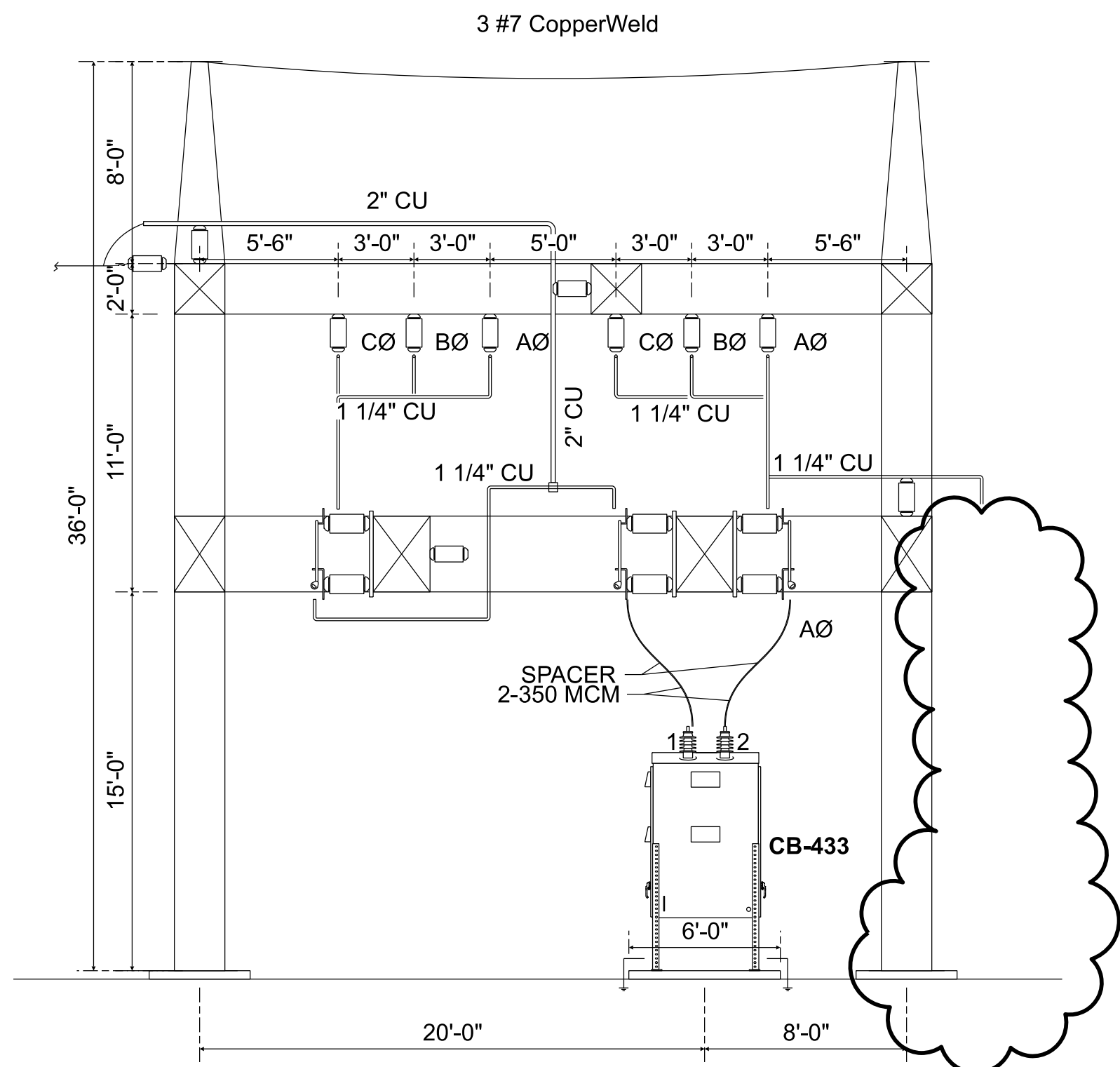
ES2

PROJECT ID:

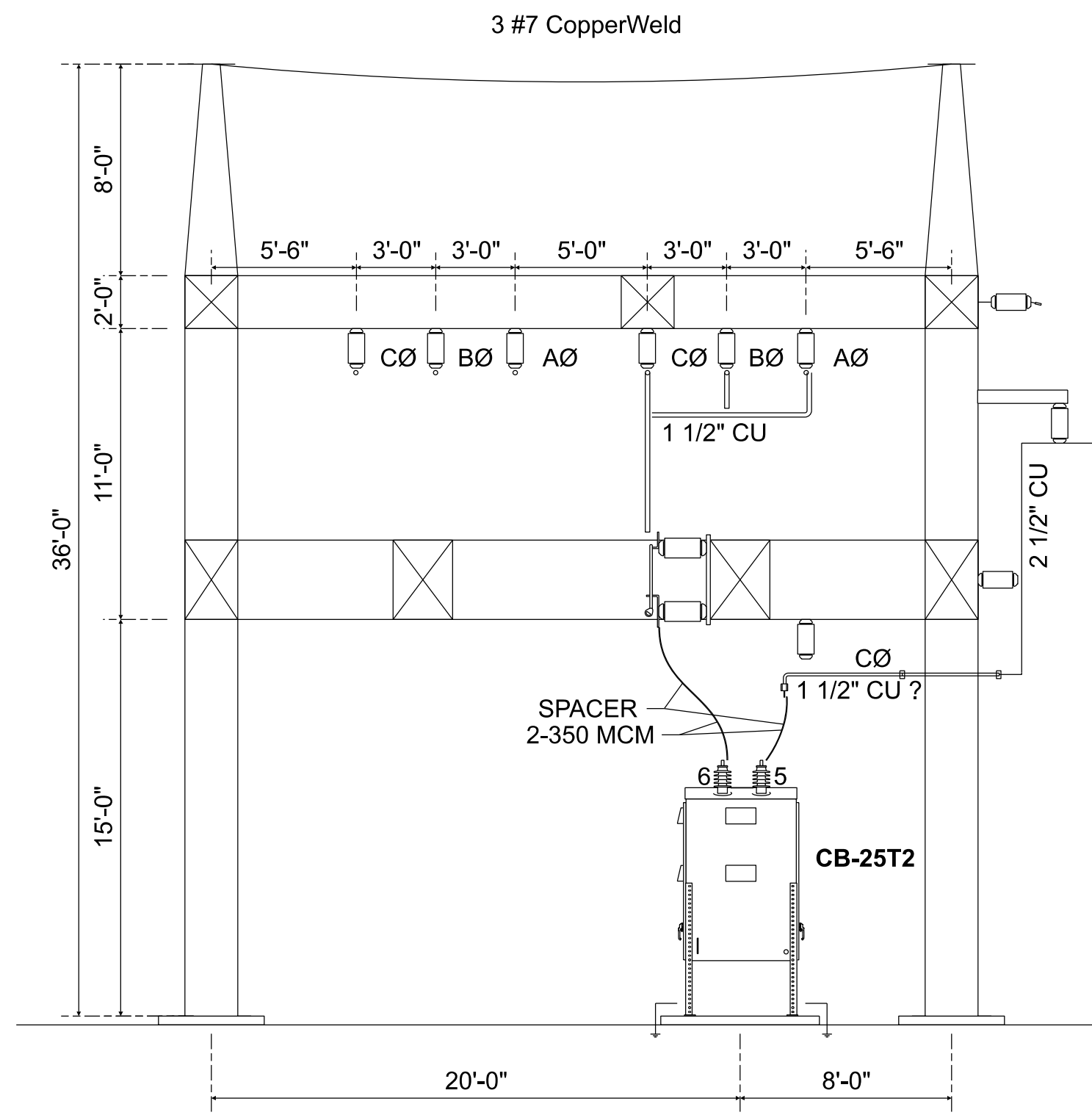
ME2024

SEQUENCE #:

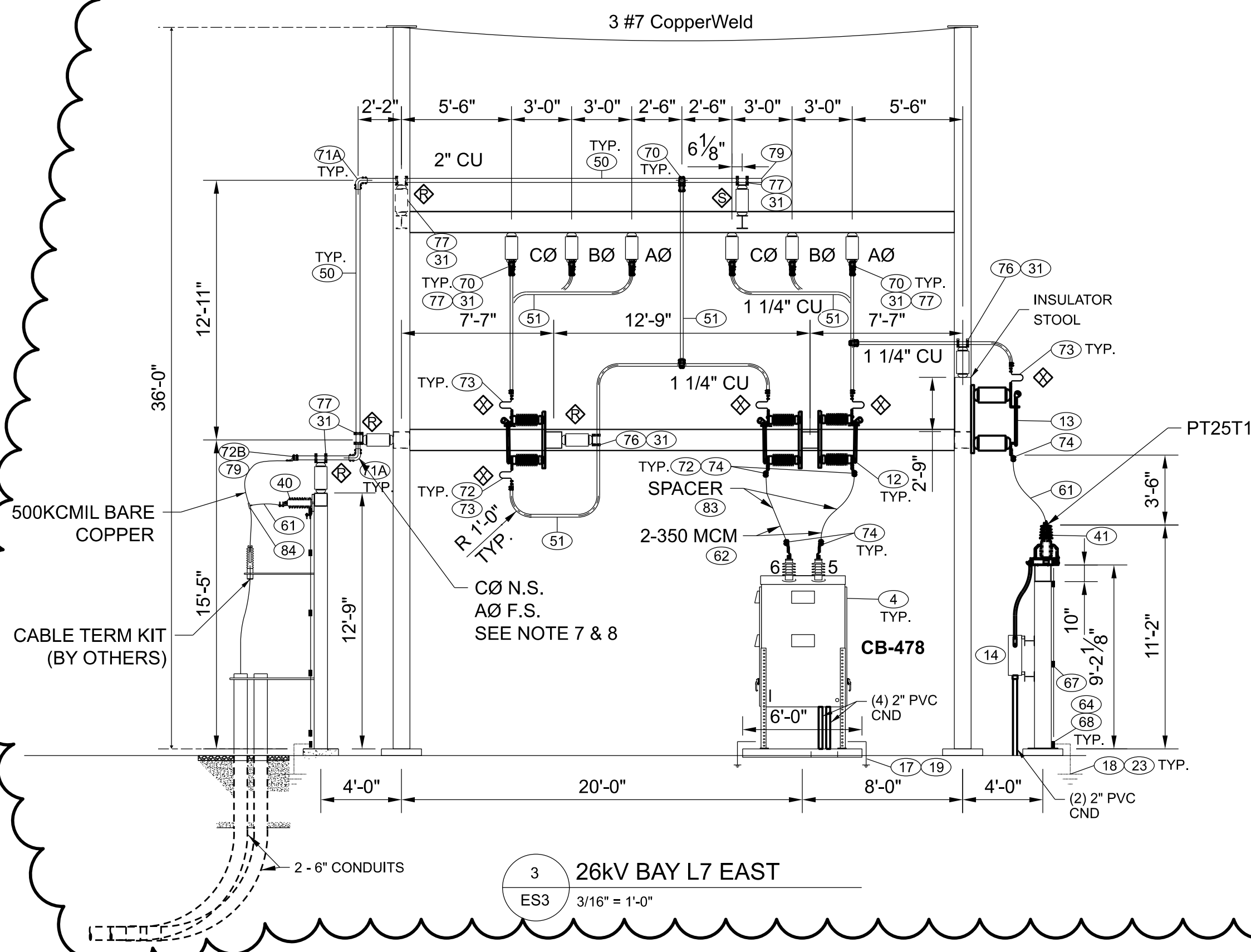
10 OF 27



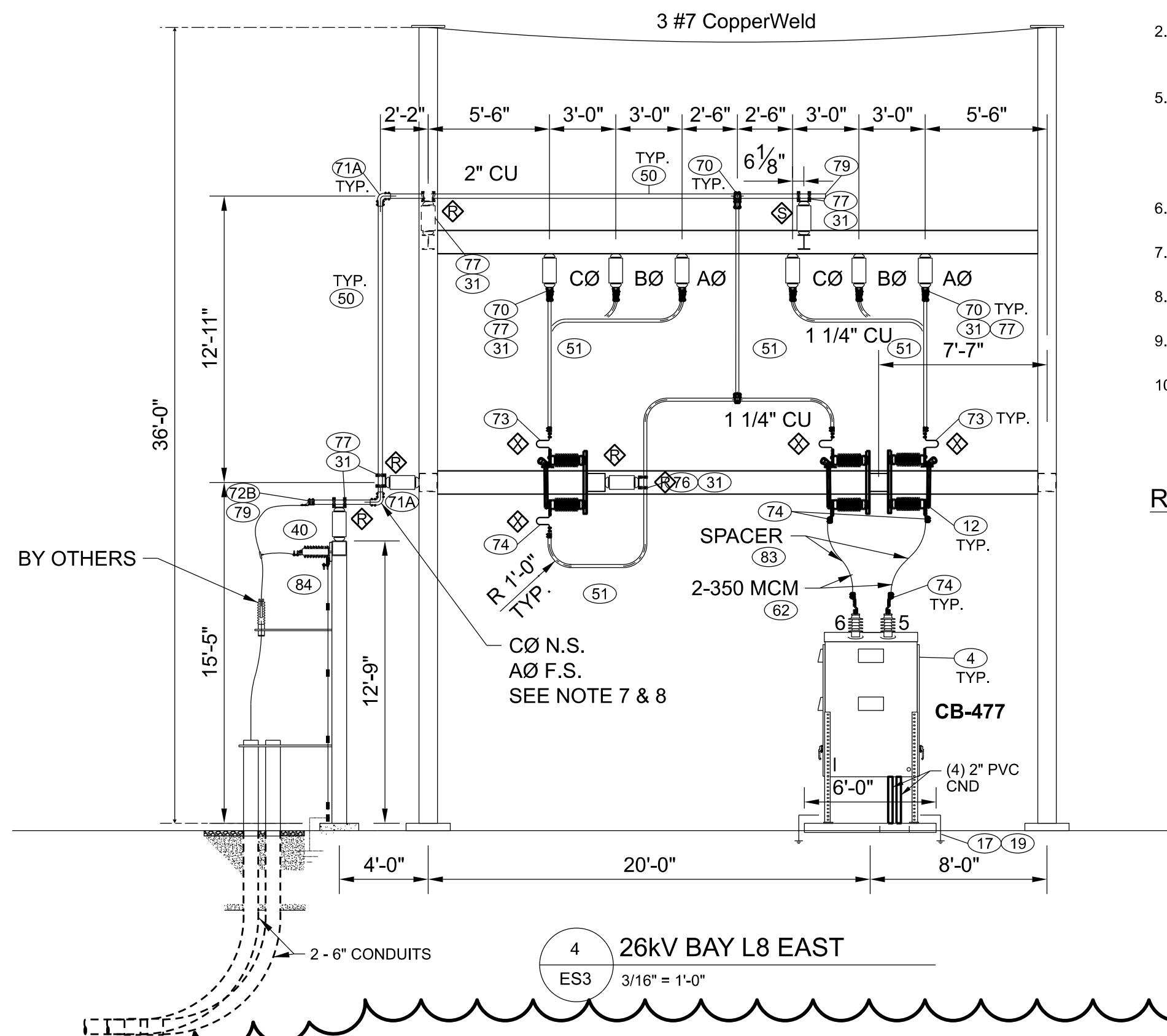
26kV - L5
1 26kV Bay 5 West
ES3 3/16"=1'-0"



26kV - L6
2 26kV Bay 6 West
ES3 3/16"=1'-0"



3 26kV BAY L7 EAST
ES3 3/16"=1'-0"



4 26kV BAY L8 EAST
ES3 3/16"=1'-0"

NOTES:

- FOR BILL OF MATERIAL ON DRAWING BM1.
- HIGH BUS (E-W) HEIGHT IS 14'-6". LOW BUS (N-S) HEIGHT IS 12'-6", MEASURED FROM BOTTOM OF STEEL TO BUS CENTERLINE.
- FIELD ROUTE CONDUITS UNDERGROUND AS REQUIRED TO TRANSITION TO A 2W X 2H DUCT BANK CONFIGURATION TO ENTER MANHOLE. FIELD ROUTE CONDUITS TO MANHOLE AT A DEPTH TO MATCH THE MANHOLE DUCT ENTRIES, AND AT A MINIMUM OF 4'-0" DEEP.
- CONDUIT BRACKET 3'-0" HEIGHT FROM BASE OF STRUCTURE T.O.C.
- MARK POTHEADS TO DESIGNATE PHASING.
- STENCIL STRUCTURE TO DESIGNATE PHASING & CIRCUIT NUMBER.
- GROUNDING BILL OF MATERIAL ON DRAWING GP1.
- FOR ALL 1 1/4" BUS BENDING UTILIZE PIPE BENDING MACHINE OR SIMILAR EQUIPMENT TO ACHIEVE A 12" STANDARD RADIUS ON BUS. USE APPROPRIATE MEASURES TO AVOID KINKING OR COLLAPSE.

REFERENCE DRAWINGS:

EP1 - 26KV / 69KV ELECTRICAL PLAN
ES1 - 26KV BREAKER SECTION SHEET 1
ES2 - 26KV BREAKER SECTION SHEET 2
ES4 - 69KV / 26KV BREAKER SECTION SHEET 4
ES5 - 69KV BREAKER SECTION SHEET 5
ES7 - 69KV BREAKER SECTION SHEET 7
GP1 - 26KV / 69KV GROUNDING PLAN
CP1 - 26KV / 69KV CONDUIT PLAN

LEGEND:

- SLIP BUS CONNECTION
- RIGID BUS CONNECTION
- EXPANSION BUS CONNECTION

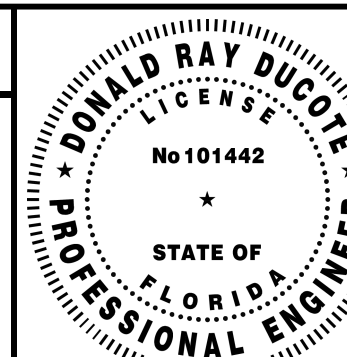
NOTE: BUS CONNECTIONS NOT DESIGNATED ARE TO BE SLIP-FIT (DO NOT FIELD WELD)



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T1 REPLACEMENT AND TWO FEEDER ADDITIONS
26kV BREAKER SECTION
SHEET 3
MERRILL ROAD 69KV / 26kV SUBSTATION

SCALE:
AS SHOWN

TRANSMISSION & SUBSTATION PROJECTS - 20410

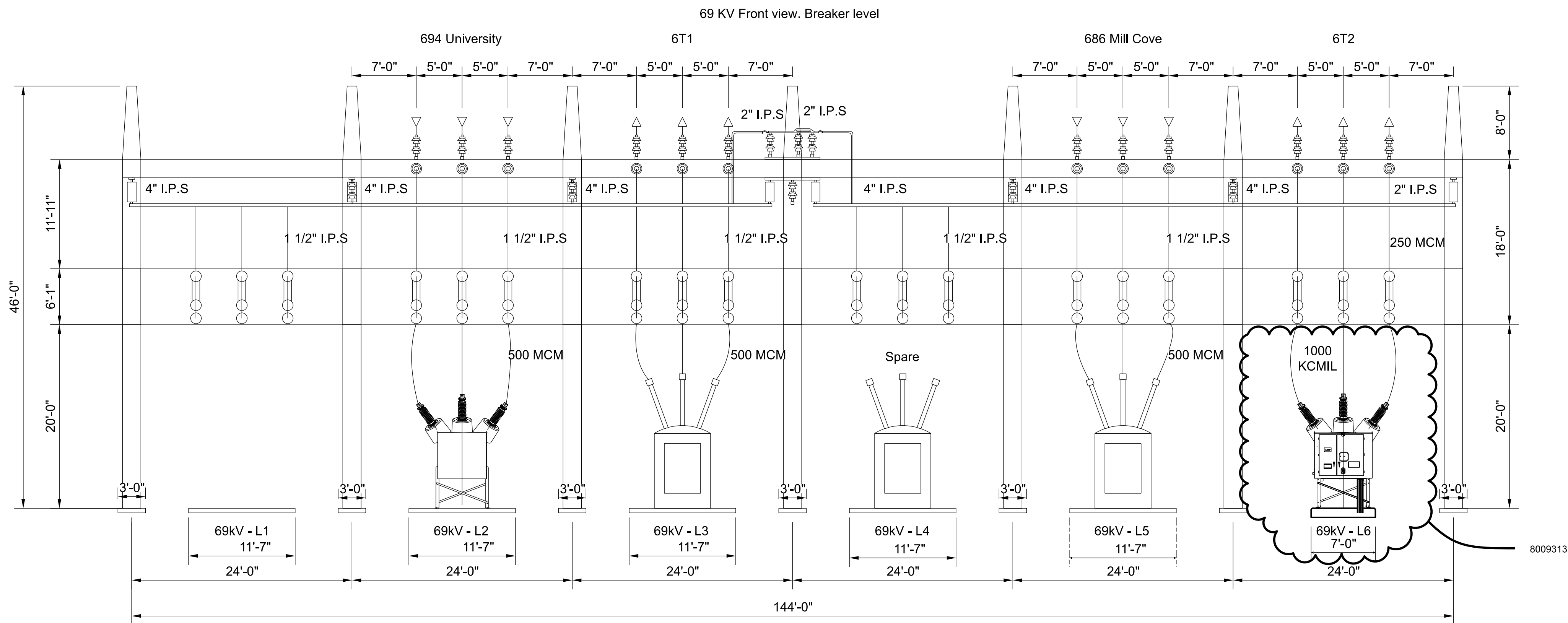


PROJ #:
8009313 & 8008922

SHEET NUMBER:
ES3

PROJECT ID:
ME2024

SEQUENCE #:
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1 69kV Breaker Yard North
ES5 1/8"=1'-0"

REFERENCE DRAWINGS:

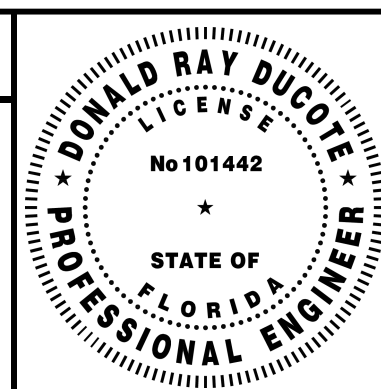
EP1 - 26KV / 69KV ELECTRICAL PLAN
ES1 - 26KV BREAKER SECTION SHEET 1
ES2 - 26KV BREAKER SECTION SHEET 2
ES3 - 26KV BREAKER SECTION SHEET 3
ES4 - 26KV BREAKER SECTION SHEET 4
ES7 - 69KV BREAKER SECTION SHEET 7
GP1 - 26KV / 69KV GROUNDING PLAN
CP1 - 26KV / 69KV CONDUIT PLAN
BM1 - BILL OF MATERIAL



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T1 REPLACEMENT AND TWO FEEDER ADDITIONS
**69kV BREAKER SECTION
SHEET 5**
MERRILL ROAD 69KV / 26kV SUBSTATION

