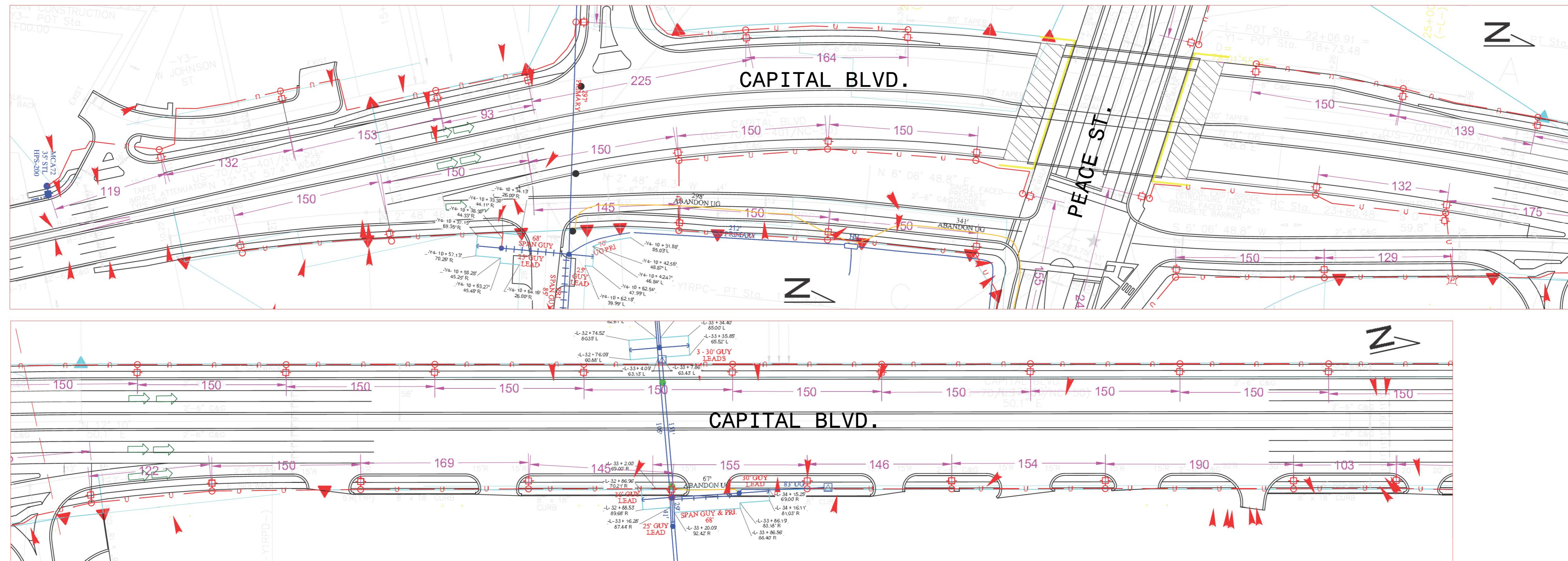


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NOTES

- 1 THE NCDOT 2012 STANDARD SPECIFICATIONS AND DRAWINGS FOR ROADS AND STRUCTURES AND LIGHTING SPECIAL PROVISIONS SHALL GOVERN THIS STREET LIGHTING CONDUIT INSTALLATION.
- 2 INSTALLATION OF THE STREET LIGHTING CONDUIT SHALL COMPLY WITH DUKE ENERGY PROGRESS CONSTRUCTION STANDARD DRAWINGS AND SPECIFICATIONS.
- 3 THE INSTALLATION OF THE STREET LIGHTING CONDUIT WILL BE PERFORMED BY NCDOT ROADWAY CONTRACTOR. REFER TO THE UTILITIES BY OTHERS (UBO) PLANS AND SPECIAL PROVISIONS FOR COORDINATION, CONSTRUCTION SEQUENCE, AND INSTALLATION OF STREET LIGHTING CONDUIT. STREET LIGHTING CONDUIT IS SHOWN AS PROPOSED UNDERGROUND POWER CONDUIT IN THE UTILITY EASEMENT DETAIL ON THE UBO PLANS.
- 4 COORDINATE THE STREET LIGHTING CONDUIT INSTALLATION IN THESE AREAS TO AVOID CONFLICTS AND DAMAGES TO THE 14' DECORATIVE SIDEWALKS.
- 5 STREET LIGHTING CONDUIT IS A 2" PVC CONDUIT, FURNISHED BY DUKE ENERGY, AND INSTALLED 36" BELOW GRADE BY NCDOT ROADWAY CONTRACTOR. DUKE ENERGY WILL RETURN ON SITE AT A LATER DATE TO LOCATE THE CONDUIT, INSTALL FITTINGS, PULL CONDUCTORS AND ERECT LIGHT POLES TO PROVIDE AN OPERATIONAL LIGHTING SYSTEM PRIOR TO THE COMPLETION OF THE ROADWAY PROJECT.
- 6 MARK UNDERGROUND STREET LIGHTING CONDUIT FOR EACH PROPOSED LIGHT POLE LOCATION WITH A PIECE OF VERTICAL PIPE BURIED AND EXTENDED ABOVE GRADE.

LEGEND

- STREET LIGHT STANDARD PROVIDED AND INSTALLED BY DUKE ENERGY
- 2" PVC CONDUIT FURNISHED BY DUKE ENERGY FOR INSTALLATION ALONG CAPITAL BOULEVARD.

NO.	DATE	REVISION	BY

LIGHTING DESIGN TOLERANCE
 The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (follage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.



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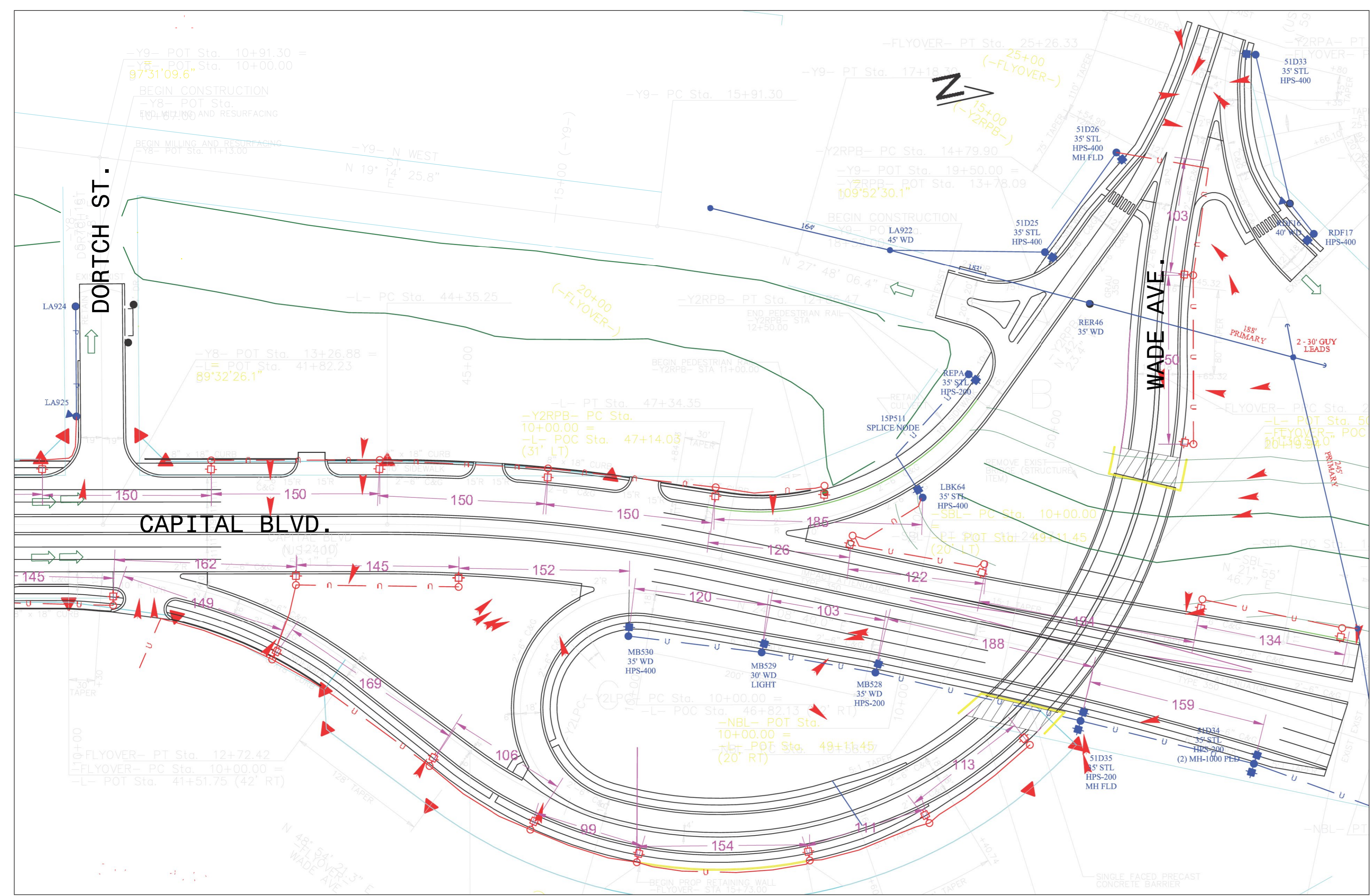
STREET LIGHTING ARRANGEMENT FOR CAPITAL BLVD (US 401)	
Designed by	DUKE ENERGY PROGRESS LIGHTING SOLUTIONS
Reviewed by	STEPHEN SHORT Scale 1" = 50'
Date	5/23/2016 Size Drawing size "D"
Description	N/A
Drawing No.	## ##### Sht. 1 OF 2

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

**STREET LIGHTING
CONDUIT INSTALLATION**


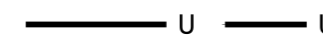
WAKE COUNTY

Drawn By: AB	Approved By:	Dwg No.:
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SEE SHEET "SL1" FOR Δ NOTES

LEGEND

-  STREET LIGHT STANDARD PROVIDED AND INSTALLED BY DUKE ENERGY
-  2" PVC CONDUIT FURNISHED BY DUKE ENERGY FOR INSTALLATION ALONG CAPITAL BOULEVARD.

NO.	DATE	REVISION	BY

LIGHTING DESIGN TOLERANCE
 The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (tallies or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.



