

02/03/98

NOTES

- 1 AT THESE LOCATIONS, PROVIDE ELECTRICAL DUCT IN ACCORDANCE WITH NEC REQUIREMENTS FOR AN APPROVED RACEWAY FOR ELECTRICAL CIRCUITS. SEE TABLE "B"
- 2 INSTALL ALL BORE PITS OUTSIDE THE CLEAR ZONE, AS DEFINED BY THE 2011 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY THE ENGINEER.
- 3 LOCATE ALL JUNCTION BOXES OUTSIDE CLEAR ZONE AND IN AN AREA UNLIKELY TO BE USED BY TRAFFIC.
- 4 LOCATE PROPOSED CONTROL SYSTEM IN AN AREA ACCESSIBLE FOR MAINTENANCE VEHICLES AND OUTSIDE OF CLEAR ZONE AS DEFINED BY THE 2011 AASHTO ROADSIDE DESIGN GUIDE.
- 5 INSTALL RIGID GALVANIZED CONDUIT (RGC) ABOVE GROUND, AND POLYVINYL CHLORIDE (PVC) SCHEDULE 40 CONDUIT UNDERGROUND, EXCEPT AS MODIFIED ON THESE PLANSHEETS OR IN APPLICABLE SECTIONS OF THE ROADWAY STANDARD DRAWINGS FOR THIS PROJECT.
- 6 ALL IN GROUND JUNCTION BOXES SHALL BE 18" HIGH AND ALL FORMED OPENINGS SHALL BE 6" HIGH, UNLESS OTHERWISE NOTED.
- 7 CONTRACTOR SHALL RECORD THE GPS COORDINATES OF EACH JUNCTION BOX WITHIN 3' ACCURACY, IN THE JUNCTION BOX SUMMARY, TABLE C. PROVIDE A COPY OF THE JUNCTION BOX SUMMARY WITH THESE COORDINATES TO THE LIGHTING ENGINEER DURING PROJECT INSPECTION.
- 8 POLE NUMBERING CONVENTION: CONTROL SYSTEM-POLE #-CKT # (A-3-2).
- 9 JUNCTION BOXES SHOWN NEAR LIGHT STANDARDS (LSJB & HMJB) ARE SHOWN FOR CLARITY. THESE JUNCTION BOXES ARE TO BE USED AS A TEE POINT FOR CIRCUITRY TO THE STANDARD, AND SHALL BE INSTALLED FOR BEST ALIGNMENT OF CIRCUITRY WHILE MAINTAINING THE OFFSETS SHOWN IN TABLE "C". SEE STANDARD DRAWINGS 1401.01 AND 1406.01 FOR INSTALLATION DETAILS.
- 10 SERVICE POLE SHALL NOT BE INSTALLED PRIOR TO COORDINATION WITH THE LOCAL UTILITY. PROVIDE PROOF OF COORDINATION AND PROOF OF NEED TO THE ENGINEER AFTER CONSULTING WITH THE LOCAL UTILITY. THE SERVICE POLE MAY BE DELETED FROM THE CONTRACT IF NOT REQUIRED. REFER TO ARTICLE 1407-3 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.
- 11 WHERE A CURRENT TRANSFORMER (CT) CABINET IS REQUIRED, THE CT CABINET AND ASSOCIATED HARDWARE IS INCIDENTAL TO THE PAY ITEM FOR THE LIGHTING CONTROL PANEL.
- 12 EXISTING LIGHTING SHOWN FOR INFORMATION ONLY. UNLESS OTHERWISE NOTED ALL EXISTING POLES AND CONTROL SYSTEMS SHALL BE REMOVED. REMOVE ALL CONDUTOR. EXISTING FOUNDATIONS AND CONDUIT MAY BE REMOVED OR ABANDONED. SEE ARTICLE 1400-10 OF THE STANDARD SPECIFICATIONS. REFER TO LIGHTING SPECIAL PROVISIONS.
- 13 GENERAL NOTE: OFFSET TWIN ARM LIGHT STANDARDS A MINIMUM OF 2' FROM MEDIAN DITCH.
- 14 SEE SHEET E-10 FOR BARRIER RAIL CONDUIT DETAILS.
- 15 CONDUIT AT THIS LOCATION TO BE INSTALLED FOR FUTURE LIGHTING. CONTRACTOR TO INSTALL CONDUIT AS A CONTINUOUS RUN WITH 90 DEGREE TURN UP EVERY 110 FEET. STUB AND CAP TURN-UPS 18" ABOVE GRADE. INSTALL CONDUIT ADJACENT TO SIDEWALK, UNLESS INSUFFICIENT RIGHT OF WAY OR OTHER UTILITY CONFLICTS EXIST.
- 16 SEE SHEET E-17 FOR MOUNTING OF POLES ON MOMENT SLAB/BARRIER OVER WALL. THE CONTRACTOR SHALL FURNISH AND INSTALL ANCHOR BOLTS, SIZED AS RECOMMENDED BY THE POLE MANUFACTURER, FOR THESE POLES. INSTALL FEEDER CIRCUIT IN BARRIER RAIL. SEE STRUCTURE PLANS FOR LIGHT PEDESTAL DETAILS.
- 17 THIS POLE IS NOT IN MEDIAN BARRIER, USE R2 FOUNDATION BASED ON STANDARD DRAWING 1405.01, SHEET 1 OF 3.
- 18 SEE SHEET E-18 FOR MOUNTING OF POLES ON GROUND-MOUNTED MOMENT SLAB IN MEDIAN, NEAR RETAINING WALL. THE CONTRACTOR SHALL FURNISH AND INSTALL ANCHOR BOLTS, SIZED AS RECOMMENDED BY THE POLE MANUFACTURER, FOR THESE POLES. SEE STRUCTURE PLANS FOR LIGHT PEDESTAL DETAILS.
- 19 NOTE DELETED.
- 20 PLACE THIS JUNCTION BOX WITHIN 10' OF THE CAMERA. THE JUNCTION BOX SYMBOL HERE IS FOR REFERENCE ONLY, NOT THE EXACT LOCATION FOR INSTALLATION.
- 21 INSTALL P1 MAIN CB, CAMERA CONTROL PANEL, AND CONTROL SYSTEM "FF" AS SHOWN IN SHEETS E13-E16.
- 22 PLACE POLE AT LEAST 5' BEHIND RETAINING WALL.
- 23 AVOID EXISTING BRIDGE PIER FOOTERS, WHEN INSTALLING FEEDER CIRCUIT CONDUIT.
- 24 SEE SHEET E-22 FOR STATE STREET ELECTRICAL CONDUIT SYSTEM DETAILS.
- 25 FEEDER CIRCUIT SHOWN UNDER SHOULDER FOR CLARITY. INSTALL FEEDER CIRCUIT IN GRASSY MEDIAN, OR MEDIAN BARRIER AS APPROPRIATE BASED ON SITE CONDITIONS.

PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

LEGEND

- PROPOSED LIGHT STANDARD TYPE MTLs 35' MH WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION IN BRIDGE RAIL, & 195W MAX LED ROADWAY LUMINAIRE WITH HSS. IES DISTRIBUTION: TYPE II. MAXIMUM BUG RATING 1-0-3. COLOR TEMPERATURE WILL BE 3000K. LUMINAIRE AND POLE FINISH SHALL BE GREEN IN COLOR. POLE SHAFT HEIGHT MAY VARY BASED ON INSTALLATION LOCATION.
- PROPOSED LIGHT STANDARD TYPE MTLs 35' MH WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION TYPE R1 OR R2, JUNCTION BOX & 195W MAX LED ROADWAY LUMINAIRE WITH HSS. IES DISTRIBUTION: TYPE II. MAXIMUM BUG RATING 1-0-3. COLOR TEMPERATURE WILL BE 3000K. LUMINAIRE AND POLE FINISH SHALL BE GREEN IN COLOR. POLE SHAFT HEIGHT MAY VARY BASED ON INSTALLATION LOCATION.
- PROPOSED LIGHT STANDARD TYPE MTLs 35' MH WITH 15' TWIN ARMS. INCLUDES STANDARD FOUNDATION M1 OR M2 IN MEDIAN BARRIER, UNLESS OTHERWISE NOTED, WITH 195W MAX LED ROADWAY LUMINAIRE WITH HSS. IES DISTRIBUTION: TYPE II. MAXIMUM BUG RATING 1-0-3. COLOR TEMPERATURE WILL BE 3000K. LUMINAIRE AND POLE FINISH SHALL BE GREEN IN COLOR. POLE SHAFT HEIGHT MAY VARY BASED ON INSTALLATION LOCATION.
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- EXISTING SINGLE ARM LIGHT STANDARD TO BE REMOVED AND DISPOSED OF, UNLESS OTHERWISE NOTED IN A DELTA NOTE. ABANDON OR REMOVE FOUNDATION.
- PROPOSED LIGHT STANDARD TYPE MTLT 45' WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION IN BRIDGE RAIL, & 150W MAX LED ROADWAY LUMINAIRE. IES DISTRIBUTION:TYPE II OR III AS REQUIRED. MAXIMUM BUG RATING 3-0-3. COLOR TEMPERATURE WILL BE 3000K. LUMINAIRE AND POLE FINISH SHALL BE GREEN IN COLOR.
- PROPOSED LIGHT STANDARD TYPE MTLT 45' WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION TYPE R1 OR R2, JUNCTION BOX & 150W MAX LED ROADWAY LUMINAIRE. IES DISTRIBUTION:TYPE II OR III AS REQUIRED. MAXIMUM BUG RATING 3-0-3. COLOR TEMPERATURE WILL BE 3000K. LUMINAIRE AND POLE FINISH SHALL BE GREEN IN COLOR. POLE SHAFT HEIGHT MAY VARY BASED ON INSTALLATION LOCATION.
- PROPOSED LIGHT STANDARD TYPE MTLT 45' MH WITH 15' TWIN ARMS. INCLUDES STANDARD FOUNDATION M1 OR M2 IN MEDIAN BARRIER, UNLESS OTHERWISE NOTED. INCLUDE 150W MAX LED ROADWAY LUMINAIRE. IES DISTRIBUTION: TYPE II OR III AS REQUIRED. MAXIMUM BUG RATING 3-0-3. COLOR TEMPERATURE WILL BE 3000K. LUMINAIRE AND POLE FINISH SHALL BE GREEN IN COLOR. POLE SHAFT HEIGHT MAY VARY BASED ON INSTALLATION LOCATION.
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- EXISTING CONTROL SYSTEM, TO BE DELIVERED TO THE DIVISION.
- PROPOSED CONTROL SYSTEM WITH JUNCTION BOX. SIZE BREAKERS AS SHOWN IN LOAD SCHEDULES ON PLANS.
- EXISTING ELECTRICAL JUNCTION BOX. TO BE REMOVED.
- PROPOSED ELECTRICAL JUNCTION BOX. SIZED AS SHOWN IN TABLE C, SHEETS E-1A - E-1B.
- REFERENCE TO CORRESPONDING NOTE AS NUMBERED.
- PROPOSED FEEDER CIRCUIT. CONTROL SYSTEM (A), CIRCUIT NUMBER (1) PLAN SYMBOL (8). SEE TABLE A, THIS SHEET.
- PROPOSED 30' CLASS 4 SERVICE POLE AND LATERAL 3 #1/0 USE 2" CONDUIT
- PROPOSED ELECTRICAL DUCT SIZE 2", 3" OR 4" TYPE (TL) OR (BD) LOCATION: SEE TABLE B, SHEET E-1-A - E-1-B.
- 2", 3" OR 4" ELEC. DUCT JA & BD
- PROPOSED FORMED OPENING.
- PROPOSED UNDERPASS LUMINAIRE, TYPE WM, 70W MAX LED

SCOPE OF WORK

REMOVE EXISTING ELECTRICAL JUNCTION BOXES, FEEDER CIRCUITS, AND CONDUCTORS. ABANDON CONDUITS AND ELECTRICAL DUCTS. DELIVER EXISTING CONTROL PANELS TO THE DIVISION.

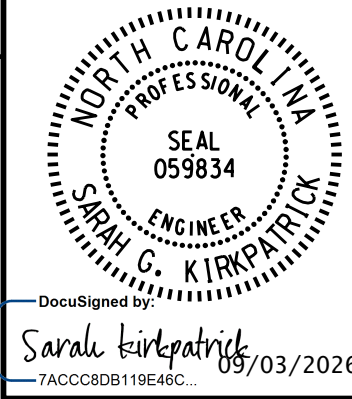
PLACE ROADWAY LIGHTING SYSTEM INTO SERVICE BY PROVIDING AND INSTALLING LIGHT STANDARDS WITH LIGHT EMITTING DIODE LUMINAIRES, UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES. ALSO INSTALL CAMERA CONTROL SYSTEM, SERVICE DISCONNECT, AND TRANSFORMER FOR POWERING ITS CAMERA AT I-26/AMBOY RD INTERCHANGE.

DESIGN CRITERIA

- 0.6 AVERAGE FOOTCANDLE ON TRAVEL LANES
- 4:1 AVERAGE TO MINIMUM UNIFORMITY RATIO ON TRAVEL LANES
- 2018 AASHTO ROADWAY LIGHTING DESIGN GUIDE
- 2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 6TH EDITION AND LATEST INTERIM SPECIFICATIONS VALID AT THE TIME OF LETTING
- FATIGUE CATEGORY II SHALL BE USED IN DESIGN
- 2020 NATIONAL ELECTRICAL CODE
- 2011 AASHTO ROADSIDE DESIGN GUIDE
- DESIGN LIGHT STANDARD SUPPORT FOR BASIC WIND SPEED OF 80 MPH

TABLE "A" CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE		
PLAN SYMBOL	DESCRIPTION	
8	2 #8 Ø 1 #10G 1.5" P	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR 1.5" PVC CONDUIT
*8	2 #8 Ø 1 #10G	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR
6	2 #6 Ø 1 #8G 1.5" P	2 AWG SIZE 6 CONDUCTOR (BK & RD) 1 AWG SIZE 8 GROUNDING CONDUCTOR 1.5" PVC CONDUIT
*6	2 #6 Ø 1 #8G	2 AWG SIZE 6 CONDUCTOR (BK & RD) 1 AWG SIZE 8 GROUNDING CONDUCTOR
4	2 #4 Ø 1 #6G 1.5" P	2 AWG SIZE 4 CONDUCTOR (BK & RD) 1 AWG SIZE 6 GROUNDING CONDUCTOR 1.5" PVC CONDUIT
*4	2 #4 Ø 1 #6G	2 AWG SIZE 4 CONDUCTOR (BK & RD) 1 AWG SIZE 6 GROUNDING CONDUCTOR
2	2 #2 Ø 1 #4G 1.5" P	2 AWG SIZE 2 CONDUCTOR (BK & RD) 1 AWG SIZE 4 GROUNDING CONDUCTOR 1.5" PVC CONDUIT
*2	2 #2 Ø 1 #4G	2 AWG SIZE 2 CONDUCTOR (BK & RD) 1 AWG SIZE 4 GROUNDING CONDUCTOR

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LEGEND (CONT.)

- EXISTING FEEDER CIRCUIT, REMOVE CONDUCTOR AND ABANDON CONDUIT.
- EXISTING ELECTRICAL DUCT SIZE 2", 3" OR 4" TO BE ABANDONED.
- EXISTING ELEC. DUCT
- PROPOSED P1 MAIN CB, CAMERA CONTROL PANEL, AND CONTROL SYSTEM "FF". SIZE BREAKERS AS SHOWN IN LOAD SCHEDULES ON PLANS.
- PROPOSED 2" ELECTRICAL DUCT, TYPE (BD) FOR FUTURE DUKE ENERGY PROGRESS LIGHTING. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT. SEE SPECIAL PROVISIONS TITLED "STREET LIGHTING CONDUIT" FOR ADDITIONAL REQUIREMENTS SEE SHEET E-7 TO E-9, FOR LOCATIONS WHERE THIS DUCT SHALL BE INSTALLED. SEE DELTA NOTE 15.
- PROPOSED UNDERPASS BREAKER PANEL
- PROPOSED COMBINATION PANEL WITH MAIN BREAKER AND JUNCTION BOX. REFER TO COMBINATION PANEL MOUNTED ON 6X6 WOODEN POST OPTION OF THE 1700.01 SECTION OF THE STANDARD DRAWINGS, AND SHEET E-23.

ROADWAY STANDARDS

THE FOLLOWING ROADWAY ENGLISH STANDARDS AS APPEAR IN "NCDOT ROADWAY STANDARD DRAWINGS", ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD NO.	TITLE
1404.01	LIGHT STANDARDS
1405.01	STANDARD FOUNDATION
1406.01	LIGHT STANDARD LUMINAIRES
1407.01	ELECTRIC SERVICE POLE AND LATERAL
1408.01	LIGHT CONTROL SYSTEM
1409.01	ELECTRICAL DUCT
1410.01	FEEDER CIRCUITS
1411.01	ELECTRICAL JUNCTION BOXES
1412.01	UNDERPASS LIGHTING
1700.01	ELECTRICAL SERVICE OPTIONS (USE ELECTRICAL CONNECTION DETAILS SHOWN ON SHEET E-23 IN LIEU OF SHEET 2 OF STANDARD DRAWING 1700.01)

ALL WORK SHALL BE IN CONFORMANCE WITH DIVISION 14 OF THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JANUARY 2024.

ABBREVIATIONS

BD	BURIED	PVC	PVC SCHEDULE 40 CONDUIT
LT	LIGHT	RGC	RIGID GALVANIZED STEEL CONDUIT
TL	TRENCHLESS	C	CONDUIT
MH	MOUNTING HEIGHT	CKT	CIRCUIT
Ø	PHASE	N	NEUTRAL
SER LAT	SERVICE LATERAL	G	GROUND
IGJB	IN GROUND JUNCTION BOX	HM	HIGH MAST
LED	LIGHT EMITTING DIODE	LSJB	LIGHT STANDARD JUNCTION BOX
HMJB	HIGH MAST JUNCTION BOX	CSJB	CONTROL SYSTEM JUNCTION BOX

COMPUTED BY: MSQ DATE: 4-23-26
CHECKED BY: RGH DATE: _____

SYSTEMS DESIGNER NAME\$\$\$\$\$

TABLE "C" JUNCTION BOX AND FORMED OPENINGS SUMMARY															
CONTROL SYSTEM "F"														GPS LOCATION 	
SHEET	LABEL	LOCATION AND OFFSET	TYPE, PAY ITEM & SIZE											LAT/LONG	
			IN GROUND			LIGHT STANDARD			HIGH MAST			CONTROL SYSTEM	FORMED OPENING		FORMED OPENING
			IG18 18"x12"		IG36 36"x24"	LS18 18"x12"		LS36 36"x24"	HM18 18"x12"		HM36 36"x24"	CS36 36"x24"	F012 10"x12"		F018 18"x12"
E-7	CSF	2' FROM CSF									X				
E-6	F-1-1JB	5' FROM LIGHT STANDARD F-1-1				X									
E-6	F-2-1JB	5' FROM LIGHT STANDARD F-2-1				X									
E-7	F-12-2JB	5' FROM LIGHT STANDARD F-12-2				X									
E-7	F-13-2JB	5' FROM LIGHT STANDARD F-13-2						X							
E-7	F-16-2JB	5' FROM LIGHT STANDARD F-16-2						X							
E-7	F-17-2JB	5' FROM LIGHT STANDARD F-17-2						X							
E-7	F-18-2JB	5' FROM LIGHT STANDARD F-18-2						X							
E-7	F-19-4JB	5' FROM LIGHT STANDARD F-19-4				X									
E-7	F-20-4JB	5' FROM LIGHT STANDARD F-20-4				X									
E-7	F-21-4JB	5' FROM LIGHT STANDARD F-21-4				X									
E-7	F-26-3JB	5' FROM LIGHT STANDARD F-26-3				X									
E-7	F-29-3JB	5' FROM LIGHT STANDARD F-29-3				X									
E-7	F-30-3JB	5' FROM LIGHT STANDARD F-30-3				X									
E-7	F-31-3JB	5' FROM LIGHT STANDARD F-31-3				X									
E-7	F-32-3JB	5' FROM LIGHT STANDARD F-32-3				X									
E-7	F-33-3JB	5' FROM LIGHT STANDARD F-33-3				X									
E-7	F-34-3JB	5' FROM LIGHT STANDARD F-34-3				X									
E-7	F-35-3JB	5' FROM LIGHT STANDARD F-35-3				X									
E-7	F-36-3JB	5' FROM LIGHT STANDARD F-36-3				X									
E-7	F-39-3JB	5' FROM LIGHT STANDARD F-39-3				X									
E-7	F-40-4JB	5' FROM LIGHT STANDARD F-40-4				X									
E-6	F-41-1JB	5' FROM LIGHT STANDARD F-41-1				X									
E-6	JBF1	-L- STA. 14+15	X												
E-7	JBF2	-Y2RPC- STA. 25+85, 27' RT			X										
E-7	FOF3	-Y2RPC- STA. 26+18										X			
E-7	FOF4	-Y2RPC- STA. 30+86										X			
E-7	JBF5	-Y2RPC- STA. 34+42, 38' LT			X										
E-7	JBF6	-RP23- STA. 11+14, 22' RT			X										
E-7	FOF7	REMOVED FROM DESIGN.													
E-7	JBF8	-Y2RPC- STA. 31+67, 38' LT	X												
E-7	FOF9	-Y2RPB- STA. 21+43										X			
E-7	JBF10	-Y2RPB- STA. 21+96, 31' RT	X												
E-7	JBF11	-L- STA. 41+75			X										
E-7	FOF12	-Y2RPB- STA. 16+02										X			
E-7	JBF15	-Y2RPB- STA. 15+28, 22' RT	X												
E-7	JBF16	-L- STA. 43+25, 76' LT	X												
E-7	FOF17	-L- STA. 43+58										X			
E-7	JBF18	-Y2RPC- STA. 24+87, 22' LT			X										
E-7	JBF13	-L- STA. 42+71, 85' RT	X												
E-7	FOF20	-L- STA. 43+29										X			
CSF TOTALS			6		5	18		4				1	6		