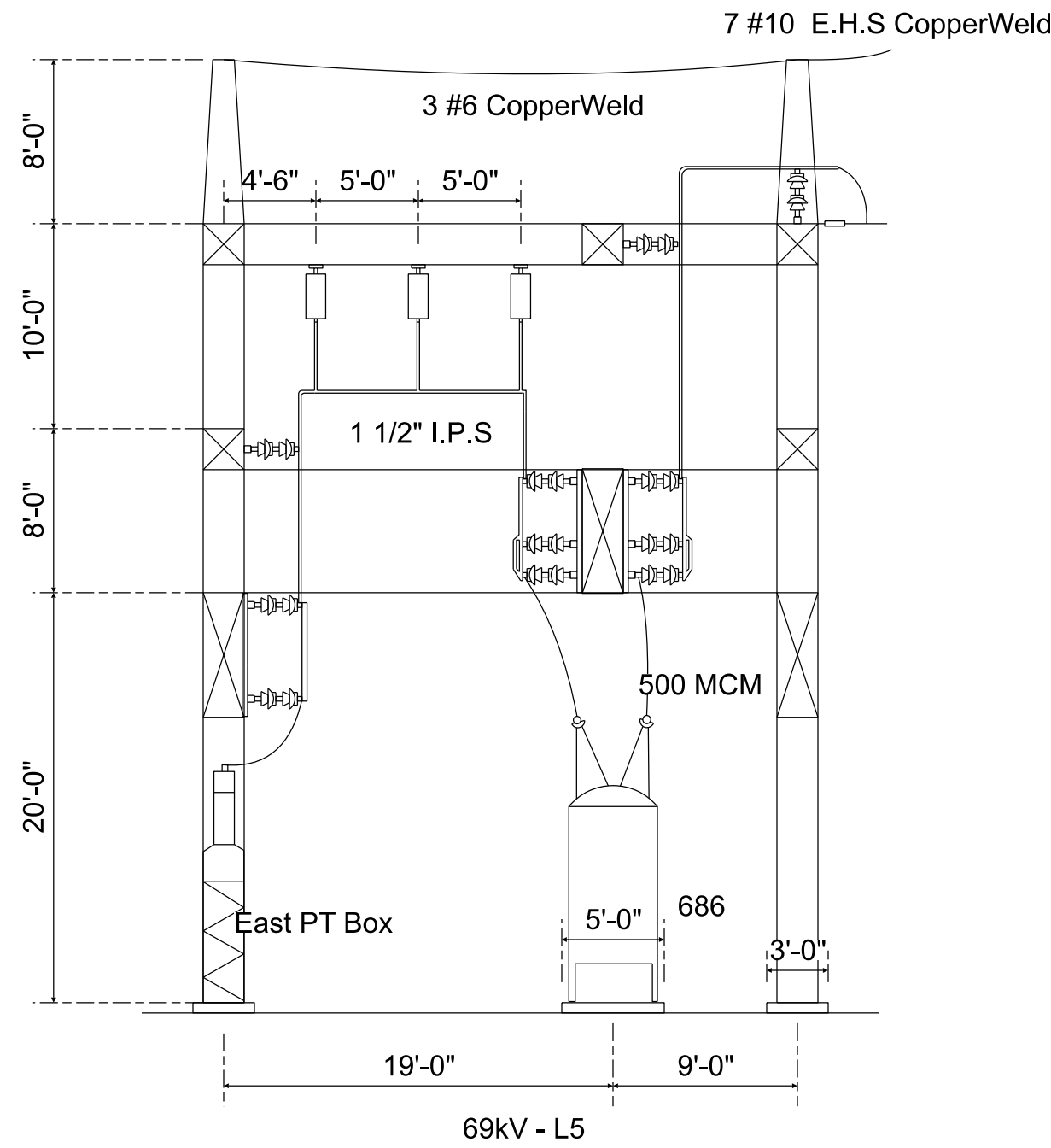


SCALE: AS SHOWN
TRANSMISSION & SUBSTATION PROJECTS - 20410
PROJ #: 8009313 & 8008922

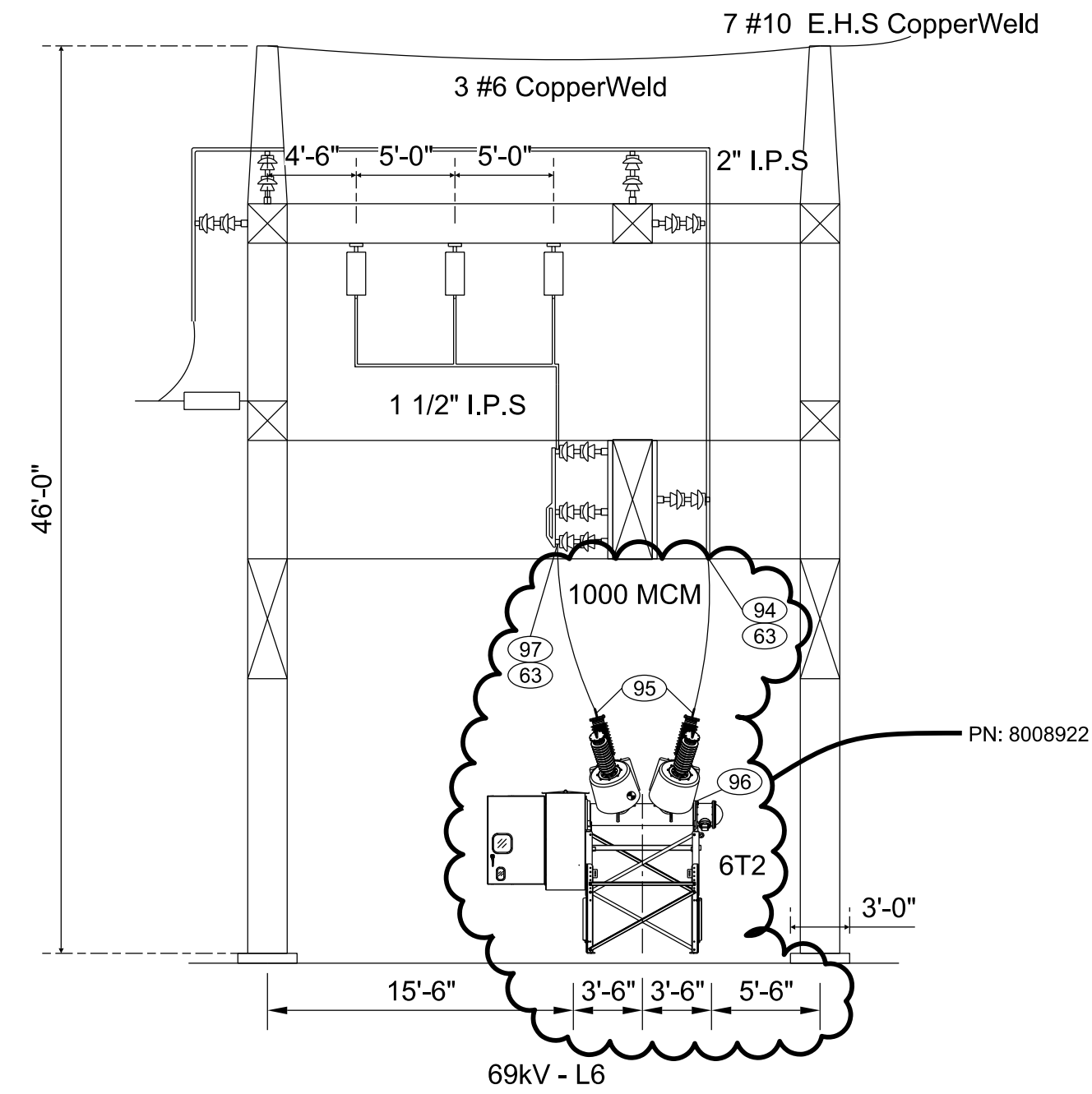
SHEET NUMBER:
ES5

PROJECT ID:
ME2024

SEQUENCE #:
13 OF 27



1
ES7 69KV BREAKER SECTION L5
TYPICAL
SCALE: 1/8" = 1'-0"



2
ES7 69KV BREAKER 6T2 SECTION L6
TYPICAL
SCALE: 1/8" = 1'-0"

REFERENCE DRAWINGS:

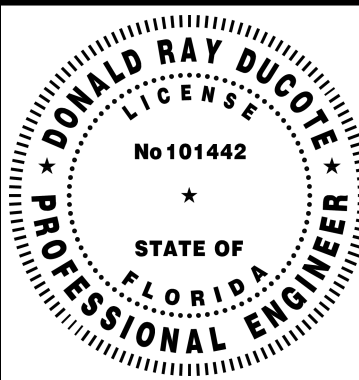
- EP1 - 26KV / 69KV ELECTRICAL PLAN
- ES1 - 26KV BREAKER SECTION SHEET 1
- ES2 - 26KV BREAKER SECTION SHEET 2
- ES3 - 26KV BREAKER SECTION SHEET 3
- ES4 - 26KV BREAKER SECTION SHEET 4
- ES5 - 69KV BREAKER SECTION SHEET 5
- GP1 - 26KV / 69KV GROUNDING PLAN
- CP1 - 26KV / 69KV CONDUIT PLAN
- BM1 - BILL OF MATERIAL



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						REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
69KV BREAKER SECTIONS
SHEET 7
MERRILL ROAD 69KV / 26KV SUBSTATION



SCALE:
AS SHOWN

TRANSMISSION & SUBSTATION PROJECTS - 20410

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8009313 & 8008922

SHEET NUMBER:

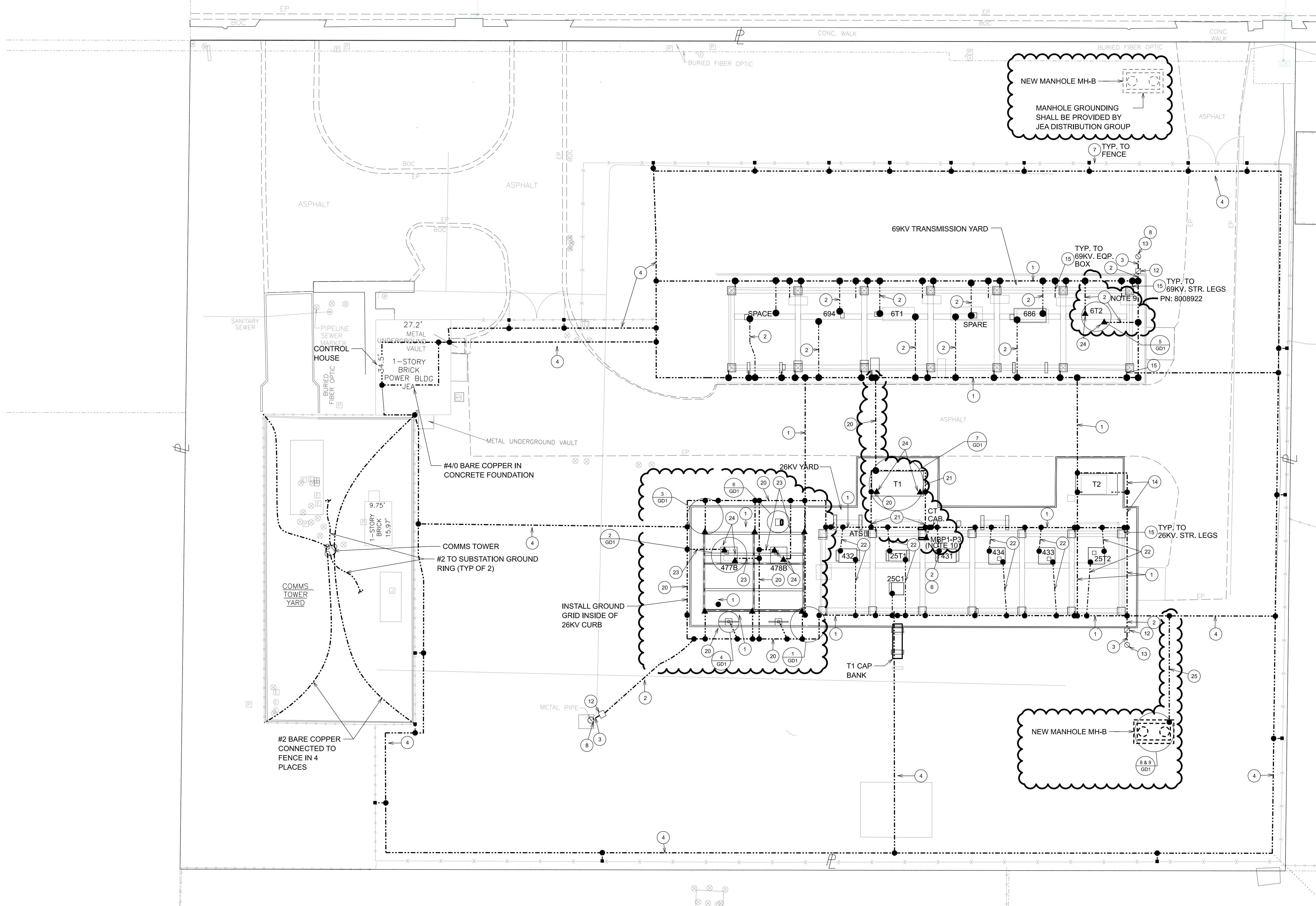
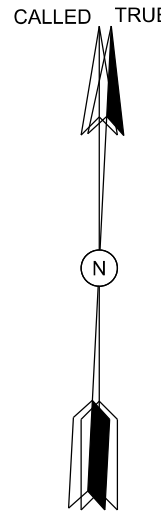
ES7

PROJECT ID:

ME2024

SEQUENCE #:

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1 69kV / 26kV GROUNDING PLAN
CP1 1" = 20'-0"

BILL OF MATERIAL GROUNDING				
ITEM NO.	AMT REQD	DESCRIPTION	SIMILAR OR APPD CAT. NO.	EXISTING OR NEW
1	670FT	CABLE - 1000KCMIL BARE COPPER, STRANDED SOFT DRAWN	GEN. CABLE B-A-61	EXISTING
2	220FT	CABLE - 500KCMIL BARE COPPER, STRANDED SOFT DRAWN	GEN. CABLE B-A-37	EXISTING
3	15FT	CABLE - #40 BARE COPPER, STRANDED	GEN. CABLE RU-1-1956	EXISTING
4	1090FT	CABLE - #40 BARE COPPER, STRANDED	GEN. CABLE A-12	EXISTING
5	150FT	CABLE - 20 BARE COPPER, STRANDED, SOFT DRAWN	GEN. CABLE A-7	EXISTING
6	6	CONNECTOR GROUND	BURNDY NA34-2N	EXISTING
7	80	CONNECTOR GROUND	BURNDY GA1829	EXISTING
8	3	CONNECTOR GROUND	BURNDY GQ2454	EXISTING
9	4	CONNECTOR GROUND	BURNDY FGF28-2	EXISTING
10	3	CONNECTOR GROUND	BURNDY GC2929	EXISTING
11	6	CONNECTOR GROUND	BURNDY GQ24-2	EXISTING
12	5	BOX, CONCRETE METER	ART CONCRETE NO.38	EXISTING
13	300FT	2" GALVANIZED IRON PIPE ROCK WELL		
14	185FT	CABLE - 500KCMIL BARE COPPER, STRANDED, SOFT DRAWN	GEN. CABLE B-A-61	EXISTING
15	60FT	CABLE - 20 BARE COPPER, STRANDED, SOFT DRAWN	GEN. CABLE A-7	EXISTING
16	AS REQD	GROUND CONN. CLIP BRONZE, BOLTED, 7/8 COPPERWELD	GC-141A-G2	NEW
17	AS REQD	GROUND CONN. CLIP BRONZE, BOLTED, (2) 7/8 COPPERWELD	GC-143A-G5	NEW
18	AS REQD	CAD WELD TEE, 1000KCM MAIN TO 7/8 COPPERWELD TAP	ERICO - TAC417V	NEW
19	AS REQD	CAD WELD TEE, 1000KCM TO 500KCM	ERICO - TAC413Q	NEW
20	AS REQD	CABLE - 1000KCMIL BARE COPPER, STRANDED		NEW
21	AS REQD	CABLE - 500KCMIL BARE COPPER, STRANDED		NEW
22	AS REQD	CABLE - 7/8 BARE COPPERCLAD		EXISTING
23	AS REQD	CABLE - 7/8 BARE COPPERCLAD		NEW
24	AS REQD	CONNECTOR GROUND		NEW
25	AS REQD	CABLE - #40 COPPER STRANDED		NEW

GENERAL NOTES:

1. THIS DRAWING INCLUDES EXISTING GROUNDING INSTALLATION THAT WAS TAKEN FROM HISTORICAL DRAWINGS AND HAS NOT BEEN FIELD VERIFIED.

- LEGEND:
- BURIED GROUND GRID CONDUCTOR (SEE BOM FOR TYPE)
 - GROUND GRID CONNECTION AS NOTED IN B/M
 - EXOTHERMIC GROUND GRID CONNECTION
 - ▲ MECHANICAL GROUND CONNECTION
 - FENCELINE
 - ROCK WELL SEE B/M #13
 - ☑ CONCRETE METER BOX
 - ⊞ BILL OF MATERIAL (B/M)
 - /// TO BE REMOVED

- GROUNDING NOTES:
1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL 19#8 AND 7#5 COPPERWELD CONDUCTORS. ALL GROUND GRID CONDUCTORS AND TAPS SHALL BE CONNECTED USING CADWELD EXOTHERMIC CONNECTIONS AND SHALL BE INSTALLED 24" BELOW GRADE EXCEPT WHERE CONNECTION TO STRUCTURES AND EQUIPMENT IS ABOVE GRADE. GRID CONDUCTORS UNDERNEATH THE OIL CONTAINMENT SHALL BE 6" BELOW THE RESPECTIVE FOUNDATIONS.
2. MAIN GRID IS NOTED AS 1000 CU AS INSTALLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TO THE MAIN GROUND GRID CONDUCTOR. THE CONTRACTOR SHALL VERIFY THE FINAL LOCATION OF THE 7#5 COPPERWELD CONDUCTOR GROUND TAP CONNECTIONS TO THE STRUCTURES AND EQUIPMENT USING THE MANUFACTURER'S SHOP DRAWINGS. THE LOCATIONS OF GROUND TAPS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY.
3. THE 500 KCMIL TRANSFORMER NEUTRAL GROUND CABLE SHALL BE CONTINUOUS FROM THE NEUTRAL GROUND CONNECTION AT THE TRANSFORMER AND BE CONNECTED IN TWO (2) PLACES TO MAIN GRID APPROXIMATELY 3'-0" APART.
4. THIS DRAWING DEPICTS THE INSTALLATION OF THE MAIN SUBSTATION GROUND GRID. MAJOR ELECTRICAL EQUIPMENT GROUND CONNECTIONS, AND STRUCTURE GROUND CONNECTIONS. THE CONTRACTOR SHALL REFER TO THE GROUNDING DETAIL DRAWINGS FOR OTHER GROUND GRID CONNECTIONS THAT MAY BE REQUIRED BUT NOT SHOWN ON THIS DRAWING. LOW VOLTAGE EQUIPMENT AND CIRCUITS SHALL HAVE EQUIPMENT GROUND CONDUCTOR INSTALLED AS PER NEC REQUIREMENTS.
5. ALL ABOVE GRADE CONNECTIONS OF GROUND CONDUCTOR TO STRUCTURES AND EQUIPMENT, SUCH AS TRANSFORMERS, LIGHTNING ARRESTERS, ETC., SHALL BE CONNECTED USING OWNER FURNISHED MECHANICAL CONNECTORS. ALL EQUIPMENT AND STRUCTURES ERECTED IN THE SUBSTATION SHALL BE GROUNDED TO THE MAIN GRID WITHIN THE SAME WORKING DAY.
6. MANHOLES NEAR THE SUBSTATION SHALL HAVE THEIR GROUND CONDUCTORS CONNECTED TO THE GROUND GRID BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH AND INSTALL GROUND PROVISIONS FOR THE DISTRIBUTION MANHOLE AS DETAILED IN DWG GD1.
7. ALL METALLIC BOLLARDS, HANDRAILS OR ANY OTHER REMAINING MISCELLANEOUS CONDUCTIVE OBJECTS WITHIN THE STATION GROUND GRID AREA SHALL BE CONNECTED TO THE GROUNDING GRID WITH CONTRACTOR FURNISHED MECHANICAL CONNECTORS AS REQUIRED.
8. FOR BILL OF MATERIAL ITEMS NOT SHOWN ON THIS GROUNDING PLAN PLEASE REFER TO ME622GP1.
9. INSTALL AND PROVIDE MATERIALS FOR 7#5 COPPERCLAD IN (2) PLACES FROM 6T2 DIRECTLY TO MAIN GRID. REMOVE EXISTING GROUND CONNECTIONS TO EXISTING 6T2 CIRCUIT BREAKER.
10. #2/0 GREEN INSULATED CONDUCTOR FROM MBP1-3 GND & NEUTRAL BUSES TO GROUNDING GRID.

worley
DELIVERING SUSTAINABLE CHANGE
ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19150
FL COA 8777

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DATE: 8/18/25

DONALD RAY DUCOTE
LICENSE
No 101442
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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						DRAFTING
						DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
69kV / 26kV GROUNDING PLAN

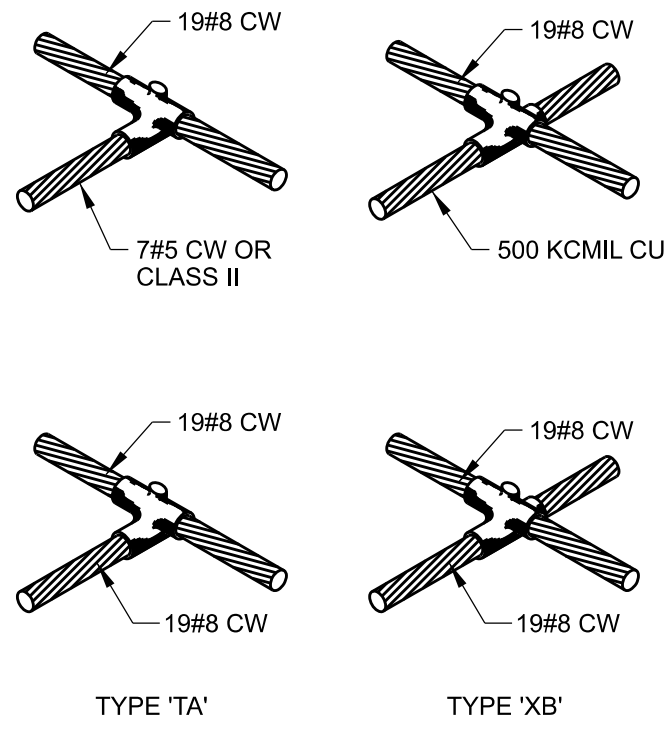
MERRILL ROAD 69kV / 26kV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410

SHEET NUMBER:
GP1

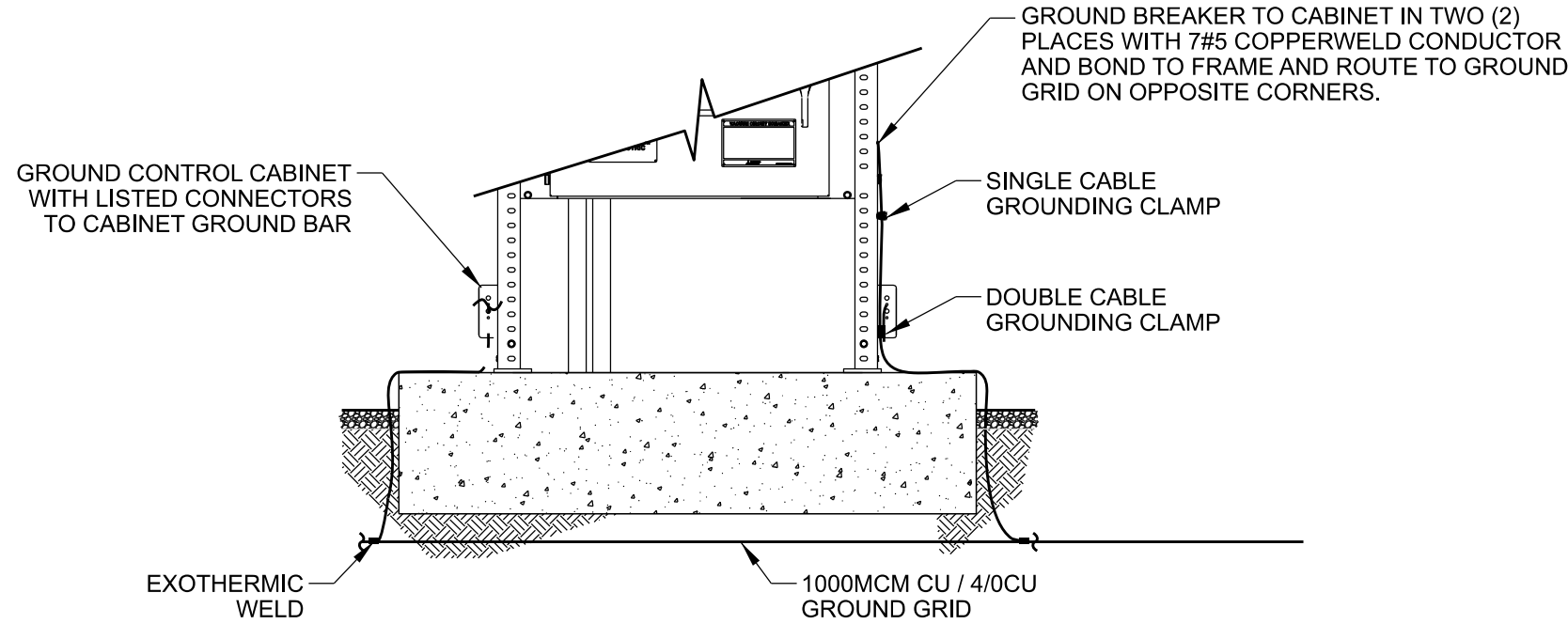
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SEQUENCE #:
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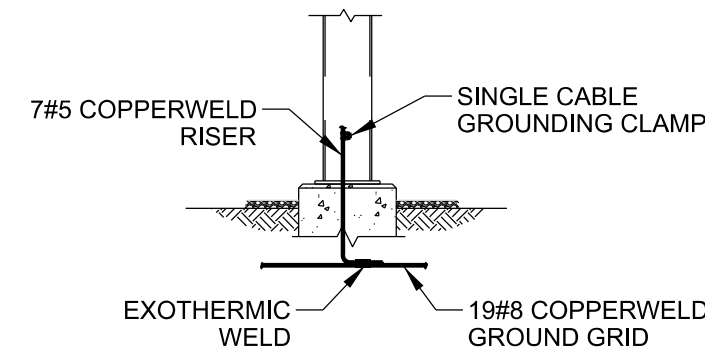
PROJ #:
80093113 & 8008922