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STREET LIGHTING ARRANGEMENT FOR	
CAPITAL BLVD (US 401)	
WADE AVE BRIDGE STREET LIGHT REMOVALS	
Designed by	DUKE ENERGY PROGRESS LIGHTING SOLUTIONS
Reviewed by	STEPHEN SHORT Scale 1" = 50'
Date	5/23/2016 Size Drawing size "D"
Description	N/A
Drawing No.	## ##### Sit. 2 OF 2

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

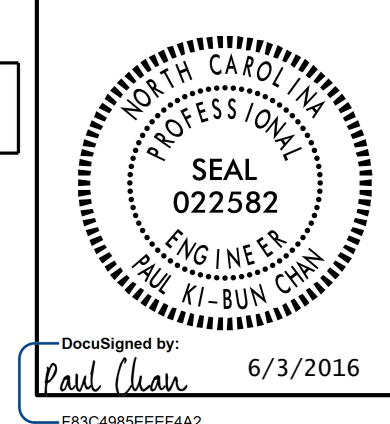
**STREET LIGHTING
 CONDUIT INSTALLATION**

WAKE COUNTY

Drawn By: AB	Approved By:	Dwg No.:
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PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DocuSigned by:
Paul Chan 6/3/2016
F83C488EEEF42

NOTES

- 1 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.
- 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 SEE LIGHTING DETAILS PLAN SHEETS E6-E7 FOR CAPITAL BOULEVARD BRIDGE OVER PEACE STREET AND SHEETS E8-E9 FOR THE WADE AVENUE FLYOVER BRIDGE RESPECTIVELY, FOR CONDUIT AND AESTHETIC LIGHTING LUMINAIRES ATTACHMENT DETAILS.
- 5 INSTALL RIGID GALVANIZED CONDUIT (RGC) ABOVE GROUND, AND POLYVINYL CHLORIDE (PVC) SCHEDULE 40 CONDUIT UNDERGROUND, EXCEPT AS MODIFIED ON THESE PLAN SHEETS OR IN APPLICABLE SECTIONS OF THE ROADWAY STANDARD DRAWINGS FOR THIS PROJECT.
- 6 TYPE PC30 JUNCTION BOXES ARE 30" L X 17" W X 18" H.
- 7 TYPE PC18 JUNCTION BOXES ARE 18" L X 12" W X 18" H.
- 8 REFER TO LIGHTING DETAILS PLAN SHEETS E6 & E7 FOR DETAILS ON CONNECTING CONDUCTORS TO THE WALLPACK LED LUMINAIRES AND TO THE AESTHETIC LIGHTING LUMINAIRE CIRCUITS AL1 & AL2 ON THE CAPITAL BOULEVARD BRIDGE OVER PEACE STREET.
- 9 REFER TO LIGHTING DETAILS PLAN SHEETS E8 & E9 FOR DETAILS ON CONNECTING CONDUCTORS TO THE AESTHETIC LIGHTING LUMINAIRE CIRCUITS AL3/AL4 & AL5/AL6 ON THE WADE AVENUE BRIDGE OVER CAPITAL BOULEVARD.
- 10 THE SPOTLIGHT LUMINAIRE SHALL HAVE A LIGHT BEAM SPREAD THAT HIGHLIGHTS THE DECORATIVE MEDALLION FROM THE GROUND AND SPREADS LIGHT UP THE FACE OF THE WALL. RECOMMENDED LIGHT SPREAD ANGLE IS 14 DEGREES.
- 11 INSTALL CONDUIT AND CONDUCTORS UNDER SIDEWALK. COORDINATE WORK WITH PRIME CONTRACTOR TO INSTALL CONDUIT PRIOR TO POURING SIDEWALK.
- 12 INSTALL CONTROL SYSTEM 5.5' FROM FACE OF PROPOSED GUARDRAIL.
- 13 SPOTLIGHT LUMINAIRE SPL6 TO BE INSTALLED IN AREA WITH RIP RAP. FOUNDATION MAY BE NEAR FLUSH WITH RIP RAP AT THIS LOCATION.
- 14 INSTALL PC18 JUNCTION BOX WITHIN 2 FEET OF SPOTLIGHT FOUNDATION.
- 15 TYPE CAST IRON JUNCTION BOXES (CIJB) ARE 12"L X 12"W X 8"H. CIJB SHALL HAVE A CONTINUOUS HINGE ON THE LID.

SCOPE OF WORK

THIS PROJECT INCLUDES PROVIDING AND INSTALLING CONDUIT, JUNCTION BOXES, CONTROL SYSTEMS AND DECORATIVE LIGHTING AT TWO STRUCTURES ALONG THE PROJECT CORRIDOR. DECORATIVE LIGHTING IS AS FOLLOWS:

CAPITAL BOULEVARD BRIDGE OVER PEACE STREET
LED WALL MOUNT UNDERPASS LIGHTS
LED AESTHETIC LIGHTING LUMINAIRES FOR BACK LIGHTING OF ARCHITECTURAL METAL FASCIA ATTACHED TO THE GIRDER ON BOTH SIDES
LED SPOTLIGHTS FOR MEDALLIONS/WALL WASH AT THE END BENTS

WADE AVENUE BRIDGE OVER PEACE STREET
LED AESTHETIC LIGHTING LUMINAIRES FOR BACK LIGHTING OF ARCHITECTURAL METAL FASCIA ATTACHED TO THE GIRDER ON BOTH SIDES
LED SPOTLIGHTS FOR MEDALLIONS/WALL WASH AT THE END BENTS

DESIGN CRITERIA

- 2005 AASHTO ROADWAY LIGHTING DESIGN GUIDE
- 2014 NATIONAL ELECTRICAL CODE
- 2011 AASHTO ROADSIDE DESIGN GUIDE

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 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD NO.	TITLE
1407.01	ELECTRIC SERVICE POLE AND LATERAL
1408.01	LIGHT CONTROL SYSTEM (SHEET 3 ONLY)
1409.01	ELECTRICAL DUCT
1410.01	FEEDER CIRCUITS
1411.01	ELECTRICAL JUNCTION BOXES
1412.01	UNDERPASS LIGHTING

ALL WORK SHALL BE IN CONFORMANCE WITH DIVISION 14 OF THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JANUARY 2012.

LEGEND

- PROPOSED CONTROL SYSTEM, SEE DETAIL SHEET E5. BREAKER SIZE SHOWN IN LOAD SCHEDULES, SHEETS E2 & E3
- PROPOSED WALL PACK LUMINAIRE, TYPE IV WM, LED, BUG RATING B1-U3-G4, 75W MAX., 4200 LUMENS MIN.
- PROPOSED SPOTLIGHT LUMINAIRE, 30W LED MAX, 1280 LUMENS, SEE SPECIAL PROVISIONS FOR COLOR TEMPERATURE
SEE NOTE 10 FOR RECOMMENDED LIGHT SPREAD ANGLE. SEE SHEET E4 FOR INSTALLATION DETAILS.
- PROPOSED ELECTRICAL JUNCTION BOX, SEE TABLE B, THIS SHEET
- REFERENCE TO CORRESPONDING NOTE AS NUMBERED
- PROPOSED 4 FT LED AESTHETIC LIGHTING LUMINAIRE, 15W/775 LUMENS MINIMUM PER FOOT, 30 DEG. X 60 DEG. BEAM ANGLE. (COLOR TEMPERATURE TO BE DETERMINED AT MOCK-UP) SYMBOL DOES NOT REPRESENT A SPECIFIC NUMBER OF 4FT LUMINAIRES. REFER TO LOAD SCHEDULES FOR ACTUAL NUMBER OF LUMINAIRES.
- PROPOSED FEEDER CIRCUIT CONTROL SYSTEM(A), CIRCUIT(1) PLAN SYMBOL (6) SEE TABLE A, THIS SHEET
- PROPOSED SERVICE POLE AND LATERAL 30' CLASS 4 3#1/0 USE CONDUCTORS 2" CONDUIT
- PROPOSED ELECTRICAL DUCT SIZE 2", 3" OR 4" TYPE (JA) OR (BD) LOCATION: SEE TABLE C, THIS SHEET

2", 3" OR 4" ELEC. DUCT JA & BD

PLAN SYMBOL	DESCRIPTION	CONTRACT ITEM
8	2 #8 Ø 1 #10G 1.5" P	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR 2 - 8 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*8	2 #8 Ø 1 #10G	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR 2 - 8 W/G FEEDER CIRCUIT

NUMBER	LOCATION	TYPE	SHEET
JB1	17+85 -Y1- 70' LT	PC30	E2
JB2	17+85 -Y1- 70' RT	PC30	E2
JB3	22+10 -FLYOVER- 50' LT	PC18	E3
JB4	18+90 -FLYOVER- 50' RT	PC18	E3
TOTALS		2	2

LOCATION	RACEWAY	SHEET	TYPE						
			JACKED (JA) FEET			BURIED (BD) FEET			
			SIZE 2"	SIZE 3"	SIZE 4"	SIZE 2"	SIZE 3"	SIZE 4"	
17+85 -Y1-		E2			150				
17+85 -Y1-	JB1 - JB2	E2				170			
17+85 -Y1-	JB1 - CIJB	E2				60			
22+10 -FLYOVER-	JB3 - CIJB	E3				70			
18+90 -FLYOVER-	JB4 - CIJB	E3				70			
TOTALS					150	370			

BD	BURIED	PVC	PVC SCHEDULE 40 CONDUIT
LT	LIGHT	RGS/RGC	RIGID GALVANIZED STEEL CONDUIT
JA	JACKED	CON	CONDUIT
MH	MOUNTING HEIGHT	CKT	CIRCUIT
Ø	PHASE	N	NEUTRAL
SER LAT	SERVICE LATERAL	G	GROUND
CIJB	CAST IRON JUNCTION BOX	HM	HIGH MAST

COMPUTED BY: AB DATE: _____
CHECKED BY: PKC DATE: _____

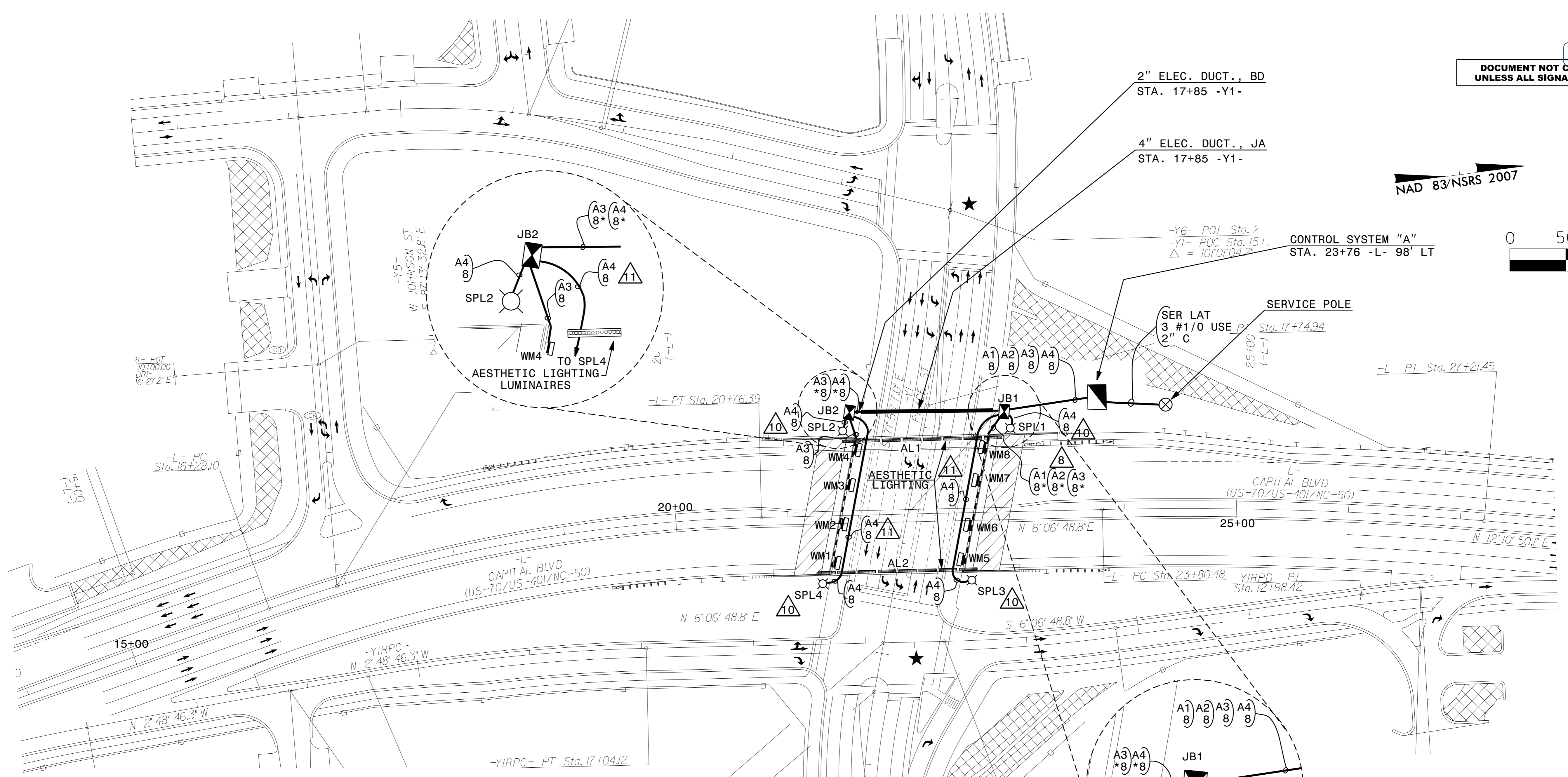
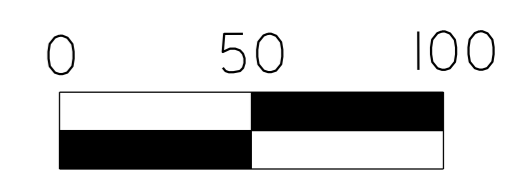
USE FOR LIGHTING CONSTRUCTION ONLY