TABLE "C" CONTINUED ON NEXT PAGE

PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-1A

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ENGINEER
SARAH G. KIRKPATRICK

DocuSign
Sarah Kirkpatrick
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09/03/2026

TABLE "B" ELECTRICAL DUCT SUMMARY (ESTIMATED LENGTH IN FEET)										
			TYPE							
			TRENCHLESS (TL) FEET				BURIED (BD) FEET			
LOCATION	RACEWAY 	SHEET	SIZE 2"	SIZE 3"	SIZE 4"	SIZE 6"	SIZE 2"	SIZE 3"	SIZE 4"	SIZE 6"
-L- STA. 14+15		E-6		50						
-L- STA. 41+75	JBF11- JBF18	E-7			70		75			
-L- STA. 41+75		E-7		75						
-Y2RPC- STA. 24+87	JBF18- F-13-2	E-7			40		55			
-Y2RPB- STA. 21+96		E-7		40						
-L- STA. 48+38		E-7		165						
-Y2RPC- STA. 34+42	JBF5- F-17-2	E-7			65		70			
-RP23- STA. 11+14	JBF6- CSF	E-7			75		95			
-Y2- STA. 24+53	F-18-2- JBF6	E-7			150		215			
-Y2RPB- STA. 28+22		E-7		65						
-Y2- STA. 21+14		E-7		115						
-L TIE WB-STA.12+84		E-6		60						
-Y2RPC- STA. 31+67		E-7		50						
CSF TOTALS				620	400		510			

TABLE "B" CONTINUED ON NEXT PAGE

SEE SHEET "E1" FOR
LEGEND & △ NOTES

SEE SHEET "E1" FOR
LEGEND & $\triangle$ NOTES

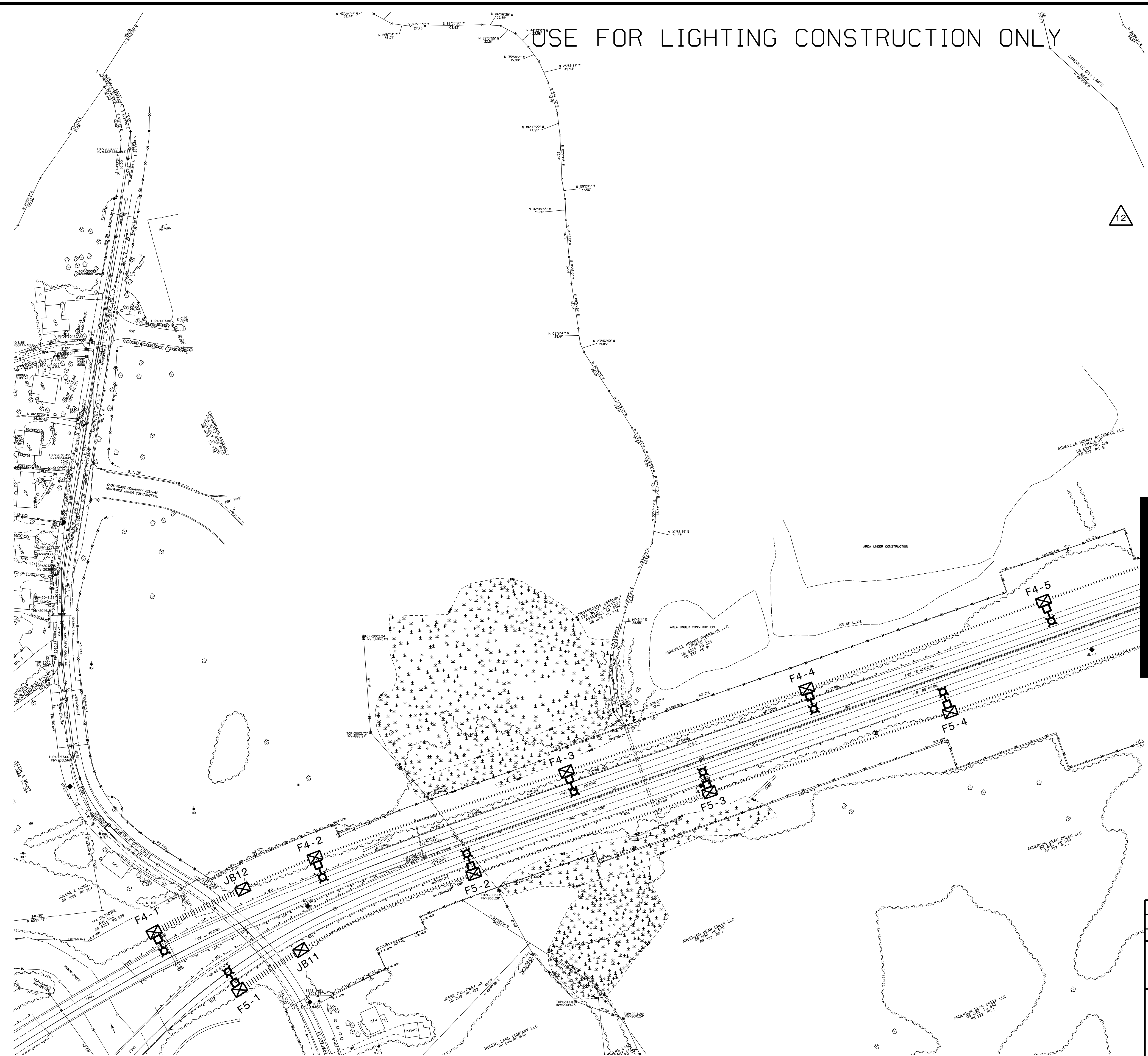
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Sarah Kirkpatrick

09/03/2026

SEE SHEET "E1" FOR
LEGEND & $\triangle$ NOTES

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PROJECT REFERENCE NO.
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SHEET NO.
E-2

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SEE SHEET "E1" FOR
LEGEND & △ NOTES

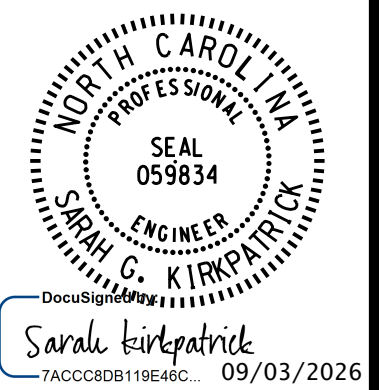
MATCHLINE-L- STA. 33+90,
SEE SHEET E-3

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT EXISTING LIGHTING I-26, WEST OF BREVARD RD INTERCHANGE			
BUNCOMBE COUNTY			
Drawn By: MSQ	Approved By: RGH	Dwg No.:	

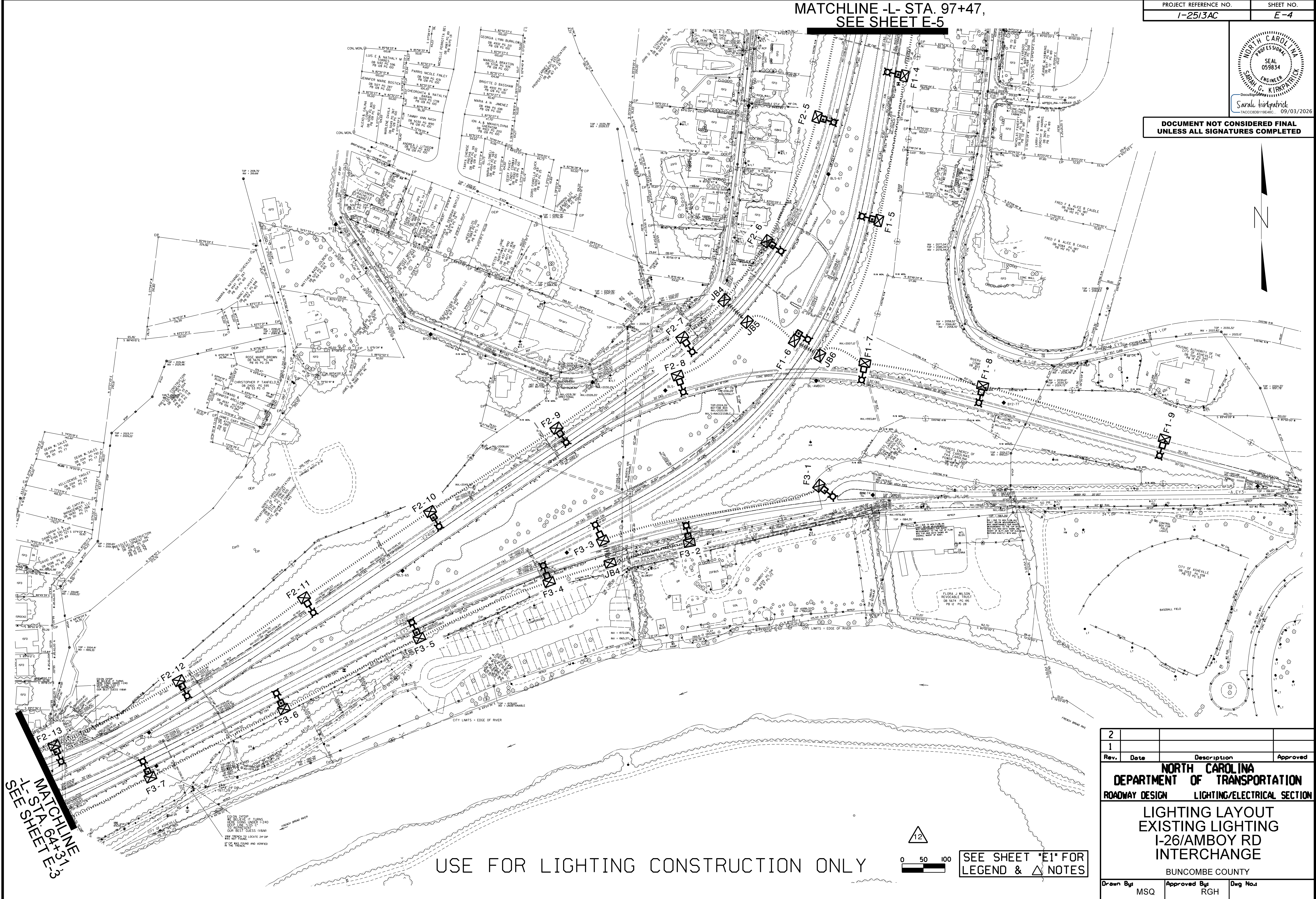
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MATCHLINE -L- STA. 97+47,
SEE SHEET E-5

PROJECT REFERENCE NO. 1-2513AC
SHEET NO. E-4



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SEE SHEET E-1
MATCHLINE -L- STA. 97+47,
SEE SHEET E-5

USE FOR LIGHTING CONSTRUCTION ONLY



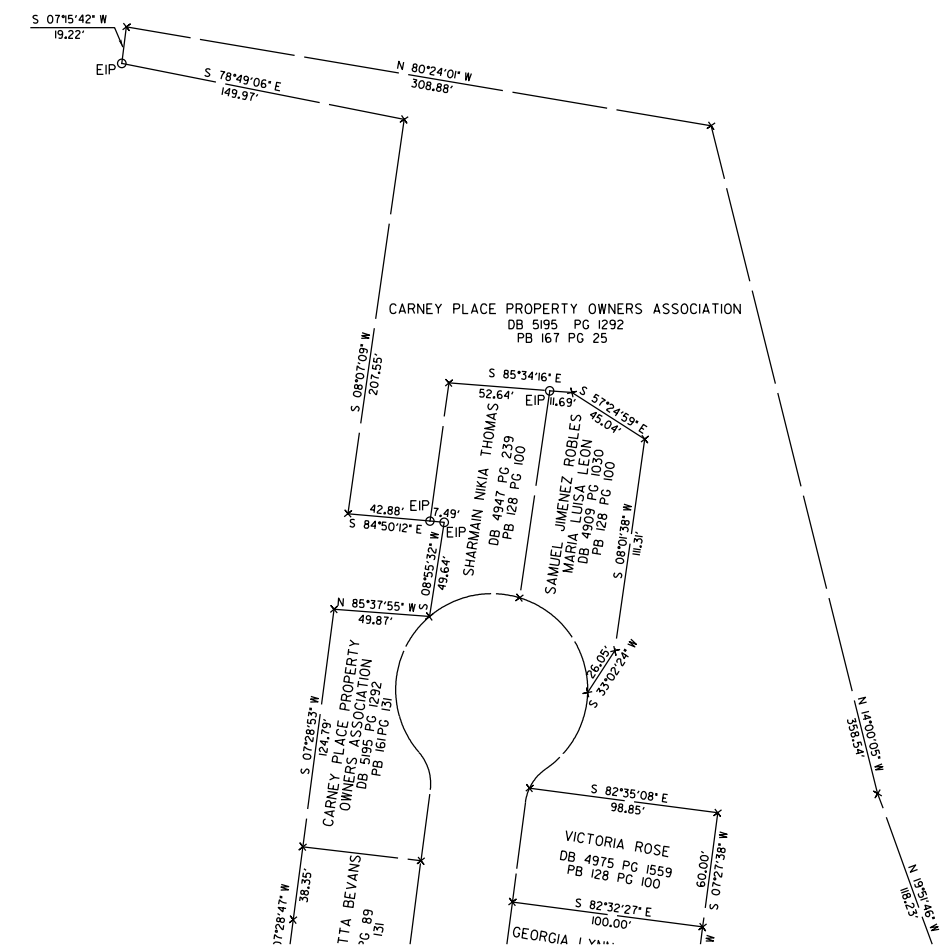
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SEE SHEET "E1" FOR
LEGEND & △ NOTES

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT EXISTING LIGHTING I-26/AMBOY RD INTERCHANGE			
BUNCOMBE COUNTY			
Drawn By	MSQ	Approved By	RGH
Dwg No.			

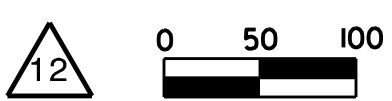


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MATCHLINE -L- STA. 97+47,
SEE SHEET E-4

△ USE FOR LIGHTING CONSTRUCTION ONLY



SEE SHEET "E1" FOR
LEGEND & △ NOTES

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT EXISTING LIGHTING I-26, NORTH OF AMBOY RD INTERCHANGE			
BUNCOMBE COUNTY			
Drawn By MSQ	Approved By RGH	Dwg No.	

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-6

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UNLESS ALL SIGNATURES COMPLETED

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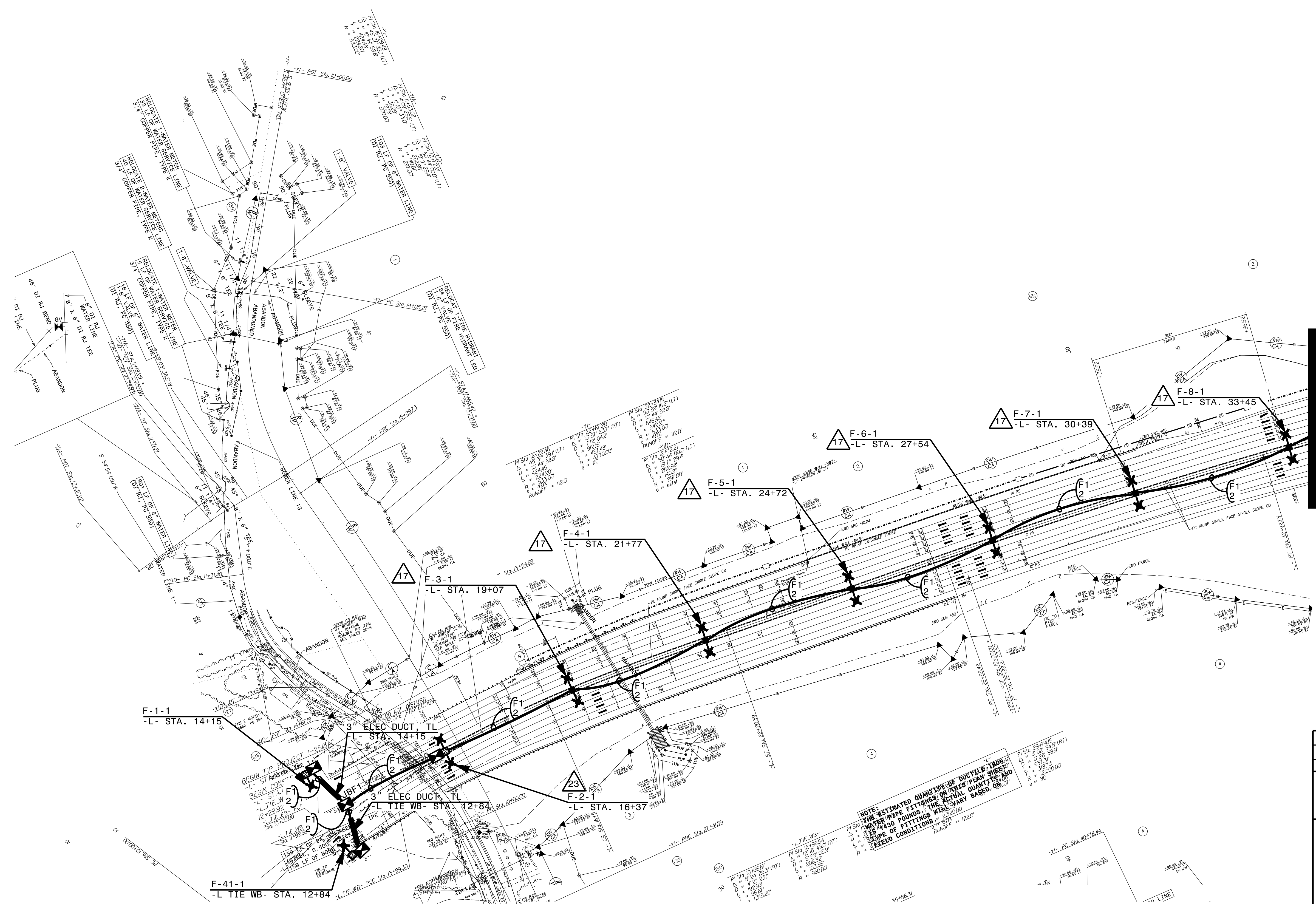
SEE SHEET "E1" FOR
LEGEND & △ NOTES

△
25

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N

MATCHLINE - L- STA. 33+90,
SEE SHEET E-7

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT I-26, WEST OF BREVARD RD INTERCHANGE			
BUNCOMBE COUNTY			
Drawn By	MSQ	Approved By	RGH
Dwg No.			