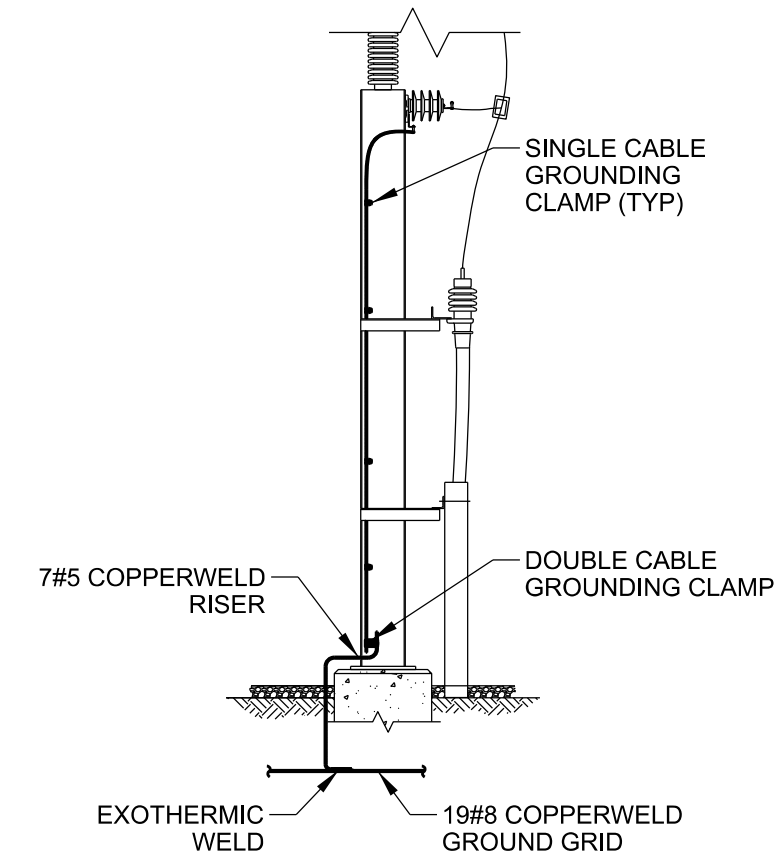
1 EXOTHERMIC GROUND CONNECTIONS
GD01
TYPICAL
SCALE: NTS



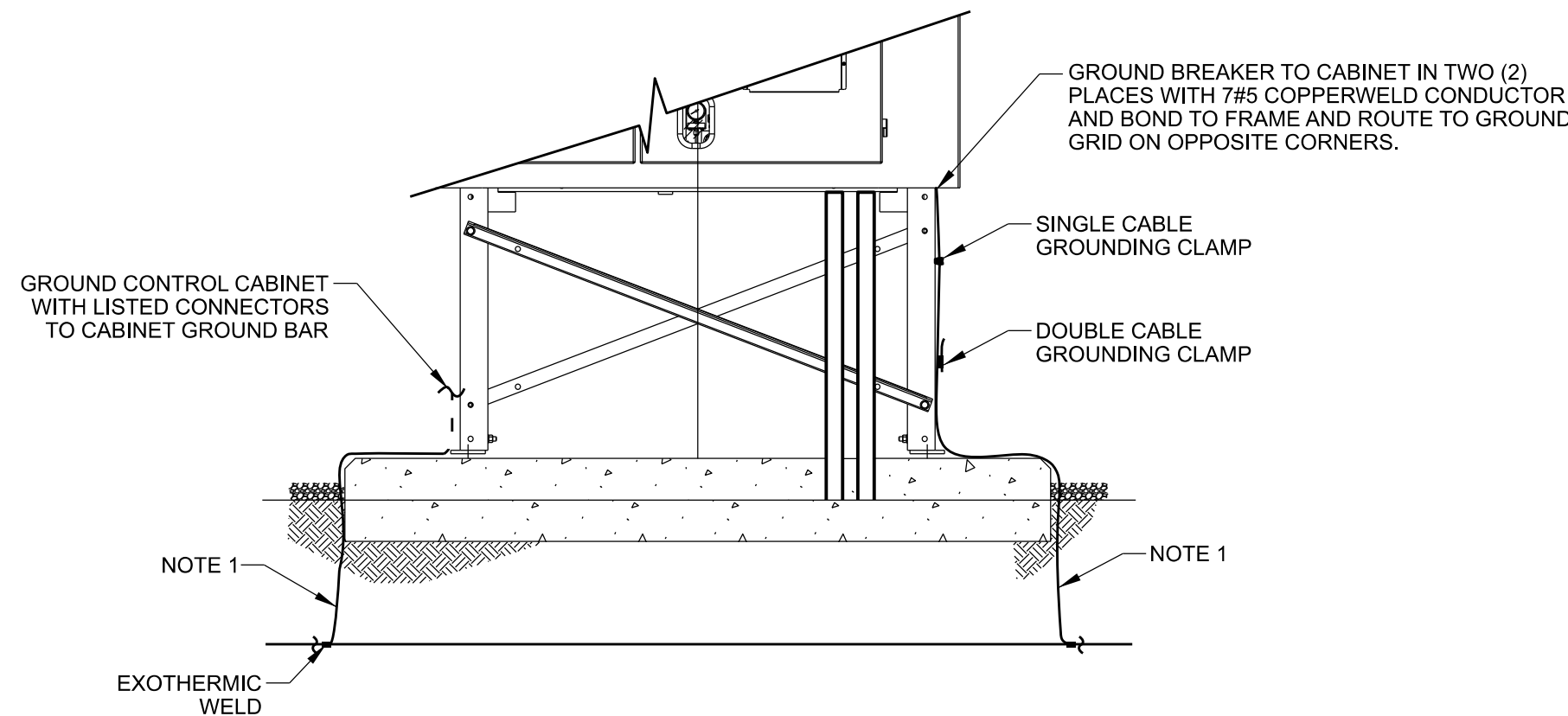
2 26KV POWER CIRCUIT BREAKER GROUNDING
GD01
TYPICAL
SCALE: NTS



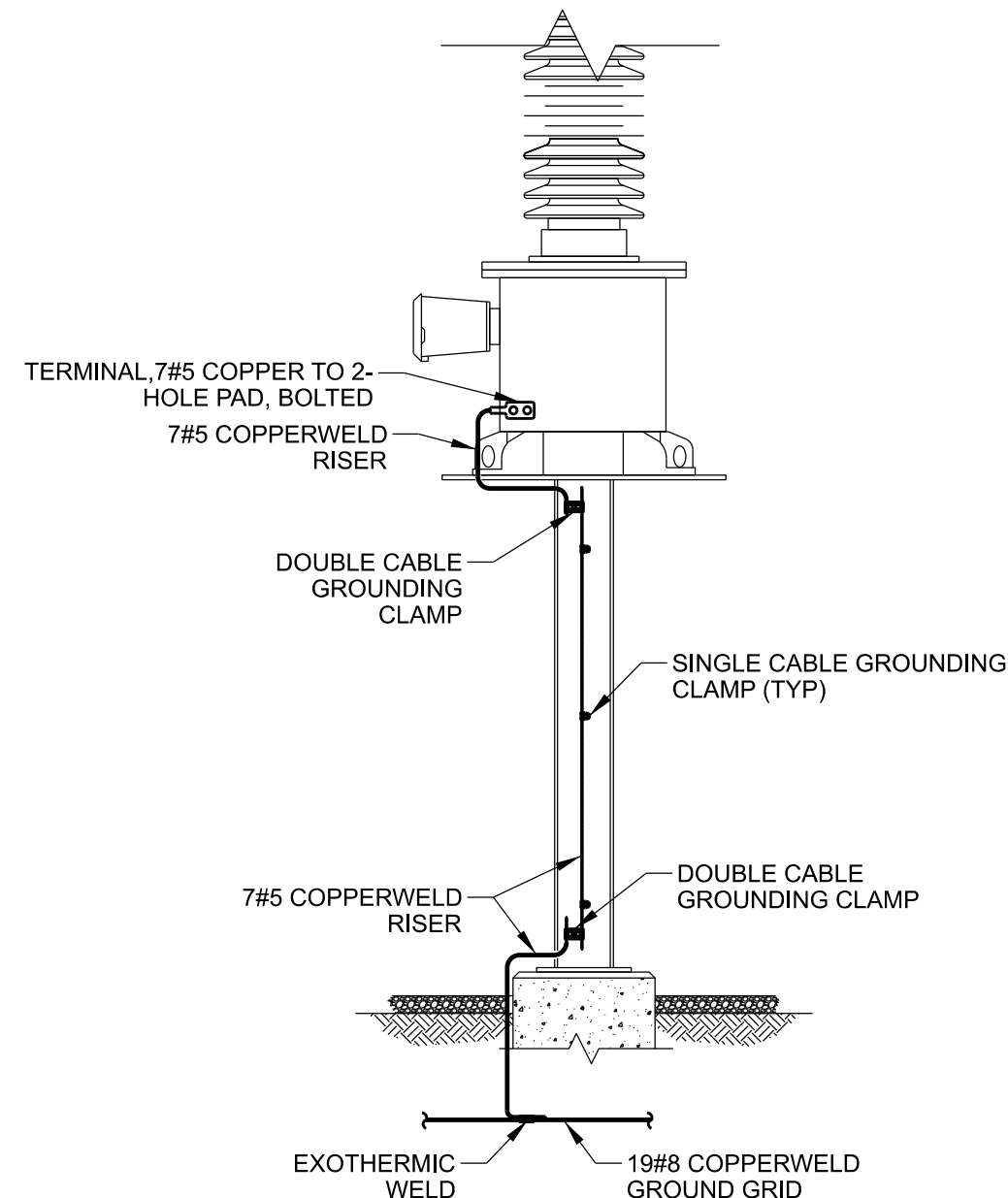
3 TYPICAL STRUCTURE GROUNDING
GD01
TYPICAL
SCALE: NTS



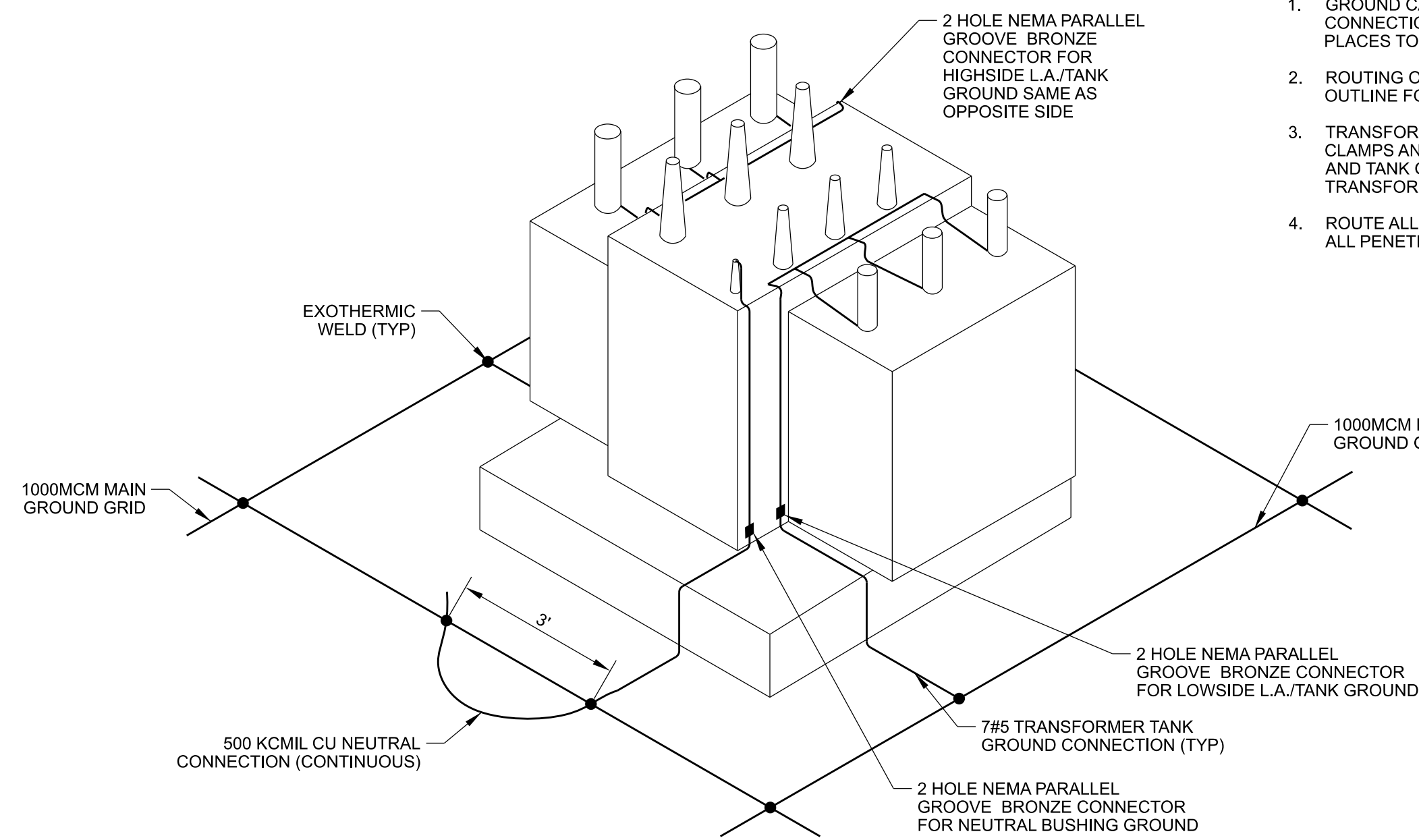
4 26KV LA GROUNDING
GD01
TYPICAL
SCALE: NTS



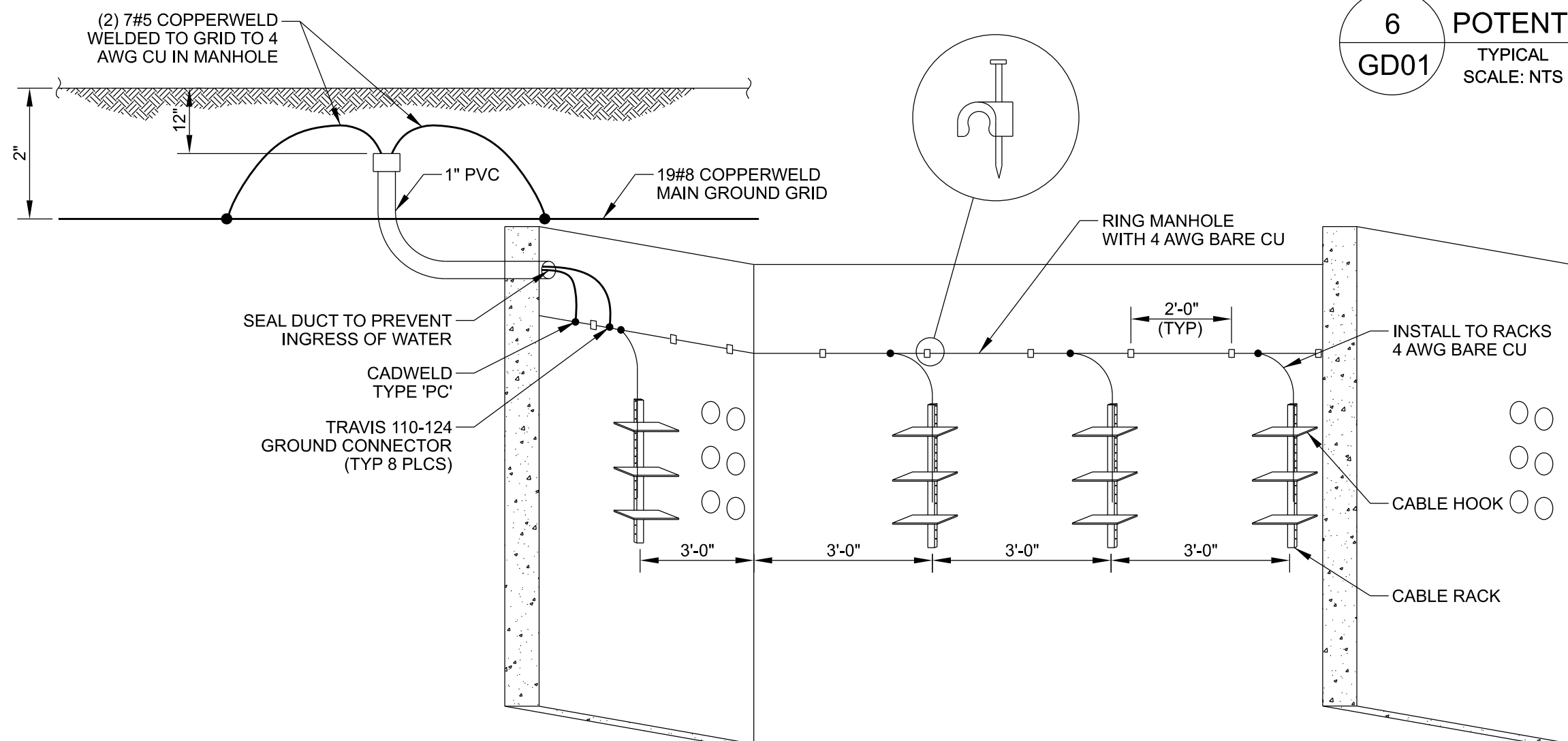
5 69KV POWER CIRCUIT BREAKER GROUNDING
GD01
TYPICAL
SCALE: NTS



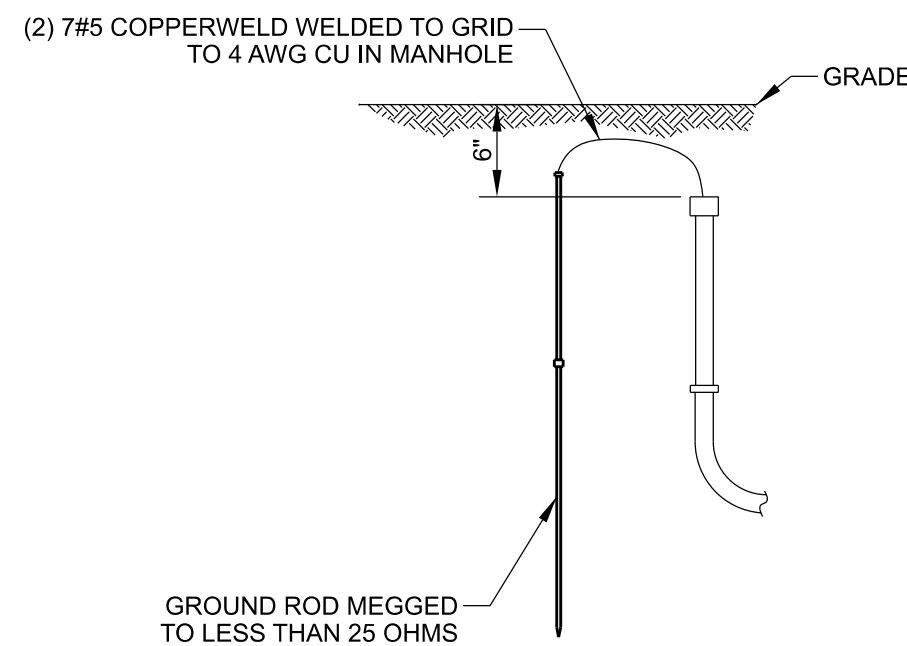
6 POTENTIAL TRANSFORMER
GD01
TYPICAL
SCALE: NTS



7 POWER TRANSFORMER GROUNDING
GD01
TYPICAL
SCALE: NTS



8 MANHOLE RACKING AND GROUNDING
GD01
TYPICAL
SCALE: NTS

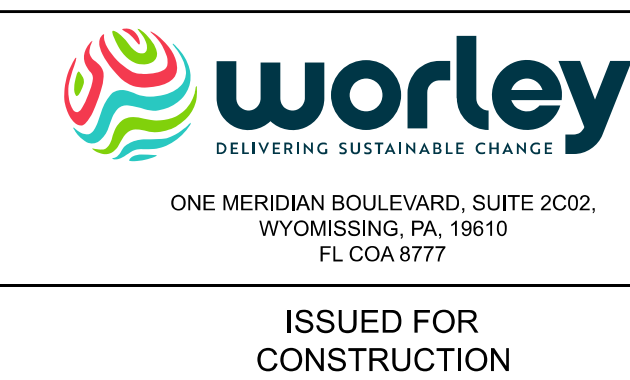


9 INDEPENDENT MANHOLE GROUNDING
GD01
TYPICAL
SCALE: NTS

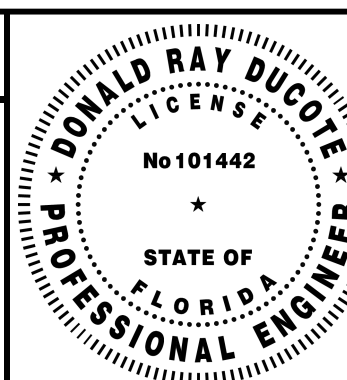
- TRANSFORMER NOTES:
- GROUND CABLE SHALL BE CONTINUOUS FROM NEUTRAL GROUND CONNECTION AT TRANSFORMER AND BE CONNECTED IN TWO PLACES TO MAIN GRID APPROXIMATELY 3' APART, AS SHOWN.
 - ROUTING OF GROUND CABLES IS APPROXIMATE. SEE TRANSFORMER OUTLINE FOR EXACT REQUIREMENTS.
 - TRANSFORMER MANUFACTURER TO FURNISH AND INSTALL CABLE, CLAMPS AND NEMA 2 HOLE PADS TO SUPPLY NEUTRAL BUSHING, L.A. AND TANK GROUND FOR FIELD CONNECTION AT BOTTOM OF THE TRANSFORMER.
 - ROUTE ALL GROUND GRID BELOW OIL CONTAINMENT LINER AND SEAL ALL PENETRATIONS PER MANUFACTURER INSTRUCTION.

- NOTES:
- REPLACE EXISTING GROUNDING CONDUCTORS CONNECTING CIRCUIT BREAKER TO THE UNDERGROUND GROUND GRID. ENSURE THE GROUNDING CONDUCTORS ARE ATTACHED TO THE EXISTING GRID.

- REFERENCE DRAWINGS:
- EP1 ELECTRICAL PLAN
 - GP1 GROUNDING PLAN
 - EE1 ELECTRICAL ELEVATION



PROFESSIONAL ENGINEER'S SEAL
LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 06/27/25



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	06/27/25	8009313 8008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR
						DRAFTING
						DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
GROUNDING DETAILS

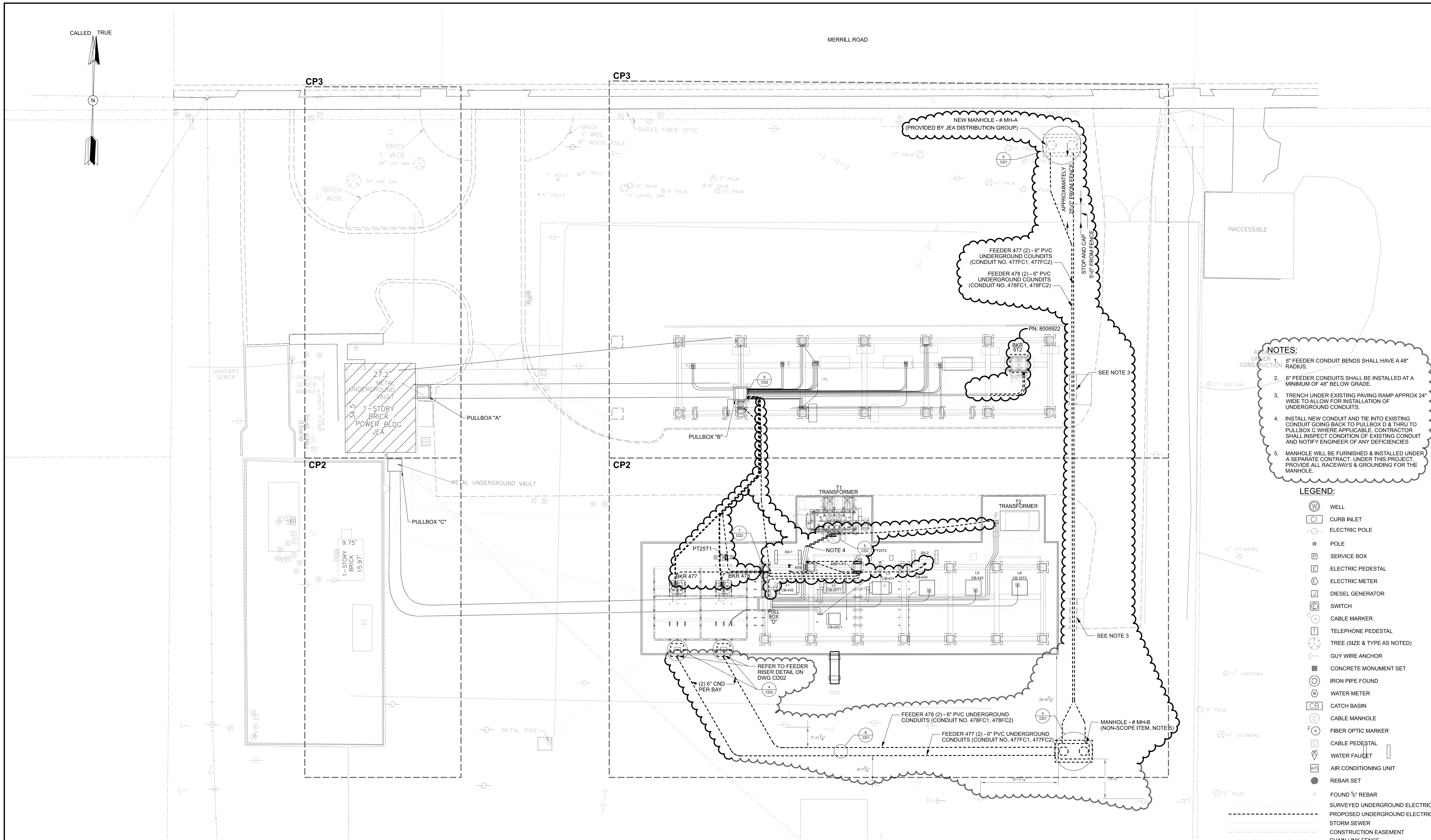
MERRILL ROAD 69KV / 26KV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410

SCALE: FULL SIZE 1 = 1

JEA
BUILDING COMMUNITY

PROJECT ID: ME2024
SEQUENCE #: 16 OF 27

PROJ #: 8009313 & 8008922



- NOTES:**
- 6" FEEDER CONDUIT BENDS SHALL HAVE A 48" RADIUS.
 - 6" FEEDER CONDUITS SHALL BE INSTALLED AT A MINIMUM OF 48" BELOW GRADE.
 - TRENCH UNDER EXISTING PAVING RAMP APPROX 24" WIDE TO ALLOW FOR INSTALLATION OF UNDERGROUND CONDUITS.
 - INSTALL NEW CONDUIT AND TIE INTO EXISTING CONDUIT GOING BACK TO PULLBOX D & THRU TO PULLBOX C WHERE APPLICABLE. CONTRACTOR SHALL INSPECT CONDITION OF EXISTING CONDUIT AND NOTIFY ENGINEER OF ANY DEFICIENCIES
 - MANHOLE WILL BE FURNISHED & INSTALLED UNDER A SEPARATE CONTRACT. UNDER THIS PROJECT, PROVIDE ALL RACEWAYS & GROUNDING FOR THE MANHOLE.