SEE SHEET "E1" FOR LEGEND & △ NOTES



Drawn by: Paul Chan 6/3/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



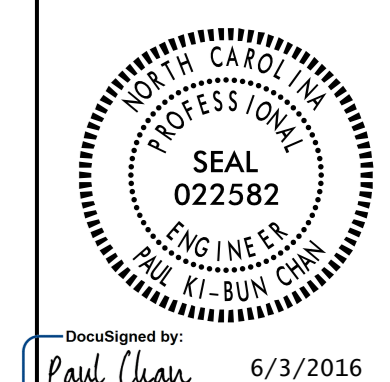
LOAD SCHEDULE
STA. 23+76 -L1- 98' LT, NW QUAD
CAPITAL BLVD BRIDGE OVER PEACE ST. CONTROL SYSTEM "A"

CIRCUIT ID	SPOTLIGHT LUMINAIRES LED	WALLMOUNT LED LUMINAIRES	AESTHETIC LIGHTING LUMINAIRE (4')	AMPS @ 240V	KW LOAD	BREAKER SIZE (AMPS)
A1			29 ON CIRCUIT AL1	7.25	1.74	15
A2			29 ON CIRCUIT AL2	7.25	1.74	15
A3		WM1-WM8		2.50	0.60	15
A4	SPL1, SPL2 SPL3, SPL4			0.80	0.19	15
SPARE						15
TOTAL	4	8	58	17.80	4.27	

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING LAYOUT REPLACE BRIDGE NO.227 OVER PEACE ST. ON US 70/401 (CAPITAL BOULEVARD) WAKE COUNTY			
Drawn By:	AB	Approved By:	PKC
Dwg No.:			

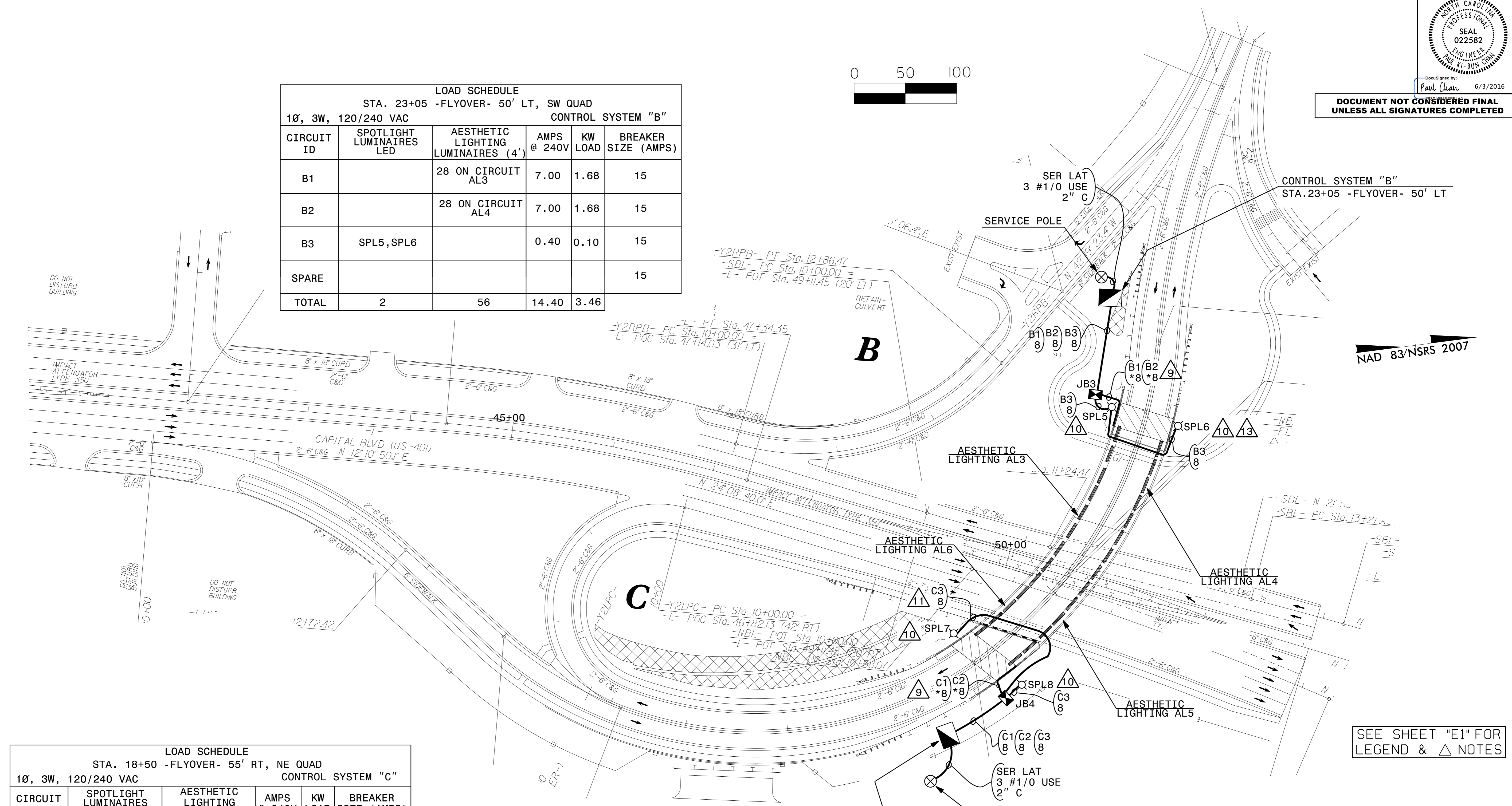
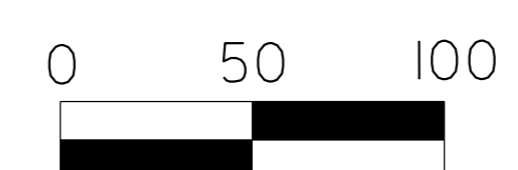
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USE FOR LIGHTING CONSTRUCTION ONLY



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LOAD SCHEDULE					
STA. 23+05 -FLYOVER- 50' LT, SW QUAD					
CONTROL SYSTEM "B"					
CIRCUIT ID	SPOTLIGHT LUMINAIRES LED	AESTHETIC LIGHTING LUMINAIRES (4')	AMPS @ 240V	KW LOAD	BREAKER SIZE (AMPS)
B1		28 ON CIRCUIT AL3	7.00	1.68	15
B2		28 ON CIRCUIT AL4	7.00	1.68	15
B3	SPL5, SPL6		0.40	0.10	15
SPARE					15
TOTAL	2	56	14.40	3.46	



LOAD SCHEDULE					
STA. 18+50 -FLYOVER- 55' RT, NE QUAD					
CONTROL SYSTEM "C"					
CIRCUIT ID	SPOTLIGHT LUMINAIRES LED	AESTHETIC LIGHTING LUMINAIRES (4')	AMPS @ 240V	KW LOAD	BREAKER SIZE (AMPS)
C1		28 ON CIRCUIT AL5	7.00	1.68	15
C2		27 ON CIRCUIT AL6	6.75	1.62	15
C3	SPL7, SPL8		0.40	0.10	15
SPARE					15
TOTAL	2	55	14.15	3.40	

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING LAYOUT REPLACE WADE AVENUE BRIDGE NO.213 OVER US 70/401 (CAPTIAL BOULEVARD) WAKE COUNTY			
Drawn By:	AB	Approved By:	PKC
Dwg No.:			

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USE FOR LIGHTING CONSTRUCTION ONLY