\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

USE FOR LIGHTING CONSTRUCTION ONLY

MATCHLINE -L- STA. 91+47,
SEE SHEET E-9

PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-8

NORTH CAROLINA
PROFESSIONAL
SEAL
059834
ENGINEER
SARAH KIRKPATRICK
7ACCC8B119E46C... 09/03/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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SEE SHEET "E1" FOR
LEGEND & △ NOTES

LOAD SCHEDULE - ITS CAMERA CONTROL SYSTEM "ITS" 1Ø, 4W, 240/480 VAC				
CIRCUIT ID	CAMERAS	AMPS @ 480V	KW LOAD	BREAKER SIZE (AMPS)
ITS	1	3.9	1.9	30
SPARE				30

LOAD SCHEDULE I-26/AMBOY RD INTERCHANGE, TOP OF RAMP AT WESTERN ROUNDABOUT					
1Ø, 4W, 240/480 VAC					
CIRCUIT ID	CONTROL SYSTEM "FF"		AMPS @ 480V	KW LOAD	BREAKER SIZE (AMPS)
	SINGLE ARM 1 @ 150W MAX. LED	TWIN ARM 2 @ 150W MAX. LED			
FF1	FF-9	FF-1, FF-2, FF-3, FF-4, FF-5, FF-6, FF-7, FF-8, FF-44	5.9	2.8	50
FF2	FF-10, FF-12, FF-13, FF-14, FF-15, FF-16, FF-17, FF-20		2.5	1.2	50
FF3	FF-21, FF-22, FF-23, FF-24, FF-25, FF-26, FF-27		2.2	1.0	50
FF4	FF-28, FF-29, FF-30, FF-31, FF-32, FF-33		1.9	0.9	50
FF5	FF-11	FF-34, FF-35, FF-36, FF-37, FF-38, FF-39, FF-40, FF-41, FF-42, FF-43	6.6	3.2	50
SPARE					50
TOTAL	23 on 23 Poles	38 on 19 Poles	19.1	9.1	

2

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Rev.	Date	Description	Approved

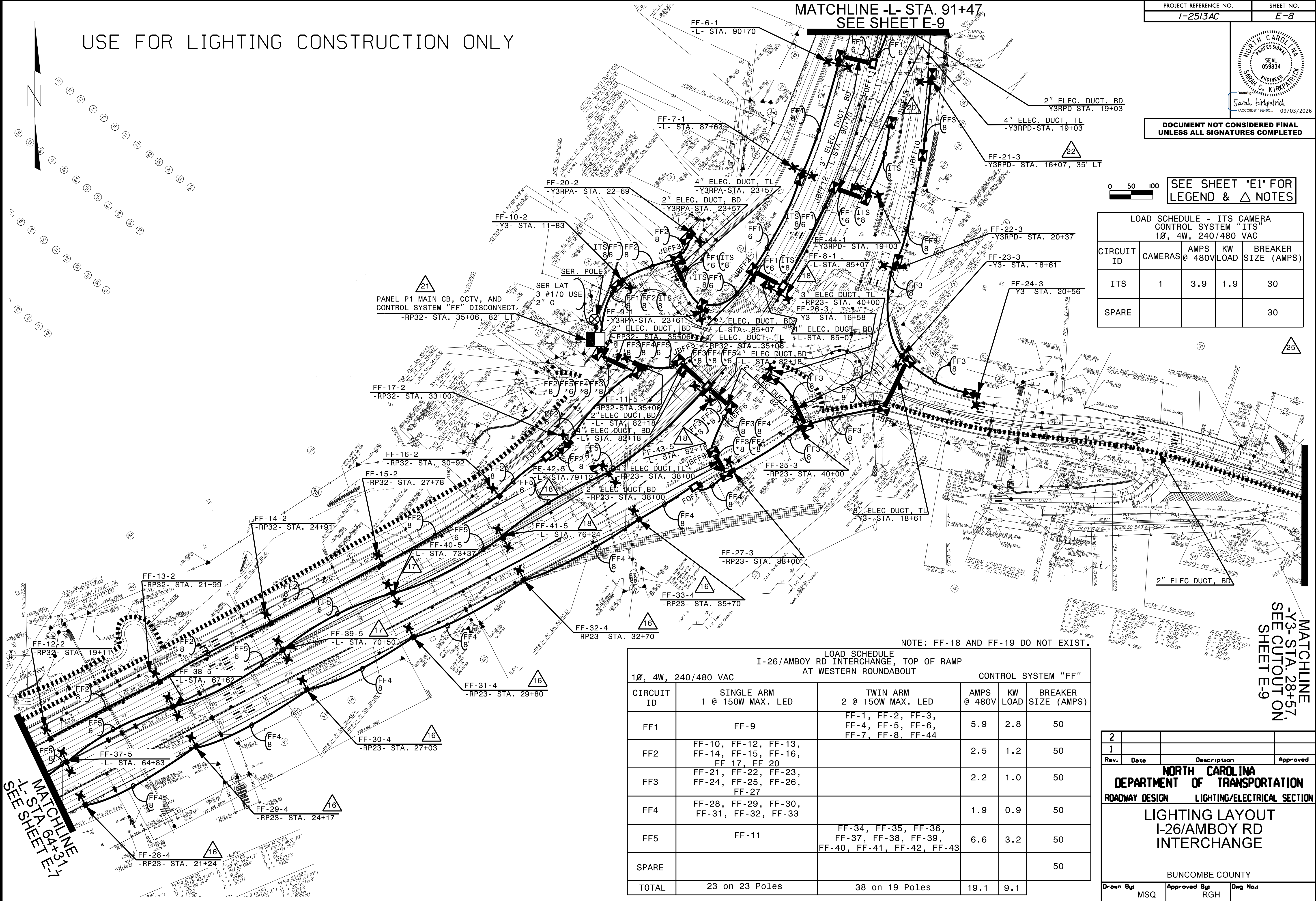
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN

LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT
I-26/AMBOY RD
INTERCHANGE

BUNCOMBE COUNTY

Drawn By: MSQ
Approved By: RGH
Dwg No.:



\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-9

NORTH CAROLINA
PROFESSIONAL
SEAL
059834
ENGINEER
SARAH KIRKPATRICK
7ACCC8B119E46C... 09/03/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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SEE SHEET "E1" FOR
LEGEND & △ NOTES

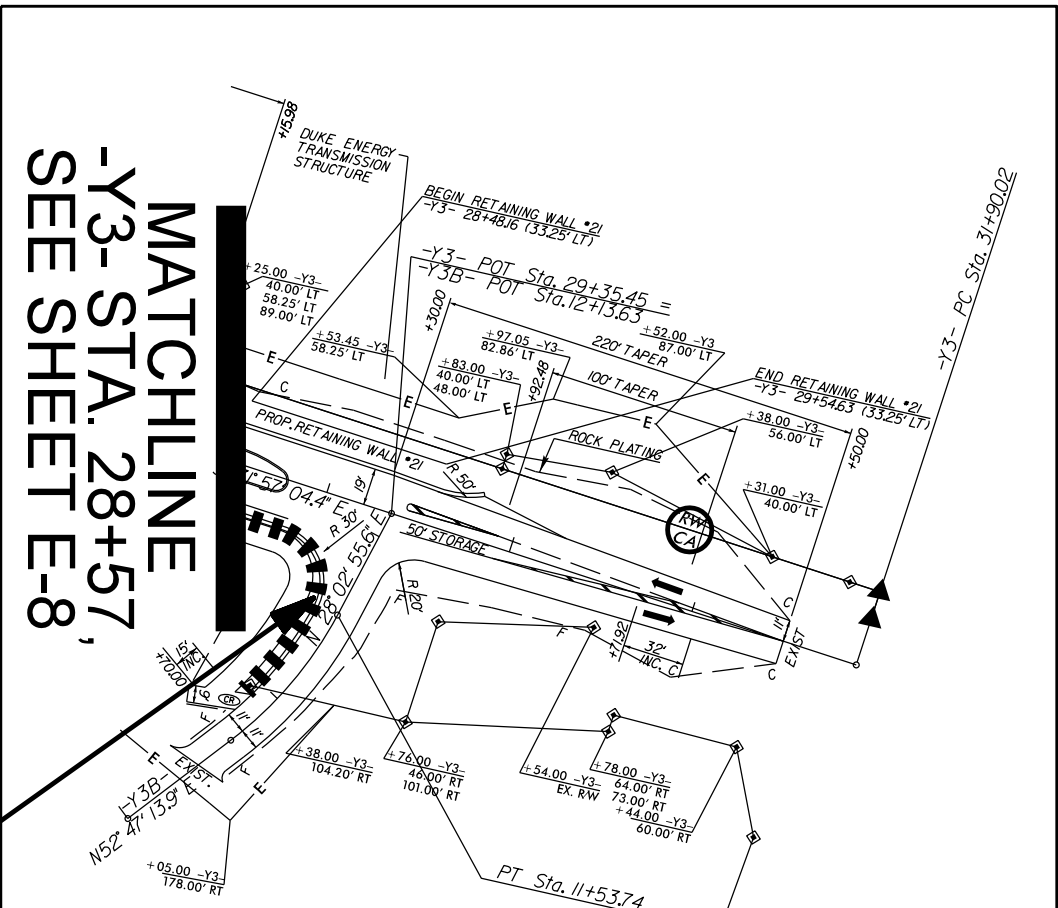
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MATCHLINE -L- STA. 91+47,
SEE SHEET E-8

CUTOUT OF
RIGHT-SIDE OF
SHEET E-8
(FOR CLARITY)

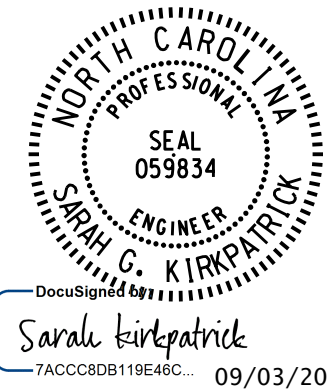


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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT I-26, NORTH OF AMBOY RD INTERCHANGE			
BUNCOMBE COUNTY			
Drawn By MSQ	Approved By RGH	Dwg No.	

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DDGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.	SHEET NO.
1-2513AC	E-10



NTS

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NOTES

1

LIGHT PEDESTAL NOT SHOWN.
REFER TO STRUCTURE PLANS FOR LIGHT PEDESTAL
DETAILS. REFER TO PLANSHEET E-7 FOR DESIGN
DETAILS.

2

FORMED OPENINGS
ARE 10" W X 12" L X 6" H. SEE
DETAILS ON SHEET E-12.

3

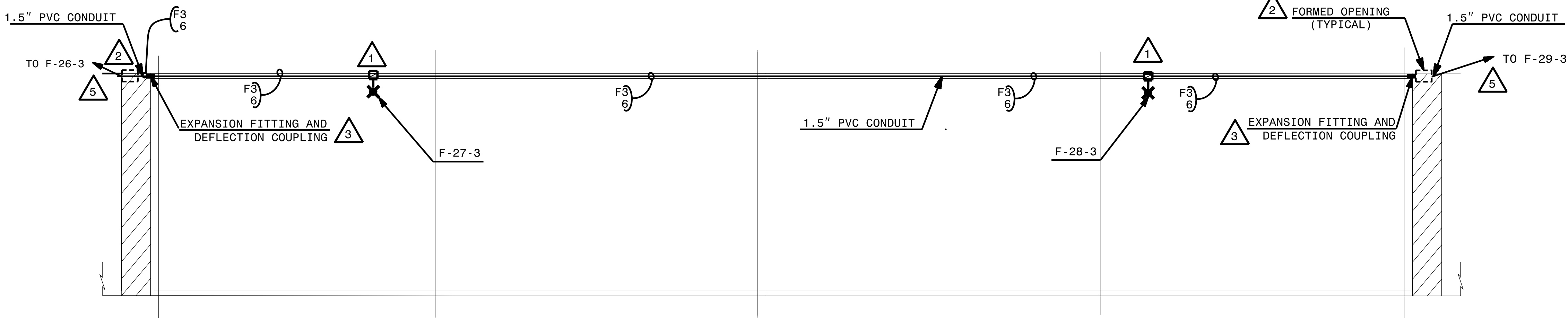
PROVIDE EXPANSION/DEFLECTION COUPLINGS AT ALL
BRIDGE EXPANSION JOINTS AND WHERE
APPROACH SLAB MEETS INTEGRAL END
BENT. SEE SHEET E-12 FOR EXPANSION/DEFLECTION
COUPLINGS.

4

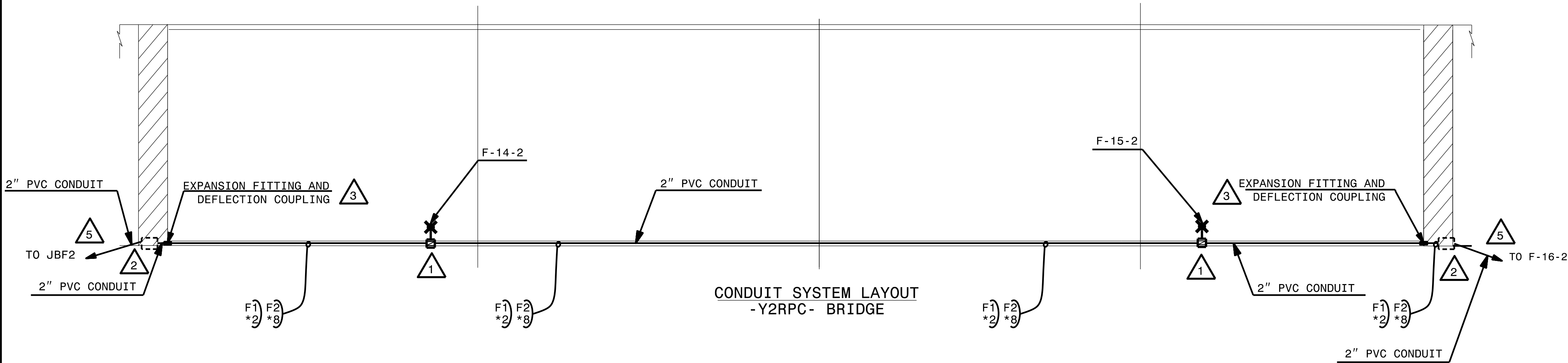
FORMED OPENINGS SHALL BE POSITIONED SUCH
THAT THEY DO NOT INTERFERE WITH GUARDRAIL
ATTACHMENT POINTS.

5

EXTEND CONDUIT DOWN INTO APPROACH SLAB,
AND EXIT OUT THE SIDE OF APPROACH SLAB.
SEE BOTTOM-LEFT OF SHEET E-12 FOR ELEVATION VIEW.



CONDUIT SYSTEM LAYOUT
-Y2RPB- BRIDGE



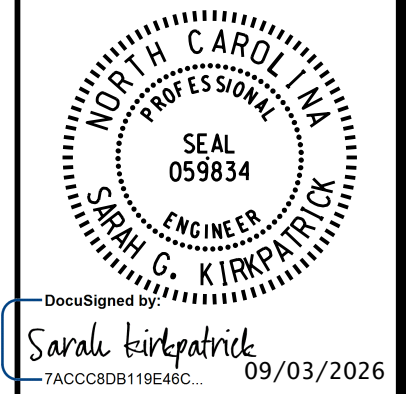
CONDUIT SYSTEM LAYOUT
-Y2RPC- BRIDGE

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$LW\$\$\$\$\$
\$\$\$\$\$>\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
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\$\$\$\$\$USERNAME\$\$\$\$\$

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1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
BRIDGE CONDUIT SYSTEM I-26, 2 RAMP BRIDGES, OVER HOMINY CREEK BUNCOMBE COUNTY			
Drawn By	MSQ	Approved By	RGH
Dwg No.			

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.	SHEET NO.
I-25/3AC	E-II



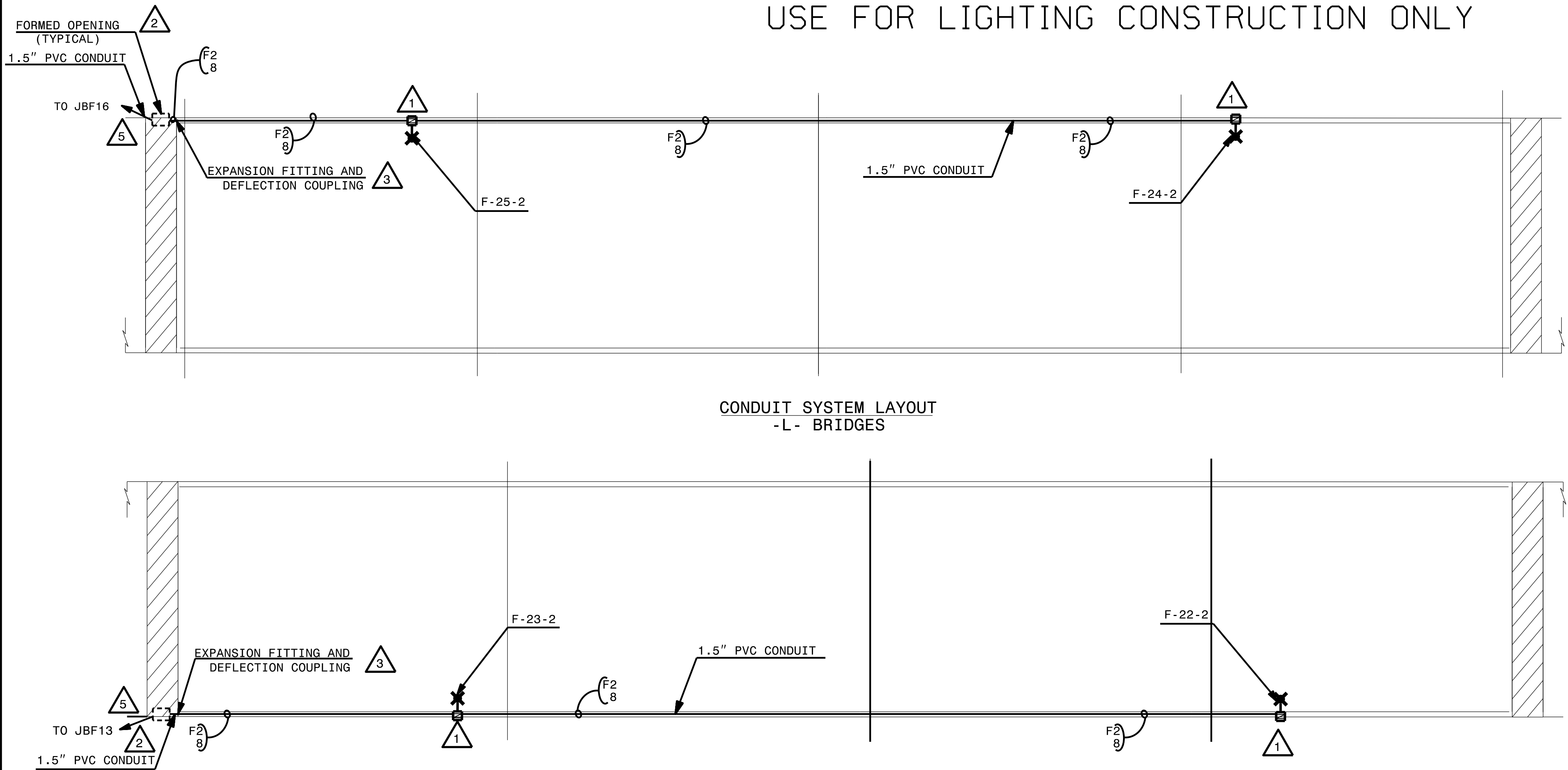
NTS

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NOTES

- 1 LIGHT PEDESTAL NOT SHOWN. REFER TO STRUCTURE PLANS FOR LIGHT PEDESTAL DETAILS. REFER TO PLANSHEET E-7 FOR DESIGN DETAILS.
- 2 FORMED OPENINGS ARE 10" W X 12" L X 6" H. SEE DETAILS ON SHEET E-12.
- 3 PROVIDE EXPANSION/DEFLECTION COUPLINGS AT ALL BRIDGE EXPANSION JOINTS AND WHERE APPROACH SLAB MEETS INTEGRAL END BENT. SEE SHEET E-12 FOR EXPANSION/DEFLECTION COUPLINGS.
- 4 FORMED OPENINGS SHALL BE POSITIONED SUCH THAT THEY DO NOT INTERFERE WITH GUARDRAIL ATTACHMENT POINTS.
- 5 EXTEND CONDUIT DOWN INTO APPROACH SLAB, AND EXIT OUT THE SIDE OF APPROACH SLAB. SEE BOTTOM-LEFT OF SHEET E-12 FOR ELEVATION VIEW.

CONDUIT SYSTEM LAYOUT
-L- BRIDGES

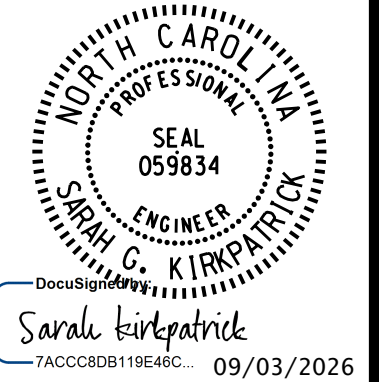


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1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
BRIDGE CONDUIT SYSTEM I-26, 2 MAIN LINE BRIDGES, OVER HOMINY CREEK BUNCOMBE COUNTY			
Drawn By	MSQ	Approved By	RGH
Dwg No.			