- LEGEND:**
- WELL
 - CURB INLET
 - ELECTRIC POLE
 - POLE
 - SERVICE BOX
 - ELECTRIC PEDESTAL
 - ELECTRIC METER
 - DIESEL GENERATOR
 - SWITCH
 - CABLE MARKER
 - TELEPHONE PEDESTAL
 - TREE (SIZE & TYPE AS NOTED)
 - GUY WIRE ANCHOR
 - CONCRETE MONUMENT SET
 - IRON PIPE FOUND
 - WATER METER
 - CATCH BASIN
 - CABLE MANHOLE
 - FIBER OPTIC MARKER
 - CABLE PEDESTAL
 - WATER FAUCET
 - AIR CONDITIONING UNIT
 - REBAR SET
 - FOUND 3/8" REBAR
 - SURVEYED UNDERGROUND ELECTRIC
 - PROPOSED UNDERGROUND ELECTRIC
 - STORM SEWER
 - CONSTRUCTION EASEMENT
 - CHAIN LINK FENCE

1 69kV / 26kV CONDUIT PLAN
CP1 1/16" = 1'-0"



JEAN-PAUL JACOB (0013) - CP1 09/2020-08-18-1907

worley
DELIVERING SUSTAINABLE CHANGE
ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19380
FL COA 8777

ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 08/18/25

DonalD RAY DUCOTE
No 101442
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	08/18/25	80093113 8008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR
						DRAFTING
						DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
69kV / 26kV CONDUIT PLAN

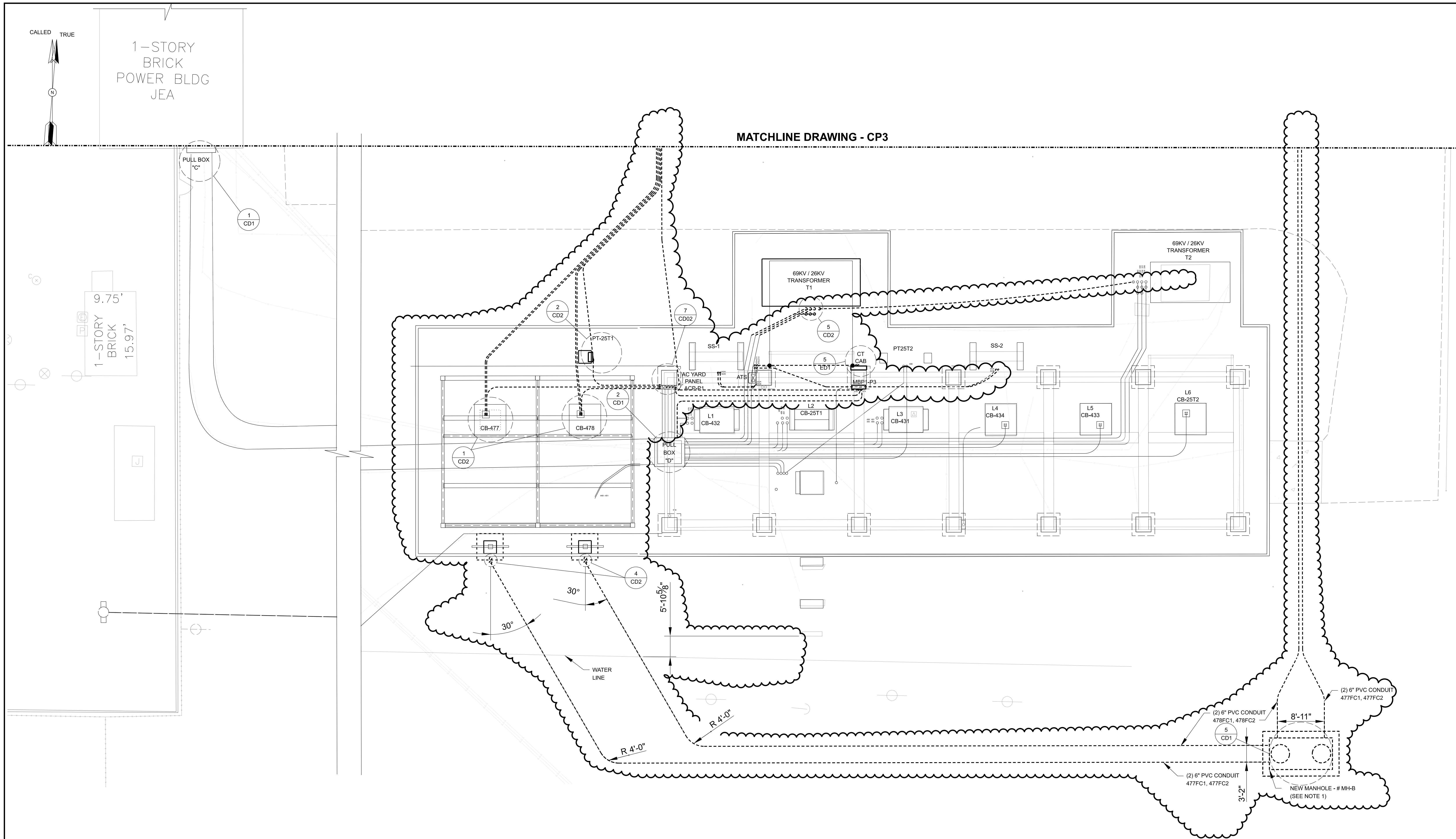
MERRILL ROAD 69kV / 26kV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410

SCALE: AS SHOWN

JEA
BUILDING COMMUNITY

SHEET NUMBER: CP1
PROJECT ID: ME2024
SEQUENCE #: 17 OF 27

PROJ #: 80093113 & 8008922




1 26kV YARD CONDUIT PLAN
CP2 1/8" = 1'-0"

NOTES:
1. MANHOLE WILL BE FURNISHED & INSTALLED UNDER A SEPARATE CONTRACT. UNDER THIS PROJECT, PROVIDE ALL RACEWAYS & GROUNDING FOR THE MANHOLE.

1/8" = 1'-0" 0 8' 16'

JEAN-PAUL JACOBI (0610), CP2 09/2020-06/2027



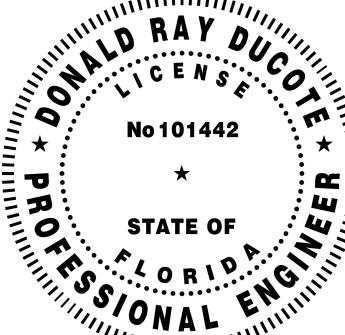
DELIVERING SUSTAINABLE CHANGE

ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19610
FL COA 8777

ISSUED FOR
CONSTRUCTION

PROFESSIONAL
ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 08/19/25




STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	08/19/25	8009313	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR
						DRAFTING
						DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
26KV YARD CONDUIT PLAN

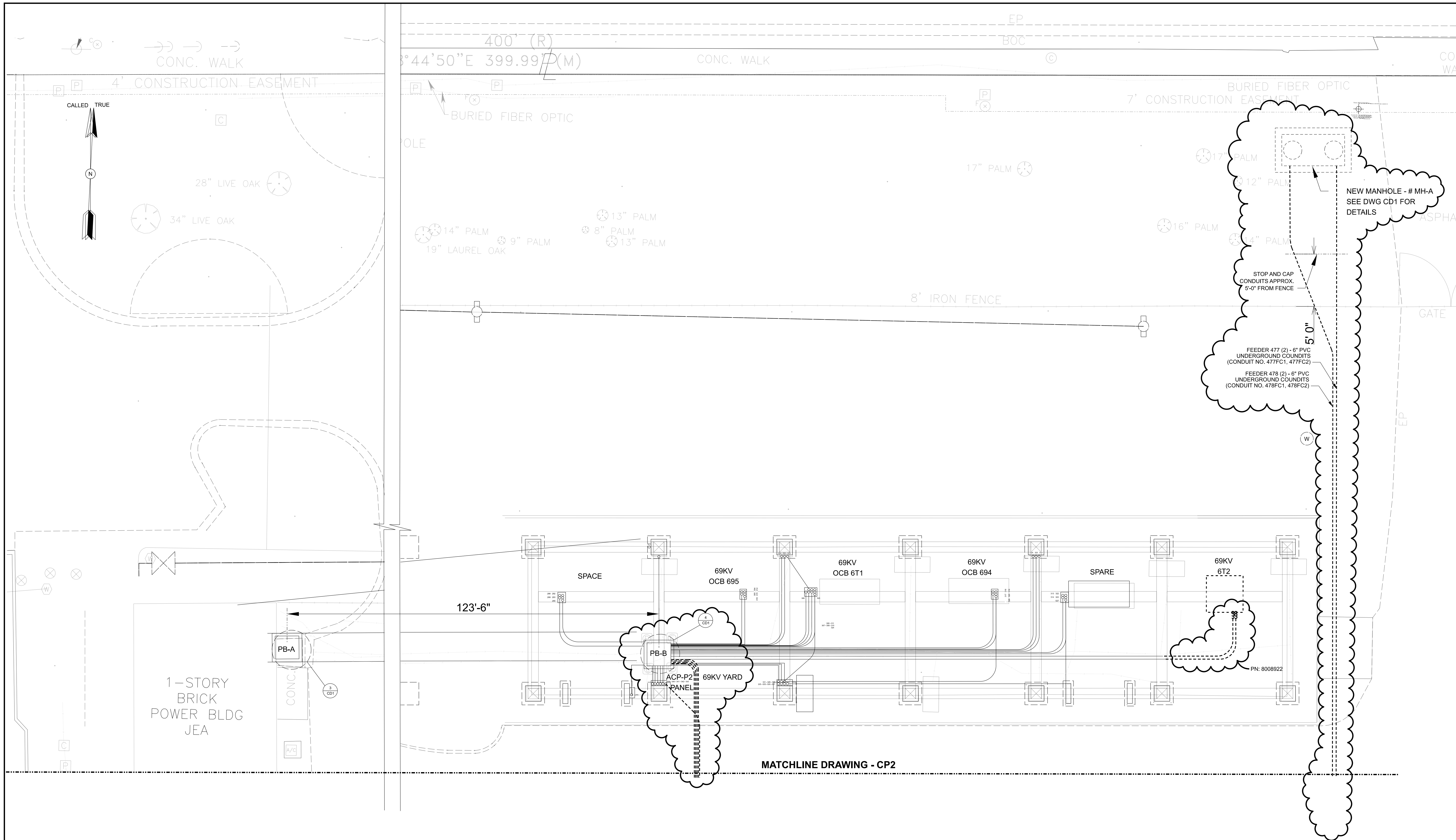
MERRILL ROAD 69KV / 26KV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410



BUILDING COMMUNITY

PROJ #: 8009313 & 8008922

SHEET NUMBER: CP2
PROJECT ID: ME2024
SEQUENCE #: 18 OF 27



1 69kV YARD CONDUIT PLAN
CP3 1/8" = 1'-0"

1/8" = 1'-0" 0 8' 16'

JEAN-PAUL JACOBI (0013) - CP3 09/2024-16-0003

worley
DELIVERING SUSTAINABLE CHANGE
ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19110
FL COA 8777

ISSUED FOR
CONSTRUCTION

PROFESSIONAL
ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
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PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 08/18/25

DONALD RAY DUCOTE
No 101442
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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0	08/18/25	8009313 8008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR
						DRAFTING
						DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
69kV / 26kV CONDUIT PLAN

MERRILL ROAD 69kV / 26kV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410

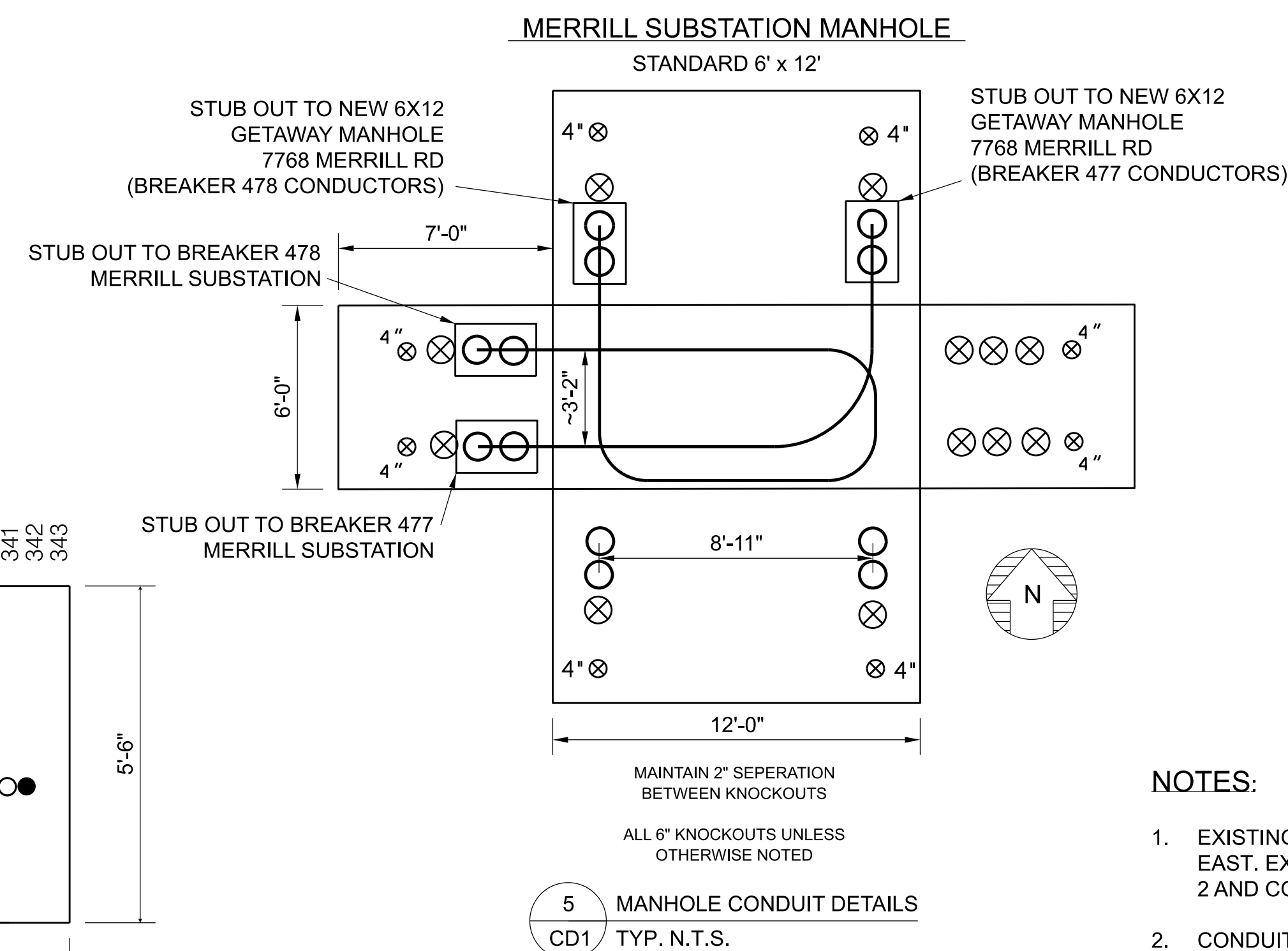
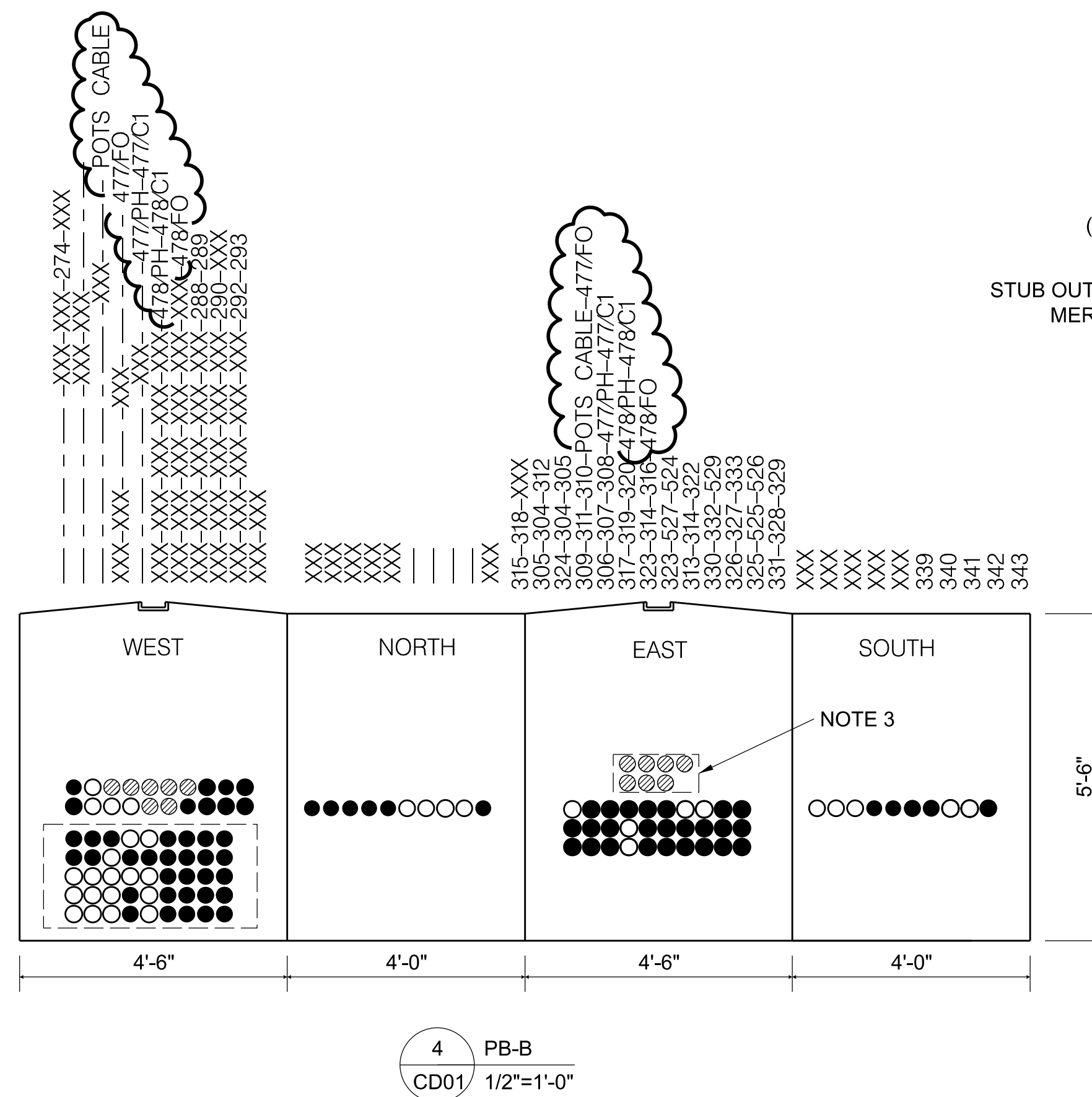
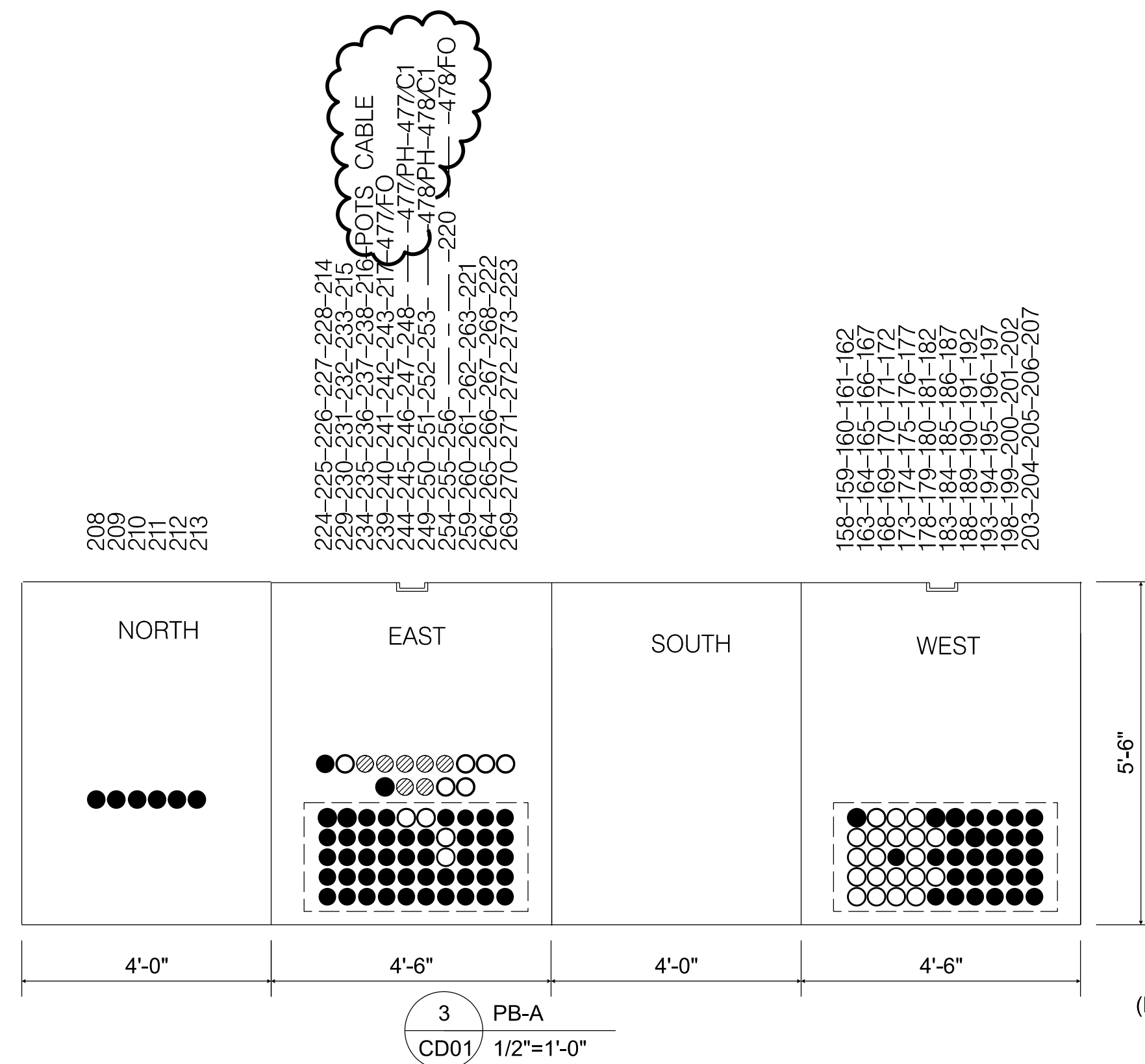
JEA
BUILDING COMMUNITY