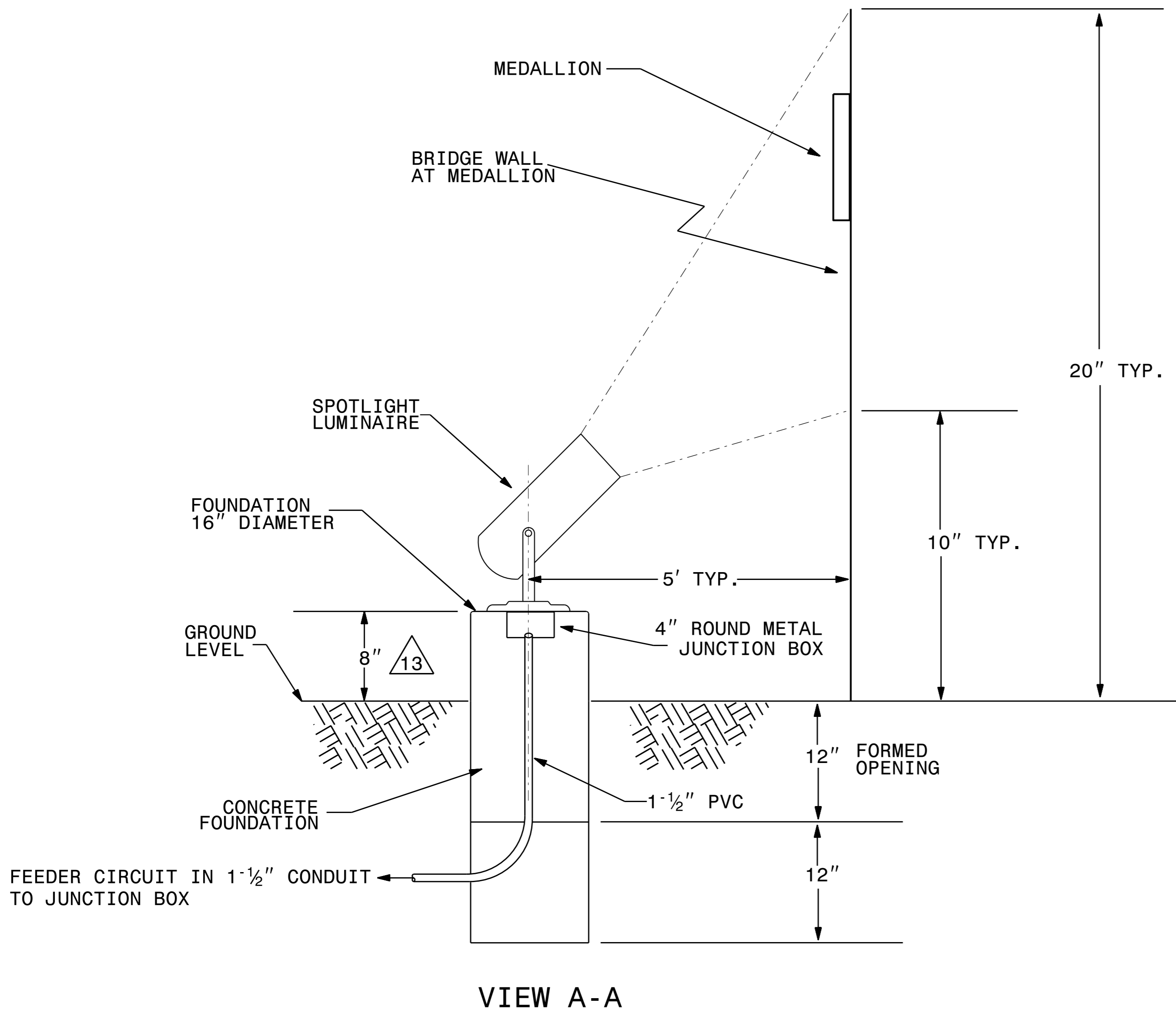
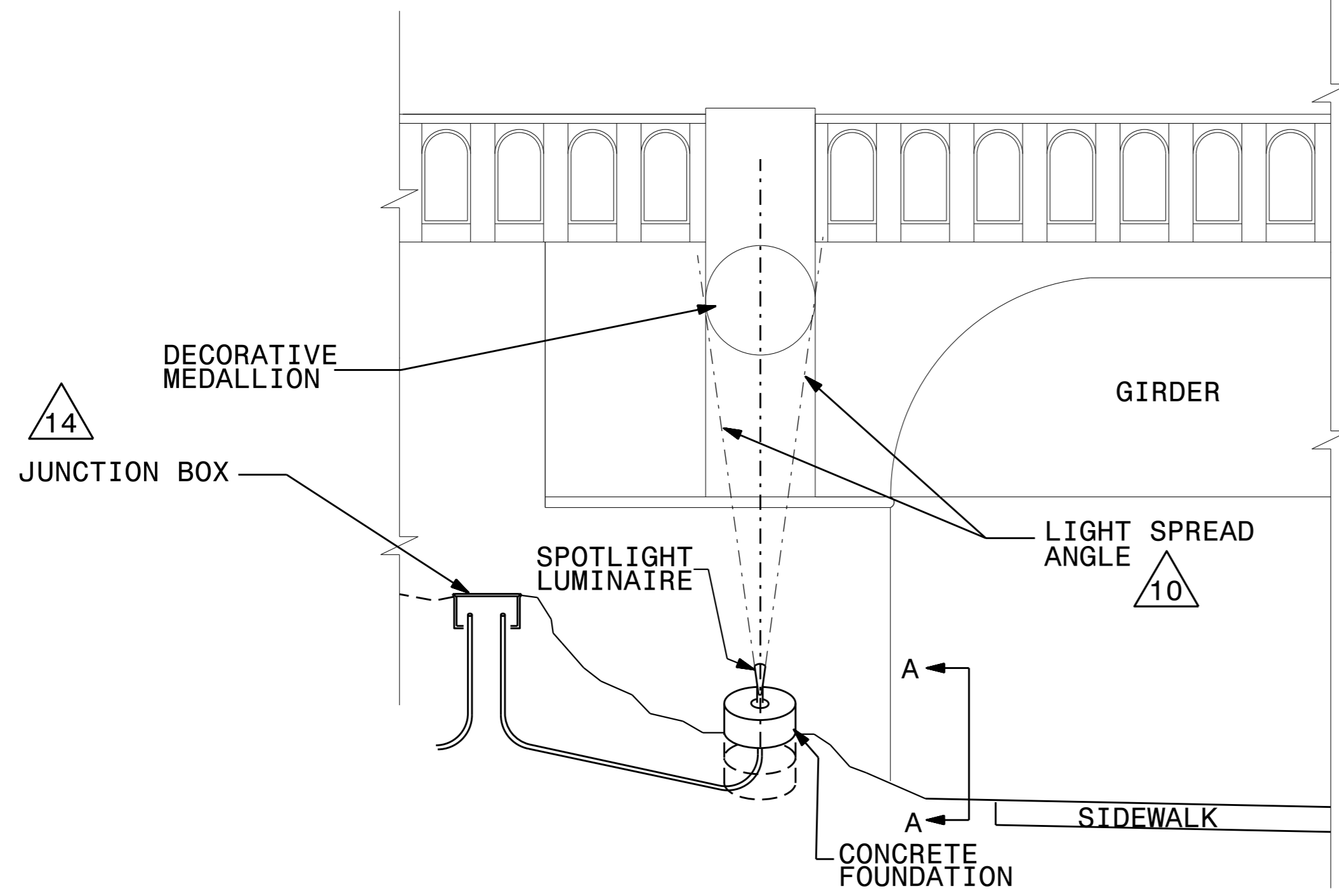
NTS



DocuSigned by:
Paul Chan
6/3/2016

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SEE SHEET "E1" FOR
LEGEND & △ NOTES



VIEW A-A

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING DETAILS SPOTLIGHT LUMINAIRE PLACEMENT (TYPICAL) WAKE COUNTY			
Drawn By:	Approved By:	Dwg No.:	
AB			



Designed by
Paul Chan 6/3/2016

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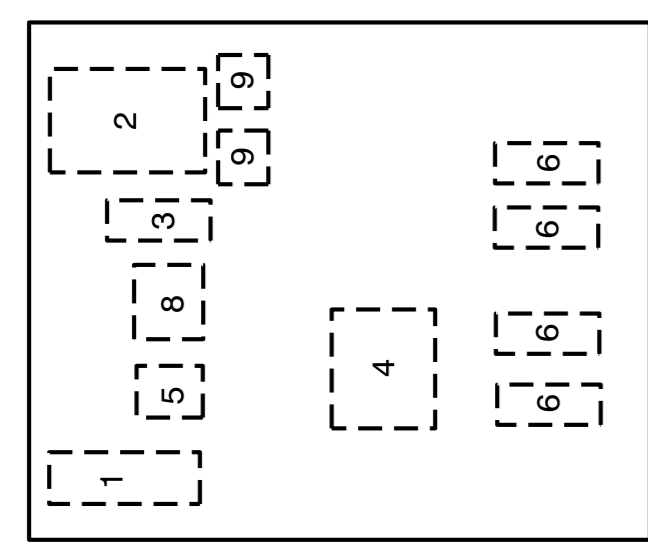
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
LIGHT CONTROL SYSTEM
SCHEMATIC

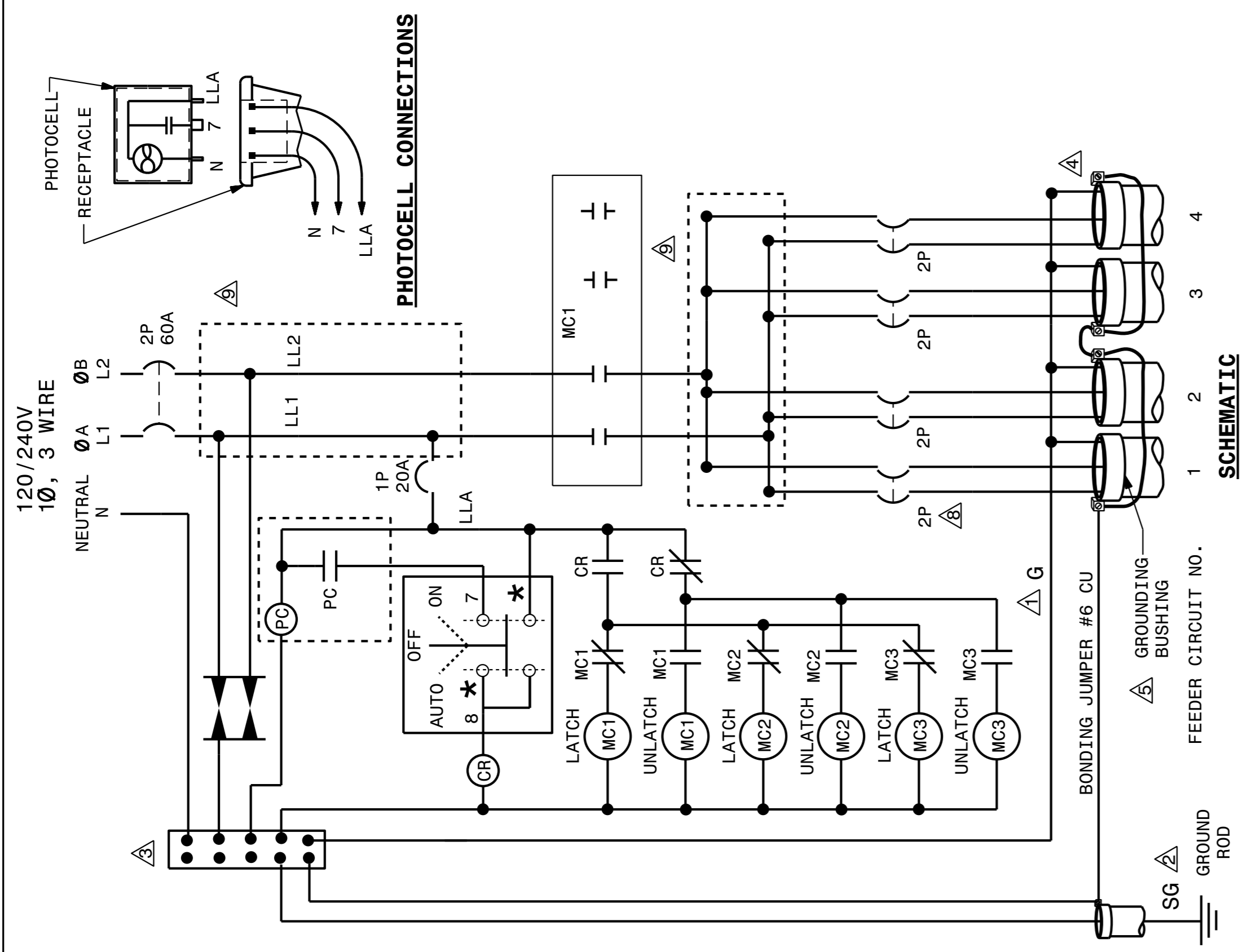
1-12

SHEET 1 OF 3
1408D01

- NOTES**
- 1 EQUIPMENT GROUNDS (G) SHALL BE SIZED ACCORDING TO CIRCUIT DESCRIPTION. SEE PLANS.
 - 2 SYSTEM GROUND (SG) SHALL BE CONTINUOUS FROM THE NEUTRAL BAR TO THE GROUNDING ELECTRODE (GROUND ROD).
 - 3 THE NEUTRAL BAR SHALL BE BONDED TO THE PANEL.
 - 4 FEEDER CIRCUITS NOT SHOWN ON THE PLANS SHALL NOT BE INSTALLED, BUT CONDUIT SHALL BE INSTALLED AND CAPPED.
 - 5 INSTALL A GROUNDING BUSHING ON EACH METAL CONDUIT. CONNECT BONDING JUMPER AS REQUIRED BY NEC.
 - 6 SEE STANDARD DRAWING 1408.01 SHEET 3 OF 3 FOR ENCLOSURE.
 - 7 THE CONTROL SYSTEM MUST BE LABELED "SUITABLE FOR USE AS SERVICE EQUIPMENT." REFER TO STANDARD SPECIFICATION 1408-2 FOR OTHER REQUIREMENTS.
 - 8 SEE PLANS FOR BREAKER SIZES.
 - 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 INSTALL LIGHTNING ARRESTOR ON OUTSIDE OF CABINET ASSEMBLY.