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.	SHEET NO.
1-2513AC	E-12

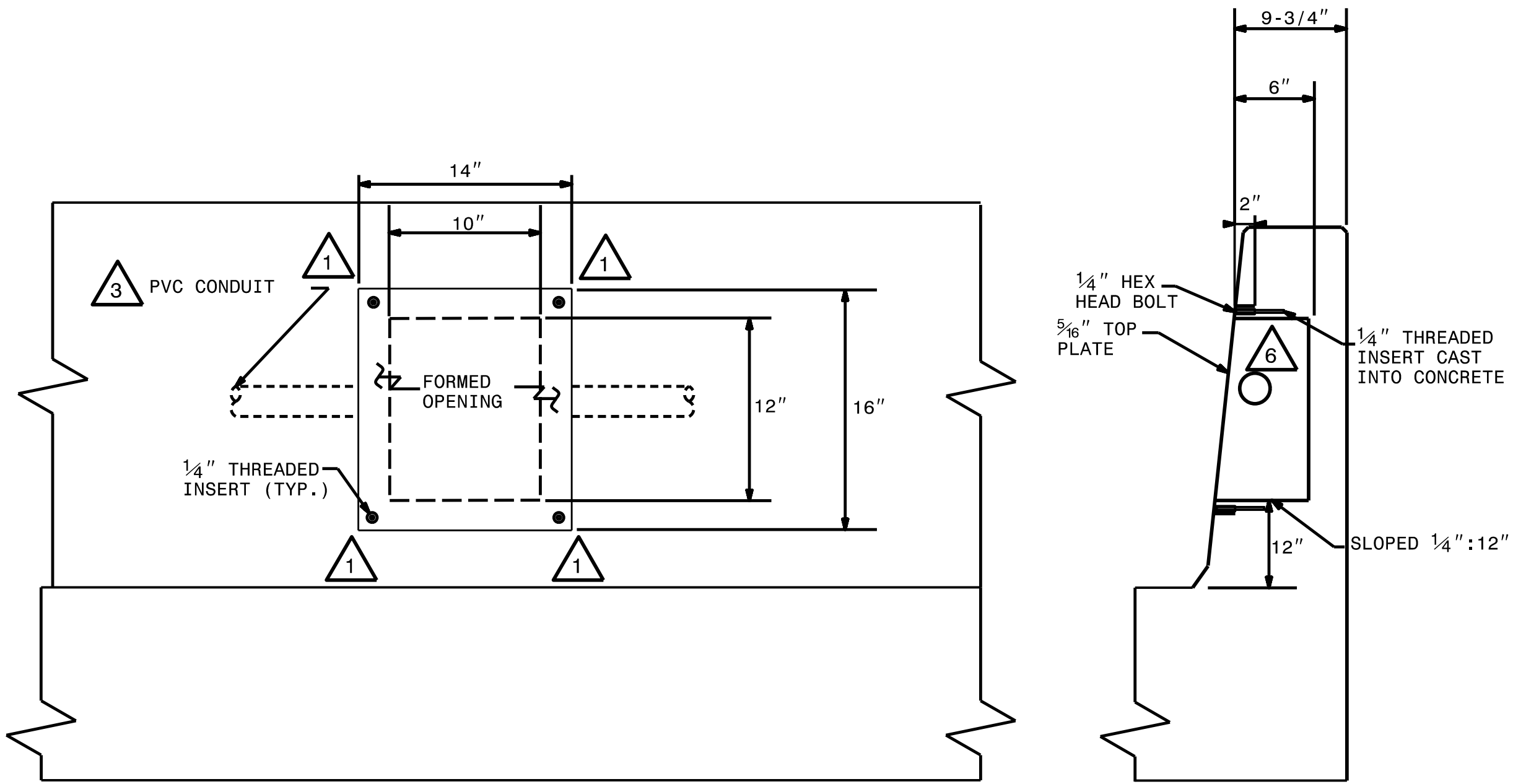


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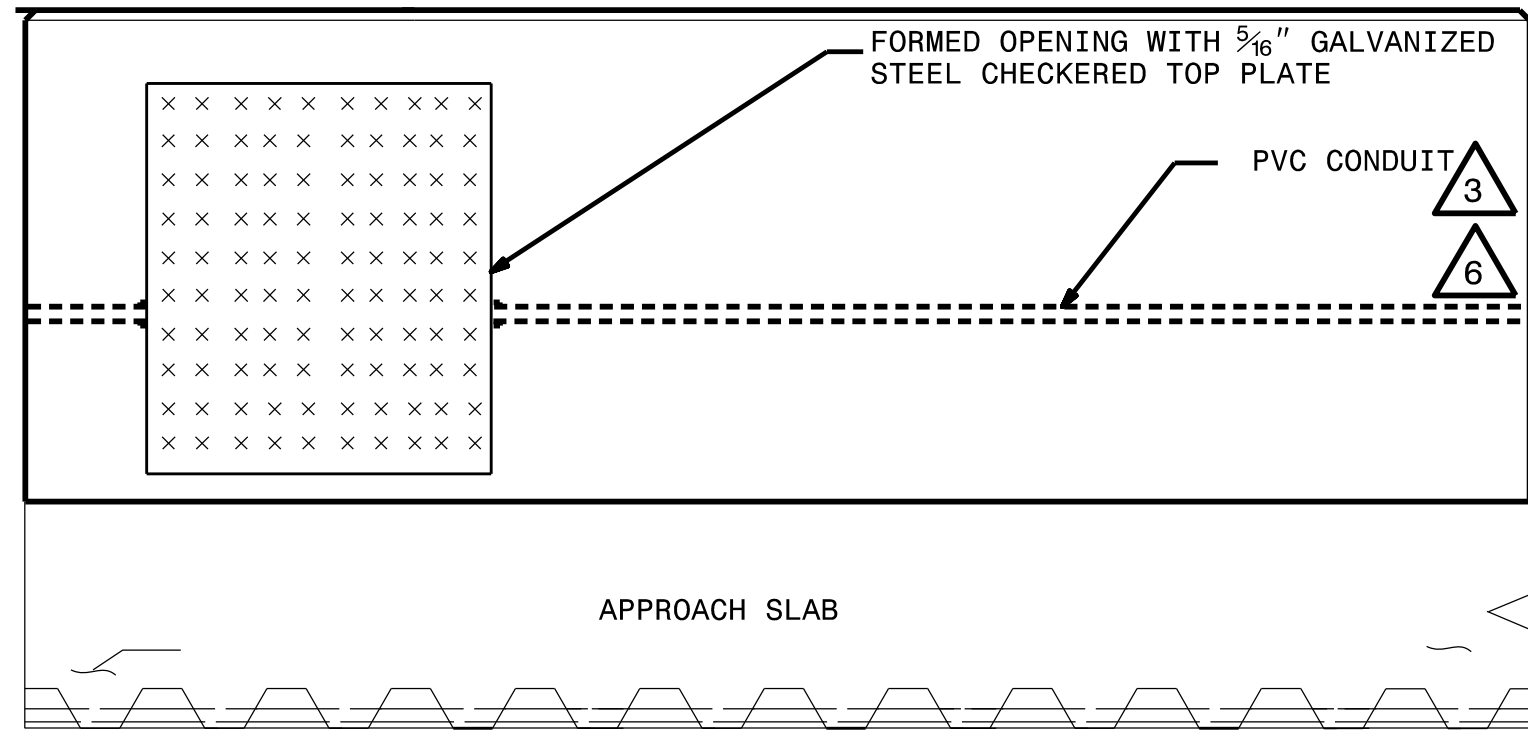
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NOTES

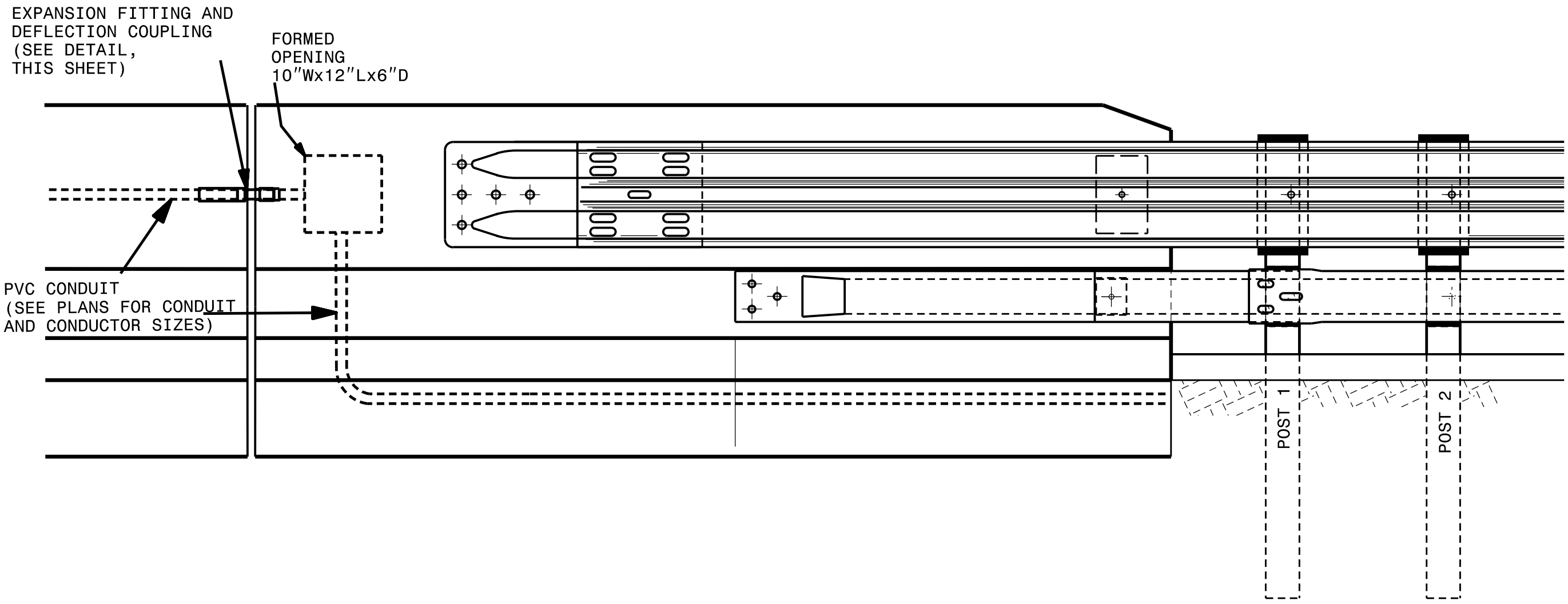
- 1 THREADED INSERTS SHOULD BE 1-1/2" FROM EDGE OF FORMED OPENING.
- 2 RECESS BARRIER WALL SO THAT FACE OF TOP PLATE IS FLUSH WITH BARRIER AFTER PLATE IS INSTALLED. TOP PLATE SHALL BE 5/16" GALVANIZED STEEL.
- 3 INSTALL CONDUIT WITH A MINIMUM 2" CONCRETE COVER FROM FACE OF BARRIER.
- 4 CONDUIT PROJECTION SHALL BE APPROXIMATELY 1-1/2" INTO FORMED OPENING.
- 5 INSTALL CONDUIT BUSHINGS ON ALL CONDUIT TERMINATIONS WITHIN THE FORMED OPENING.
- 6 SIZE CONDUIT AS SHOWN ON PLANS.
- 7 SEE NCDOT STANDARD DRAWING 862.03, SHEET 4 FOR GUARDRAIL DETAILS.



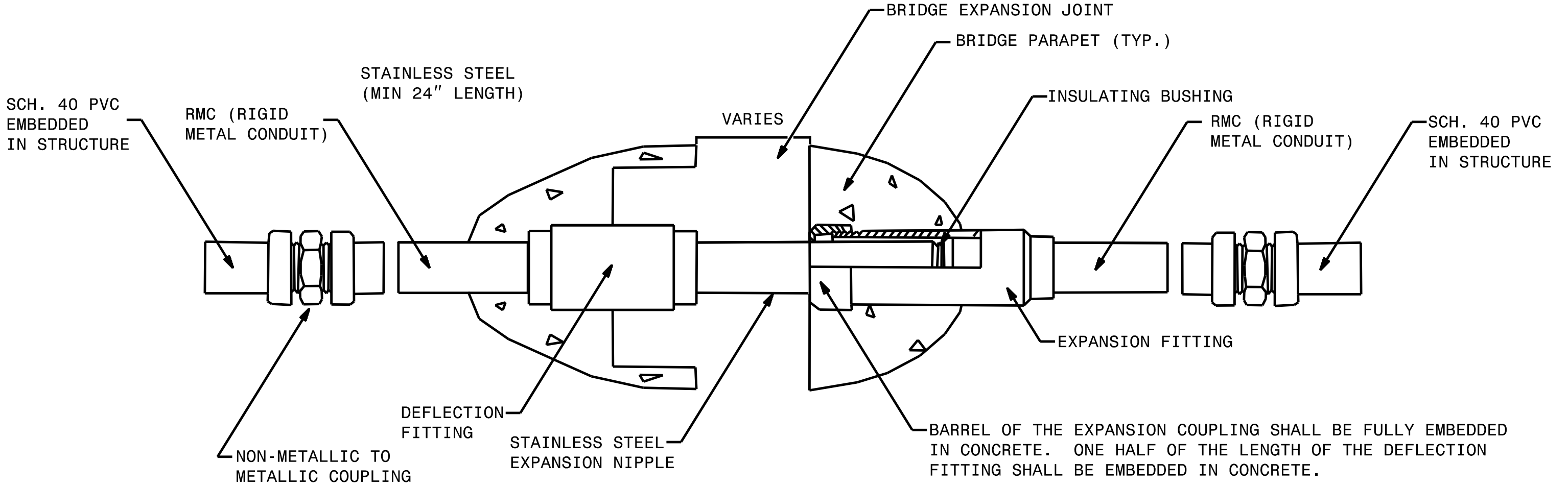
FORMED OPENING INSTALLATION DETAILS



FORMED OPENING INSTALLATION LOCATION
VIEW FROM ROADWAY



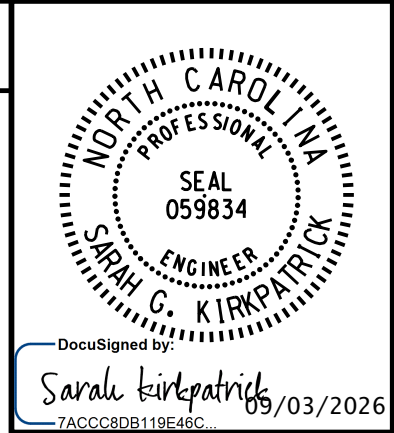
ELEVATION VIEW (GUARDRAIL ANCHOR UNIT TYPE B-77)



EXPANSION/DEFLECTION COUPLINGS DETAIL

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
BRIDGE CONDUIT SYSTEM I-26, ALL BRIDGES (2 MAINLINE AND 2 RAMP) OVER HOMINY CREEK BUNCOMBE COUNTY			
Drawn By	MSQ	Approved By	RGH
Dwg No.			

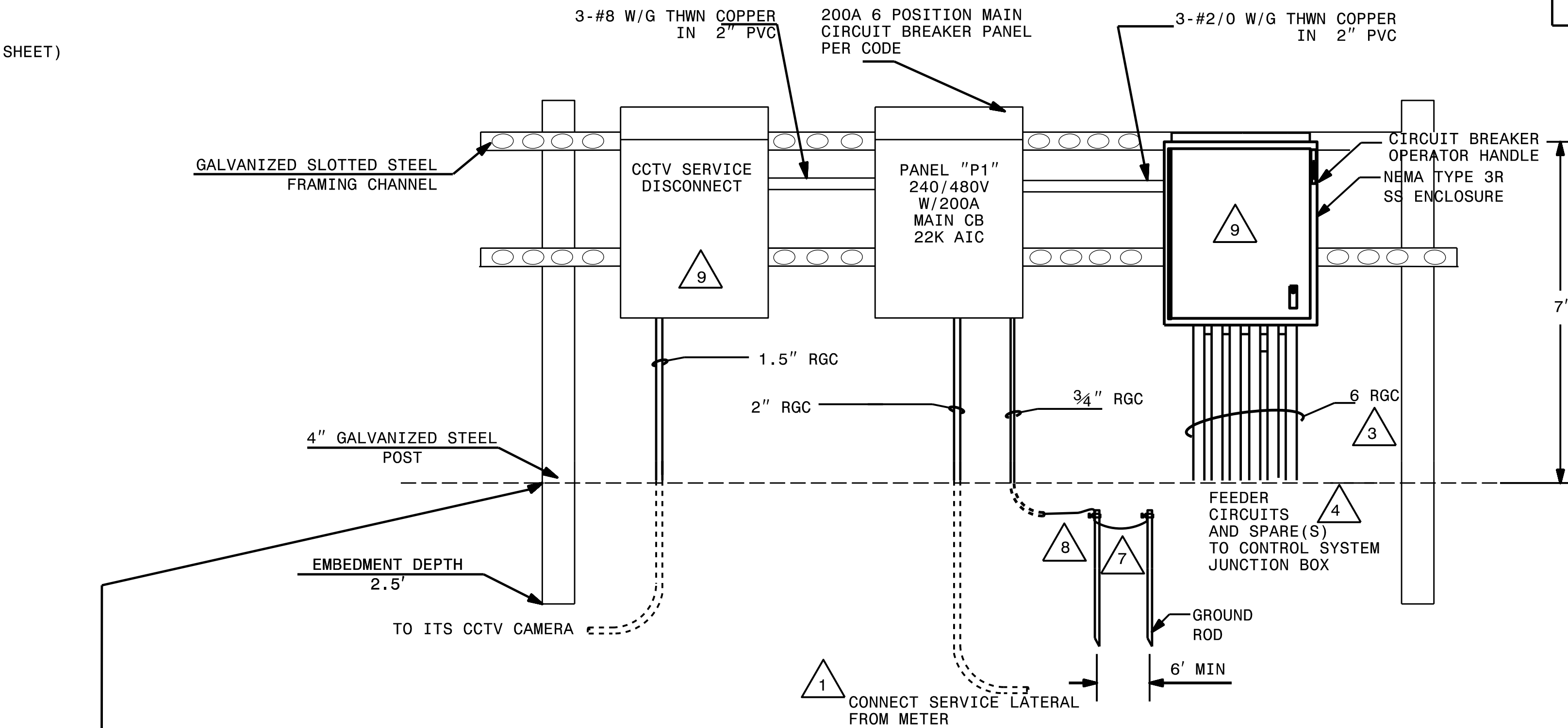
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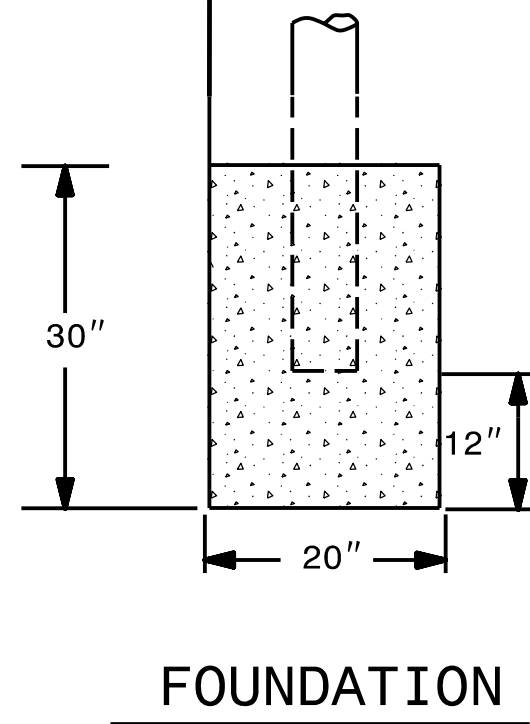
NOTES USE FOR LIGHTING CONSTRUCTION ONLY

- 1CT CABINET MAY BE MOUNTED BEHIND PANEL "P1." (NOT SHOWN ON THIS SHEET)
- 2SYSTEM GROUND (SG) SHALL BE CONTINUOUS FROM THE GROUND BAR TO THE GROUNDING ELECTRODE (GROUND ROD).
- 3SEE PLANS FOR SIZE OF CONDUITS AND/OR ELECTRICAL DUCT.
- 4STUB FEEDER CIRCUIT CONDUITS INTO JUNCTION BOX. CAP UNUSED CONDUITS. FEEDER CIRCUITS MUST BE MINIMUM 30" BELOW GRADE
- 5SEE SECTION 1411 OF THE STANDARD SPECIFICATIONS FOR JUNCTION BOX INSTALLATION.
- 6UNLESS OTHERWISE NOTED, ALL ABOVE GROUND CIRCUITRY TO BE INSTALLED IN RIGID GALVANIZED CONDUIT. UNDERGROUND FEEDER CIRCUITS TO BE INSTALLED IN SCH 40 PVC CONDUIT.
- 7TOP OF GROUND ROD(S) SHALL BE NO MORE THAN FOUR INCHES BELOW GRADE TO ALLOW FOR EASE OF INSPECTION BY DEPARTMENT OF INSURANCE, OFFICE OF STATE FIRE MARSHAL PERSONNEL.
- 8INSTALL A CONDUIT GROUND CHOKE AND BOND THE EQUIPMENT GROUNDING CONDUCTOR TO THE END OF THE 3/4" CONDUIT UNDERGROUND PER NEC ARTICLE 250.64E.
- 9THE NEUTRAL BAR IS TO BE ISOLATED FROM GROUND IN THE CCTV SERVICE DISCONNECT PANEL AND IN THE CONTROL SYSTEM "FF" PANEL.