SHEET NUMBER:
CP3

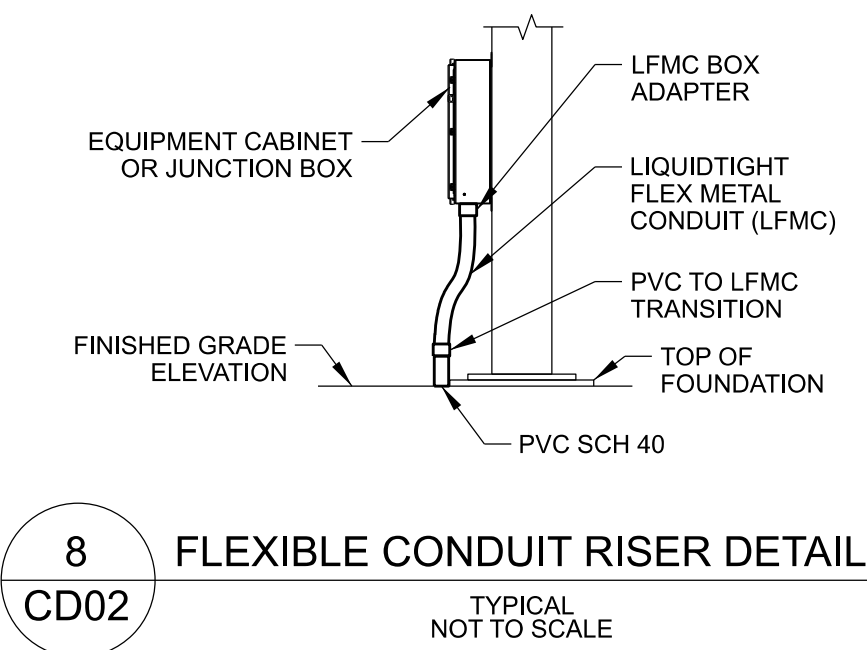
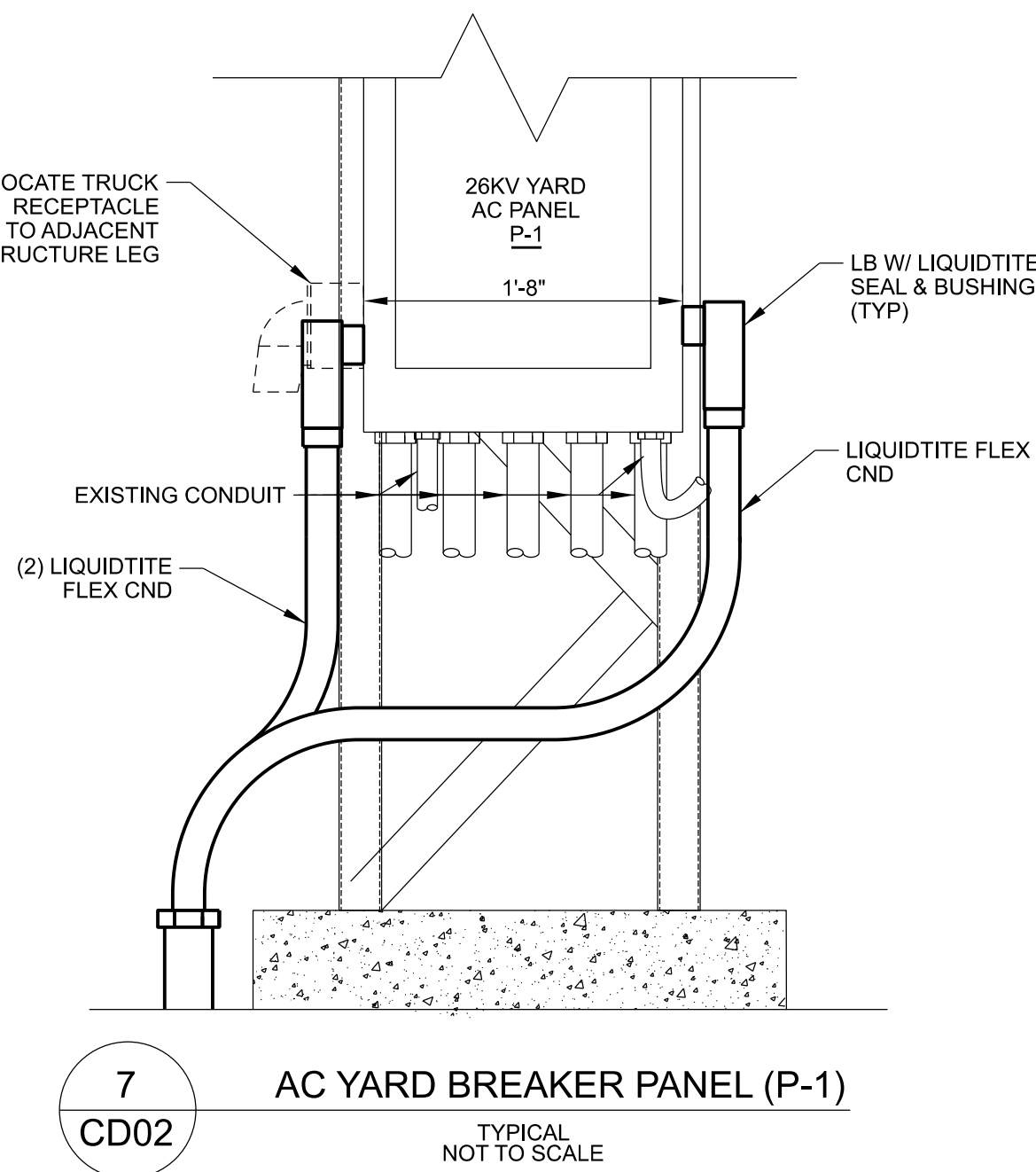
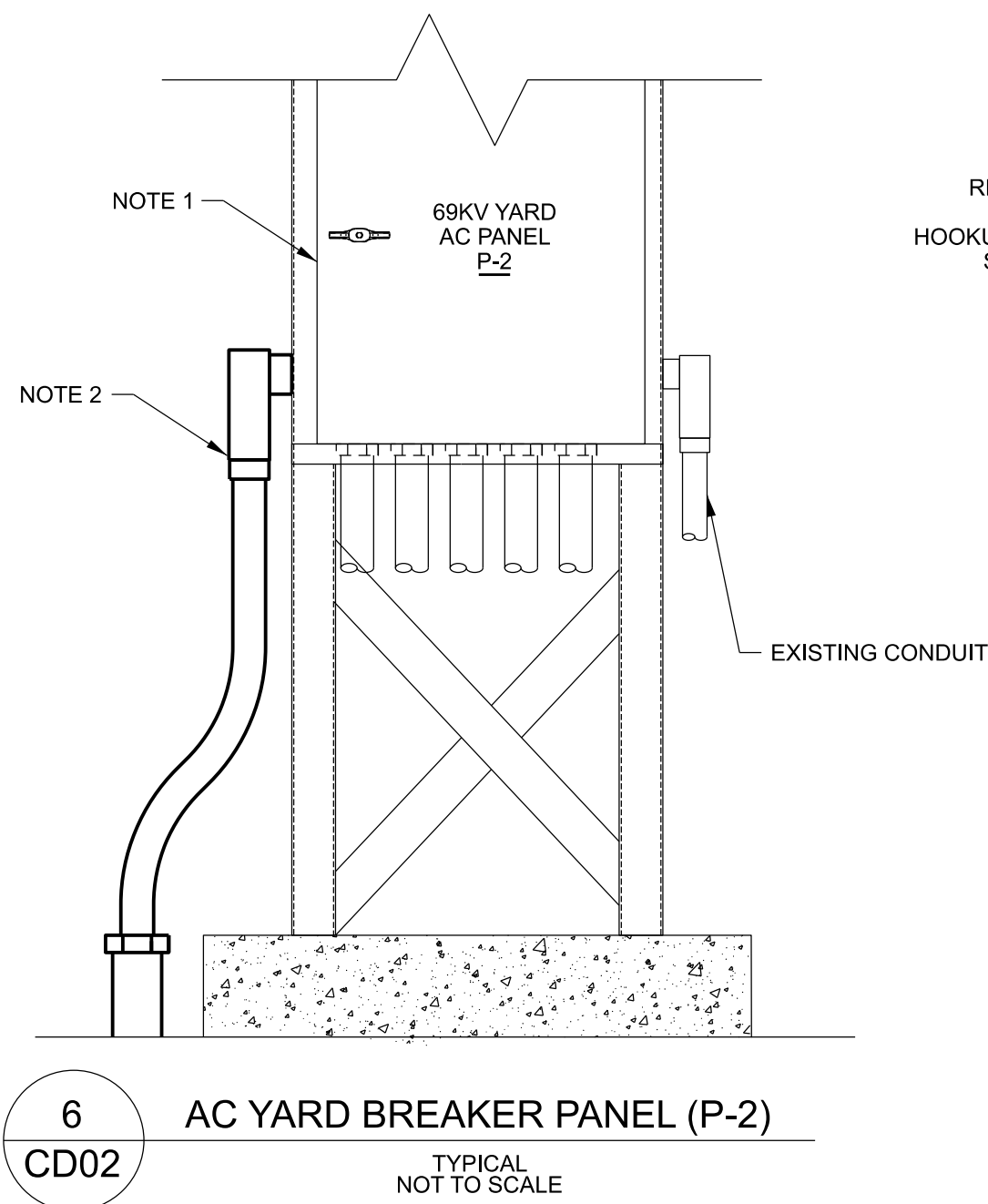
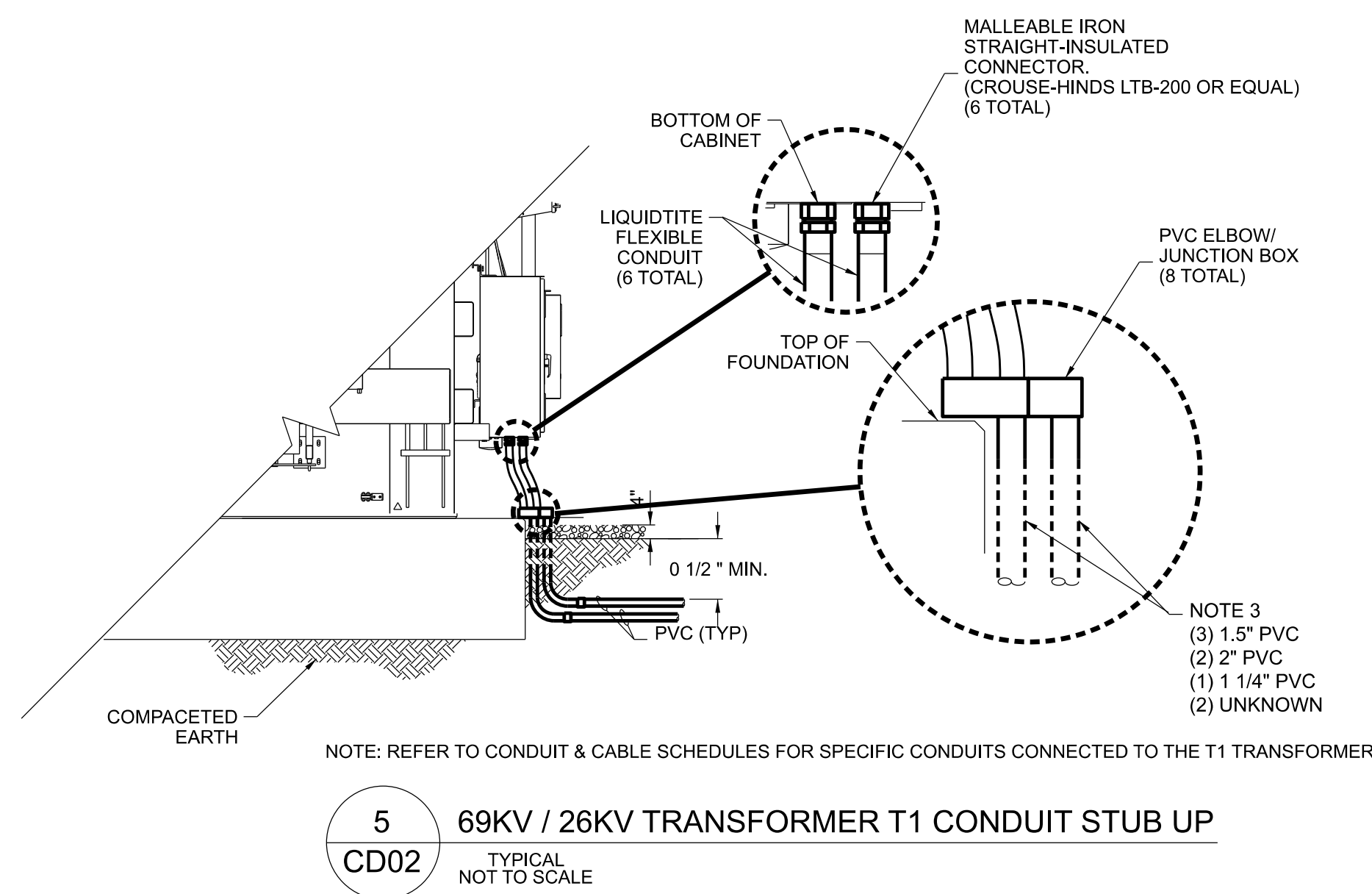
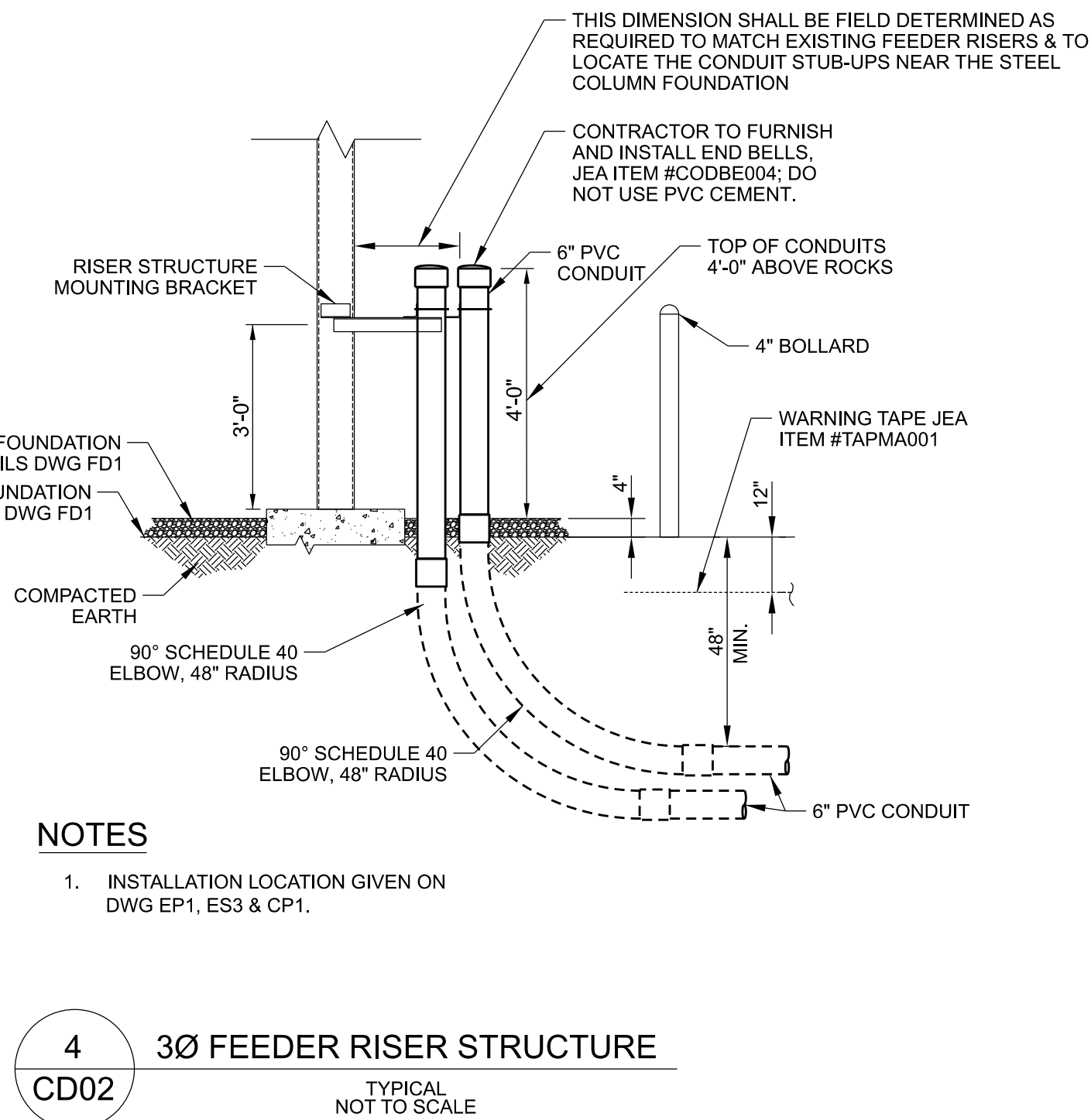
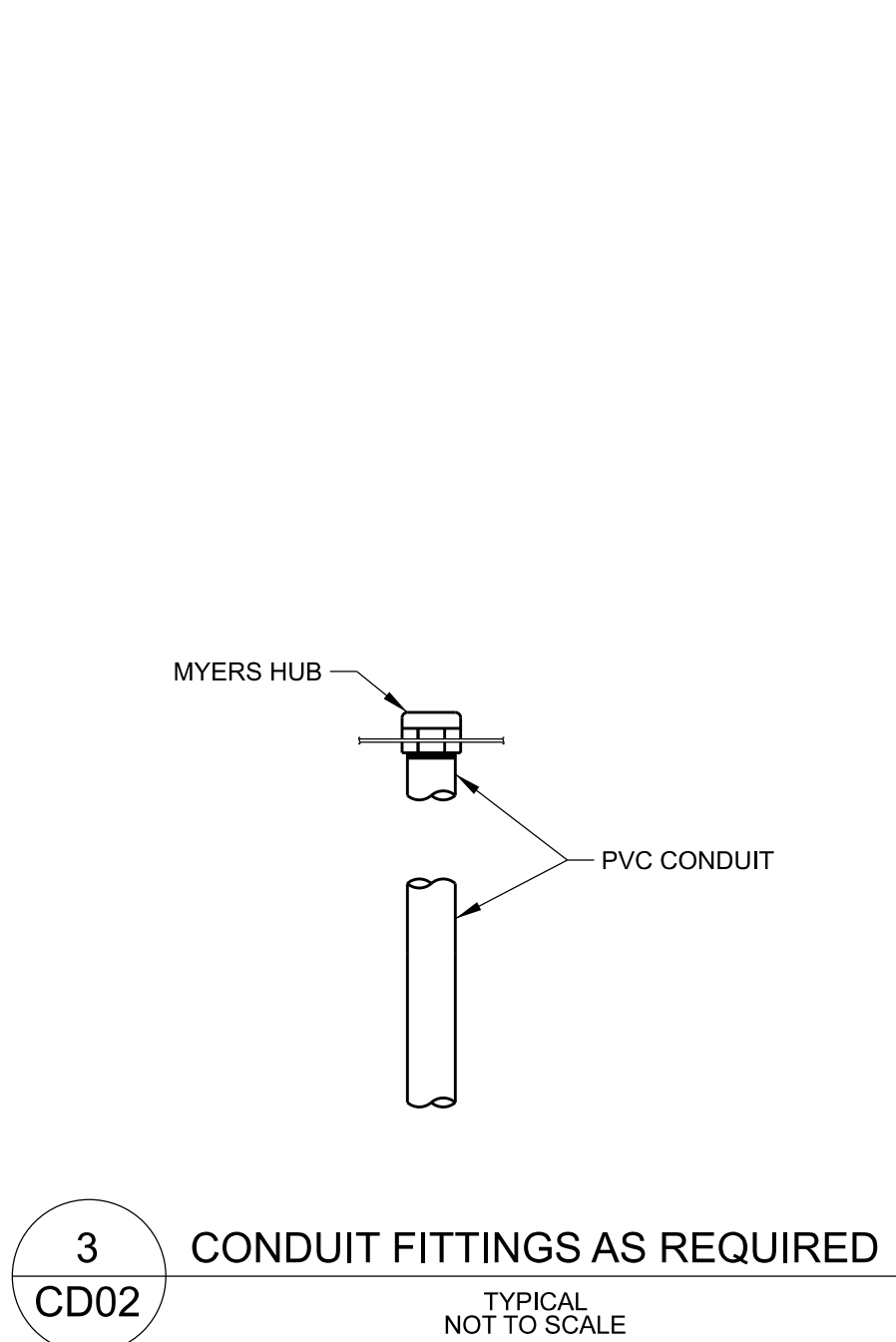
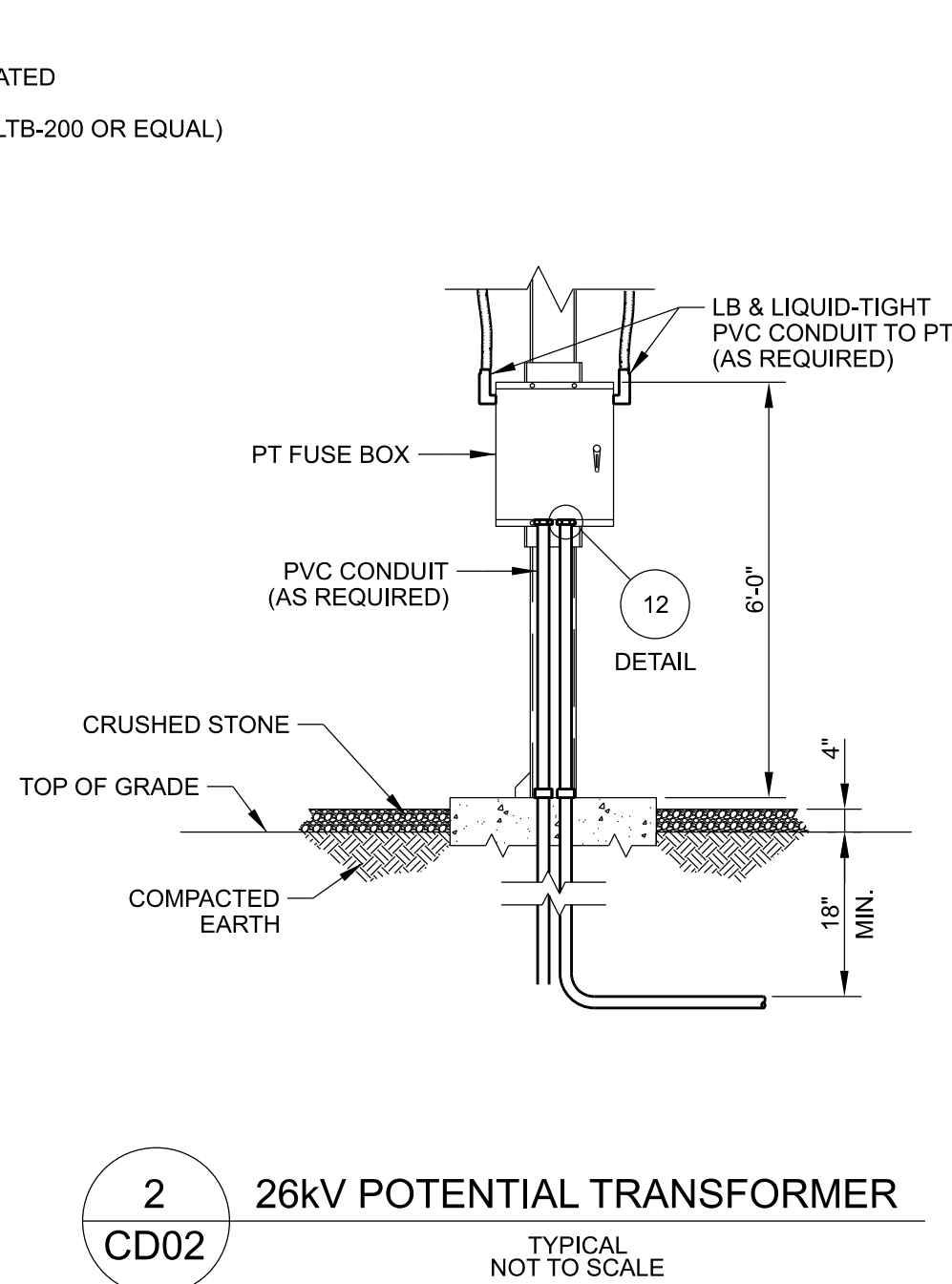
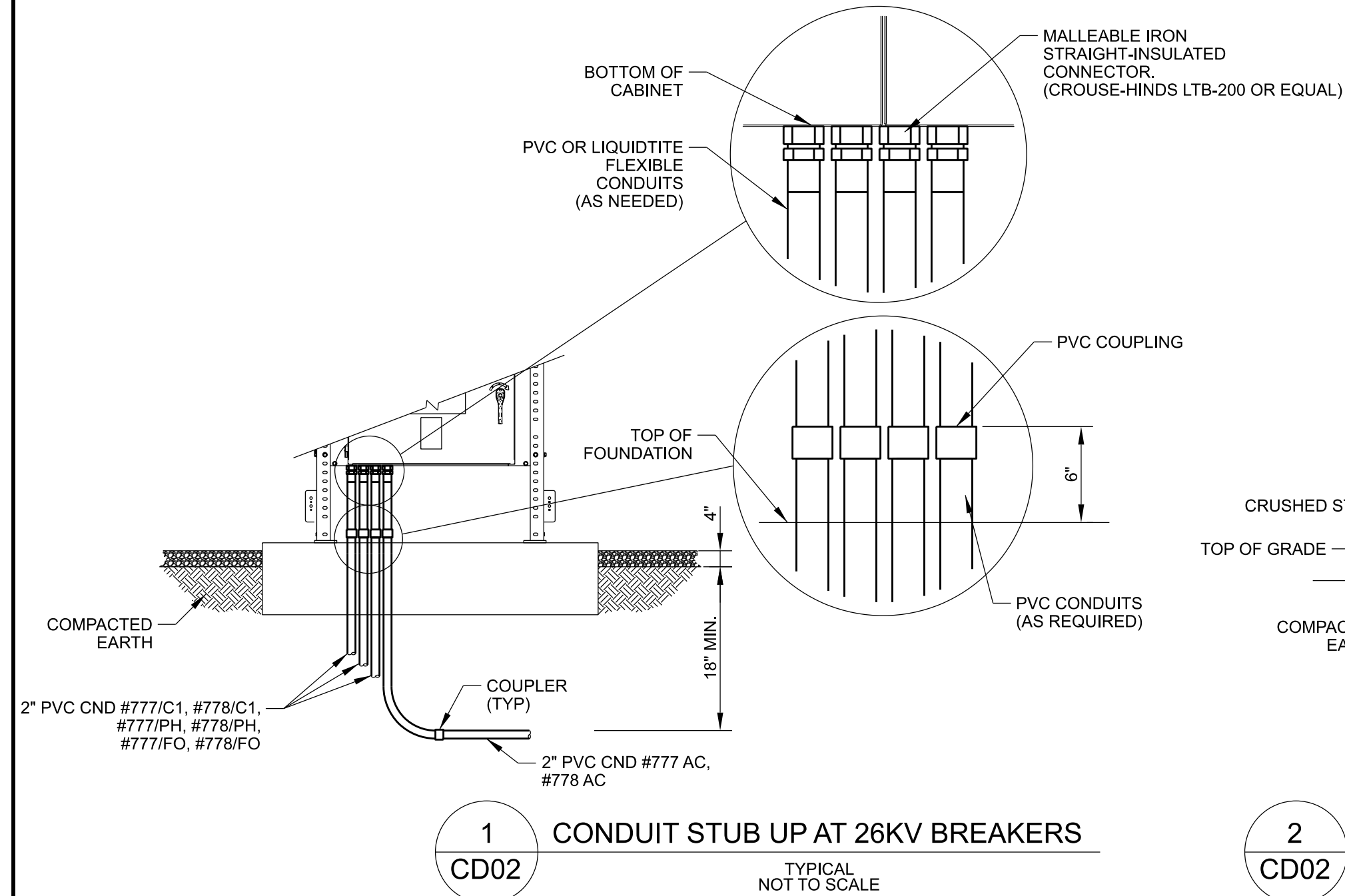
PROJECT ID:
ME2024