#	QTY	DESCRIPTION	SPECIFICATIONS
1	1	NEUTRAL BAR	
2	1	SERVICE CIRCUIT BREAKER	2P, 240V, 60A
3	1	CONTROL CIRCUIT BREAKER	1P, 120V, 15A
4	1	MECHANICALLY HELD CONTACTORS	4P, 240V, 60A W/120V COIL
5	1	CONTROL RELAY W/NC & NO CONTACT	120V, 10A, W/120V COIL
6	4	FEEDER CIRCUIT BREAKERS	2P, 240V, 50A MAX
7	1	LIGHTNING ARRESTER	
8	1	SELECTOR SWITCH (ON-OFF-AUTO)	120V, 10A
9	4	POWER DISTRIBUTION LUGS OR BLOCKS	
		MOUNTING BRACKETS OR SCREW STUDS	

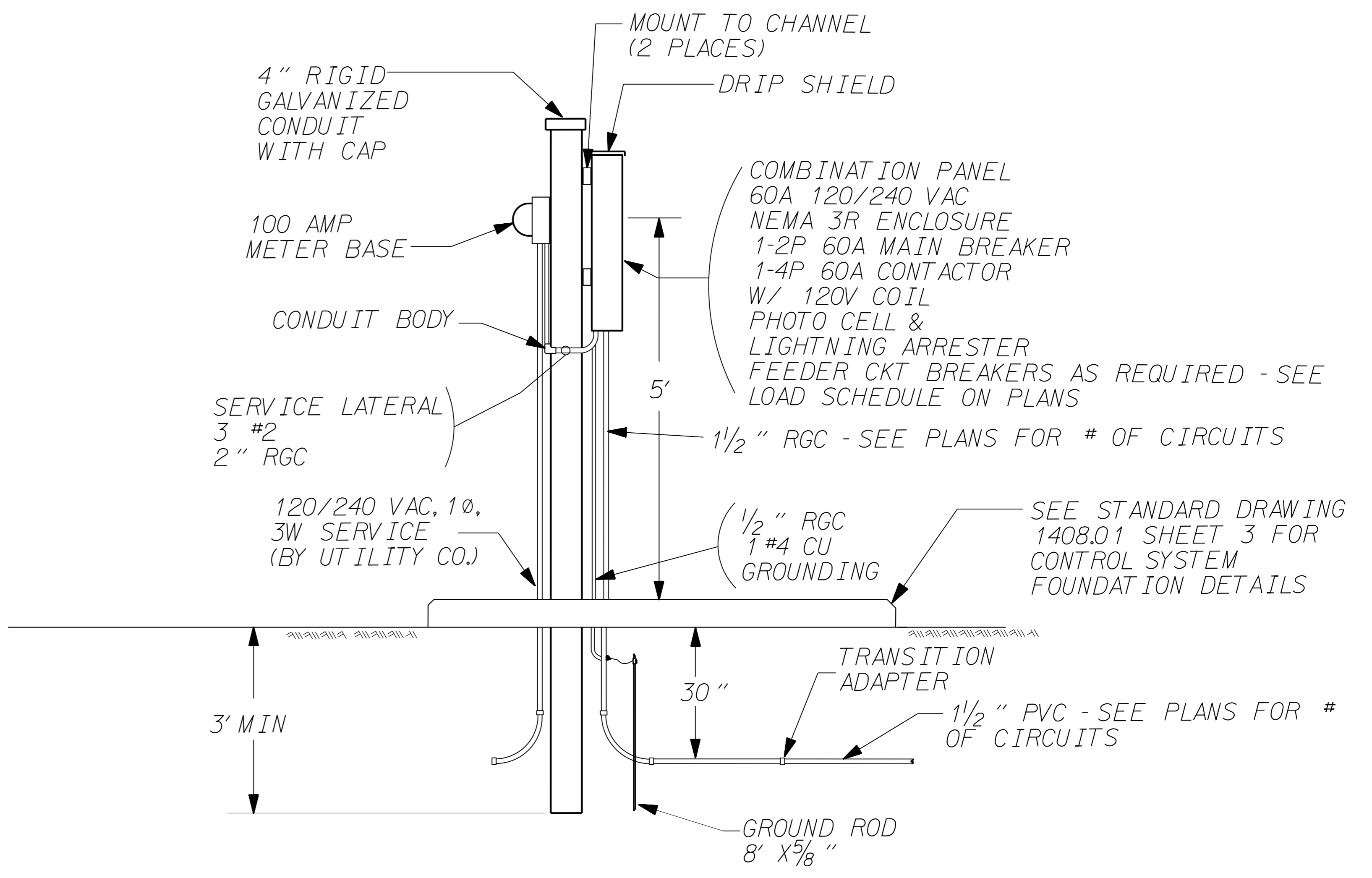


STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
LIGHT CONTROL SYSTEM
SCHEMATIC

1-12

SHEET 1 OF 3
1408D01



LIGHTING CONTROLLER/SERVICE ENTRANCE EQUIPMENT
SQUARE D NIGHT-MASTER CLASS 8903 LONG VERSION OR APPROVED EQUAL

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION 120/240V LIGHT CONTROL SYSTEM DETAILS AND NIGHTMASTER CONTROL SYSTEM WAKE COUNTY			
Drawn By:	AB	Approved By:	Dwg No.:

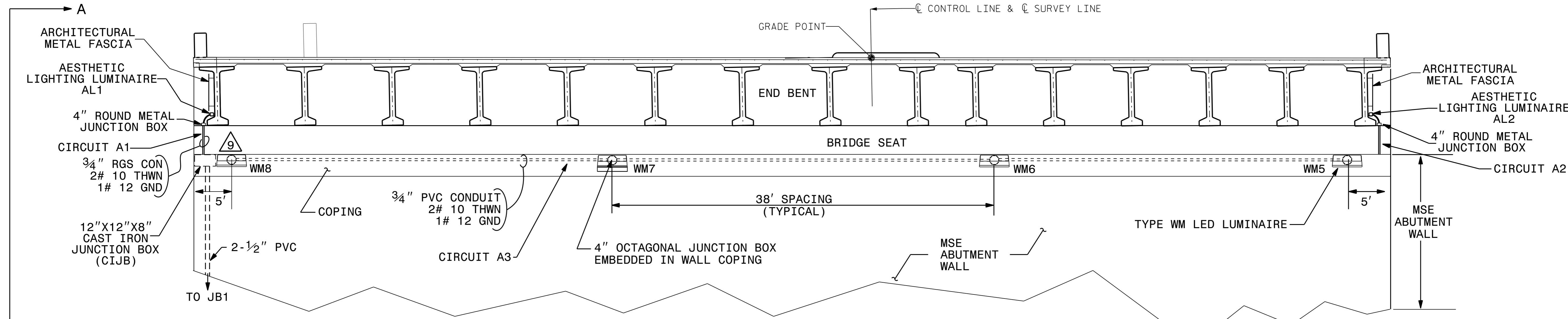
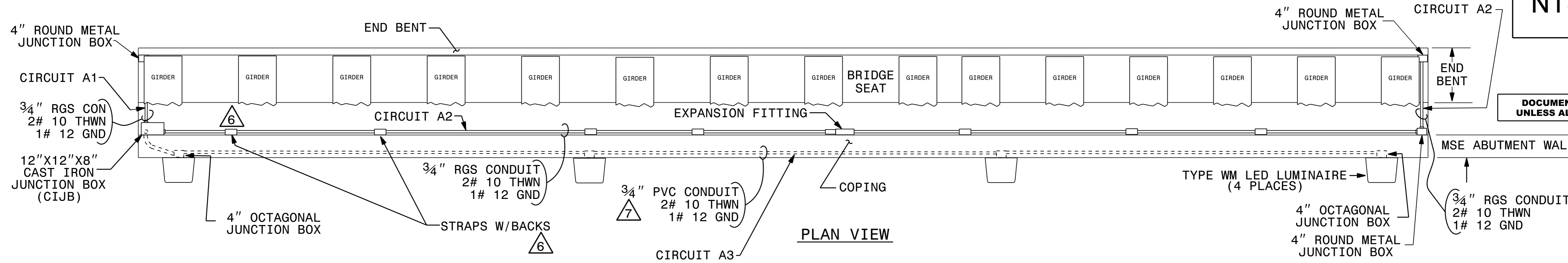
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 \$\$\$DGSERNAME\$\$\$

USE FOR LIGHTING CONSTRUCTION ONLY

NTS

Seal of a North Carolina Professional Engineer, Seal 022582, Paul Chan, 6/3/2016.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



- NOTES**
- 1 ATTACH CONDUIT TO BACK OF MSE ABUTMENT WALL.
 - 2 COORDINATE WITH PRIME CONTRACTOR TO INSTALL CONDUIT ON BACK OF MSE ABUTMENT WALL PRIOR TO PLACEMENT OF FILL.
 - 3 CONDUIT ENCASED IN COPING SHALL BE 3/4" SCHEDULE 40 PVC AND SHALL HAVE A MINIMUM 2" OF CONCRETE COVER.
 - 4 SEE STANDARD DRAWING 1412.01 FOR ADDITIONAL INSTALLATION DETAILS.
 - 5 SPOTLIGHT LUMINAIRES ARE NOT SHOWN. SEE PLAN SHEET E4.
 - 6 ATTACH CONDUIT USING STRAPS W/BACKS SPACED IN ACCORDANCE WITH REQUIREMENTS OF NEC ARTICLE 344.
 - 7 DASHED CONDUITS INDICATE CONDUIT IS MOUNTED TO BACK OF MSE ABUTMENT WALL OR EMBEDDED IN WALL COPING.
 - 8 MIRROR INSTALLATION OF WALL MOUNT LUMINAIRES (WM1-WM4) INCLUDING CONDUIT FROM GROUND MOUNTED JUNCTION BOX TO CIJB, THE CIJB AND THE OCTAGONAL JUNCTION BOXES, AND CONDUIT EMBEDDED IN THE COPING, ON THE SOUTHSIDE OF STRUCTURE. (ONLY CIRCUIT A3 IS INSTALLED ON THE SOUTHSIDE.)
 - 9 3/4" RGS CONDUIT IS INSTALLED BEHIND WALL COPING. NOT SHOWN.
 - 10 SEE STRUCTURES PLANS FOR AESTHETIC LIGHTING BRACKETS AND STRUCTURAL ATTACHMENT.
 - 11 NOTE REMOVED
 - 12 SEE LIGHTING PROJECT SPECIAL PROVISIONS SECTION 6.00 "AESTHETIC LIGHTING SYSTEM" FOR ADDITIONAL DETAILS.
 - 13 COIL EXTRA JUMPER LENGTH AND STRAP TO LUMINAIRE BRACKET.