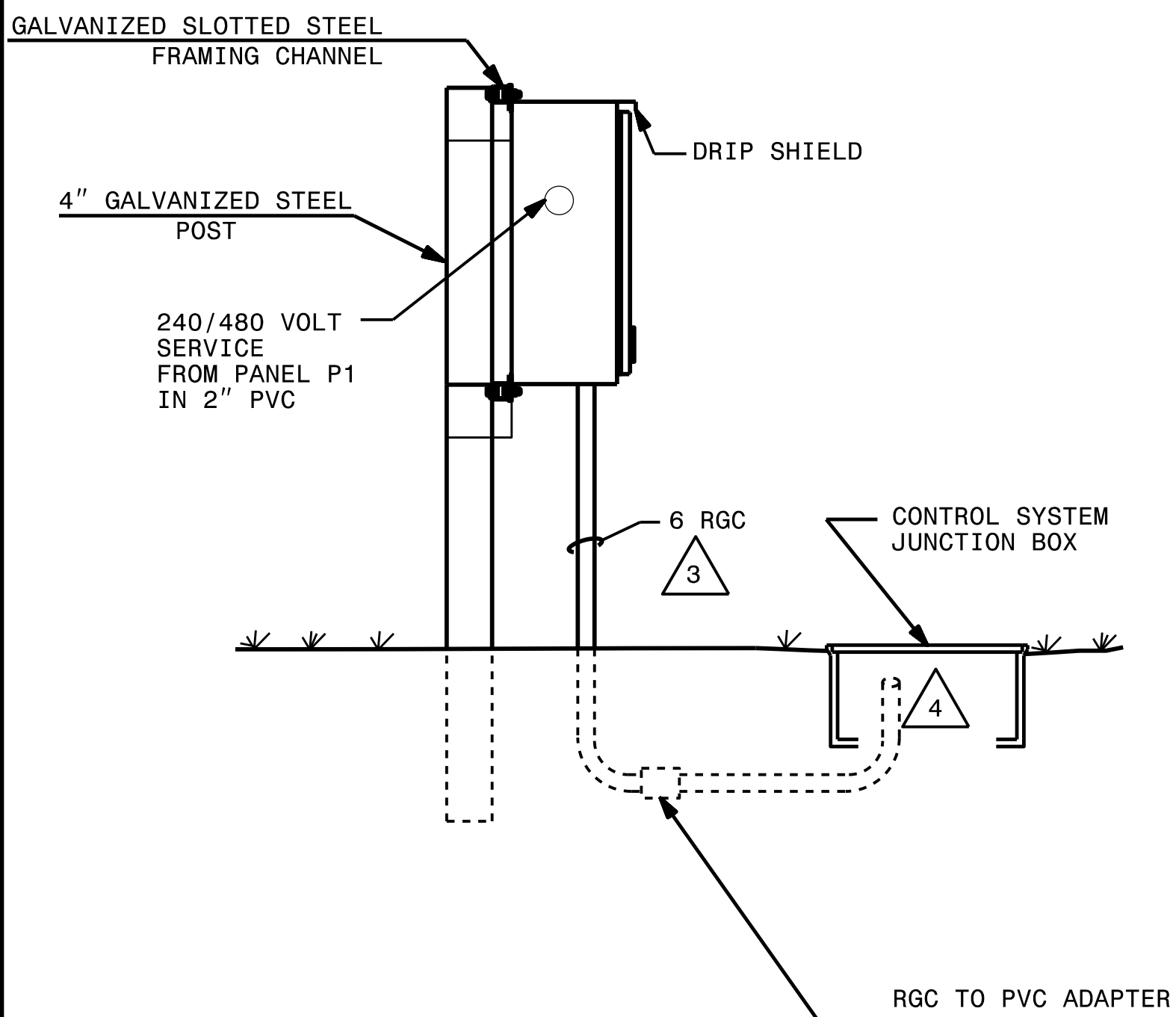
SERVICE	WIRE SZ	GRND SZ	BRK AMP	CKT #	P1	CKT #	BRK AMP	GRND SZ	WIRE SZ	SERVICE
SERVICE FOR LIGHTING	4#2/0	#2/0	150/2	1 3 5	A	2 4 6	30/2	#8	4#8	CCTV DISCONNECT

LOCATION: OUTDOOR
PANEL MOUNTING: SURFACE
SERVICE: 240/480, 1PH, 3 WIRE, AC, FULL NEUTRAL, SERVICE ENTRANCE
MAIN BREAKER: 200A
CABINET: NEMA 3R
ACCESSORIES: GROUND BAR
COMMENTS: NEW PANEL "P1"

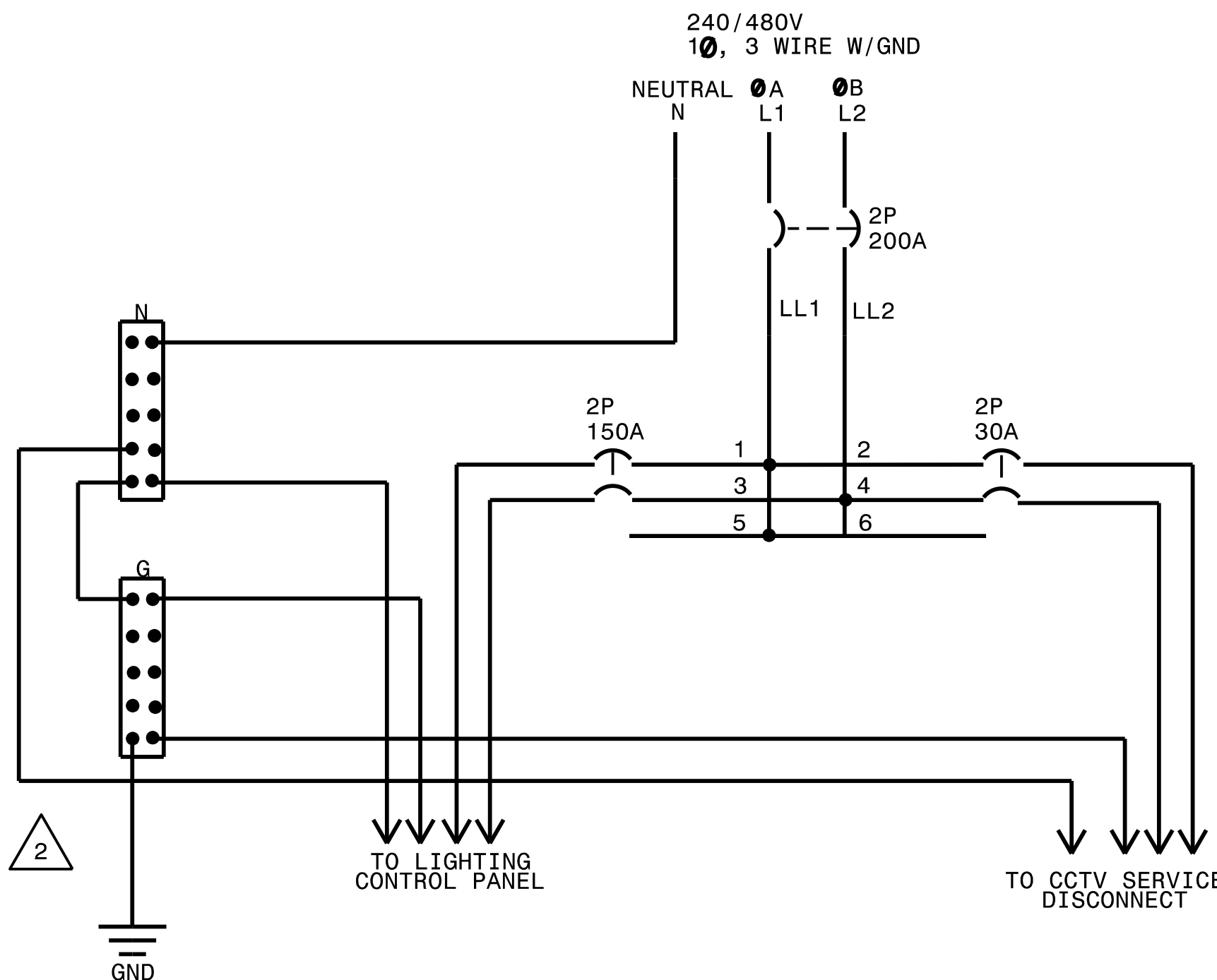


FOUNDATION

POWER RISER DIAGRAM



LIGHTING CONTROL SYSTEM ASSEMBLY



200A MAIN PANEL SCHEMATIC P1

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
240/480V CONTROL SYSTEMS "FF" AND "ITS" DETAILS			
BUNCOMBE COUNTY			
Drawn By MSQ	Approved By RGH	Dwg No.	

USE FOR LIGHTING CONSTRUCTION ONLY

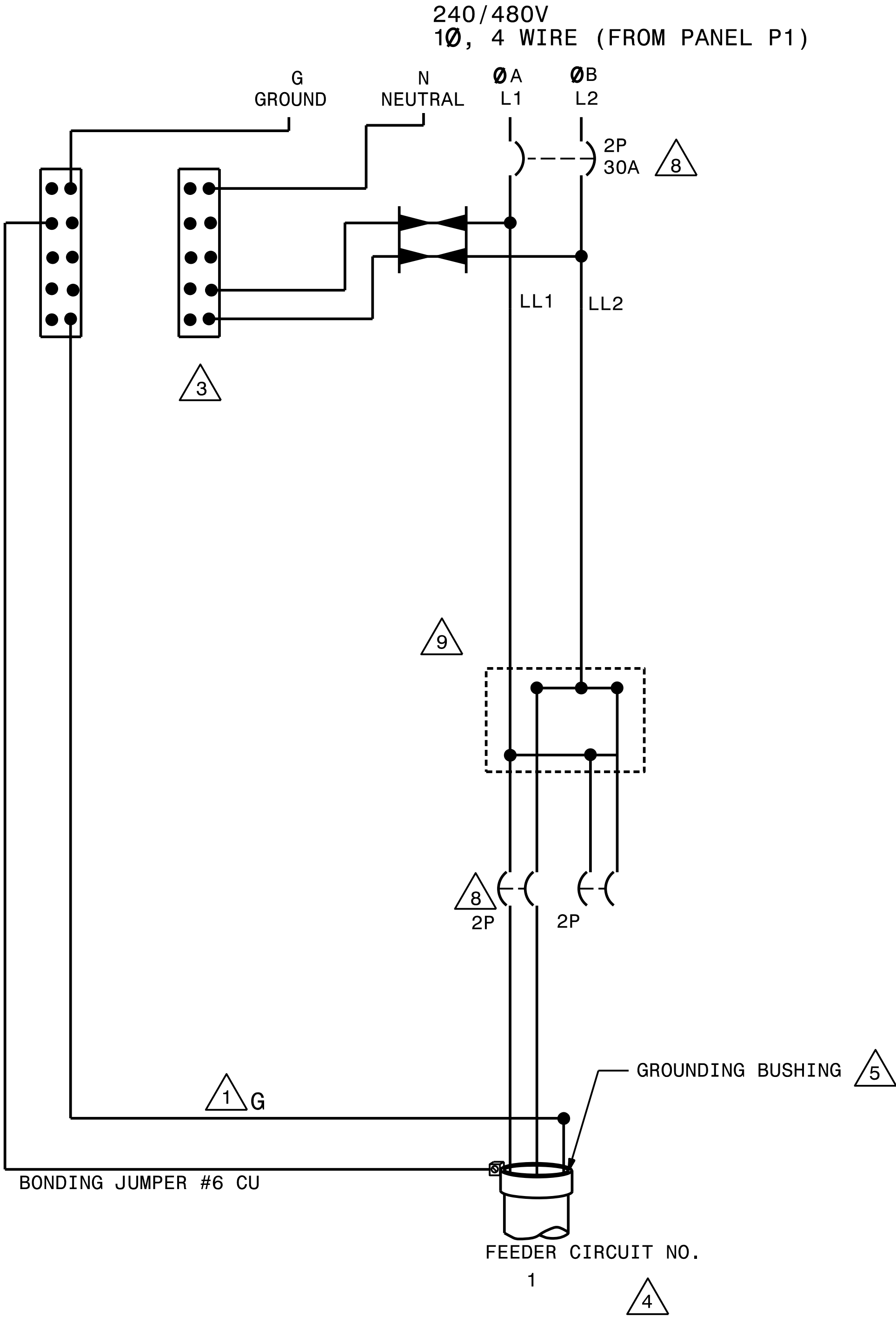
PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-14

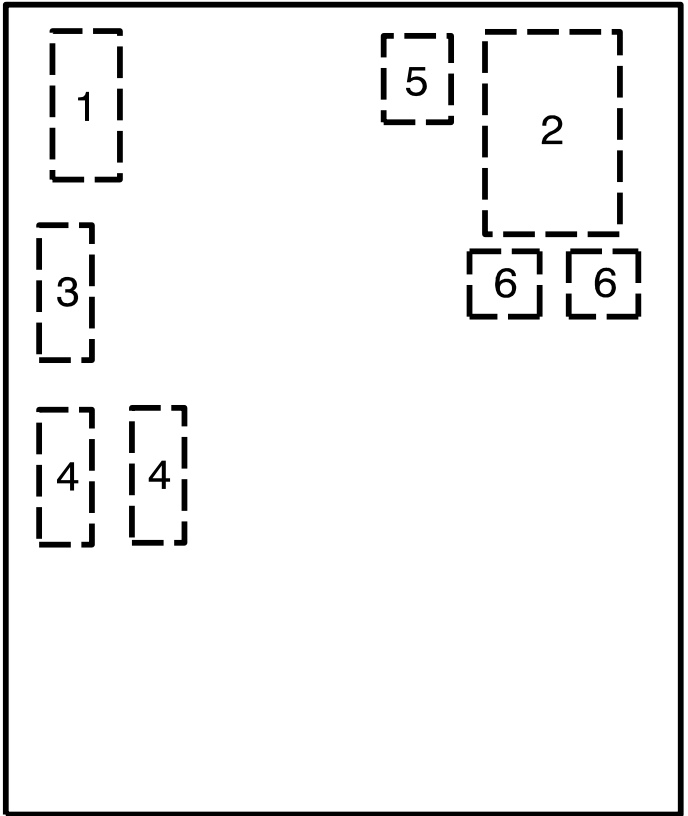
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NORTH CAROLINA
PROFESSIONAL
SEAL
059834
ENGINEER
SARAH G. KIRKPATRICK

DocuSigned by
Sarah Kirkpatrick
7ACCC0B119E48C09/03/2026



SCHEMATIC



**INTERIOR PANEL
COMPONENT LAYOUT**

- NOTES**
- 1 EQUIPMENT GROUNDS (G) SHALL BE SIZED ACCORDING TO CIRCUIT DESCRIPTION. SEE PLANS.
 - 2 NOTE DELETED.
 - 3 THE NEUTRAL BAR SHALL BE ISOLATED.
 - 4 INSTALL 1 FEEDER CIRCUIT CONDUIT AS SHOWN.
 - 5 INSTALL A GROUNDING BUSHING ON EACH METAL CONDUIT. CONNECT BONDING JUMPER AS REQUIRED BY NEC.
 - 6 REFER TO PLAN SHEET E-13 FOR ENCLOSURES.
 - 7 THE CONTROL SYSTEM MUST BE LABELED "SUITABLE FOR USE AS SERVICE EQUIPMENT."
 - 8 INCLUDE SERVICE BARRIERS AS REQUIRED BY THE NEC.
 - 9 PROVIDE MULTI-TAP LOAD LUGS OR POWER DISTRIBUTION BLOCKS.
 - 10 PROVIDE MANUFACTURER SUPPLIED MOUNTING BRACKETS OR SCREW STUDS PERMANENTLY ATTACHED TO THE BACK PANEL, FOR MOUNTING COMPONENTS.
 - 11 PROVIDE AND INSTALL A CONDUIT CHOKE ON THE UNDERGROUND END OF THE 3/4" RGS SYSTEM GROUND CONDUIT.

COMPONENT LIST			
#	QTY	DESCRIPTION	SPECIFICATIONS
1	1	NEUTRAL BAR	
2	1	SERVICE CIRCUIT BREAKER	2P, 480V, 30A
3	1	GROUND BAR	
4	**	FEEDER CIRCUIT BREAKERS	2P, 480V, 30A
5	1	TYPE 1 SURGE PROTECTION DEVICE	20,000A RATED
6	2	POWER DISTRIBUTION LUGS OR BLOCKS	
		MOUNTING BRACKETS OR SCREW STUDS	

**PROVIDE THE NUMBER OF BREAKERS SHOWN IN THE LOAD SCHEDULE ON THE PLANS. INCLUDE SPARE BREAKER AS WELL.

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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
240/480V CONTROL SYSTEM "ITS" SCHEMATIC			
BUNCOMBE COUNTY			
Drawn By MSQ	Approved By RGH	Dwg No.	

USE FOR LIGHTING CONSTRUCTION ONLY

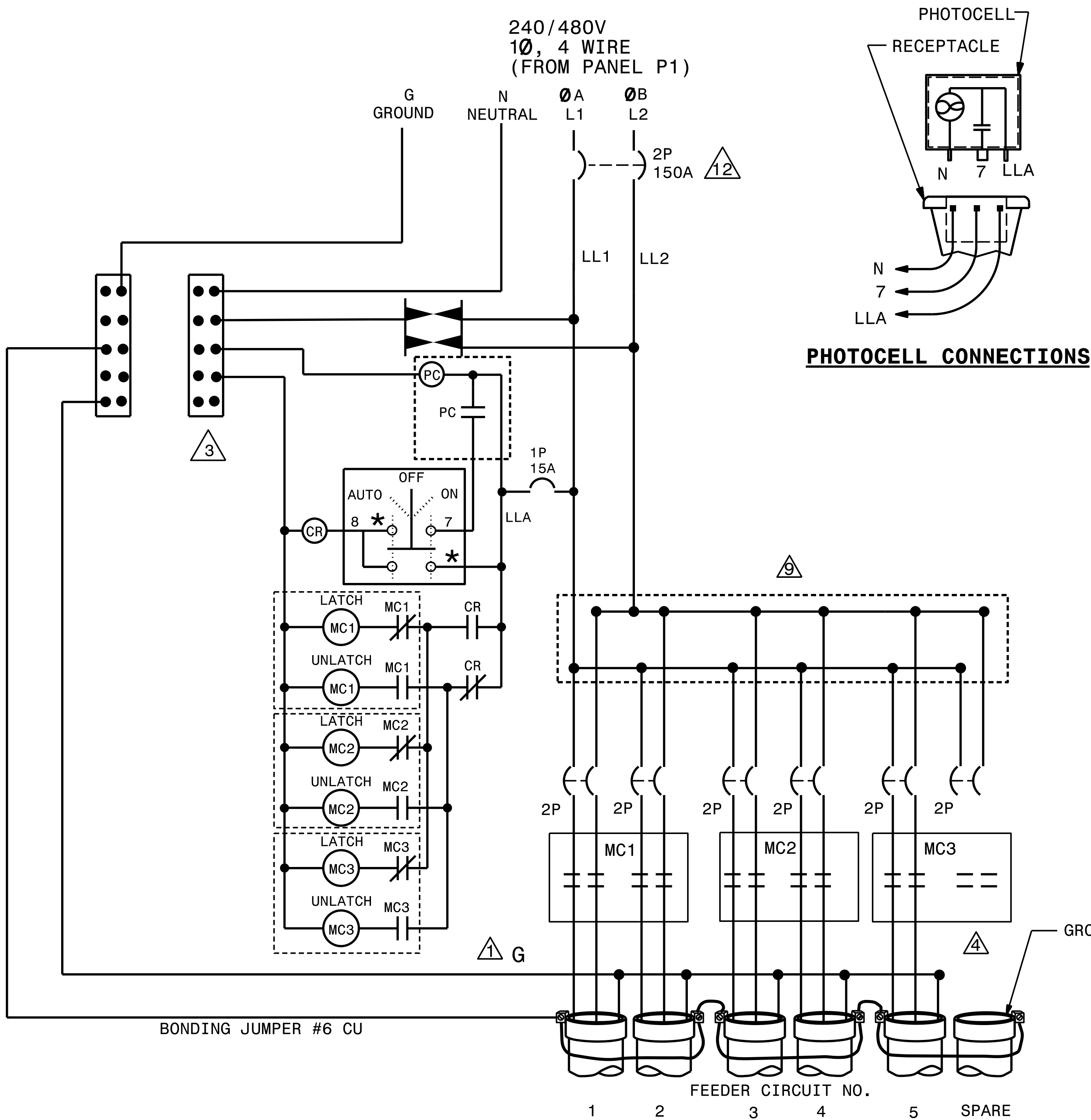
PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-15

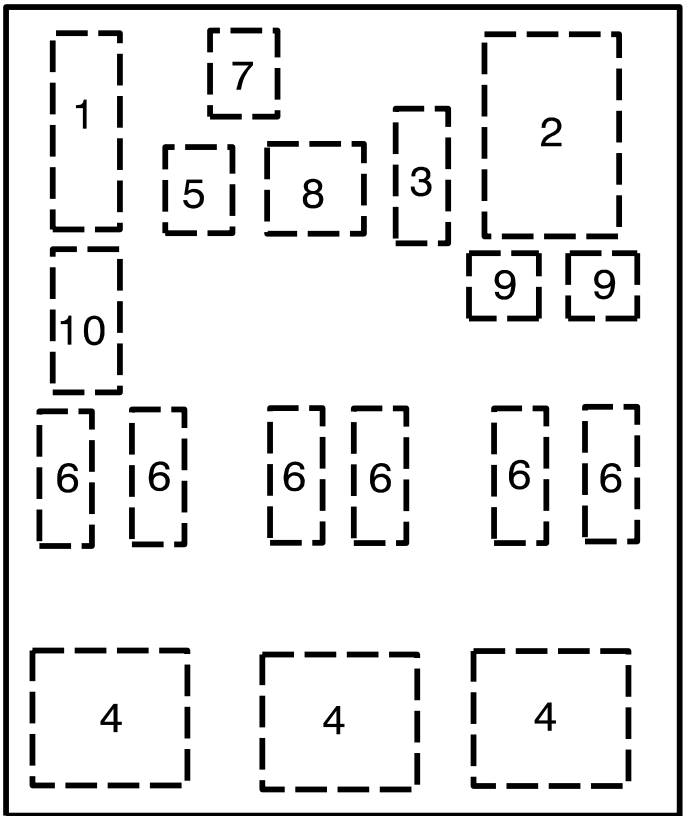
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PROFESSIONAL
SEAL
059834
ENGINEER
SARAH G. KIRKPATRICK

DocuSigned by
Sarah Kirkpatrick
09/03/2026



SCHMATIC



INTERIOR PANEL
COMPONENT LAYOUT

6 7 10 12

NOTES

- EQUIPMENT GROUNDS (G) SHALL BE SIZED ACCORDING TO CIRCUIT DESCRIPTION. SEE PLANS.
- NOTE DELETED.
- THE NEUTRAL BAR SHALL BE ISOLATED.
- INSTALL 6 CONDUITS AS SHOWN. UNUSED CONDUIT SHALL BE CAPPED IN THE CONTROL SYSTEM JUNCTION BOX.
- INSTALL A GROUNDING BUSHING ON EACH METAL CONDUIT. CONNECT BONDING JUMPER AS REQUIRED BY NEC.
- SEE SHEET E-13 FOR ENCLOSURE.
- THE CONTROL SYSTEM MUST BE LABELED "SUITABLE FOR USE AS SERVICE EQUIPMENT." REFER TO STANDARD SPECIFICATION 1408-2 FOR OTHER REQUIREMENTS.
- NOTE REMOVED.
- PROVIDE MULTI-TAP LOAD LUGS OR POWER DISTRIBUTION BLOCKS.
- PROVIDE MANUFACTURER SUPPLIED MOUNTING BRACKETS OR SCREW STUDS PERMANENTLY ATTACHED TO THE BACK PANEL, FOR MOUNTING COMPONENTS.
- PROVIDE AND INSTALL A CONDUIT CHOKE ON THE UNDERGROUND END OF THE 3/4" RGS SYSTEM GROUND CONDUIT.
- INCLUDE SERVICE BARRIERS AS REQUIRED BY THE NEC.