SEQUENCE #:
19 OF 27

PROJ #: 8009313



- | | | | | | | | | | | | |
|---|--|---|--|--|--------|----------------------|----|--------|-------------|--|---|
|  <p>worley
DELIVERING SUSTAINABLE CHANGE</p> <p>ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA. 19010
FL COA 8777</p> | <p>PROFESSIONAL ENGINEER'S SEAL</p> <p>LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE, <u>DONALD RAY DUCOTE</u></p> <p>LIC. NO.: <u>101442</u></p> <p>STATE: <u>FL</u></p> <p>DATE: <u>08/19/25</u></p> |  | REV | DATE | PROJ # | REVISION DESCRIPTION | BY | REVIEW | ENGINEERING | <p>T1 REPLACEMENT AND TWO FEEDER ADDITIONS
CONDUIT DETAILS</p> <p></p> <p>MERRILL ROAD 69kV / 26kV SUBSTATION</p> <p>SCALE: FULL SIZE 1 = 1</p> | <p>SHEET NUMBER:
CD01</p> <p>PROJECT ID:
ME2024</p> <p>SEQUENCE #:
20 OF 27</p> |
| | <p>ISSUED FOR CONSTRUCTION</p> | | <p>0</p> <p>08/19/25</p> <p>8009313
8008922</p> <p>ISSUED FOR CONSTRUCTION</p> <p>SAG</p> <p>DRD</p> <p>DATE 9/20/20</p> <p>BY RMS</p> <p>REVIEW JWR</p> <p>DRAFTING</p> <p>DATE 9/20/20</p> <p>BY RMS</p> <p>REVIEW JWR</p> | <p>TRANSMISSION & SUBSTATION PROJECTS - 20410</p> <p>PROJ #: 8009313 & 8008922</p> | | | | | | | |

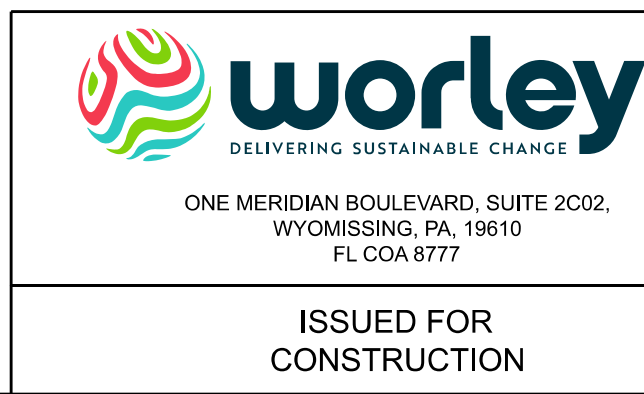


REFERENCE DRAWINGS:

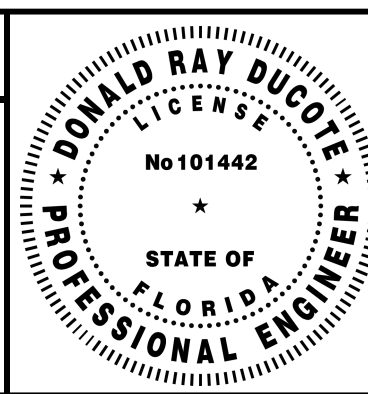
- CP1 CONDUIT PLAN
- CD1 CONDUIT DETAILS SHEET 1
- ES1 ELECTRICAL ELEVATION
- ES3 ELECTRICAL ELEVATION
- ES4 ELECTRICAL ELEVATION
- ES5 ELECTRICAL ELEVATION
- ES7 ELECTRICAL ELEVATION
- EP1 ELECTRICAL PLAN
- CS1 CABLE SCHEDULE
- CT1 CONDUIT SCHEDULE

NOTES:

- RECOMMEND PANEL REPLACEMENT OR RUST PREVENTIVE MAINTENANCE.
- UTILIZE EXISTING 8\"/>



PROFESSIONAL ENGINEER'S SEAL
LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 06/27/25



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	06/27/25	8009313 8008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR
						DRAFTING
						DATE 9/2020 BY RMS REVIEW JWR

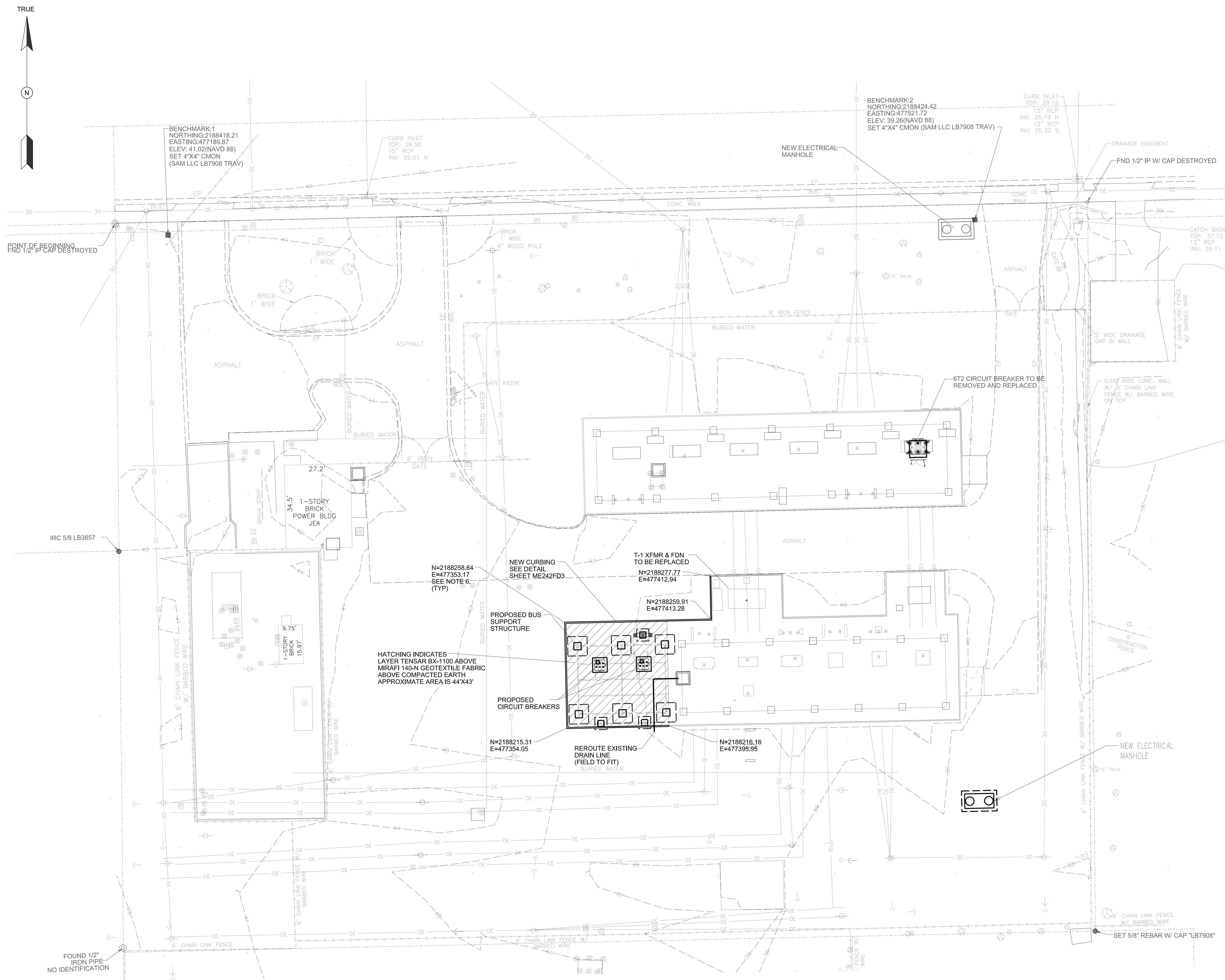
T1 REPLACEMENT AND TWO FEEDER ADDITIONS
CONDUIT DETAILS

MERRILL ROAD 69kV / 26kV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410

JEA
BUILDING COMMUNITY

PROJ #:
8009313 & 8008922

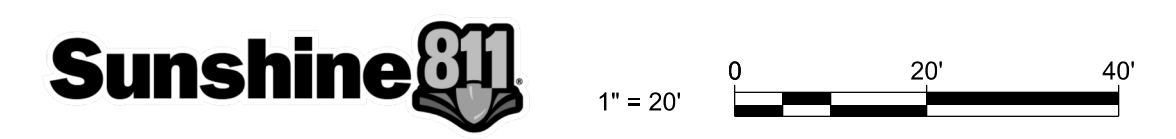
SHEET NUMBER: CD02
PROJECT ID: ME2024
SEQUENCE #: 21 OF 27




- NOTES:**
- COORDINATES SHOWN ON PLAN ARE IN STATE PLANE COORDINATE SYSTEM FLORIDA EAST ZONE, NAD 1983/1990 NGS ADJUSTMENT HORIZONTAL ADJUSTMENT, AND NAVD 88 VERTICAL DATUMS.
 - UNDERGROUND IMPROVEMENTS AND/OR UNDERGROUND ENCROACHMENTS, IF ANY, ARE FROM SURVEY INFORMATION RECEIVED ON 4-25-25 FROM SURVEY AND MAPPING LLC, 9440 PHILIPS HWY #7 JACKSONVILLE FL 32256.
 - ALL UNDERGROUNDS MUST BE CONFIRMED IN THE FILED PRIOR TO ANY EARTH WORK BEING PERFORMED.
 - PRIOR TO DEMOLITION OR EXCAVATION COORDINATE WITH JEA PM FOR LOCATES INSIDE THE SUBSTATION FENCE, FOR OUTSIDE THE FENCE A NOTIFICATION MUST BE SUBMITTED TO "SUNSHINE 811" IN ACCORDANCE WITH FLORIDA STATUTES. ALL UNDERGROUND UTILITIES MUST BE MARKED TO PRIOR TO EXCAVATION OR DEMOLITION PREVENT DAMAGE AND ENSURE SAFETY.
 - NOTIFICATION TO "SUNSHINE 811" MUST BE MADE NOT LESS THAN 2 FULL BUSINESS DAYS PRIOR TO ANY DEMOLITION OR EXCAVATION.
 - COORDINATES ARE TO CURB CENTERLINE

- LEGEND:**
- EXISTING CONTOUR
 - EXISTING BUILDING
 - NEW CURBING
 - EXISTING CURBING
 - NEW ELECTRICAL EQUIPMENT
 - NEW BUS SUPPORT FOUNDATION
 - NEW FOUNDATION
 - EXISTING ROAD
 - EXISTING OVERHEAD ELECTRIC
 - NEW ELECTRICAL MANHOLE
 - EXISTING BENCH MARK
 - EXISTING CATCH BASIN
 - EXISTING DITCH CENTERLINE

- REFERENCE DRAWINGS:**
- ME242FP1 FOUNDATION PLAN
 - ME242FD1 FOUNDATION DETAILS
 - ME242FD2 FOUNDATION DETAILS
 - ME242FD3 FOUNDATION DETAILS
 - ME242FD4 FOUNDATION DETAILS

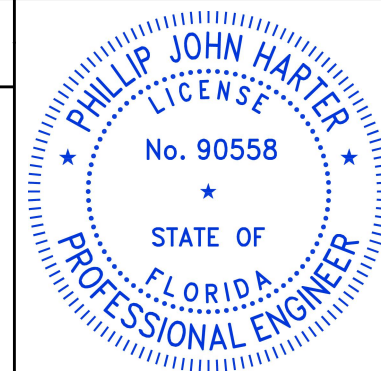




ONE MERIDIAN BOULEVARD, SUITE 2C02,
WYOMISSING, PA, 19110
FL COA 8777

PROFESSIONAL ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: PHILLIP JOHN HARTER
LIC. NO.: 90558
STATE: FLORIDA
DATE: 27-JUNE-2025



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	6/27/25	80093113 8008922	ISSUED FOR CONSTRUCTION	KEN	PJH	DATE
1	8/11/25	80093113 8008922	ISSUED FOR CONSTRUCTION - TITLEBLOCK UPDATED PER CLIENT COMMENTS	KEN	PJH	BY
						REVIEW
						DRAFTING
						DATE
						BY
						REVIEW

T1 REPLACEMENT AND TWO FEEDER ADDITIONS


69kV / 26kV

CIVIL SITE LOCATION PLAN

MERRILL ROAD 69kV / 26kV SUBSTATION

SCALE: AS SHOWN

TRANSMISSION & SUBSTATION PROJECTS - 20410



PROJECT ID: ME2024

SEQUENCE #: 22 OF 22

SHEET NUMBER: SP1

PROJ #: 80093113 & 8008922

JEA ARCHD 24030 (06/10) SRA Plan.dgn 2025-08-17 17:33

16-04-2024 10:03:03 (0010) - C57 001 2024-04-16 - 001-0

CONDUIT SCHEDULE							
CONDUIT #	FROM	TO	SIZE	TYPE	LENGTH	CABLES IN CONDUIT #	REMARKS
BREAKER 477							
477C1	BREAKER 477	27KV PANEL 1A	2	UV	280	477/C1	BREAKER 477 CONTROL
477C2	BREAKER 477	27KV PANEL 1A	2	UV	280	477/PH	BREAKER 477 PROTECTION
477C3	BREAKER 477	27KV CONTROL HOUSE PANEL	2	UV	280	477FO	RELAY COMM W/ ORANGE CORRIGATED INNERDUCT
477C4	BREAKER 477	AC YARD PANEL	1	UV	45	477/AC	BREAKER 477 AC
BREAKER 478							
478C1	BREAKER 478	27KV PANEL 1A	2	UV	280	478/C1	BREAKER 478 CONTROL
478C2	BREAKER 478	27KV PANEL 1A	2	UV	280	478/PH	BREAKER 478 PROTECTION
478C3	BREAKER 478	27KV CONTROL HOUSE PANEL	2	UV	280	478FO	RELAY COMM W/ ORANGE CORRIGATED INNERDUCT
478C4	BREAKER 478	AC YARD PANEL	1	UV	30	478/AC	BREAKER 478 AC
BREAKER 477 & 478 FEEDER							
477FC1	BREAKER 477	MERRILL MANHOLE	6	UV	280	477 FEEDER	OUTGOING 477 FEEDER
477FC2	BREAKER 477	MERRILL MANHOLE	6	UV	280	477 SPARE	OUTGOING SPARE
478FC1	BREAKER 478	MERRILL MANHOLE	6	UV	280	478 FEEDER	OUTGOING 478 FEEDER
478FC2	BREAKER 478	MERRILL MANHOLE	6	UV	280	478 SPARE	OUTGOING SPARE
TRANSFORMER T1							
T1C1	TRANSFORMER 1	PANEL 1 (UNIT 1)	2	UV/G	30	T1/C1	XFMR T1 CONTROL
T1C2	TRANSFORMER 1	69KV PANEL 3	2	UV/G	30	T1/C2	XFMR T1 CONTROL
T1C3	TRANSFORMER 1	PANEL 1 (UNIT 1)	TBD	UV/G	30	T1/G	XFMR T1 PROTECTION
T1C4	TRANSFORMER 1	26KV AC YARD PANEL	1 1/4	UV/G	30	AC CABLE	XFMR T1 AC
T1C5	TRANSFORMER 1	METERING CT LEADS	1 1/2	UV/G	30		
T1C6	TRANSFORMER 1	NEUTRAL CT LEADS	1 1/2	UV/G	30		
T1C7	TRANSFORMER 1		TBD	UV/G	30		
T1C8	TRANSFORMER 1	69KV PANEL 2	2	UV/G	30	T1/FO	XFMR T1 SEL2414 FIBER W/ ORANGE CORRIGATED INNERDUCT
25KV BUS 1 CCVT (WITH NEW JUNCTION BOX)							
PT25T1C1	25kv A-PHASE PT	25KV NEW JUNCTION BOX	1	UV	15	A-PHASE CABLE	A-PHASE POTS, 1" LIQUID TIGHT FLEX CND
PT25T1C2	25KV B-PHASE PT	25KV NEW JUNCTION BOX	1	UV	15	B-PHASE CABLE	B-PHASE POTS, 1" LIQUID TIGHT FLEX CND
PT25T1C3	25KV C-PHASE PT	25KV NEW JUNCTION BOX	1	UV	15	C-PHASE CABLE	C-PHASE POTS, 1" LIQUID TIGHT FLEX CND
PT25T1C4	26KV NEW JUNCTION BOX	PANEL 1 (UNIT 1)	2	UV	50	POTS CABLE	A-B-C POTS
PT25T1C5	26KV NEW JUNCTION BOX	AC YARD PANEL	1	UV	30	AC CABLE	HEATER AC - PVC TO LIQUID TIGHT FLEX CND.
69KV BREAKER 6T2							
6T2C1	BREAKER 6T2	69KV PANEL	2	UV	300	6T2/C1	BREAKER 6T2 CONTROL
6T2C2	BREAKER 6T2	69KV PANEL	2	UV	300	6T2/PH	BREAKER 6T2 PROTECTION
6T2C3	BREAKER 6T2	69KV CONTROL HOUSE PANEL	2	UV	300	6T2FO	RELAY COMM W/ ORANGE CORRIGATED INNERDUCT
6T2C4	BREAKER 6T2	AC YARD PANEL	1	UV	125	6T2/AC	BREAKER 6T2 AC - PVC TO LIQUID TIGHT FLEX CND.
SS-1, SS-2 & ATS							
542A	SS-1 SECONDARY	ATS	2-1/2	RGS	15	SS1-1, SS1-2	NEW FEEDER FROM SS-1
542B	SS-1 SECONDARY	ATS	2-1/2	RGS	15	SS1-3, SS1-N	NEW FEEDER FROM SS-1
543A	SS-2 SECONDARY	ATS	2-1/2	RGS	65	SS2-1, SS2-2	NEW FEEDER FROM SS-2
543B	SS-2 SECONDARY	ATS	2-1/2	RGS	65	SS2-3, SS2-N	NEW FEEDER FROM SS-2
ATS-CT	ATS	CT CABINET	4	RGS	1	ATS, CT	NEW FEEDER FROM ATS TO CT PANEL
CT-MBP1	CT CABINET	PANEL MBP1-P3	4	RGS	1	CT, MBP1-2	NEW FEEDER FROM CT PANEL TO MBP1-P3
479	PANEL MBP1-P3	PULL BOX PB-D	2-1/2	RGS	50	ACP-L1/AC	NEW FEEDER FROM MBP1-P3 TO PB-D
519	PANEL MBP1-P3	PANEL ACP-P2 IN 69KV YARD	1-1/2	RGS	70	ACP-P2/AC	NEW FEEDER FROM MBP1-P3 TO ACP-P2 IN 69KV YARD
520	PANEL MBP1-P3	PANEL ACP-P1 IN 26KV YARD	2-1/2	RGS	30	ACP-P1/AC	NEW FEEDER FROM MBP1-P3 TO ACP-P1 IN 26KV YARD
END							


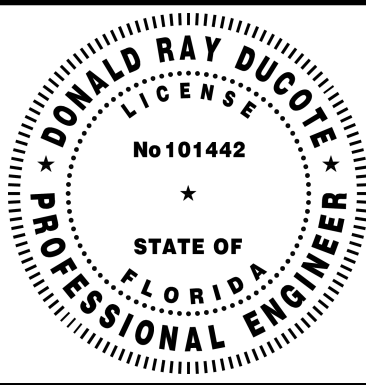

NOTES:

1. TYPE B, BS, F, FO AND MEDIUM VOLTAGE CABLE SHALL BE FURNISHED BY THE OWNER, UNLESS OTHERWISE SPECIFIED.
2. THE CONTRACTOR SHALL FURNISH ALL OTHER CABLE, AS SPECIFIED.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CONDUIT LENGTHS. CONDUIT LENGTHS LISTED ARE APPROXIMATE.
4. CONDUIT DESIGNATIONS:

G - GALVANIZED METALLIC CONDUIT
UV - ULTRAVIOLET RESISTANT PVC CONDUIT

REFERENCE DRAWINGS:

1. ME242EP1 - ELECTRICAL PLAN
2. ME242OS1 - CABLE SCHEDULE
3. ME242CP1 - CONDUIT PLAN
3. ME242CP2 - 26KV YARD CONDUIT PLAN
4. ME242CP3 - 69KV YARD CONDUIT PLAN


<div><p>DELIVERING SUSTAINABLE CHANGE</p><p>ONE MERIDIAN BOULEVARD, SUITE 2002, WYOMISSING, PA, 19610 FL COA 8777</p></div> <div>ISSUED FOR COSTRUCTION</div>	<div>PROFESSIONAL ENGINEER'S SEAL</div> <div>LATEST REVISION ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF PE: <u>DONALD RAY DUCOTE</u> UC NO.: <u>101442</u> STATE: <u>FL</u> DATE: <u>08/18/25</u></div> <div></div>	<table><tr><th>REV</th><th>DATE</th><th>PROJ #</th><th>REVISION DESCRIPTION</th><th>BY</th><th>REVIEW</th><th>ENGINEERING</th></tr><tr><td>0</td><td>08/18/25</td><td>8009313 8009313</td><td>ISSUED FOR CONSTRUCTION</td><td>SAG</td><td>DRD</td><td>DATE 9/2020 BY RMS REVIEW JWR DRAFTING DATE 9/2020 BY RMS REVIEW JWR</td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>	REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING	0	08/18/25	8009313 8009313	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR DRAFTING DATE 9/2020 BY RMS REVIEW JWR																																				<div>T1 REPLACEMENT AND TWO FEEDER ADDITIONS CONDUIT SCHEDULE</div> <div>69kv / 26kv SWITCHYARD SUBSTATION & TRANSMISSION ENGINEERING</div> <div>SCALE: NONE</div> <div></div> <div>PROJ #: 8009313 & 8008922</div>	<div>SHEET NUMBER: CS1</div> <div>PROJECT ID: ME2024</div> <div>SEQUENCE #: 23 OF 27</div>
REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING																																															
0	08/18/25	8009313 8009313	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR DRAFTING DATE 9/2020 BY RMS REVIEW JWR																																															

CABLE SCHEDULE											
CABLE #	FROM	TO	VOLT	SIZE	#C	S/M	TYPE	LENGTH	CONDUIT#	REMARKS	
								ckt ft			
26kV FEEDER BREAKER 477											
477/C1	BREAKER 477	27KV PANEL 1A	600	10	21	M	BS			BREAKER 477 CONTROL	
477/PH	BREAKER 477	27KV PANEL 1A	600	10	4	M	BS			BREAKER 477 PROTECTION	
477/FO	BREAKER 477	27KV CONTROL HOUSE PANEL				FO	FO			RELAY COMM	
477/AC	BREAKER 477	AC YARD PANEL	600	8	3	S	C			BREAKER 477 AC	
26kV FEEDER BREAKER 478											
478/C1	BREAKER 478	27KV PANEL 1A	600	10	21	M	BS			BREAKER 478 CONTROL	
478/PH	BREAKER 478	27KV PANEL 1A	600	10	4	M	BS			BREAKER 478 PROTECTION	
478/FO	BREAKER 478	27KV CONTROL HOUSE PANEL				FO	FO			RELAY COMM	
478/AC	BREAKER 478	AC YARD PANEL	600	8	3	M	C			BREAKER 478 AC	
TRANSFORMER T1											
T1/C1	TRANSFORMER T1	PANEL 1 (UNIT 1)	600	10	21	M	BS			XFMR T1 CONTROL	
T1/C2	TRANSFORMER T1	69KV PANEL 3	600	10	21	M	BS			XFMR T1 CONTROL	
T1/G	TRANSFORMER T1	PANEL 1 (UNIT 1)	600	10	4	M	BS			XFMR T1 PROTECTION	
AC CABLE	TRANSFORMER T1	AC YARD PANEL	600	8	4	M	C			XFMR T1 AC	
T1/FO	TRANSFORMER T1	69KV PANEL 2								XFMR T1 SEL2414 FIBER	
25KV BUS 1 CCVT (WITH NEW JUNCTION BOX)											
A-PHASE CABLE	25KV A-PHASE PT	25KV NEW JUNCTION BOX	600	10	8	M	BS			A-PHASE POTS	
B-PHASE CABLE	25KV B-PHASE PT	25KV NEW JUNCTION BOX	600	10	8	M	BS			B-PHASE POTS	
C-PHASE CABLE	25KV C-PHASE PT	25KV NEW JUNCTION BOX	600	10	8	M	BS			C-PHASE POTS	
POTS CABLE	25KV NEW JUNCTION BOX	PANEL 1 (UNIT 1)	600	10	8	M	BS			A-B-C POTS	
AC CABLE	25KV NEW JUNCTION BOX	AC YARD PANEL	600	8	3	S	C			HEATER AC	
69KV T2 BREAKER 6T2											
6T2/C1	BREAKER 6T2	69KV PANEL	600	10	21	M	BS			BREAKER 6T2 CONTROL	
6T2/PH	BREAKER 6T2	69KV PANEL	600	10	4	M	BS			BREAKER 6T2 PROTECTION	
6T2/FO	BREAKER 6T2	69KV CONTROL HOUSE PANEL				FO	FO			RELAY COMM	
6T2/AC	BREAKER 6T2	AC YARD PANEL	600	8	3	M	C			BREAKER 6T2 AC	
SS-1, SS-2 & ATS											
SS-1-1	STATION SERVICE TRANSFORMER SS-1 SECONDARY	ATS, UTILITY 2 TERMINALS	600	4/0	4*	S	C		CONDUIT # 542A	NEW FEEDER FROM SS-1	
SS-1-2	STATION SERVICE TRANSFORMER SS-1 SECONDARY	ATS, UTILITY 2 TERMINALS	600	4/0	4*	S	C		CONDUIT # 542B	NEW FEEDER FROM SS-1	
SS-2-1	STATION SERVICE TRANSFORMER SS-2 SECONDARY	ATS, UTILITY 1 TERMINALS	600	4/0	4*	S	C		CONDUIT # 543A	NEW FEEDER FROM SS-2	
SS-2-2	STATION SERVICE TRANSFORMER SS-2 SECONDARY	ATS, UTILITY 1 TERMINALS	600	4/0	4*	S	C		CONDUIT # 543B	NEW FEEDER FROM SS-2	
ATS-MBP1-1/AC	ATS LOAD TERMINALS	THRU CT CABINET, THEN TO PANEL MBP1-P3	600	4/0	4*	S	C		CONDUIT #s ATS-CT & #CT-MBP1	NEW PNL MBP1-P3 FEEDER FROM ATS LOAD TERMINALS	
ATS-MBP1-2/AC	ATS LOAD TERMINALS	THRU CT CABINET, THEN TO PANEL MBP1-P3	600	4/0	4*	S	C		CONDUIT #s ATS-CT & #CT-MBP1	NEW PNL MBP1-P3 FEEDER FROM ATS LOAD TERMINALS	
ACP-L1/AC	PANEL MBP1-P3	PANEL ACP-L1 IN CONTROL BUILDING	600	4/0	3*	S	C		C479, PB-D, TRENCH, CONT. HOUSE	NEW FEEDER TO PANEL ACP-L1 IN CONTROL BUILDING	
ACP-P2/AC	PANEL MBP1-P3	PANEL ACP-P2 IN 69KV YARD	600	2	3*	S	C		519	NEW FEEDER TO PANEL ACP-P2 IN 69KV YARD	
ACP-P1/AC	PANEL MBP1-P3	PANEL ACP-P1 IN 26KV YARD	600	4/0	4*	S	C		520	NEW FEEDER TO PANEL ACP-P1 IN 26KV YARD	
END											