ESTIMATED BILL OF MATERIALS

UNIT	ITEM	QNTY
EA	CIJB: 12"X12"X8" CAST IRON JUNCTION BOX WITH HINGE	2
EA	4" ROUND METAL JUNCTION BOXES	3
EA	4" OCTAGONAL JUNCTION BOXES	8
EA	GALVANIZED IRON 3/4" CONDUIT BODY WITH COVER & GASKET	4
FT	3/4" RGS CONDUIT	150
FT	3/4" PVC CONDUIT	260
FT	2-1/2" PVC CONDUIT WITH BELL ENDS	80
EA	2-1/2" PVC 90 BELL ELBOW	2
FT	PULL LINE	500
EA	LED AESTHETIC LIGHTING LUMINAIRE 4' LONG, 15W/FT, * K, 30 DEG X 60 DEG BEAM ANGLE	58
EA	AESTHETIC LIGHTING LUMINAIRE JUMPER CABLE (1-FT)	52
EA	AESTHETIC LIGHTING LUMINAIRE JUMPER CABLE (10-FT)	4
EA	AESTHETIC LIGHTING LUMINAIRE LEADER CABLE (10-FT)	2
EA	3/4" RGS EXPANSION FITTING	2

* NOTE: THE COLOR TEMPERATURE FOR THE LED AESTHETIC LIGHTING LUMINAIRE WILL BE DETERMINED FROM THE MOCK-UP.

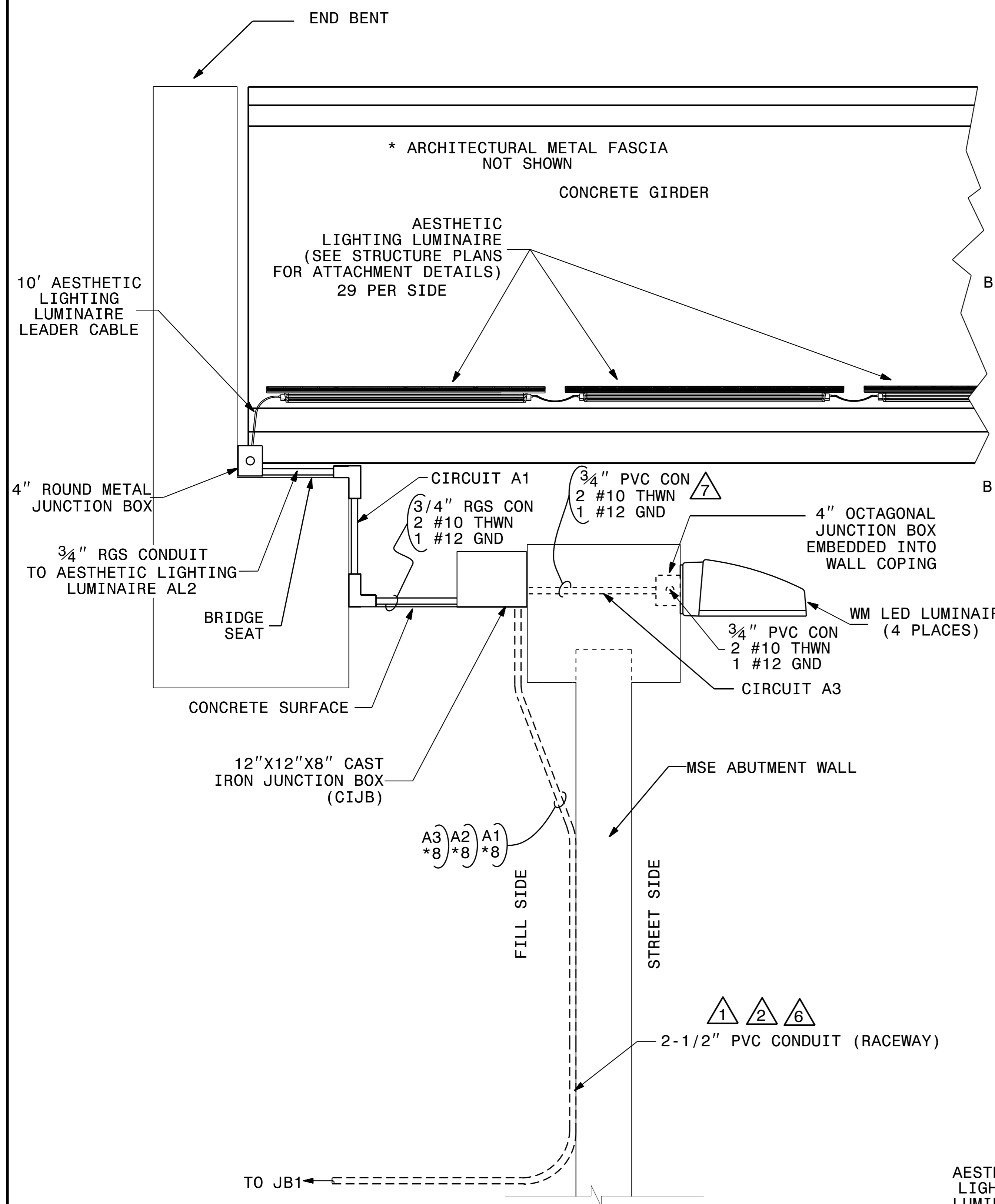
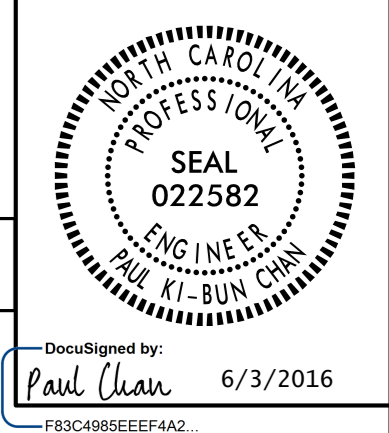
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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING DETAILS REPLACE BRIDGE NO.227 OVER PEACE ST. ON US 70/401 (CAPTIAL BOULEVARD) WAKE COUNTY			
Drawn By:	AB	Approved By:	Dwg No.:

DRAWN BY : AB DATE : _____
 CHECKED BY : PKC DATE : _____

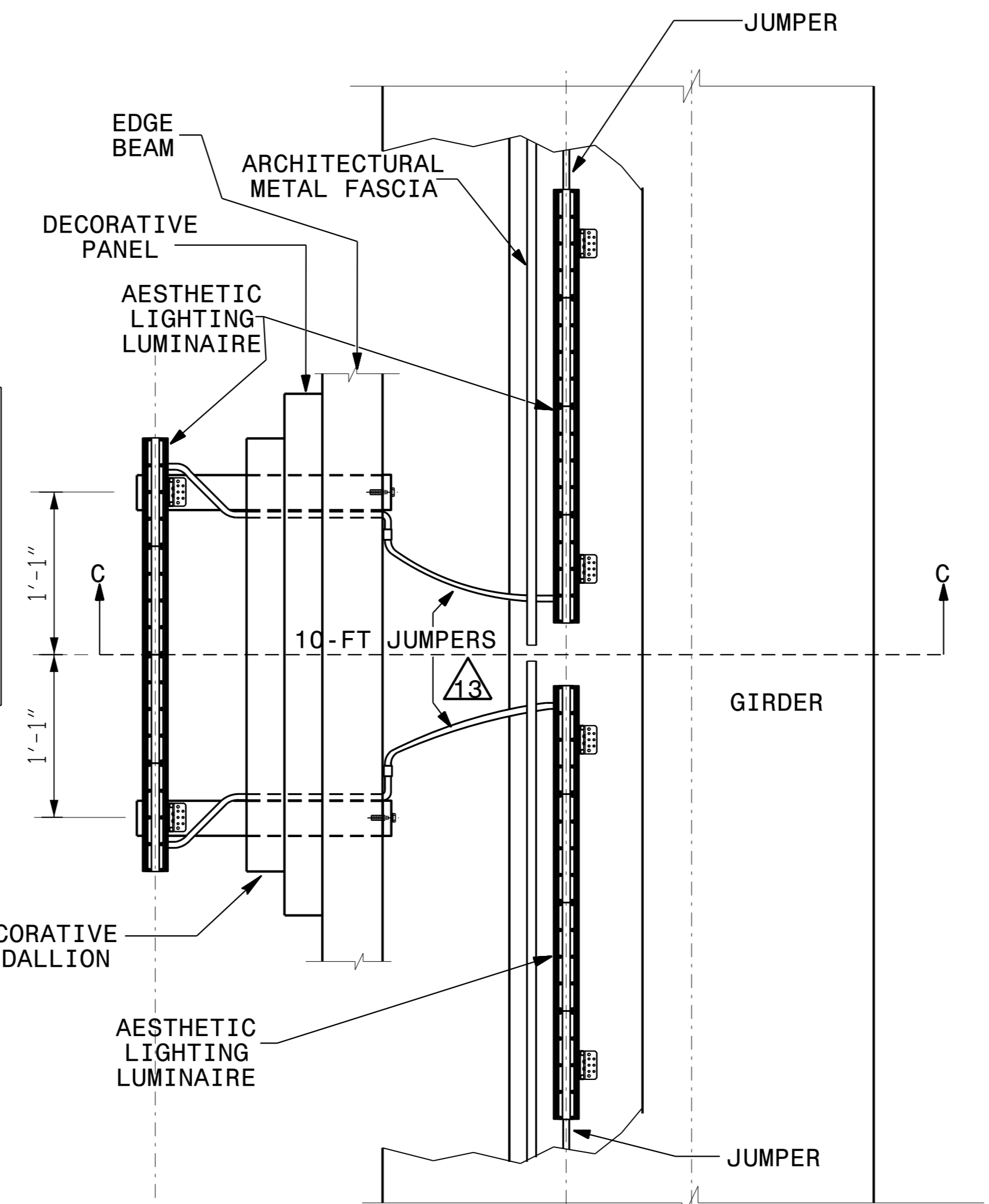
USE FOR LIGHTING CONSTRUCTION ONLY

NTS

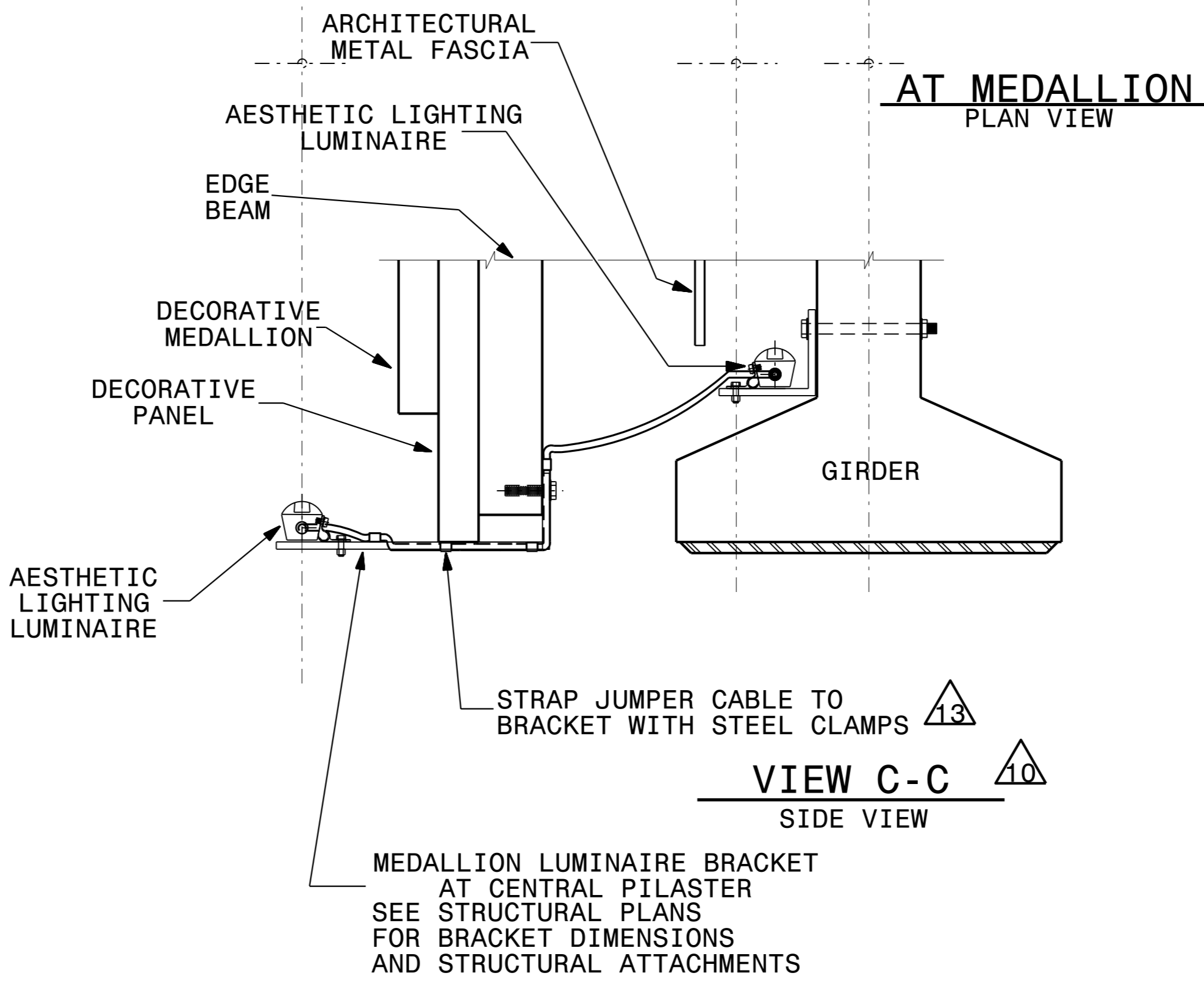
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UNLESS ALL SIGNATURES COMPLETED



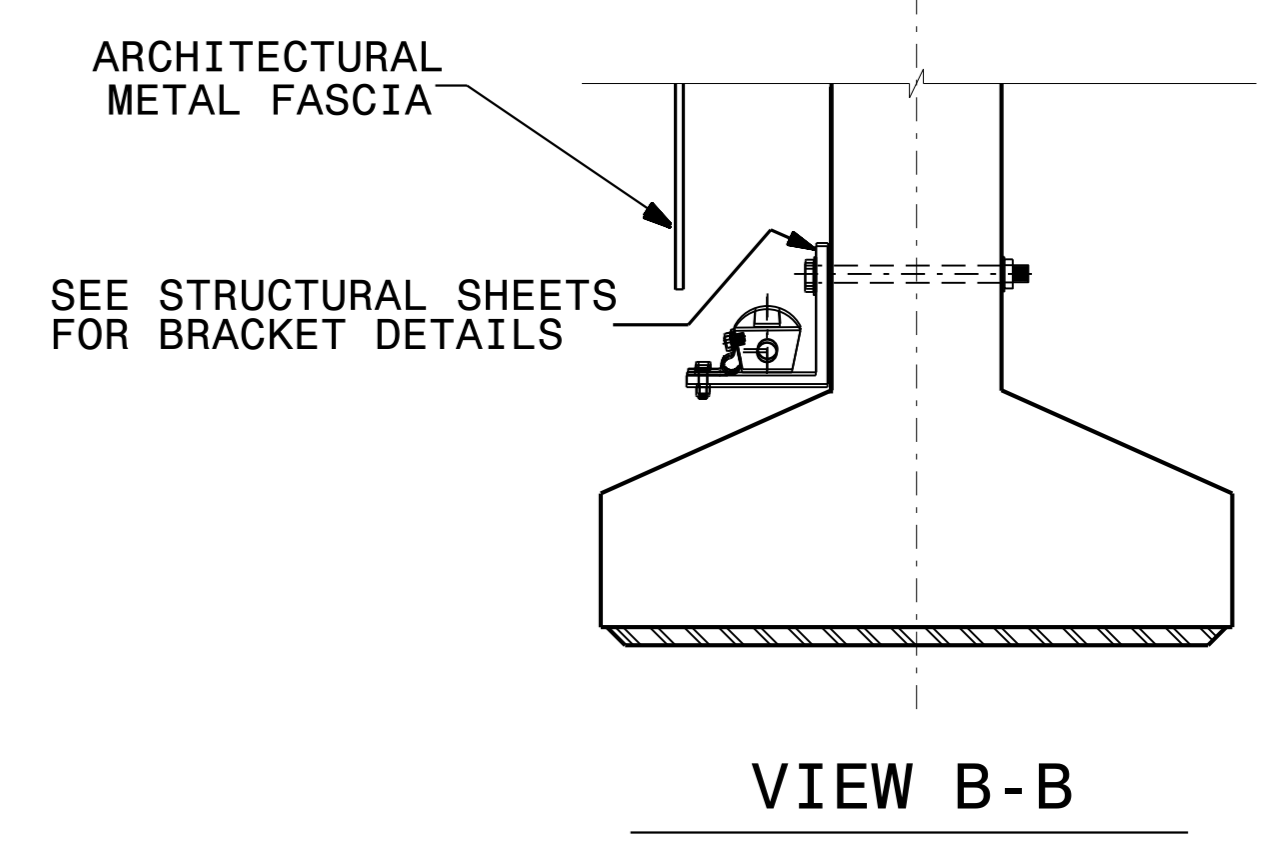
VIEW A-A
FROM SHEET E6



VIEW C-C
SIDE VIEW



SEE SHEET "E6" FOR Δ NOTES



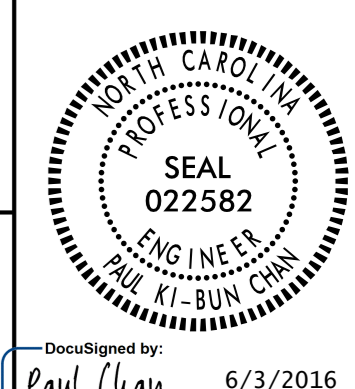
VIEW B-B

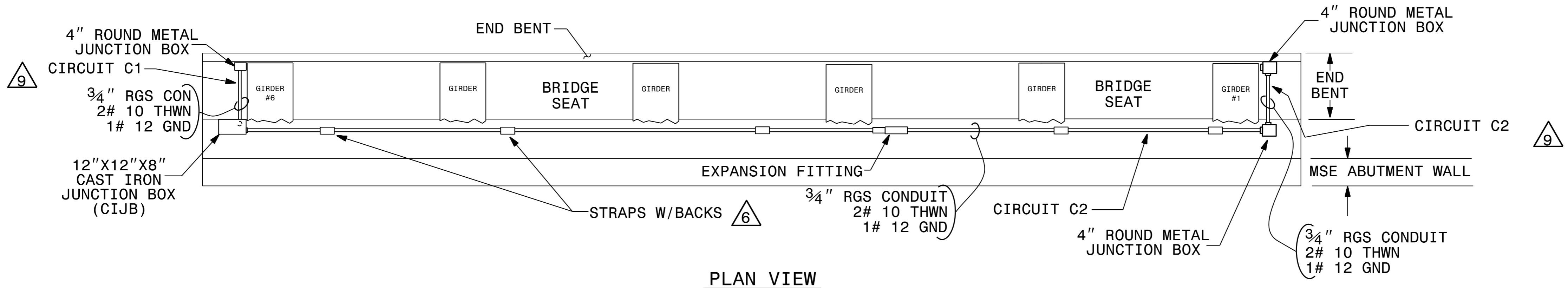
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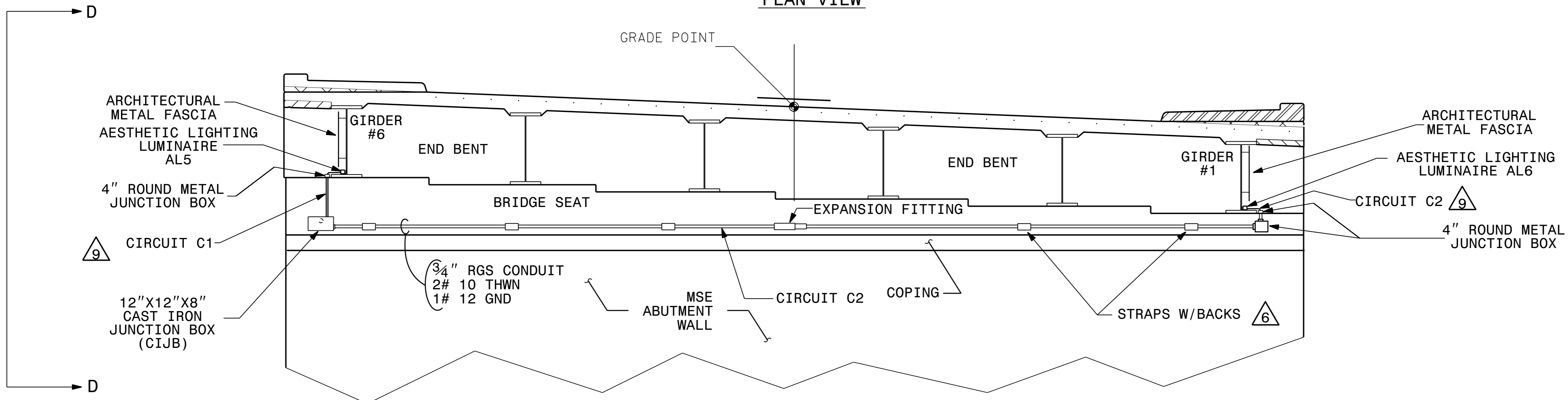
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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING DETAILS REPLACE BRIDGE NO. 227 OVER PEACE ST. ON US 70/401 (CAPTIAL BOULEVARD) WAKE COUNTY			
Drawn By:	AB	Approved By:	Dwg No.:

USE FOR LIGHTING CONSTRUCTION ONLY

PROJECT REFERENCE NO. B-5121/B-5317	SHEET NO. E8
NTS	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



PLAN VIEW



ELEVATION VIEW

- NOTES**
- 1 ATTACH CONDUIT TO END BENT CAP USING STRAPS WITH BACKS.
 - 2 COORDINATE WITH PRIME CONTRACTOR TO INSTALL CONDUIT BEHIND THE MSE ABUTMENT WALL PRIOR TO PLACEMENT OF FILL.
 - 3 PROVIDE EXPANSION FITTING PER STANDARD DRAWING 1412.01.
 - 4 SEE STANDARD DRAWING 1412.01 FOR ADDITIONAL INSTALLATION DETAILS.
 - 5 SPOTLIGHT LUMINAIRES ARE NOT SHOWN. SEE ROADWAY LIGHTING PLAN SHEET E4.
 - 6 ATTACH CONDUIT USING STRAPS W/BACKS SPACED IN ACCORDANCE WITH REQUIREMENTS OF NEC ARTICLE 344.
 - 7 DASHED CONDUITS INDICATE CONDUIT IS MOUNTED BEHIND MSE ABUTMENT WALL.
 - 8 SEE STRUCTURES PLANS FOR AESTHETIC LIGHTING BRACKETS AND STRUCTURAL ATTACHMENT.
 - 9 MIRROR DETAILS FOR CONTROL SYSTEM "C" ON EAST SIDE OF CAPITAL BLVD. FOR CONTROL SYSTEM "B" ON WEST SIDE OF CAPITAL BLVD AS SHOWN IN WADE AVENUE PLAN SHEETS E8 AND E9. CIRCUITS B1, B2 AND C1 SHALL HAVE 27 AESTHETIC LIGHT LUMINAIRES PLUS 1 AESTHETIC LIGHT LUMINAIRE FOR DECORATIVE MEDALLION. CIRCUIT C2 SHALL HAVE 26 AESTHETIC LIGHT LUMINAIRES PLUS 1 AESTHETIC LIGHT LUMINAIRE FOR DECORATIVE MEDALLION. ONE CIRCUIT RUN PER CONTROL SYSTEM ON EACH SIDE OF WADE AVE BRIDGE. SEE PLAN SHEET E9 FOR LIGHTING DETAILS OF MEDALLION.
 - 10 FINAL DIMENSION TO BE DETERMINED PRIOR TO GIRDER FABRICATION BY THE ENGINEER.
 - 11 SEE LIGHTING PROJECT SPECIAL PROVISIONS SECTION 6.00 "AESTHETIC LIGHTING SYSTEM" FOR ADDITIONAL DETAILS.
 - 12 COIL EXTRA JUMPER LENGTH AND STRAP TO LUMINAIRE BRACKET.