COMPONENT LIST			
#	QTY	DESCRIPTION	SPECIFICATIONS
1	1	NEUTRAL BAR	
2	1	LIGHTING CIRCUIT BREAKER	2P, 480V, 150A
3	1	CONTROL CIRCUIT BREAKER	1P, 240V, 15A
4	3	MECHANICALLY HELD CONTACTORS	4P, 480V, 60A W/240V COIL
5	1	CONTROL RELAY W/NC & NO CONTACT	240V, 10A, W/240V COIL
6	6	FEEDER CIRCUIT BREAKERS	2P, 480V, 50A
7	1	TYPE 1 SURGE PROTECTION DEVICE	20,000A RATED
8	1	SELECTOR SWITCH (ON-OFF-AUTO)	240V, 10A
9	2	POWER DISTRIBUTION LUGS OR BLOCKS	
		MOUNTING BRACKETS OR SCREW STUDS	
10	1	GROUND BAR	

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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
240/480V CONTROL SYSTEM "FF" SCHEMATIC			
BUNCOMBE COUNTY			
Drawn By	MSQ	Approved By	RGH
		Dwg No.	

02/03/98

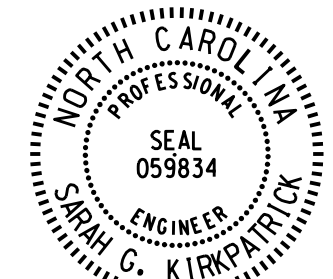
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USE FOR LIGHTING CONSTRUCTION ONLY

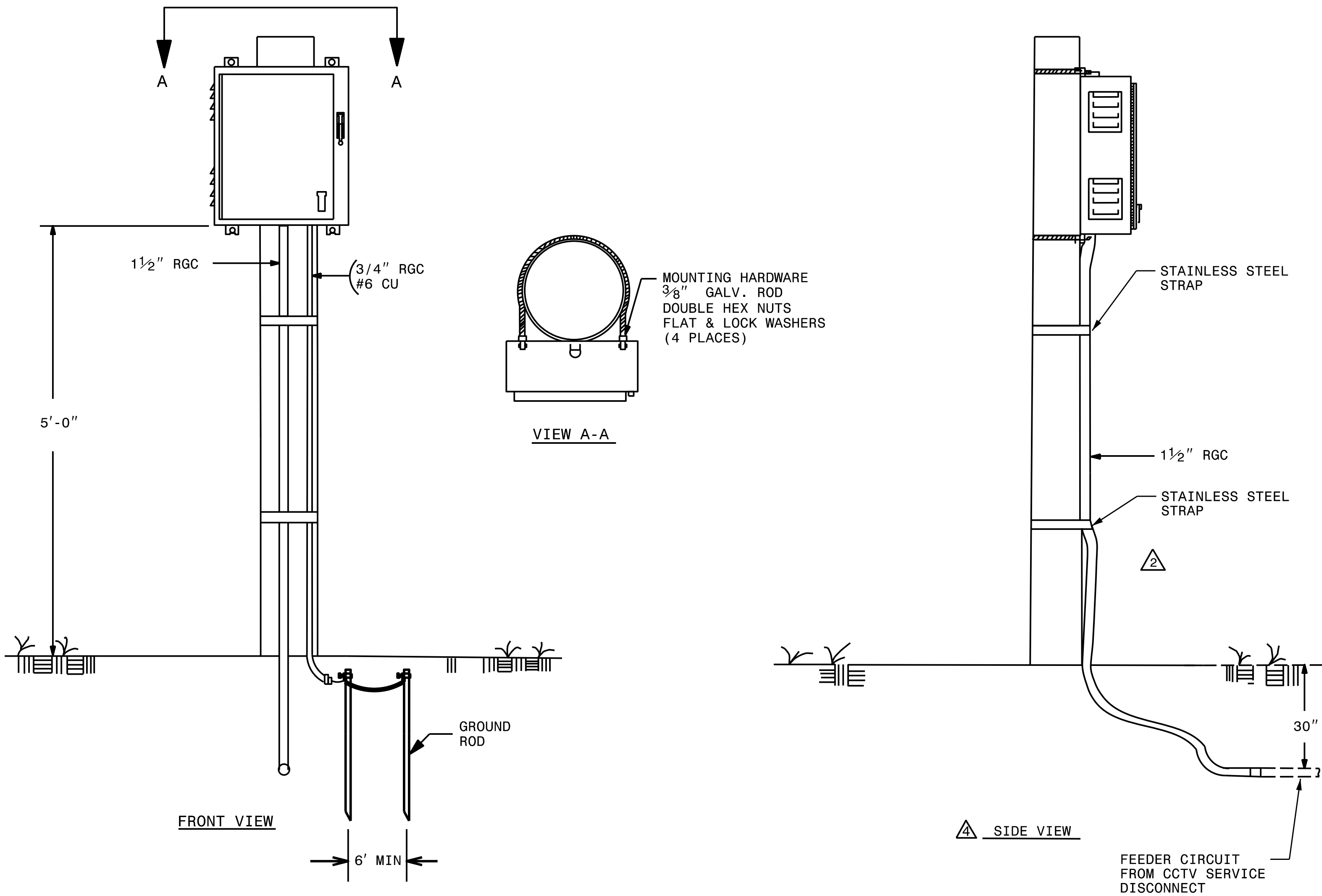
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PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-16



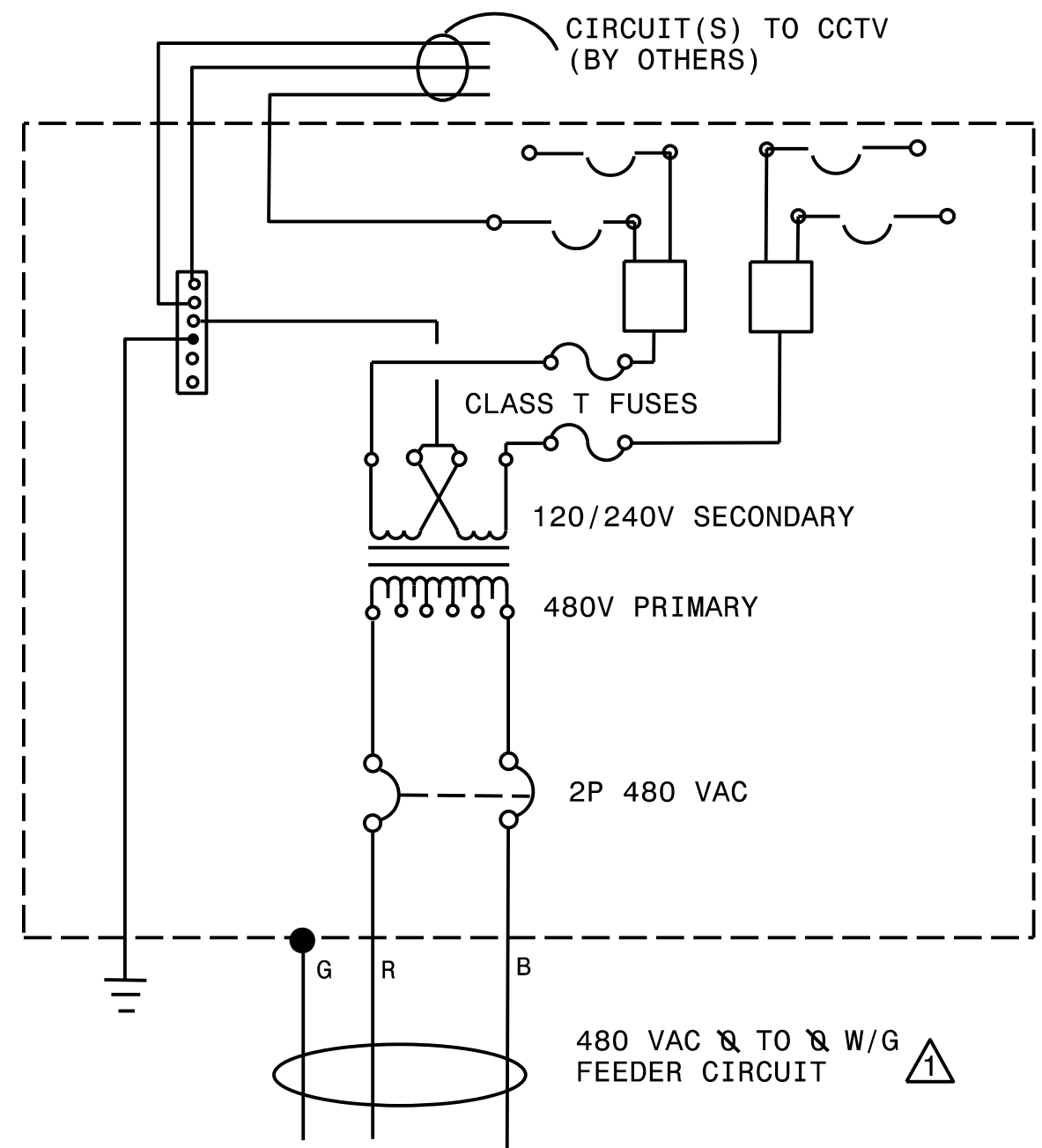
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



MOUNTING ON ITS CAMERA POLE
SEE SHEET E-8

COMPONENTS			5 KVA PANEL
ITEM	QTY	DESCRIPTION	
1	1	STAINLESS STEEL ENCLOSURE, NEMA 3R	36"X30"X16"
2	1	BACK PANEL	33"X27"
3	1	FLANGE MOUNT HANDLE MECHANISM	4"
4	1	PRIMARY CIRCUIT BREAKER 480V	2P 30A
5	1	TRANSFORMER	5 KVA
6	1	DIN RAIL	
7	1	SECONDARY 2-POLE FUSE BLOCK, WITH FUSES	50A, CLASS T
8	1	RAIL MOUNT CIRCUIT BREAKERS 1P 30A	
9	AR	WIRE ENTRANCE & EXIT BUSHING	
10	2	LOUVER PLATE KITS W/FILTERS	8 3/16" X 9 1/2"
11	1	RAIN TIGHT CONDUIT FITTING	
12	1	DOOR LATCH MECHANISM 2 POINT (NOT SHOWN)	
13	1	NEUTRAL/ GROUND BAR	
14	2	POWER DISTRIBUTION BLOCK	1 PRI. 4 SEC.

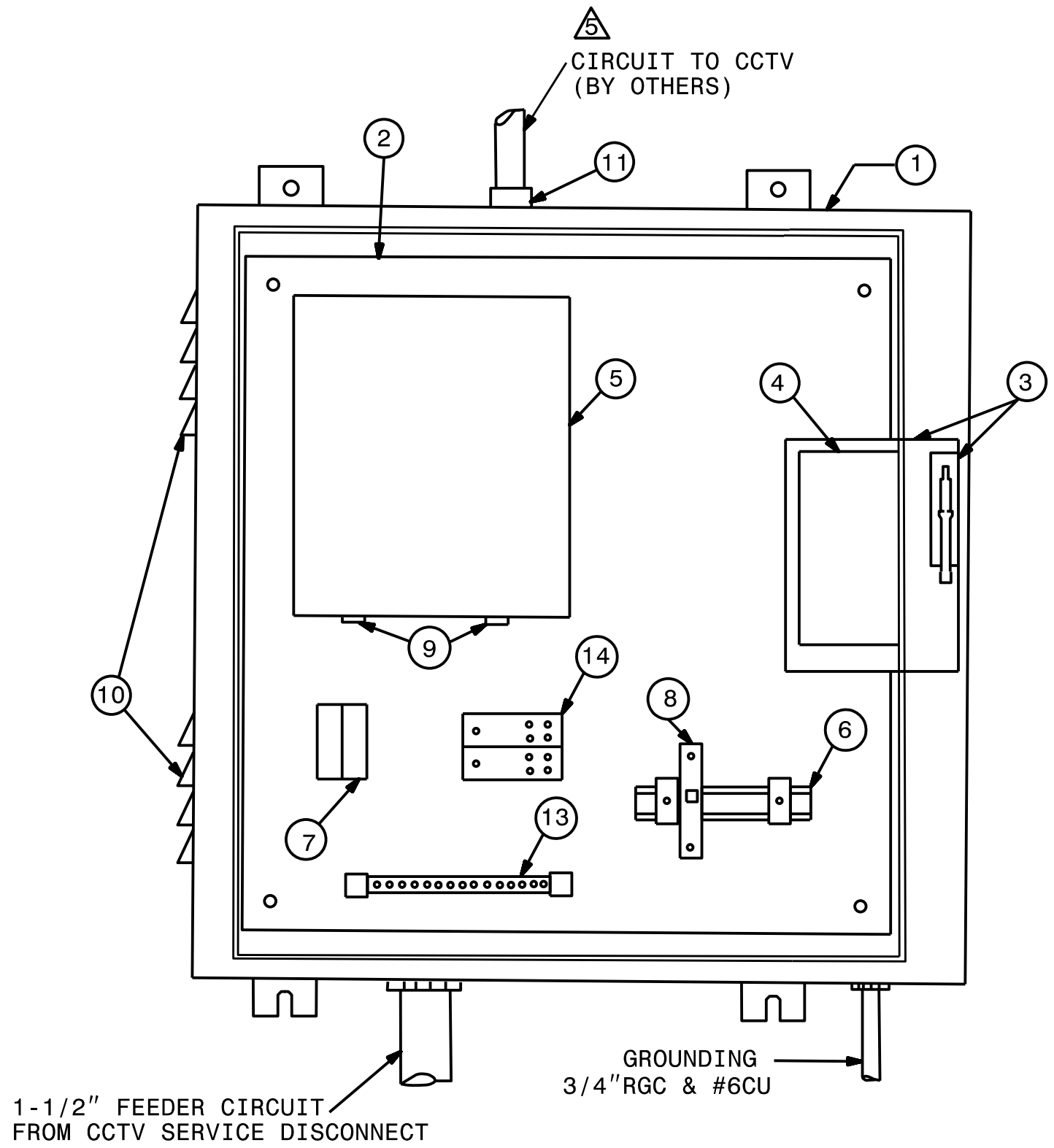
AR: AS REQUIRED



SCHEMATIC

NOTES:

- SEE SHEETS E-13 TO E-15 FOR CONDUIT AND CIRCUITRY TO TRANSFORMER
- CONDUIT BODIES MAY BE USED TO FACILITATE INSTALLATION
- SEE LIGHTING PLANS FOR LOCATION OF EACH PANEL
- GROUND BAR NOT VISIBLE FROM THIS VIEW POINT
- IF CONDUIT TO CCTV CAMERA IS NOT INSTALLED AT THE SAME TIME AS THE TRANSFORMER, THE CONTRACTOR SHALL CAP CONDUIT FITTING TO PREVENT RAIN AND DEBRIS FROM ENTERING THE PANEL.

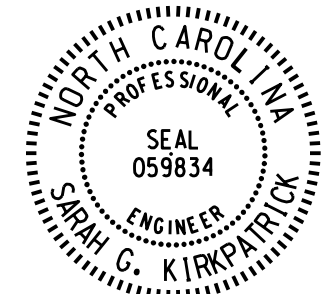


COMPONENT LAYOUT

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DESIGN SERVICES LIGHTING/ELECTRICAL SECTION			
LIGHTING DETAILS			
TRANSFORMER PANEL 480VAC TO 120VAC 5 KVA			
Drawn By:	MSQ	Approved By:	RGH
		Checked By:	

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.	SHEET NO.
1-2513AC	E-17



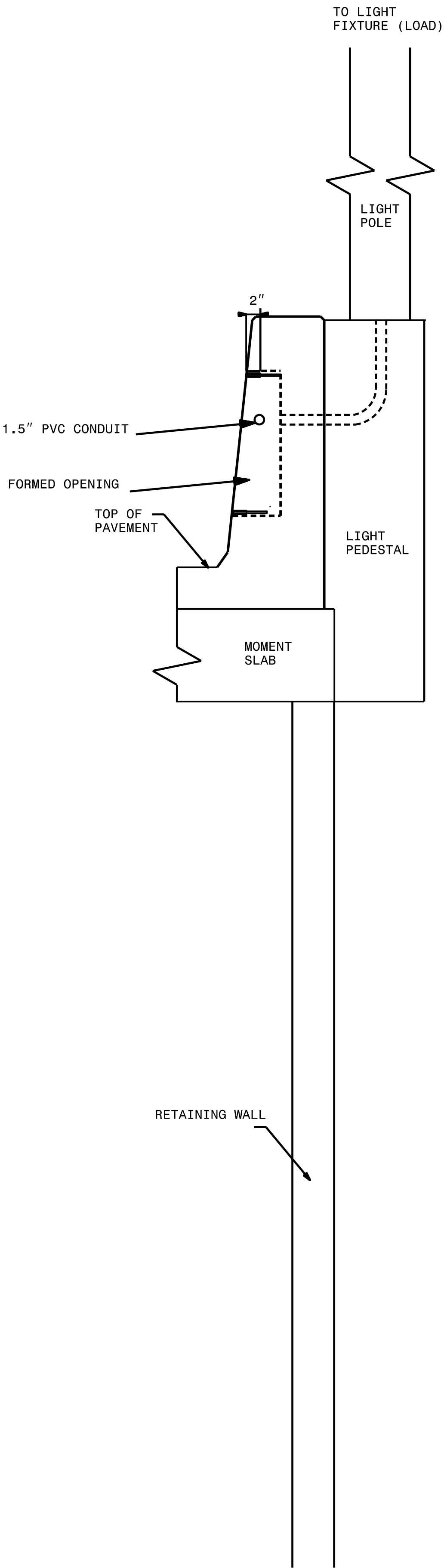
Drawn By: Sarah C. Kirkpatrick
09/03/2026
TACCC80B118E46C

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NTS

NOTES

- USE THIS DETAIL SHEET FOR POLES FF-28 TO FF-33 (ON RP23) ALONG RETAINING WALL #3. CONDUIT IS IN THE BARRIER RAIL.
- SEE WALL PLANS FOR MOMENT SLAB DETAILS
- POLE ATTACHMENT MEANS NOT SHOWN.
- SEE SHEET E-12 FOR FORMED OPENING DETAILS.