*NOTE - ALSO PROVIDE GREEN
INSULATED EQUIPMENT GROUND
CONDUCTOR IN CONDUIT WITH
OTHER CONDUCTORS

- NOTES:
- TYPE B, BS, F, FO AND MEDIUM VOLTAGE CABLE SHALL BE FURNISHED BY THE OWNER, UNLESS OTHERWISE SPECIFIED.
 - THE CONTRACTOR SHALL FURNISH ALL OTHER CABLE, AS SPECIFIED.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CABLE LENGTHS. CABLE LENGTHS LISTED ARE APPROXIMATE.
 - CABLE DESIGNATIONS:
 - A - THHN INSULATED COPPER CONDUCTOR, RATED 600V
 - B - CONTROL CABLE
 - BS - SHIELDED CONTROL CABLE
 - C - RHW, THHW, OR THWN INSULATED COPPER CONDUCTOR, RATED 600V
 - F - INSTRUMENT CABLE
 - FO - FIBER OPTIC CABLE
 - S - SINGLE CONDUCTOR
 - M - MULTIPLE CONDUCTOR

- REFERENCE DRAWINGS:
- ME242EP1 - ELECTRICAL PLAN
 - ME242CP1 - CONDUIT PLAN
 - ME242CT1 - CONDUIT SCHEDULE



DELIVERING SUSTAINABLE CHANGE

ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19610
FL COA 8777

PROFESSIONAL ENGINEER'S SEAL

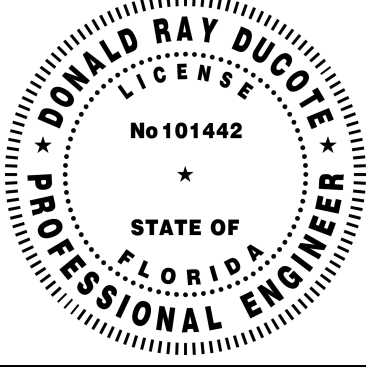
LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF

PE: DONALD RAY DUCOTE

UC NO.: 101442

STATE: FL

DATE: 08/19/25



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW
0	08/19/25	8009313 8008913	ISSUED FOR CONSTRUCTION	SAG	DRD

ENGINEERING	
DATE	9/2020
BY	RMS
REVIEW	JWR
DRAFTING	
DATE	9/2020
BY	RMS
REVIEW	JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS

CABLE SCHEDULE

69kV / 26kV SWITCHYARD


SUBSTATION & TRANSMISSION ENGINEERING

SCALE: NONE

SHEET NUMBER:
CT1

PROJECT ID:
ME2024

SEQUENCE #:
24 OF 27



BUILDING COMMUNITY


BOM NO.	QUANTITY	ITEM DESCRIPTION	FT.	MANUFACTURE	MANF. BOM.	FURNISHED BY
1	25349 LBS	STEEL STRUCTURES, HOT-DIPPED GALVANIZED AFTER FABRICATION AND ASSEMBLED WITHIN LIMITATIONS OF TRUCKING	N/A		SUB. ENT.	
2	36	ANCHOR BOLT: 1-1/2" WITH 2HHN,2FW		UI		
2A	12	ANCHOR BOLT: 3/4" X 12" GMB WITH 2HHN,2FW		UI		
3	1	T1 TRANSFORMER	N/A	ABB	CS01150001	BY OWNER
4	2	27DV25 28.4KV, 1200A, BREAKER	N/A	MITSUBISHI	MD100251	BY OWNER
12	24	LCO-C COPPER HOOKSTICK OP. DISC. SW. 34.5KV 1200A	N/A	CLEVELAND PRICE	C102A230-G16	
12	96	BOLTS	N/A	SEIB	GMB35058	
13	3	FUSED DISCONNECT SMD-40	N/A	S&C	SMD-40	
13	12	BOLTS	N/A	SEIB	GMB175	
13A	3	FUSE UNIT, SMU-40 1E (FOR PTS)		S&C	823001	
14	1	PT FUSE BOX, NEMA 4X WITH "L" COVER, 304 STAINLESS, 24x24x8	N/A	HOFFMAN OAE	-	
14	12	BOLTS	N/A	SEIB	-	
31	54	INSULATORS: 35 KV STATION POST TR-210		NEWELL	ST-231004-7001	
31	216	BOLTS		SEIB	GCS100	
40	6	LIGHTNING ARRESTER, 17 KV MCOV STATION POLYMER	N/A	ABB	Q021SA017B	
40	18	BOLTS	N/A	SEIB	GMB250	
41	3	POTENTIAL TRANSFORMER, SINGLE PRI. BUSHING, DRY TYPE, 150KV BIL, 14,000 PRI. V	N/A	ABB	E-923A680G03	
41	18	BOLTS	N/A	SEIB	GMB15038	
50		BUS: 2" IPS SCH 40 COPPER (30 PCS @ 20')	500	CUBUS	-	
51		BUS: 1-1/4" IPS SCH 40 COPPER (17 PCS @ 20')	340	CUBUS		
60		CABLE: 500 MCM BARE COPPER, 37-STRAND MHD	150	SOUTHWIRE OAE		
61		CABLE: 4/0 BARE COPPER, MHD	200	SOUTHWIRE OAE		
62		CABLE: 350 BARE COPPER, MEDIUM HARD DRAWN	200	SOUTHWIRE OAE		
63		CABLE: 1000 BARE COPPER, 61 STRAND, MEDIUM HARD DRAWN	100	SOUTHWIRE OAE		
64		CABLE: 7#5 COPPERWELD	500	SOUTHWIRE OAE		
70	12	TEE CONN BOLTED 2" CU MAIN TO 1-1/4" CU TAP		SEF	TTHT-5849	
70B	3	TEE CONN BOLTED 1-1/4" CU MAIN & TAP		SEF	TTT-4949	
71A	6	COUPLER 90 DEG BOLTED FOR 2" CU	N/A	SEF	LB90-5858	
71B	12	COUPLER STRAIGHT BOLTED FOR 2" BRONZE		SEF	CCT-5858	
71C		NOT USED				
72	24	TERM CONN BOLTED 1-1/4" CU TO 4-HOLE PAD		SEF	FNTT-49-4A-SND	
72	96	BOLTS				
72A	9	TERM CONN BOLTED 1-1/4" CU TO 4-HOLE PAD		SEF	FNCT-20-4A-SND	
72A	36	BOLTS		SEIB	SSB200	
72B	39	TERM CONN BOLTED 2" CU TO 4-HOLE PAD		SEF	FNTT-58-4A-SND	
72B	156	BOLTS		SEIB		
73	27	EXPANSION TERM CONN BOLTED 1-1/4" CU TO 4-HOLE PAD		SEF	ASFFT 49-4A	
73	108	BOLTS		SEIB		
74	39	TERM CONN BOLTED 1/0--(2) 500 CU TO 4-HOLE PAD		SEF	FNCT2-20-4A-SND	
74A	48	BOLTS		SEIB	SSB175	
74B	108	BOLTS		SEIB	SSB225	
75		NOT USED				
75		NOT USED				
76	6	BRONZE BUS SUPPORT BOLTED 1-1/4" CU TO 3" B.C.		SEF	SCTI-49-3	
77	24	BRONZE BUS SUPPORT BOLTED 2" CU TO 3" B.C.		SEF	SCTI-58-3	
78	6	PARALLEL CONN 4/0		SEF	GFCS-5050	
79	18	END CAP, 2" CU		SEF	DP-58-BR	
80	12	GROUND CONN TWO PIECE DOUBLE GROOVE 1/0--4/0 CU TO FLAT, TINNED		SEF	GTC2-14-SND	
81	90	GROUND CONN TWO PIECE SINGLE GROOVE 1/0--4/0 CU TO FLAT, TINNED		SEF	GTC-14-SND	
82	4	GROUND TERMINAL 4/0 CU TO 2-HOLE PAD, TINNED		SEF	FNCT-20-2B-SND	
82	8	BOLTS: 1/2" X 1-3/4" SSB W/HN,LW,2FW		SEIB	SSB175	
83	21	BRONZE DOUBLE CABLE SPACER		SEF	ASPC-20-(L)-BR	
84	6	BRONZE TEE 1/0 - 500MCM MAIN & TAP		SEF	TCRCT-2020	
105		LIGHTS, CONDUIT, CONTROL CABLE, LV CONDUCTORS, JUNCTION BOXES, FITTINGS, ETC. AS REQUIRED		OTHER	-	CONTRACTOR

TRANSFORMER T1 BOM						
BOM NO.	QUANTITY	ITEM DESCRIPTION	FT.	MANUFACTURE	MANF. BOM.	FURNISHED BY
85	3	2-1/2" Bronze BUS TO 4 HP 90 DEG. TURN DOWN		SEF	FNTT90	
86	6	(2) 500MCM CU TO 90 DEG 4HP		TRAVIS PDU	110-105-CSTC-4-90	
87		CONDUCTOR 636 KCM, 61 STRAND, (AAC), "ORCHID"	300	SOUTHWIRE OR APPROVED EQUAL	ORCHID	OWNER
88	2	DEADEND INSULATOR PLATE (INCLUDE 3 PER QTY)		-	JEA	JEA PLATE ID: IASDSA3-954A
90	6	4AWG-954 MCM CABLE TO CABLE AL TEE CONNECTOR		TRAVIS PATTERN	12-908-TP	
91	9	4AWG-954 MCM CABLE TO CABLE AL TERMINAL		TRAVIS PATTERN	11-126-TP	
92	3	4AWG-954 MCM CABLE thru TO AL TERMINAL tap		TRAVIS PATTERN-sef	12-1102 / ACF-34-4A	
93		954 AAC MAGNOLIA	50	TRAVIS PATTERN	12-1102	
93A	3	ALUMINUM 4 HOLE PAD TO AAC CONDUCTOR 556-1000 KCMIL		SEF	AFNC-34-4A	

BREAKER 6T2 BOM						
BOM NO.	QUANTITY	ITEM DESCRIPTION	FT.	MANUFACTURE	MANF. BOM.	FURNISHED BY
94	3	TERM CONN BOLTED 2" CU TO 1000MCM CABLE		SEF	ACTC-5834	
95	6	TERM CONN BRONZE BOLTED 4/0- 1000 MCM TO 4-HOLE PAD		SEF	FNCT-34-4A-SND	
95A	24	BOLTS		SEIB		
96	1	70-SFMT-50J, STANDARD OUTLINE, 2 DOORS MEPPI BREAKER, 72.5KV, 3000A		MITSUBISHI	70-SFMT-50J	OWNER
96A	4	BOLTS		SEIB		
97	3	TERM CONN BRONZE BOLTED 1000-2000 MCM TO 2-HOLE PAD		SEF	FNCT-48-2B	
97A	6	BOLTS: 1/2" X 2-1/4" SSB W/ HN, 2BW, 2FW		SEIB	SSB225	
MISCELLANIOUS BOM						
BOM NO.	QUANTITY	ITEM DESCRIPTION	FT.	MANUFACTURE	MANF. BOM.	FURNISHED BY
	1	MANHOLE 6'-0" X 12'-0"	-	PREFAB	-	FURNISHED & INSTALLED BY OTHERS - NOT IN SCOPE
		FIBER OPTIC CABLE		-	-	JEA FURNISHED
		CONTROL CABLE 4/C				JEA CAICN016
		CONTROL CABLE 8/C				JEA CAICN017
		CONTROL CABLE 21/C				JEA CAICN018
		WARNING TAPE				JEA TAPMA001
	3	CURRENT TRANSFORMERS				JEA METCT001
	1	METER SOCKET				JEA METSO007
	1	JEA PROVIDED PT BOX ITEM 1				JEA ELUEB001
	3	JEA PROVIDED PT BOX ITEM 2				JEA ELUTB001
	1	JEA PROVIDED PT BOX ITEM 3				JEA FUSHO13
	1	JEA PROVIDED PT BOX ITEM 4				EA TEMHE017
	1	JEA PROVIDED PT BOX ITEM 5				JEA LTGHR037
	1	CT METERING CABINET				SUB. ENT.
	1	MAIN BREAKER PANEL (MBP1-P3)		SQUARE D OR APPROVED EQUAL		BY CONTRACTOR

NOTES:

- THIS MATERIAL LIST IDENTIFIES ITEMS THAT ARE FURNISHED BY THE OWNER (JEA).
- ALL MATERIALS PROCURED OR RECEIVED BY THE CONTRACTOR SHALL REMAIN IN THE CARE, CUSTODY AND CONTROL OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE. CONTRACTOR WILL BE RESPONSIBLE FOR ANY LOSS OR DAMAGE TO SAID MATERIAL.
- ALL OTHER MATERIAL REQUIRED FOR A PROJECT COMPLETION THAT MAY BE REASONABLY INFERRED FROM THESE DRAWINGS AND SPECIFICATIONS, BUT NOT SPECIFICALLY LISTED, SHALL BE SUPPLIED BY THE CONTRACTOR IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS, BEST INDUSTRY PRACTICES, AND PREVAILING CUSTOM. LITERAL ADHERENCE SHALL NOT RELIEVE THE CONTRACTOR OF THE ULTIMATE RESPONSIBILITY FOR ACCOMPLISHING THE INTENT OF THE PROJECT. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO ALL SOIL, REBAR, CONCRETE, AGGREGATE, GEOTEXTILES, PIPE, CONTAINMENT LINER, FENCING, LANDSCAPING, CONDUIT, CONNECTORS, CLAMPS, UNISTRUT, FASTENERS, MISCELLANEOUS ELECTRICAL EQUIPMENT, WIREWAY, ELECTRICAL BOXES, RECEPTACLES, SWITCHES, TERMINAL BLOCKS, CONNECTORS, POWER CABLE, FITTINGS, ALL LABELING MATERIALS, ETC.
- ALL CONTRACTOR FURNISHED MATERIALS SHALL BE APPROVED BY THE JEA PROJECT ENGINEER IN E-MAIL. A SUBMITTAL LOG IS RECOMMENDED TO TRACK ALL THE SUBMITTALS.



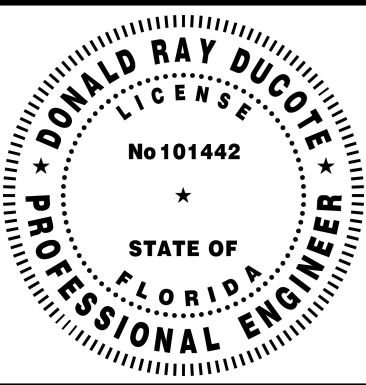
DELIVERING SUSTAINABLE CHANGE

ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19610
FL COA 8777

ISSUED FOR
CONSTRUCTION

PROFESSIONAL
ENGINEER'S SEAL


LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 08/18/25



REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	08/18/25	8009313 8008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR DRAFTING DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
BILL OF MATERIALS

MERRILL ROAD 69KV / 26kV SUBSTATION
TRANSMISSION & SUBSTATION PROJECTS - 20410



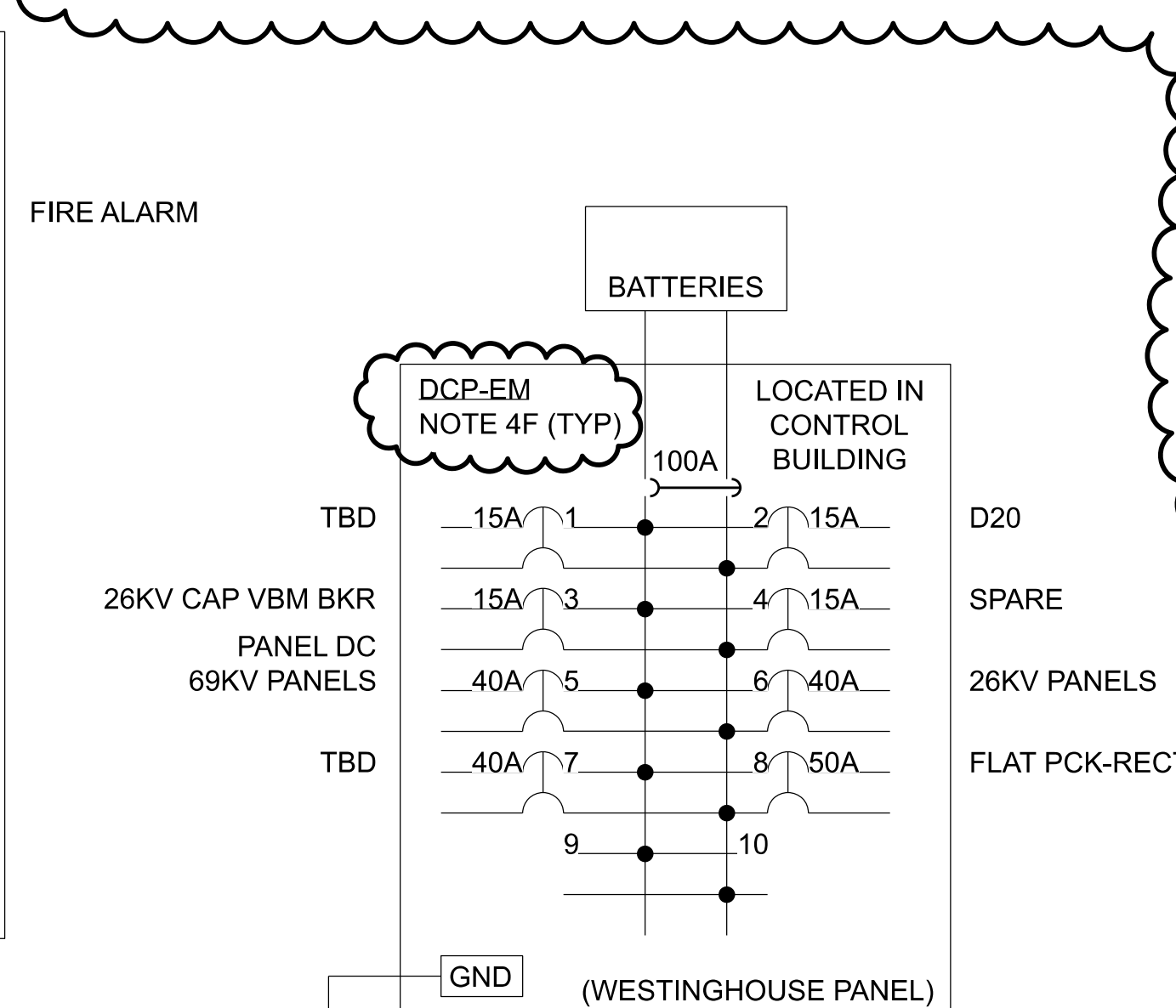
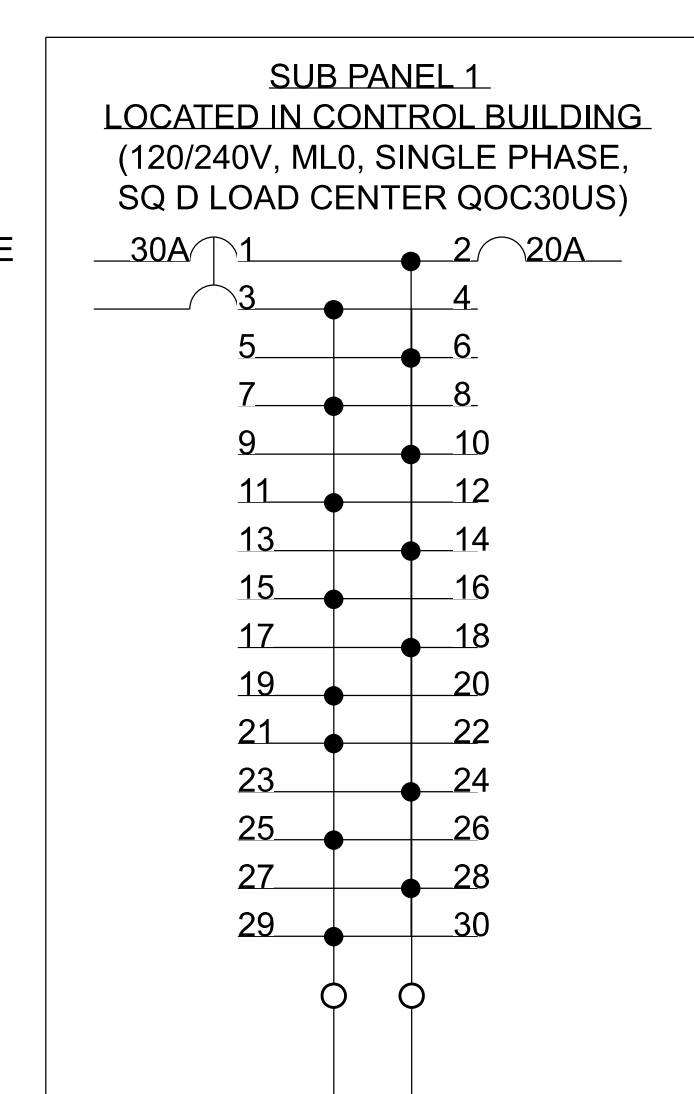
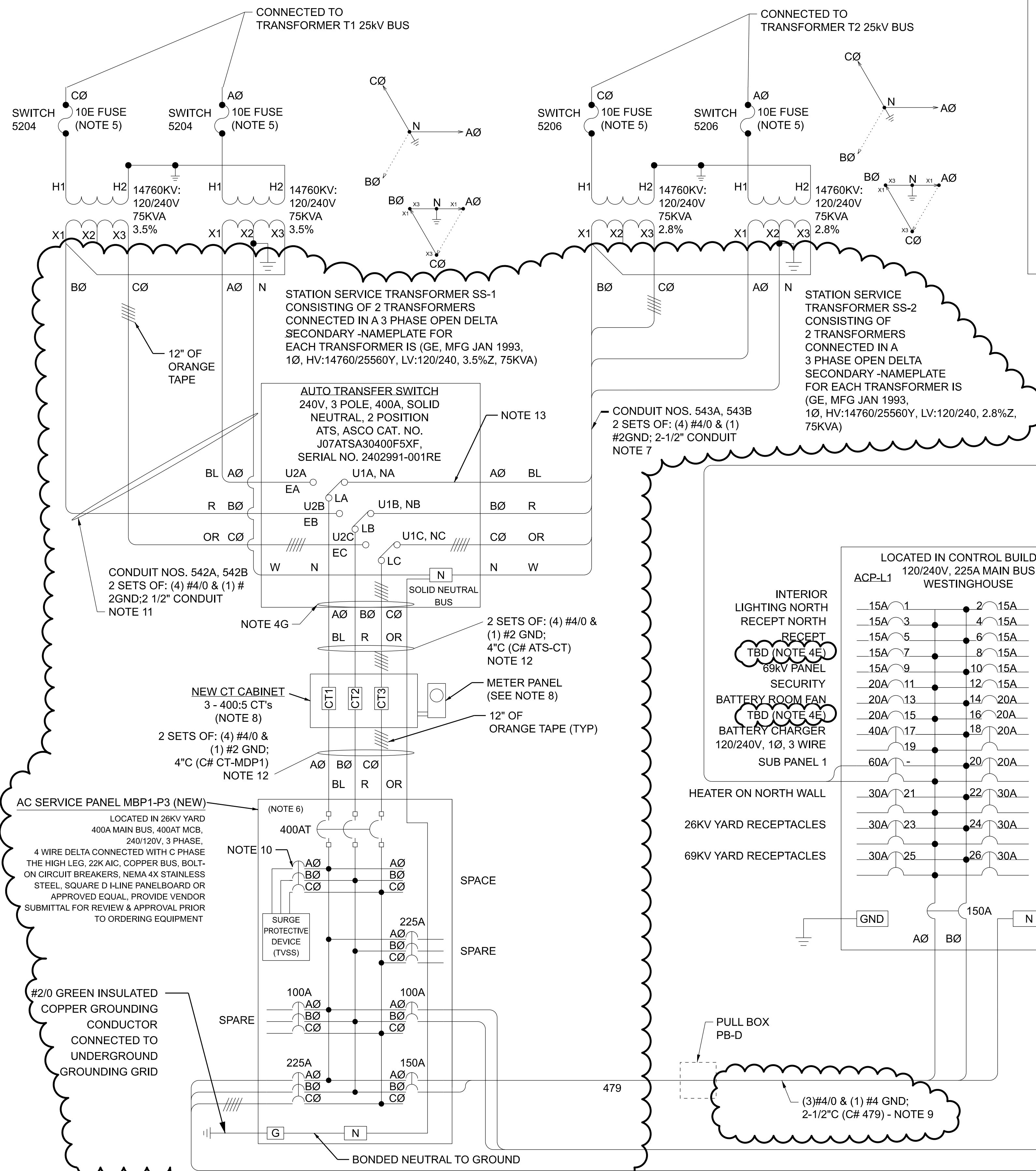
PROJECT ID:
ME2024