ESTIMATED BILL OF MATERIALS

UNIT	ITEM	QNTY
EA	CIJB: 12"X12"X8" CAST IRON JUNCTION BOX WITH HINGE	2
EA	4" ROUND METAL JUNCTION BOXES	6
EA	GALVANIZED IRON 3/4" CONDUIT BODY WITH COVER & GASKET	8
FT	3/4" RGS CONDUIT	150
FT	2" PVC CONDUIT WITH BELL ENDS	60
EA	2" PVC 90 BELL ELBOW	2
FT	PULL LINE	500
EA	LED AESTHETIC LIGHTING LUMINAIRE 4' LONG, 15W/FT, * K, 30 DEG X 60 DEG BEAM ANGLE	111
EA	AESTHETIC LIGHTING LUMINAIRE JUMPER CABLE (1-FT)	99
EA	AESTHETIC LIGHTING LUMINAIRE JUMPER CABLE (10-FT)	8
EA	AESTHETIC LIGHTING LUMINAIRE LEADER CABLE (10-FT)	4
EA	3/4" RGS EXPANSION FITTING	2

* NOTE: THE COLOR TEMPERATURE FOR THE LED AESTHETIC LIGHTING LUMINAIRE WILL BE DETERMINED FROM THE MOCK-UP.

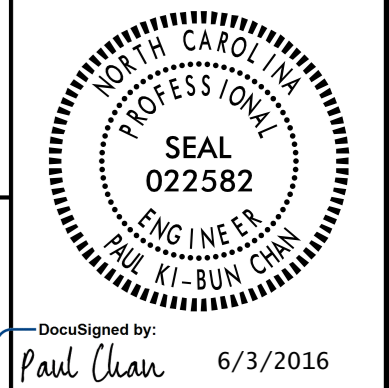
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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING DETAILS REPLACE BRIDGE NO.213 OVER WADE AVENUE ON US 70/401 (CAPTIAL BOULEVARD)			
WAKE COUNTY			
Drawn By:	AB	Approved By:	Dwg No.:

USE FOR LIGHTING CONSTRUCTION ONLY

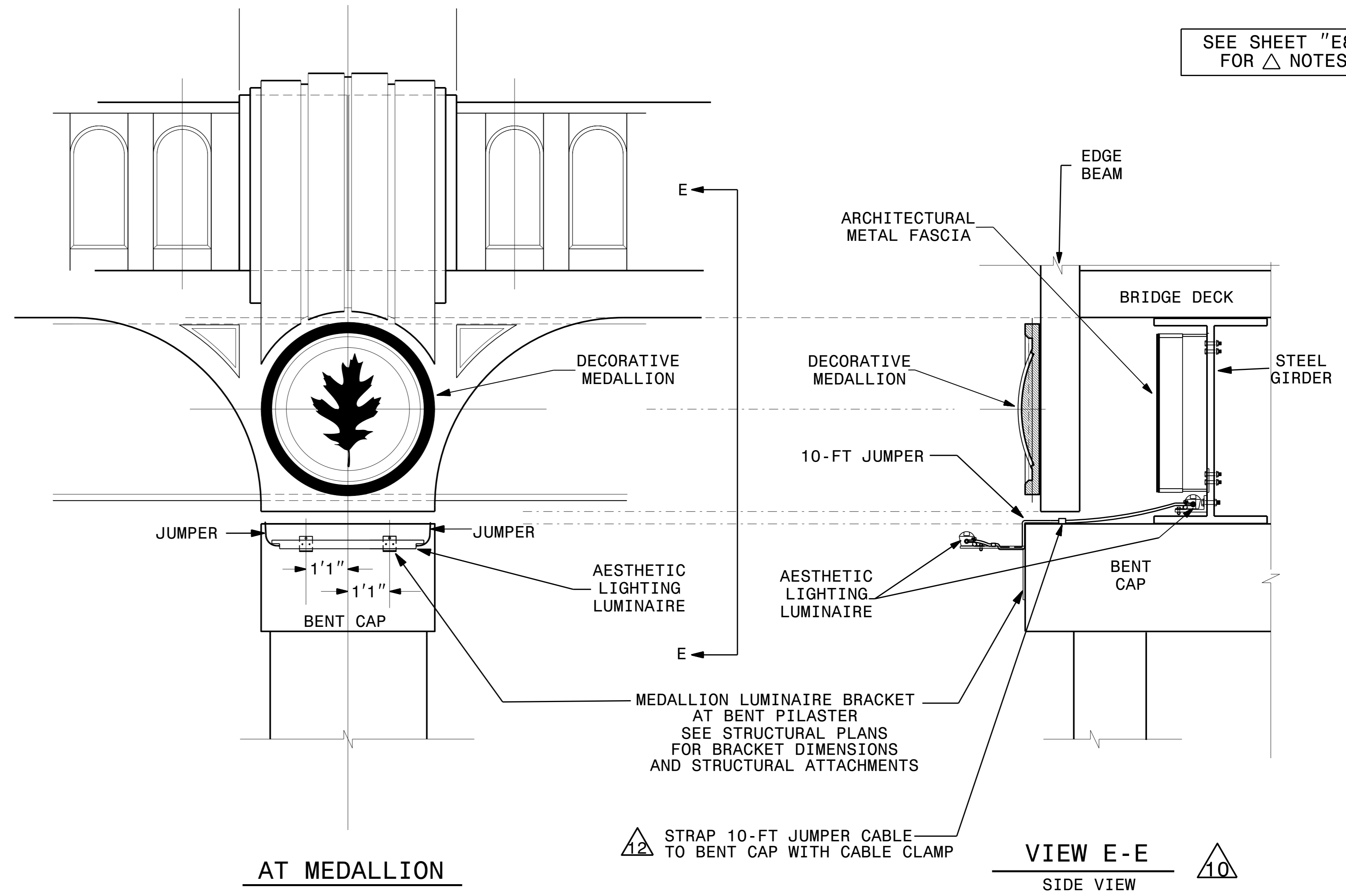
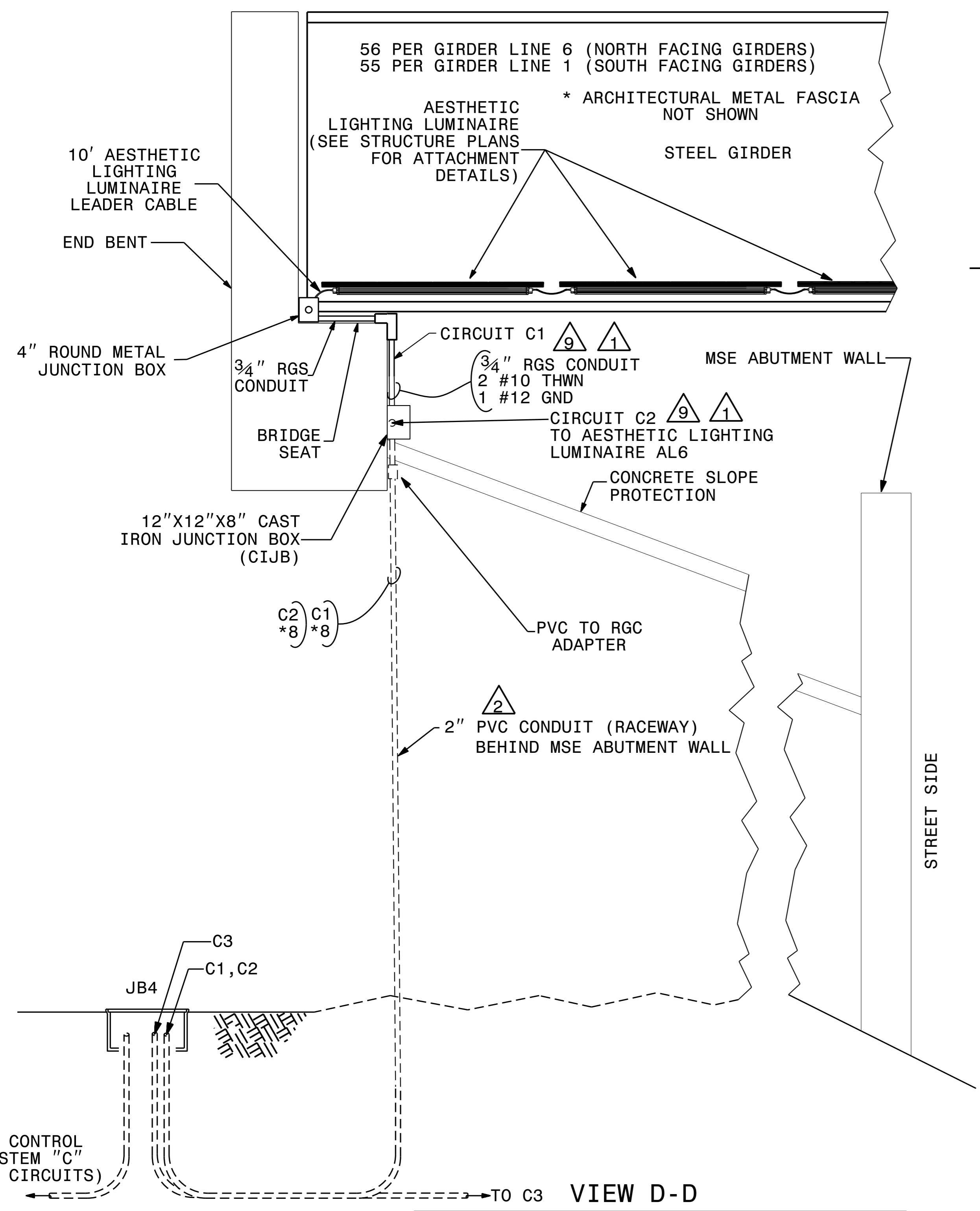
PROJECT REFERENCE NO. B-5121/B-5317 SHEET NO. E9

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SEE SHEET "E8" FOR Δ NOTES



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Rev.	Date	Description	Approved
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

LIGHTING DETAILS
 REPLACE BRIDGE NO.213 OVER
 WADE AVENUE ON US 70/401
 (CAPTIAL BOULEVARD)

WAKE COUNTY

Drawn By: AB	Approved By:	Dwg No.:
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