2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
FOUNDATION DETAIL FOR POLES ON MOMENT SLAB BARRIER OVER RETAINING WALL			
BUNCOMBE COUNTY			
Drawn By:	MSQ	Approved By:	RGH
		Dwg No.:	

\$\$\$\$\$SYTIME\$\$\$\$\$DCN\$\$\$\$\$USERNAME\$\$\$\$\$

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.
I-25/3AC

SHEET NO.
E-18

NORTH CAROLINA
PROFESSIONAL
SEAL
059834
ENGINEER
SARAH G. KIRKPATRICK

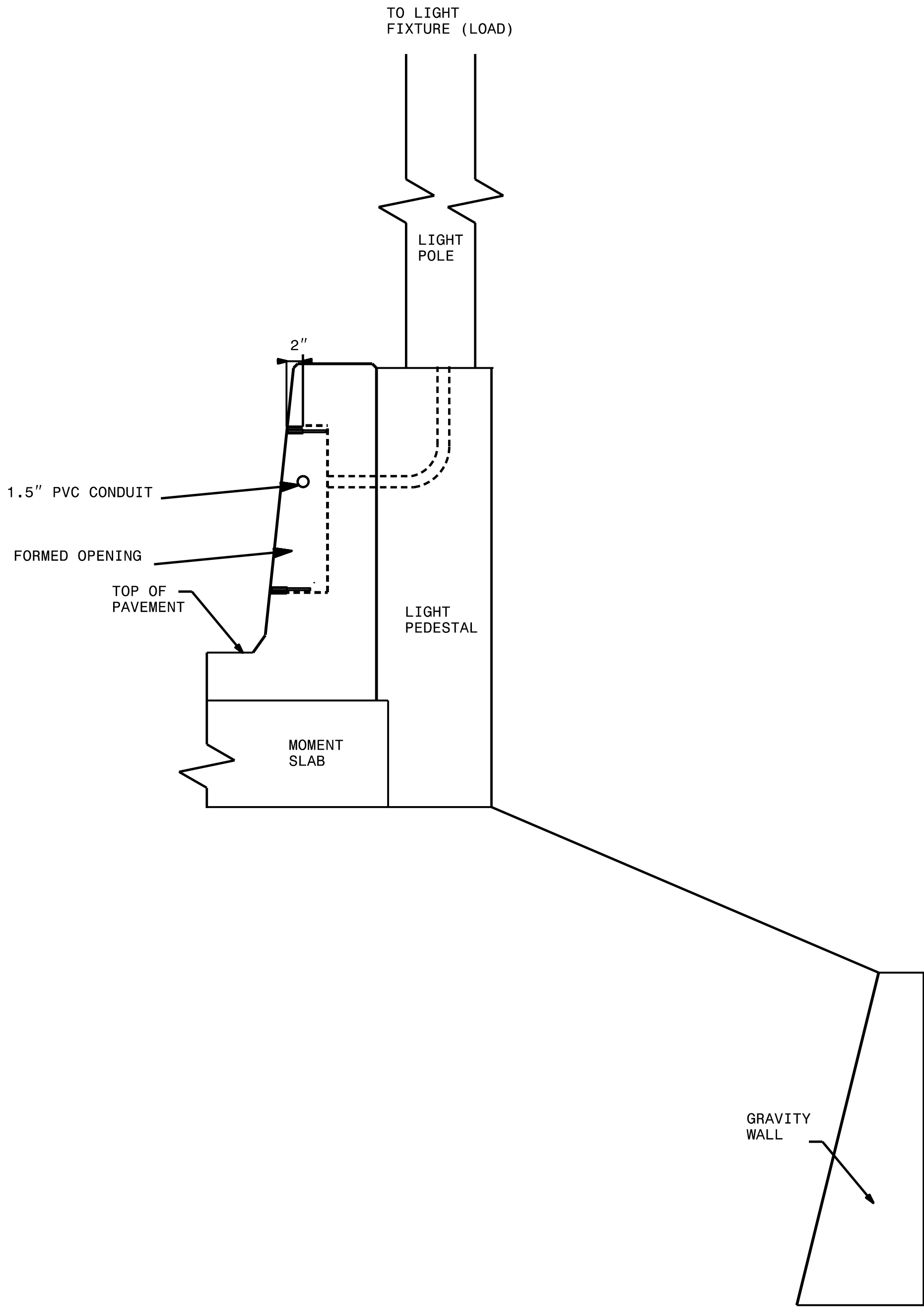
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Sarah Kirkpatrick
TACC0000119E4RG... 09/03/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NTS

NOTES

- 1USE THIS DETAIL SHEET FOR POLES
FF-1 TO FF-5, FF-8-1, FF-41 TO FF-43
(IN MEDIAN NEAR RETAINING WALLS 30-32).
CONDUIT IS IN THE BARRIER RAIL.
- 2SEE SPECIAL DETAIL SHEETS (ROADWAY R2C PLANS)
FOR MOMENT SLAB AND LIGHT PEDESTAL DETAILS.
- 3POLE ATTACHMENT MEANS NOT SHOWN.
- 4SEE SHEET E-12 FOR FORMED OPENING DETAILS.



\$\$\$\$\$SYTIME\$\$\$\$\$
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\$\$\$\$\$DGN\$\$\$\$\$
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\$\$\$\$\$NAME\$\$\$\$\$
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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
FOUNDATION DETAIL FOR POLES ON MOMENT SLAB BARRIER AT BIFURCATED I-26 SEGMENTS BUNCOMBE COUNTY			
Drawn By: MSQ	Approved By: RGH	Dwg No.:	

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

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PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-19

DocuSigned by:
Sarah Kirkpatrick
7ACCC8DB118E46C

09/03/2026

NORTH CAROLINA
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SEAL
059834
ENGINEER
SARAH C. KIRKPATRICK

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UNLESS ALL SIGNATURES COMPLETED

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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING DETAILS			
BUNCOMBE COUNTY			
Drawn By MSQ	Approved By	Dwg No.	

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-20

NORTH CAROLINA

PROFESSIONAL

SEAL

059834

ENGINEER

SARAH G. KIRKPATRICK

DocuSigned by

Sarah Kirkpatrick

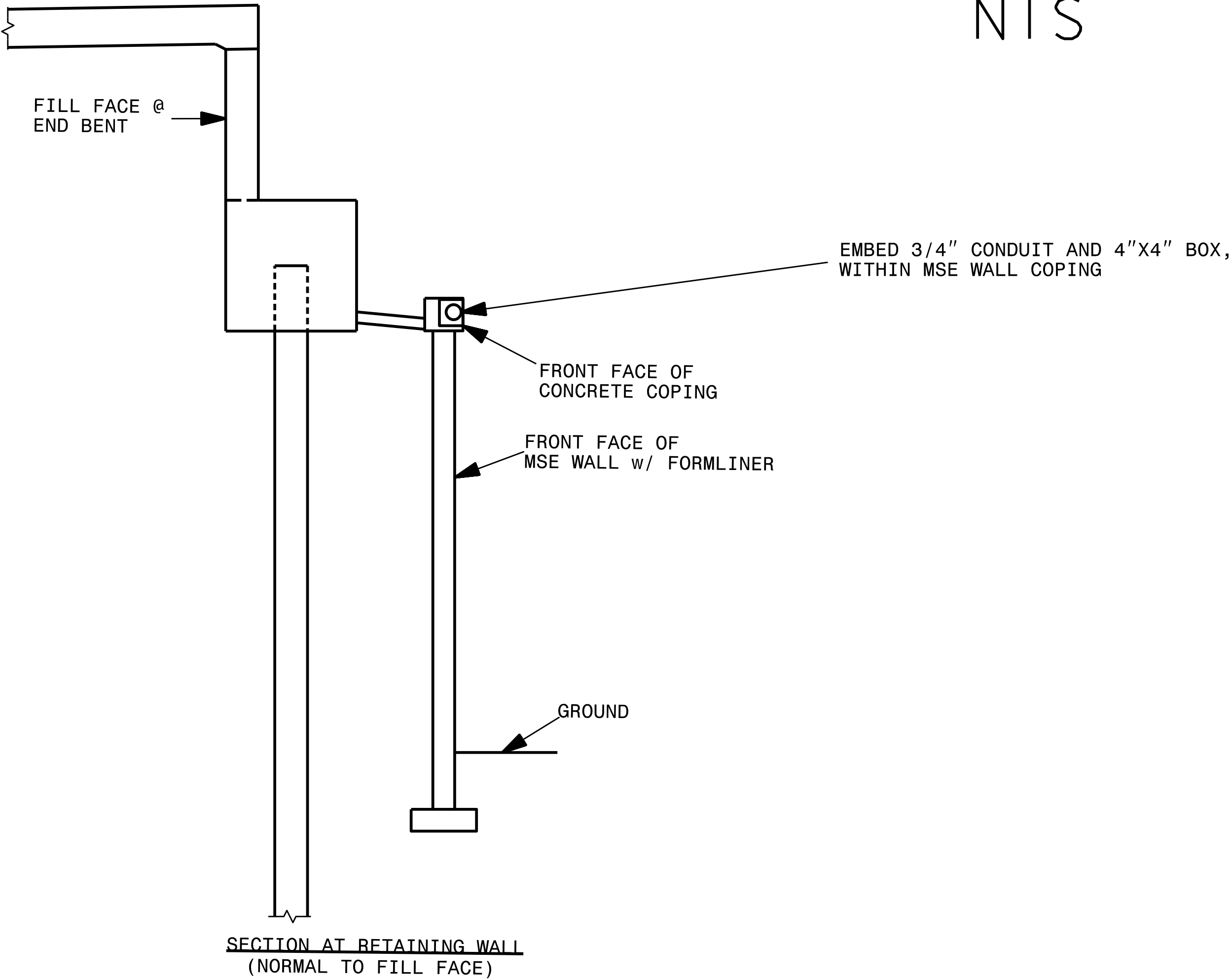
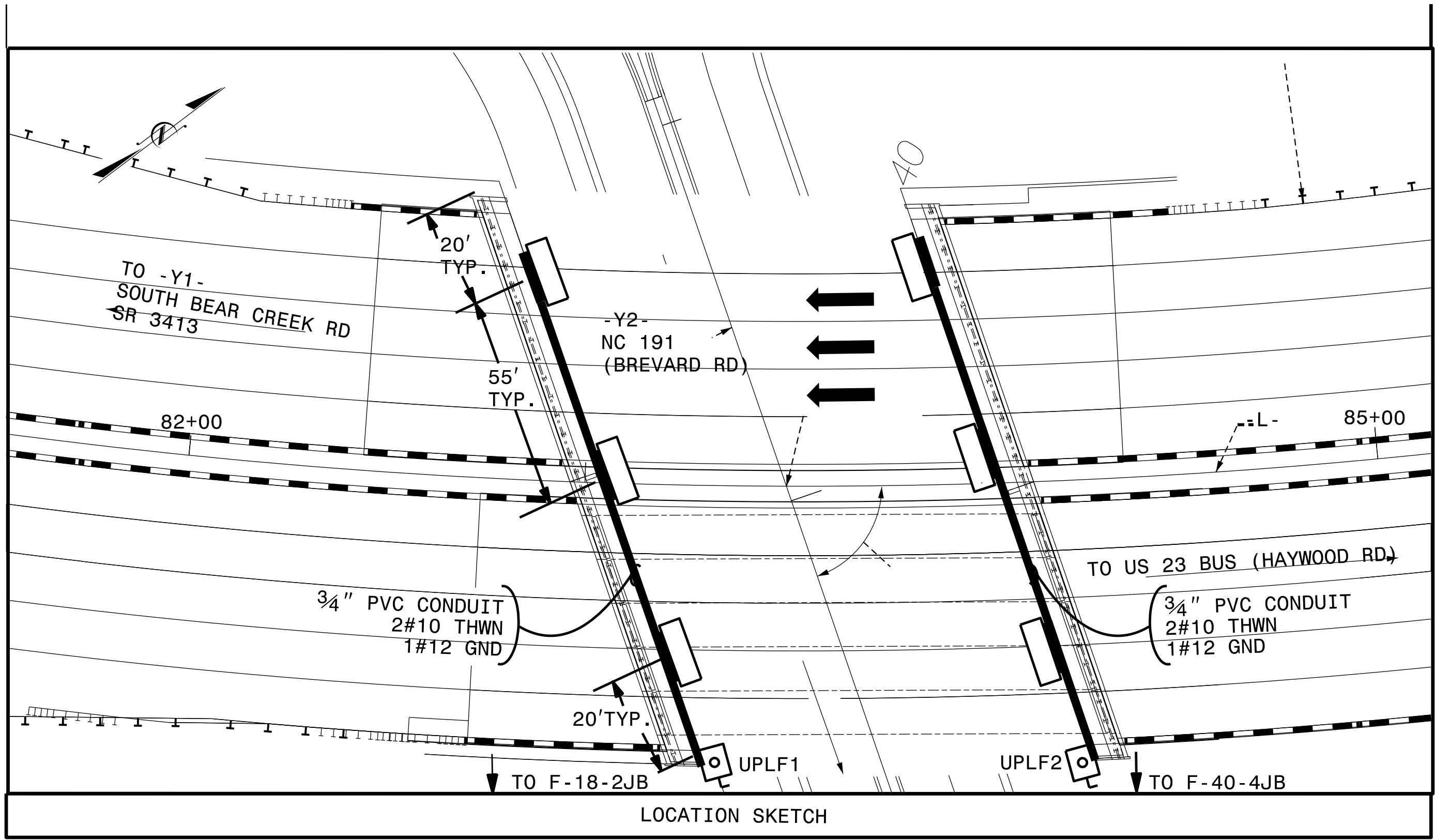
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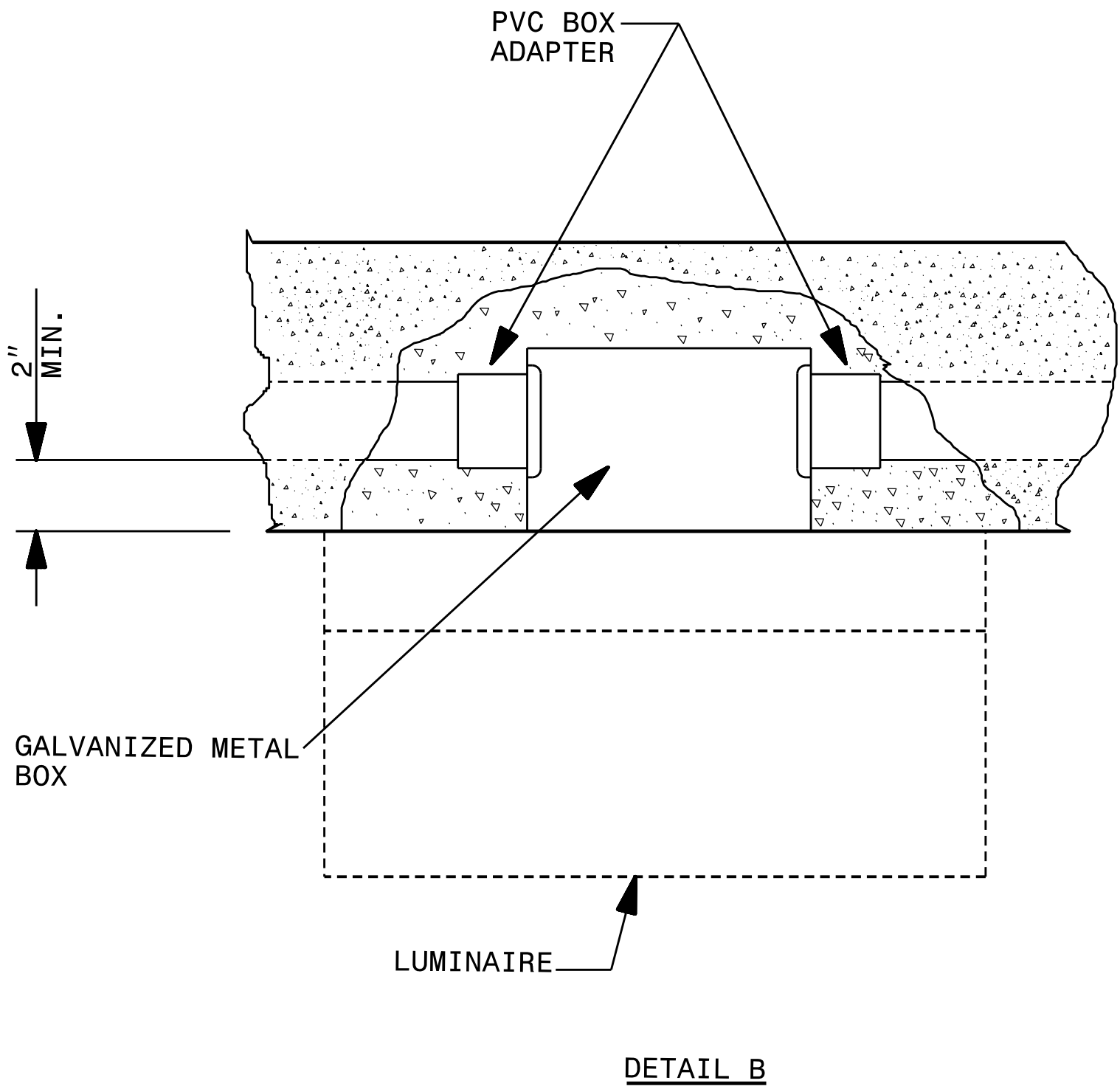
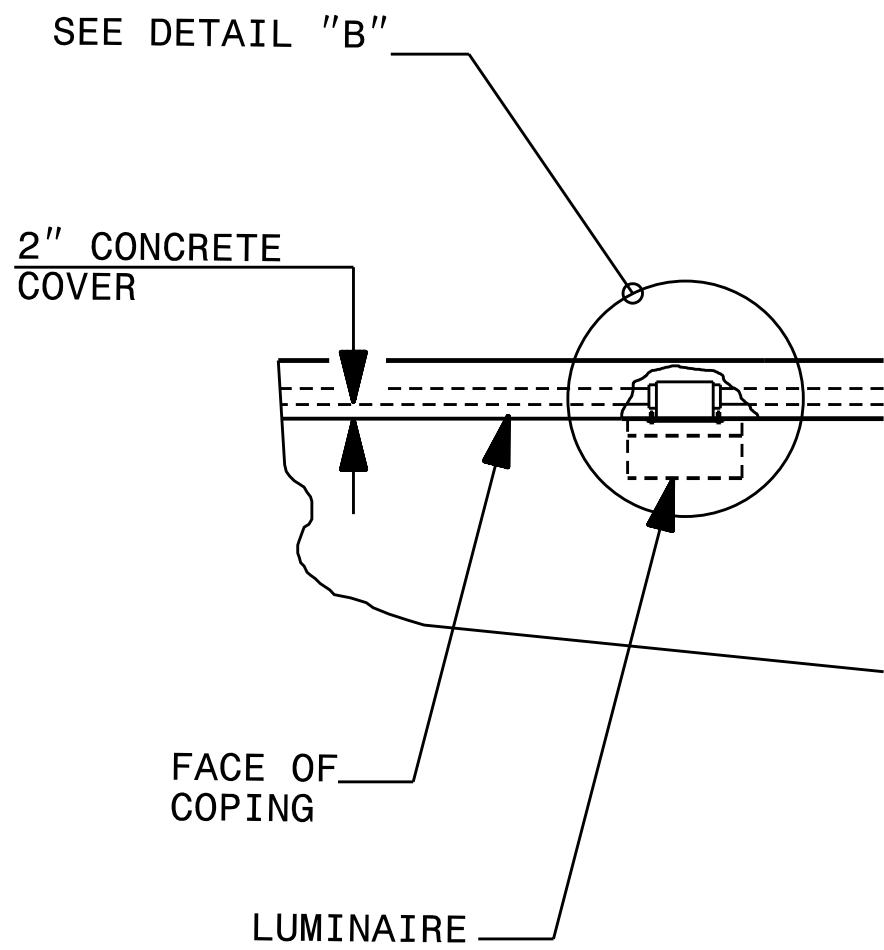
UNLESS ALL SIGNATURES COMPLETED

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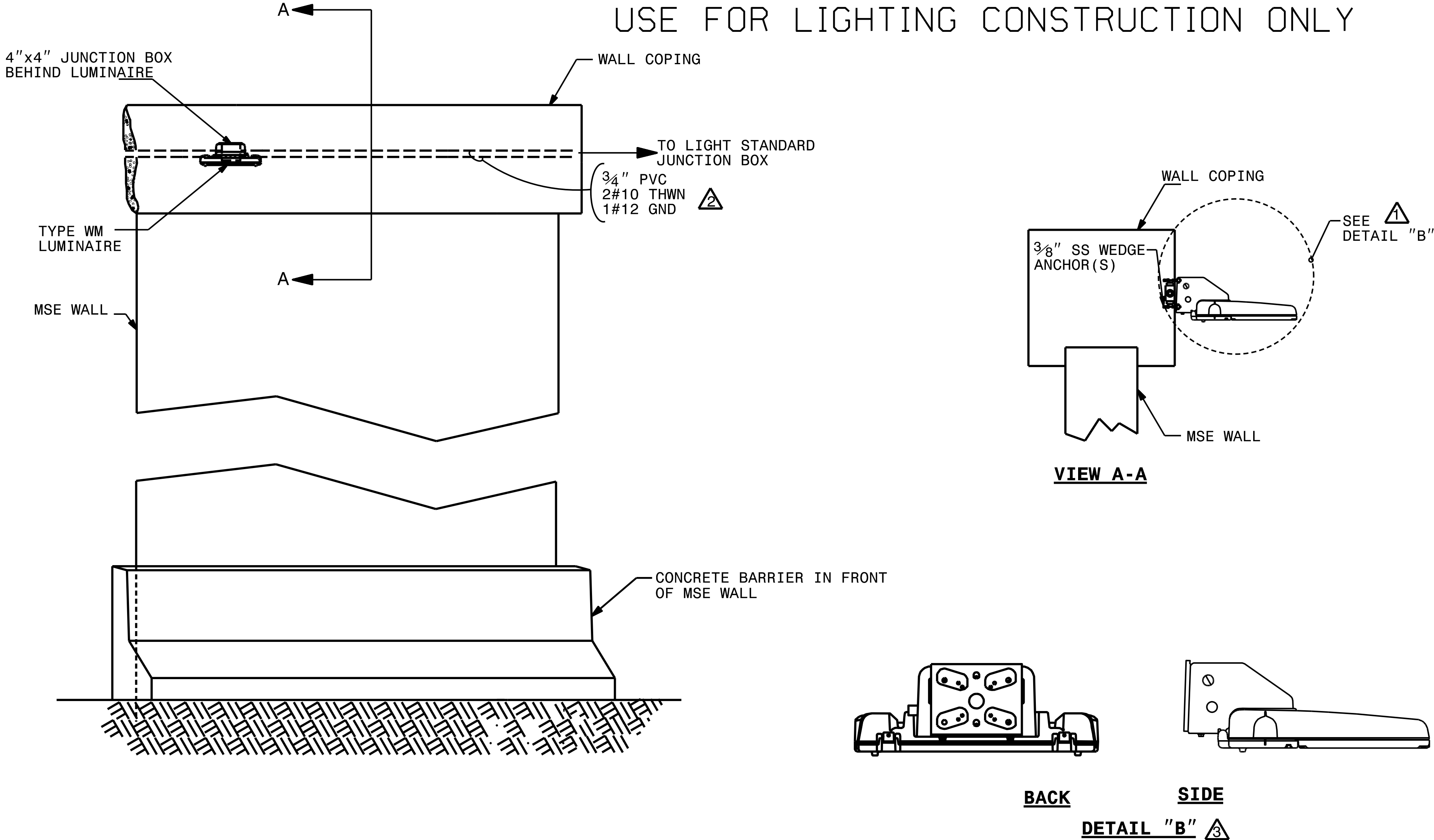
NOTES

- 1
- CONDUIT SHALL NOT BE SURFACE MOUNTED. ALL CONDUIT AND BOXES SHALL BE EMBEDDED WITHIN MSE WALL.
- 2
- SEE SHEET E-21 FOR FURTHER INSTALLATION DETAILS.
- 3
- REFER TO THE STRUCTURE PLANS FOR BRIDGE AND WALL CONSTRUCTION.