SEQUENCE #:
25 OF 27

SCALE: NONE

PROJ #:
8009313 & 8008922

STATION SERVICE TRANSFORMERS SS-2, T2 BUS
NORMAL SOURCE _____ UTILITY 1 SOURCE (U1)
25KV: 240/120V, 3 PHASE, 4 WIRE
OPEN DELTA SECONDARY WITH C PHASE HI-LEG

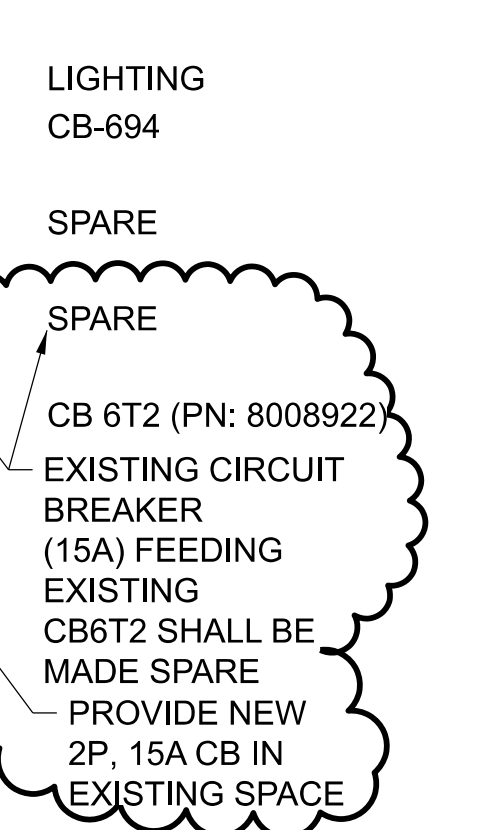
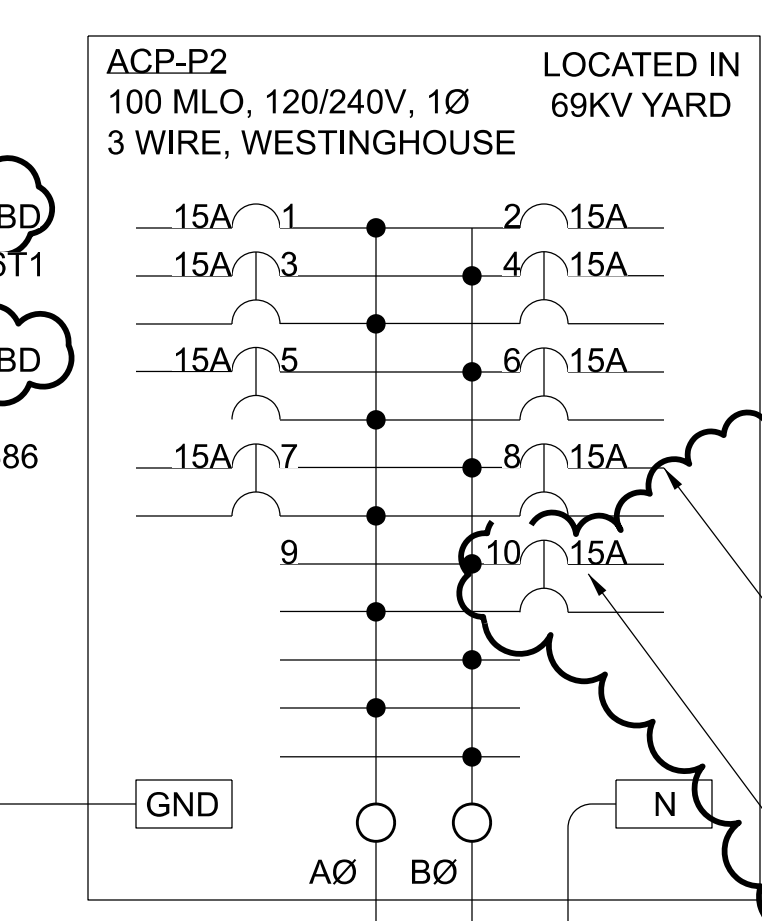
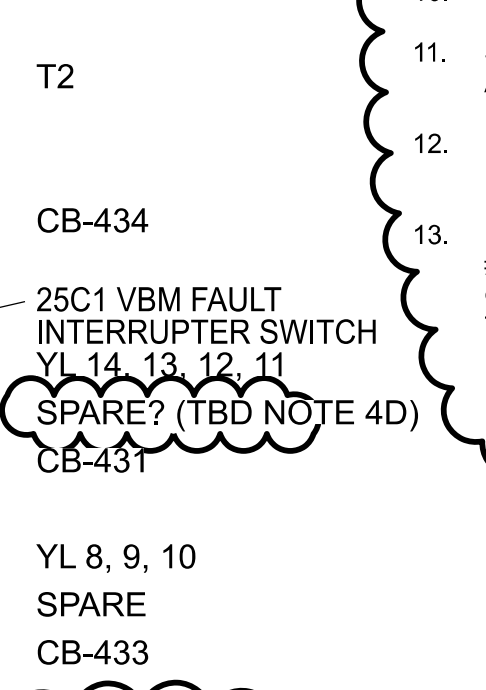
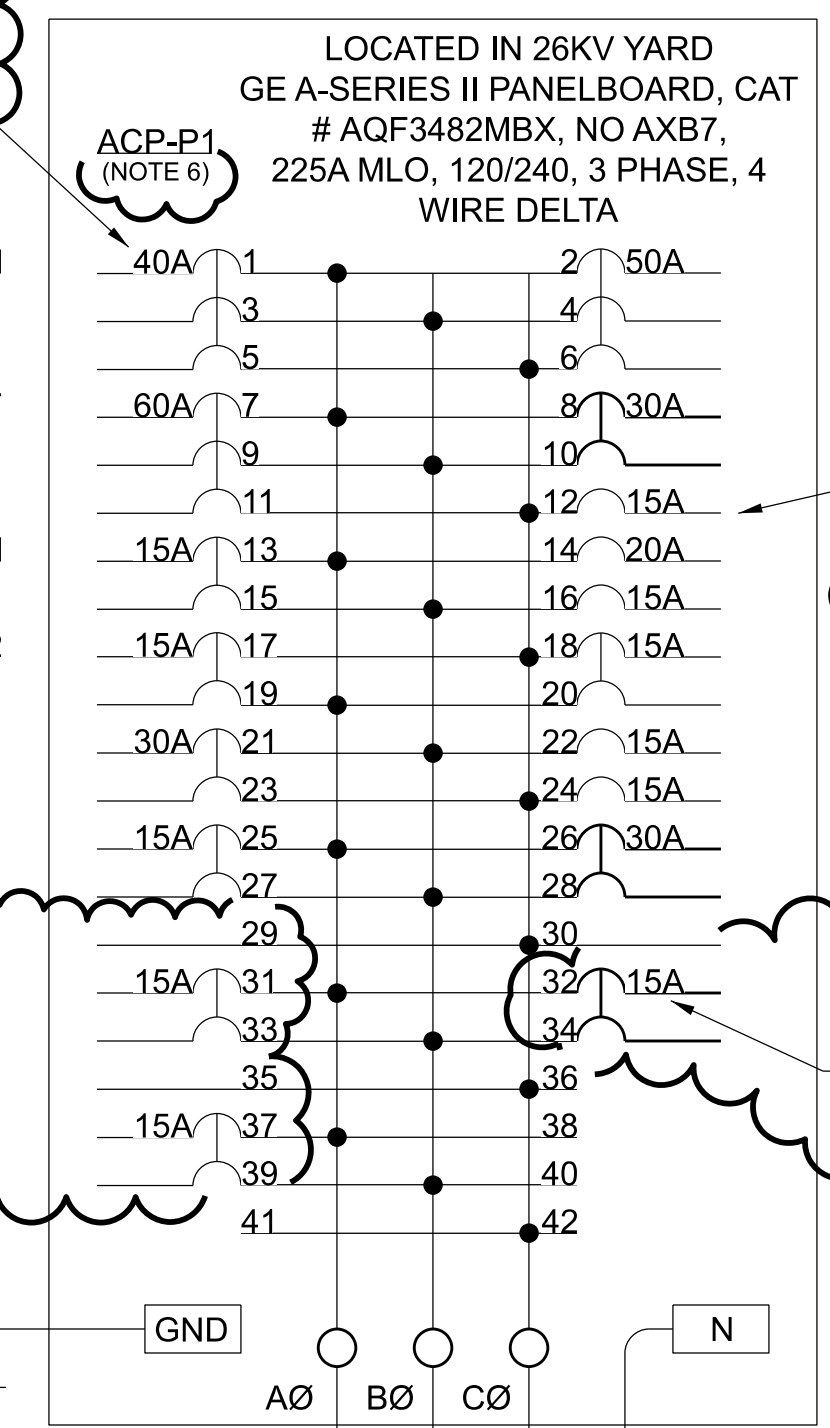
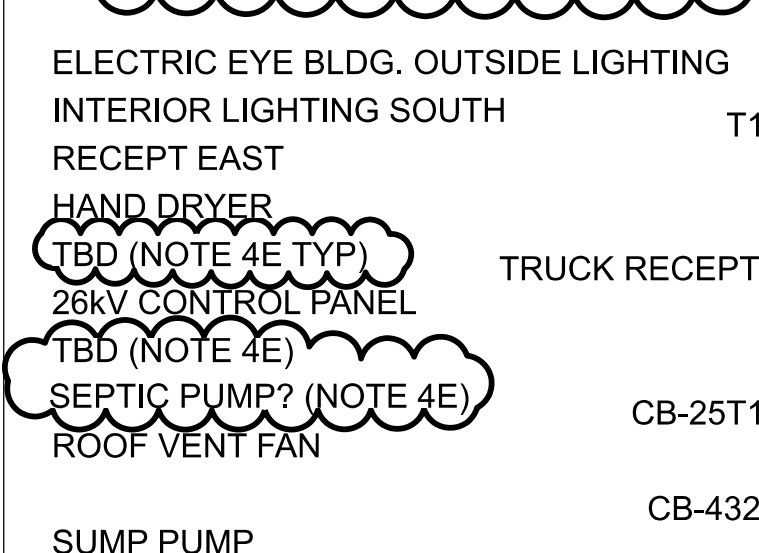
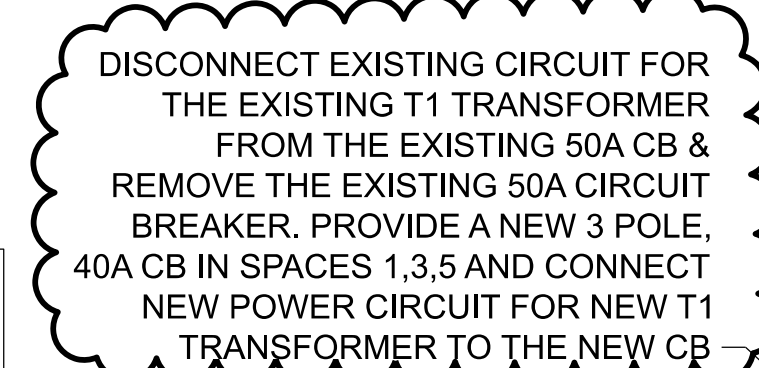


CONSTRUCTION NOTES:
A. FIELD VERIFY AND CORRECTLY LABEL BRANCH LOADS. DRAWINGS MAY BE INACCURATE DUE TO MISSING HISTORICAL DRAWINGS. HIGH LEG AND COLOR-CODE MAY BE WRONG DUE TO LACK OF HISTORICAL DRAWINGS. PROVIDE CORRECT COLOR CODE IDENTIFICATION ON ALL CONDUCTOR TERMINATIONS & AT HIGH LEG BUSSES.

B. CONDUCTOR COLOR CODE SHALL BE: PHASE A-BLUE, PHASE B-RED, PHASE C(HIGH LEG)-ORANGE, NEUTRAL-WHITE, GROUND-GREEN OR BARE UNINSULATED.

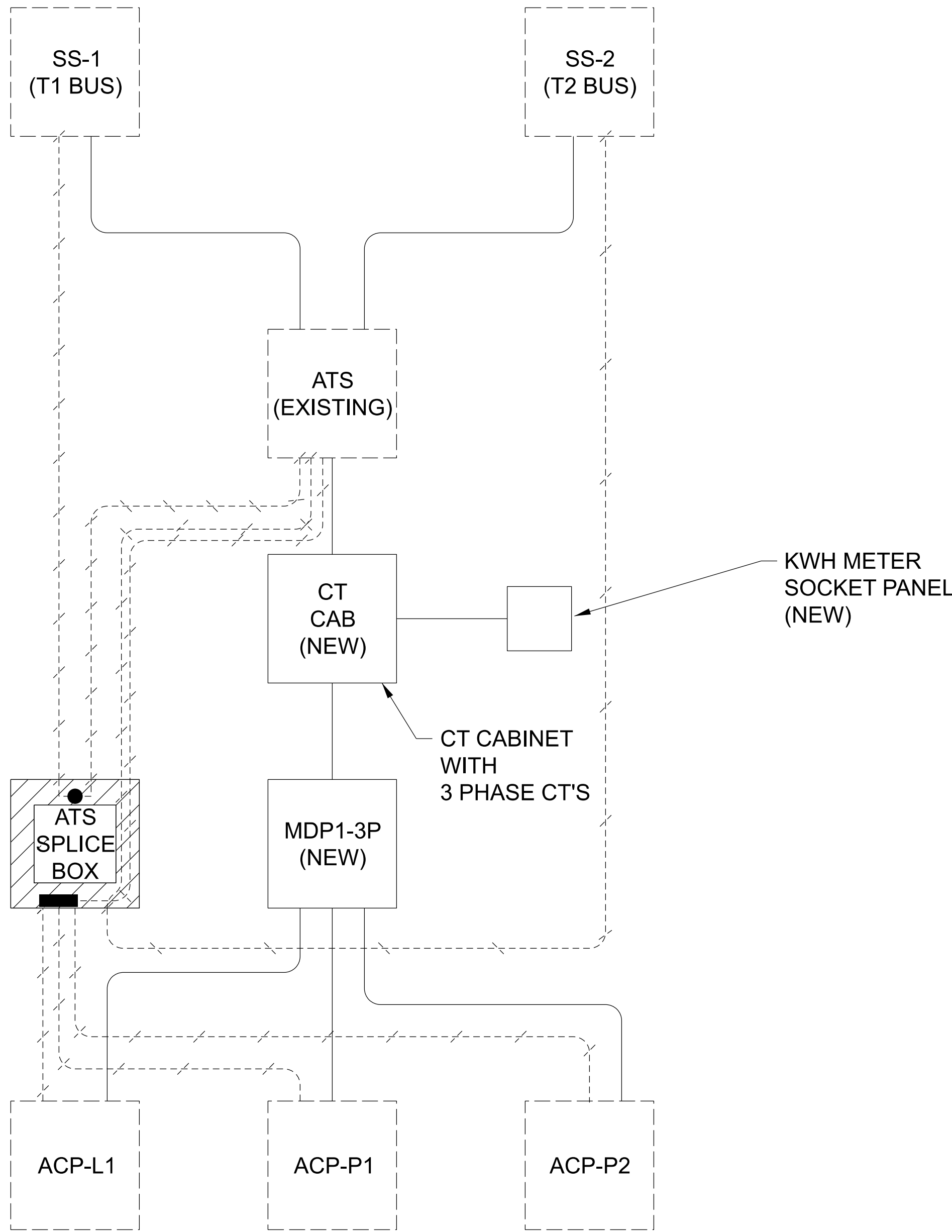
GENERAL NOTES:

1. THIS DRAWING WAS DEVELOPED USING EXISTING HISTORICAL DRAWINGS AND VISUAL FIELD OBSERVATIONS. BOLTED PANELBOARD / EQUIPMENT COVERS WERE NOT REMOVED, THUS PANELBOARD / EQUIPMENT INTERIORS WERE NOT SURVEYED.
2. THIS IS A NEW DRAWING.
3. WORK SCOPE FOR THIS PROJECT (8009313 & 8008922) IS SHOWN WITHIN CLOUDED AREAS.
4. WORK SCOPE AS DIRECTED BY JEA:
 - A. IN EACH PANEL/ENCLOSURE/SWITCH/ETC., VERIFY USING ELECTRICAL TESTING INSTRUMENTS THAT THE HI-LEG IS CONNECTED TO PHASE C. START TESTING AT THE SS TRANSFORMERS AND CONTINUE TO THE LAST PIECE OF EQUIPMENT.
 - B. IN EACH PANEL/ENCLOSURE/SWITCH/ETC., PROVIDE COLORED ELECTRICAL TAPE ON EACH CONDUCTOR TO PROPERLY IDENTIFY THE PHASE, NEUTRAL AND GROUND CONDUCTORS. COLORS SHALL BE: PHASE A - BLUE, PHASE B - RED, PHASE C (HIGH LEG) - ORANGE, NEUTRAL - WHITE, GROUND - GREEN. INCLUDE LABELING ON CONDUCTORS AT SS TRANSFORMERS SECONDARY TERMINALS.
 - C. VERIFY FEEDER CONDUCTOR SIZES TO EACH PANELBOARD. REPORT TO JEA REPRESENTATIVE ANY DISCREPANCIES FOUND COMPARED TO THIS DRAWING.
 - D. PERFORM POINT TO POINT SURVEY OF EXISTING CIRCUITS NOTED AS TBD IN PANEL ACP-P2 & PANEL ACP-P1, AND DETERMINE THE LOAD DESCRIPTION AND LOAD ELECTRICAL VALUES. REPORT WIRE SIZE, BREAKER SIZE, LOAD DESCRIPTION TO JEA PM. ALSO, PERFORM DEMAND LOAD MEASUREMENT OF CURRENT IN EACH PANEL PHASE FOR A 24 HOUR PERIOD.
 - E. PERFORM POINT TO POINT SURVEY OF EXISTING CIRCUITS NOTED AS TBD IN PANEL ACP-L1, AND DETERMINE THE LOAD DESCRIPTION AND LOAD ELECTRICAL VALUE. REPORT WIRE SIZE, BREAKER SIZE, LOAD DESCRIPTION TO JEA PM. ALSO, PERFORM DEMAND LOAD MEASUREMENT OF CURRENT IN EACH PANEL PHASE FOR A 24 HOUR PERIOD.
 - F. PERFORM POINT TO POINT SURVEY OF EXISTING CIRCUITS NOTED AS TBD IN PANEL DCP-EM, AND DETERMINE THE LOAD DESCRIPTION AND LOAD ELECTRICAL VALUE. REPORT WIRE SIZE, BREAKER SIZE, LOAD DESCRIPTION TO JEA PM.
 - G. PERFORM DEMAND LOAD MEASUREMENT OF CURRENT AT ATS LOAD TERMINAL PHASES FOR A 24 HOUR PERIOD.
5. RATING REQUIRES ADDITIONAL FIELD VERIFICATION OR VERIFICATION WITH JEA RECORDS. REPORT TO JEA REPRESENTATIVE ANY DISCREPANCIES FOUND COMPARED TO THIS DRAWING.
6. PROVIDE NAMEPLATE ON EXTERIOR COVER OF PANEL STATING "WARNING - PHASE C IS THE DELTA HIGH LEG PHASE - DO NOT CONNECT 120V LOADS TO PHASE C".
7. SS-2 TRANSFORMER SECONDARY CONDUCTORS ROUTED IN NEW UNDERGROUND CONDUITS TO ATS - CONDUIT # 543A, 543B.
8. THE CONTRACTOR SHALL INSTALL THE CT CABINET (36" X 36" X 12", NEMA 3R, STAINLESS STEEL WITH HINGED DOOR). THE OWNER WILL FURNISH THREE (3) CTs (ITEM# METCT001) AND ONE (1) METER SOCKET (ITEM# METSO07). THE CONTRACTOR SHALL INSTALL THE CTs, METER PANEL AND ALL REQUIRED WIRING FOR THE METER PANEL & CTs. THE CONTRACTOR SHALL INSTALL CT#3 TO CONTAIN THE HIGH LEG, MARKED WITH ORANGE PHASING TAPE AND BE THE RIGHT-MOST CT IN THE CT CABINET. REFERENCE RELATED SECTIONS OF JEA'S LATEST RULES AND REGULATIONS FOR ELECTRIC SERVICE.
9. NEW FEEDER (CONDUIT & CONDUCTORS) REPLACING EXISTING FEEDER.
10. SIZE TVSS CIRCUIT BREAKER PER MANUFACTURER'S RECOMMENDATION.
11. SS-1 TRANSFORMER SECONDARY CONDUCTORS ROUTED IN NEW UNDERGROUND CONDUITS TO ATS (CONDUITS # 542A, #542B.)
12. NEW ATS LOAD CIRCUIT ROUTED FROM ATS THRU CT CABINET AND TERMINATING IN NEW PANEL MBP1-3P.
13. IF EXISTING TERMINAL LUGS IN THE ATS ARE NOT DESIGNED AND APPROVED TO ACCEPT TWO #4/0 CONDUCTORS PER PHASE, REPLACE THE TERMINALS WITH THE PROPER APPROVED AND CODE COMPLYING TERMINALS RECOMMENDED BY ASCO FOR THEIR ATS. THIS APPLIES TO ALL TERMINAL LUGS, I.E., UTILITY 1, UTILITY 2 AND LOAD.



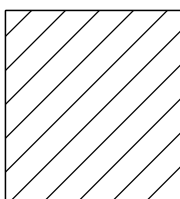
 <p>worley DELIVERING SUSTAINABLE CHANGE</p> <p>ONE MERIDIAN BOULEVARD, SUITE 2002, WYOMISSING, PA, 19610 FL COA 8777</p>	<p>PROFESSIONAL ENGINEER'S SEAL</p> <p>LATEST REVISION ORIGINALLY PREPARED UNDER THE RESPONSIBLE SUPERVISION OF</p> <p>PE: <u>DONALD RAY DUCOTE</u></p> <p>LIC. NO.: <u>101442</u></p> <p>STATE: <u>FL</u></p> <p>DATE: <u>08/18/25</u></p>		REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING	<p>T1 REPLACEMENT AND TWO FEEDER ADDITIONS</p> <p>LOW VOLTAGE</p> <p>MERRILL ROAD 69kV / 26kV SUBSTATION</p> <p>SCALE: AS SHOWN</p>	<p>SHEET NUMBER: LV01</p> <p>PROJECT ID: ME2024</p> <p>SEQUENCE #: 26 OF 27</p>
	<p>0</p> <p>08/18/25</p> <p>8009313 8008922</p> <p>ISSUED FOR CONSTRUCTION</p> <p>SAG</p> <p>DRD</p> <p>DATE 9/20/20</p> <p>BY RMS</p> <p>REVIEW JWR</p> <p>DRAFTING</p> <p>DATE 9/20/20</p> <p>BY RMS</p> <p>REVIEW JWR</p>		<p>TRANSMISSION & SUBSTATION PROJECTS - 20410</p> <p>PROJ #: 8009313 & 8008922</p>								

JEA/MP/24-01/24/25 (06/25) LV02.dwg 2024-06-25 11:02



1 LV SYSTEM BLOCK DIAGRAM
LV02 NONE

LEGEND



EQUIPMENT REMOVAL



WIRING REMOVAL



NEW WIRING



EXISTING EQUIPMENT

worley
DELIVERING SUSTAINABLE CHANGE
ONE MERIDIAN BOULEVARD, SUITE 2002,
WYOMISSING, PA, 19610
FL COA 8777

ISSUED FOR
CONSTRUCTION

PROFESSIONAL
ENGINEER'S SEAL

LATEST REVISION
ORIGINALLY PREPARED UNDER
THE RESPONSIBLE SUPERVISION OF
PE: DONALD RAY DUCOTE
LIC. NO.: 101442
STATE: FL
DATE: 06/27/25

DONALD RAY DUCOTE
LICENSE
No 101442
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REV	DATE	PROJ #	REVISION DESCRIPTION	BY	REVIEW	ENGINEERING
0	06/27/25	8009313 9008922	ISSUED FOR CONSTRUCTION	SAG	DRD	DATE 9/2020 BY RMS REVIEW JWR DRAFTING
						DATE 9/2020 BY RMS REVIEW JWR

T1 REPLACEMENT AND TWO FEEDER ADDITIONS
LOW VOLTAGE BLOCK DIAGRAM

MERRILL ROAD 69kV / 26kV SUBSTATION

TRANSMISSION & SUBSTATION PROJECTS - 20410

PROJ #: 8009313 & 8008922

SHEET NUMBER: LV02
PROJECT ID: ME2024
SEQUENCE #: 27 OF 27