2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT ELECTRICAL CONDUIT SYSTEM DESIGN, BREVARD RD & I-26			
BUNCOMBE COUNTY			
Drawn By	MSO	Approved By	RGH
		Dwg No.	

NTS



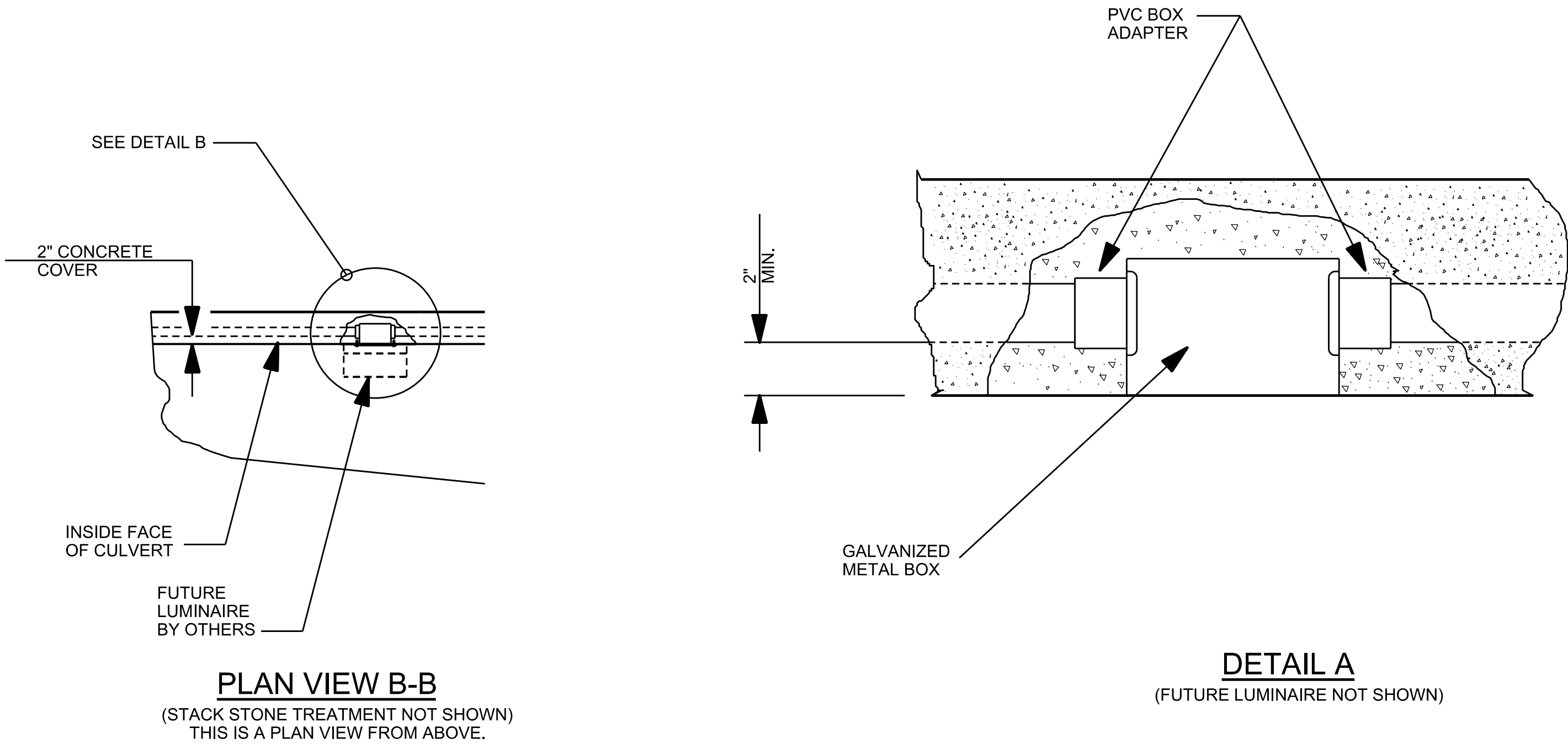
TYPE WM LED LUMINAIRE AND CIRCUITRY

- NOTES
- 1 MOUNT WM LED LUMINAIRE AT VERTICAL CENTER OF WALL COPING.
 - 2 PROVIDE EXPANSION FITTINGS ONLY AT WALL COPING EXPANSION JOINT.
 - 3 EMBEDDED JUNCTION BOX NOT SHOWN IN THIS DETAIL.
 - 4 INCLUDE CONTEMPORARY UNDERPASS LIGHTS SIMILAR TO THOSE CURRENTLY INSTALLED AT I-26/BROADWAY BRIDGE.

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$LJ\$\$\$\$\$
\$\$\$\$\$>DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

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1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING DETAILS			
UNDERPASS LIGHTING INSTALLED ON MSE WALL COPING BUNCOMBE COUNTY			
Drawn By	MSQ	Approved By	RGH
		Dwg No.	

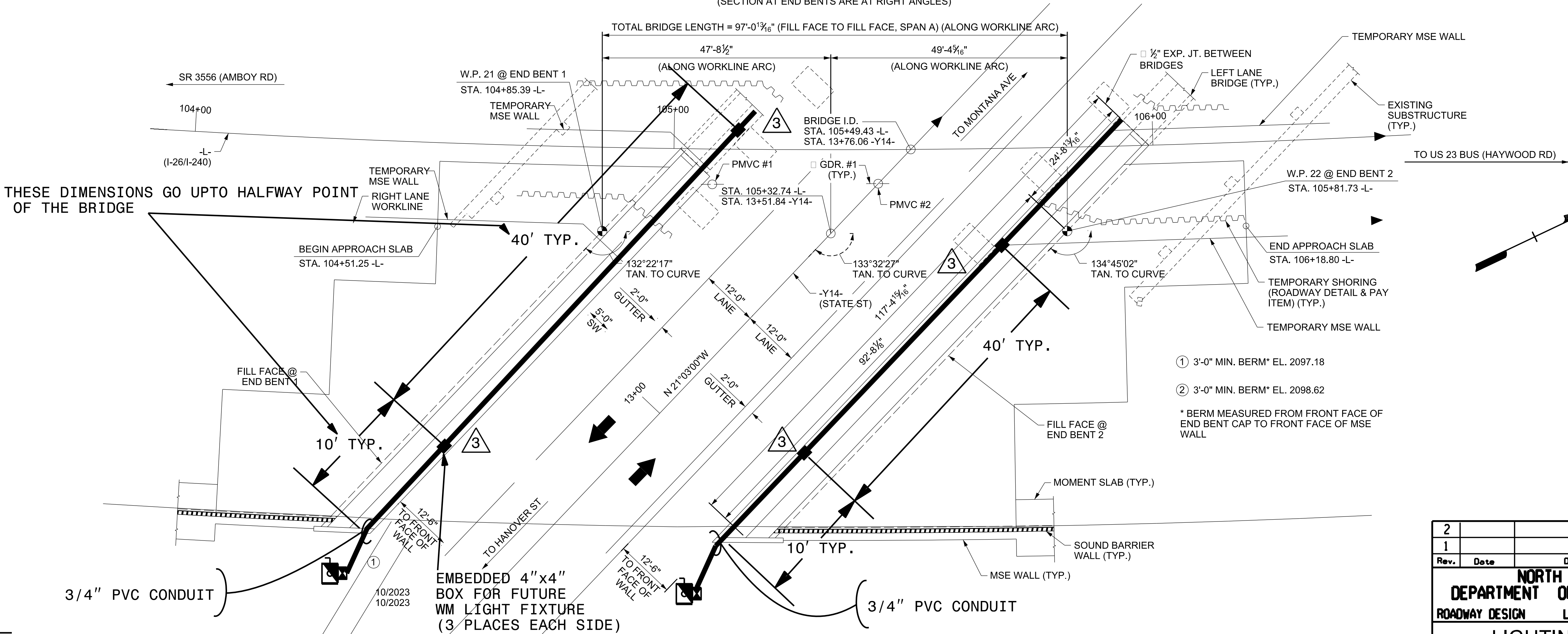
USE FOR LIGHTING CONSTRUCTION ONLY



PLAN VIEW B-B
(STACK STONE TREATMENT NOT SHOWN)
THIS IS A PLAN VIEW FROM ABOVE.

DETAIL A
(FUTURE LUMINAIRE NOT SHOWN)

SECTION ALONG RIGHT WORKLINE
(SECTION AT END BENTS ARE AT RIGHT ANGLES)



NOTES

- CONDUIT SHALL NOT BE SURFACE-MOUNTED. ALL CONDUIT AND BOXES SHALL BE EMBEDDED WITHIN STACK STONE TREATMENT OR MSE WALL.
- THIS IS A SCHEMATIC REPRESENTATION OF CONDUIT, AND IS NOT REPRESENTATIVE OF AESTHETIC DESIGN REQUIREMENTS.
- CONDUIT SHALL EXTEND TO THE END OF BRIDGE BENT.

PLAN (NORTHBOUND BRIDGE)
(PILES NOT SHOWN FOR CLARITY)

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT FOR BRIDGE ON I-26/I-240 OVER STATE ST BETWEEN SR 3556 (AMBOY RD) AND US 23 BUS (HAYWOOD RD) NORTHBOUND BUNCOMBE COUNTY			
Drawn By	MSO	Approved By	RGH
Dwg No.			

\$\$\$\$\$SYTIME\$\$\$\$\$DGN\$\$\$\$\$USERNAME\$\$\$\$\$

PROJECT REFERENCE NO.
1-2513AC

SHEET NO.
E-23

NORTH CAROLINA

PROFESSIONAL

SEAL

059834

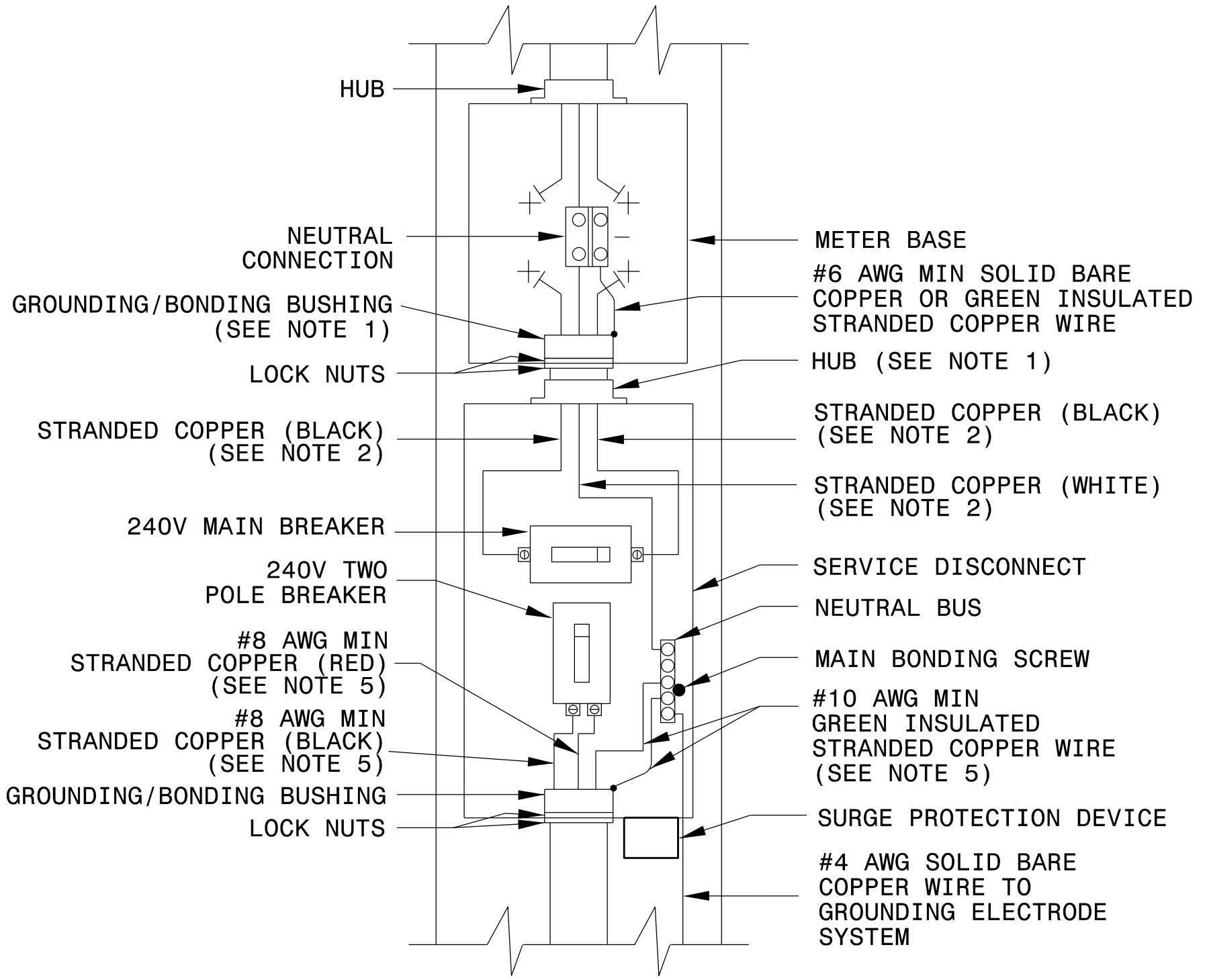
ENGINEER

CAROL G. KIRKPATRICK

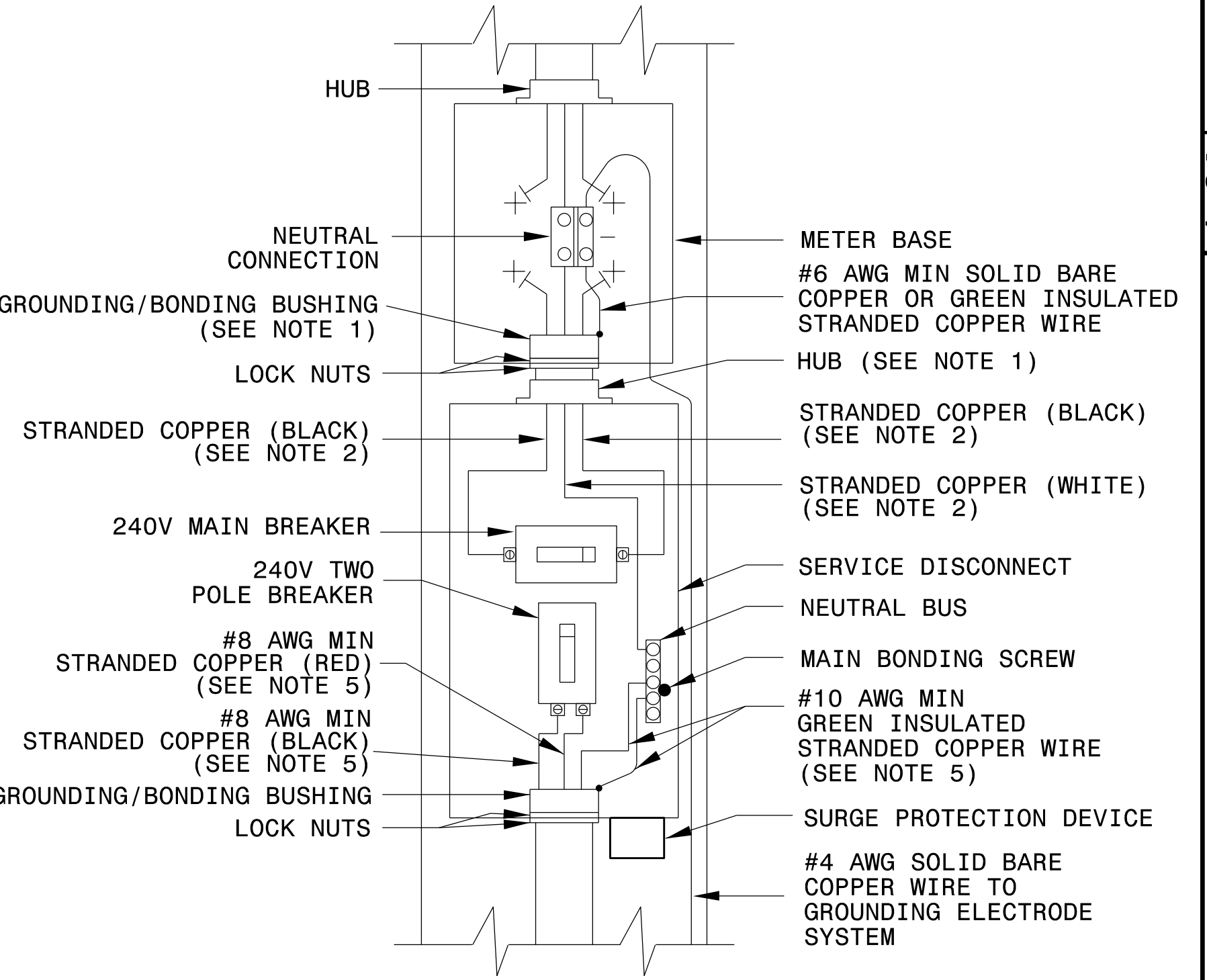
DocuSigned by:
Savala Kirkpatrick
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DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

TYPICAL ELECTRICAL CONNECTION DETAIL FOR
OVERHEAD SERVICE INSTALLATION
SERVICE DISCONNECT WITH MAIN BREAKER
(SHOWN WITH METER BASE/SERVICE DISCONNECT OPTION AND WITH
GROUNDING ELECTRODE CONDUCTOR TERMINATED IN DISCONNECT)



ALTERNATE ELECTRICAL CONNECTION DETAIL FOR
OVERHEAD SERVICE INSTALLATION
SERVICE DISCONNECT WITH MAIN BREAKER
(SHOWN WITH METER BASE/SERVICE DISCONNECT OPTION AND WITH
GROUNDING ELECTRODE CONDUCTOR TERMINATED IN METER)



1-24

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
ELECTRICAL SERVICE OPTIONS
SERVICE DISCONNECT WITH MAIN BREAKER

SHEET 2 OF 3
1700D01

NOTES

1. WHEN USING A HUB LISTED AS A GROUNDING HUB (UL TYPES DWTT AND KDER),
THE BONDING BUSHING IN THE METER BASE IS NOT NECESSARY.

2. SERVICE-ENTRANCE CONDUCTORS SHALL BE SIZED ACCORDING TO THE NEC.

3. NOTE REMOVED

4. NOTE REMOVED

5. THE AMPACITIES LISTED HERE DO NOT TAKE INTO ACCOUNT ANY VOLTAGE DROP
CONSIDERATIONS OR TEMPERATURE COMPATIBILITY WITH THE CONNECTION POINTS.

2			
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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
COMBINATION PANEL DETAIL			
BUNCOMBE COUNTY			
Drawn By:	Approved By:	Dwg No.:	