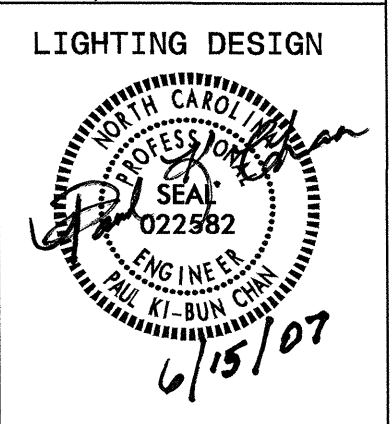


PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION



LEGEND

- PROPOSED LIGHT STANDARD
TYPE DAVIT 35' SA 6'
90MPH WIND SPEED
WITH TYPE RDW 250W HPS LUMINAIRE
IES DISTRIBUTION: FLAT GLASS, CUTOFF, TYPE II (C2)
- PROPOSED LIGHT STANDARD
TYPE DAVIT 35' SA 6'
90MPH WIND SPEED
WITH TYPE RDW 250W HPS LUMINAIRE
IES DISTRIBUTION: FLAT GLASS, CUTOFF, TYPE III (C3)
- JB1 PROPOSED ELECTRICAL JUNCTION BOX (JB)
TYPE PC12
MIN SIZE: 12"L X 12"W X 12"H
TYPE PC18
MIN SIZE: 18"L X 11"W X 18"H
TYPE PC30
MIN SIZE: 30"L X 17"W X 18"H
SEE TABLE B, THIS SHEET.
- PROPOSED FEEDER CIRCUIT
CONTROL SYSTEM (A), CIRCUIT (1),
PLAN SYMBOL (2).
SEE TABLE A, THIS SHEET.
- PROPOSED POST TOP STANDARD
TYPE K209 SATELLITE 15',
90MPH WIND SPEED
WITH 100W METAL HALIDE LUMINAIRE
IES DISTRIBUTION: CUTOFF TYPE III (C3)
- PROPOSED POST TOP STANDARD
TYPE K209 SATELLITE 15',
90MPH WIND SPEED
WITH 100W METAL HALIDE LUMINAIRE
IES DISTRIBUTION: CUTOFF TYPE V (C5)
- LOW VOLTAGE DIRECTIONAL BULLET LIGHT
- PROPOSED ELECTRICAL DUCT
SIZE 3"
TYPE JACKED (JA) OR BURIED (BD).
SEE TABLE C, THIS SHEET.

NOTES

- 1 PLACE LIGHT STANDARDS 10' FROM EDGE OF TRAVEL LANE, 6' BEHIND CURB, OR 3' BEHIND SIDEWALK.
- 2 INSTALL JUNCTION BOXES 1' FROM BACK OF CURB OR EDGE OF SIDEWALK.
- 3 USE SCALED DIMENSIONS FOR STANDARDS NOT LOCATED WITH STATION NUMBERS. TYPICAL SPACING BETWEEN POST TOP STANDARDS IS 70 FT.
- 4 PROVIDE 3/4" CONDUIT AND CONDUCTORS FOR SPOT LIGHTS AT SIGN AND FLAG POLE.
- 5 PROVIDE 3/4" CONDUIT AND CONDUCTORS FOR TRANSFORMER AT TELEPHONE PEDESTAL.
- 6 CONDUCTORS TO LOW VOLTAGE LIGHTS ARE INTEGRAL TO THE FIXTURES. MAKE CONNECTION AT JUNCTION BOXES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

ROADWAY STANDARDS

THE FOLLOWING ROADWAY ENGLISH STANDARDS AS APPEAR IN "ROADWAY ENGLISH STANDARD DRAWINGS", ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD DRAW	DESCRIPTION
1405.01	STANDARD FOUNDATION
1406.01	LIGHT STANDARD LUMINAIRES
1409.01	ELECTRICAL DUCT
1410.01	FEEDER CIRCUIT
1411.01	ELECTRICAL JUNCTION BOXES

PERFORM ALL WORK IN CONFORMANCE WITH DIVISION 14 OF THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES DATED JULY 2006, AND PROJECT SPECIAL PROVISIONS TITLED " REST AREA LIGHTING."

SCOPE OF WORK

PROVIDE REST AREA LIGHTING BY PROVIDING AND INSTALLING POST TOP STANDARDS WITH 100 WATT METAL HALIDE (MH) LUMINAIRE; ROADWAY DAVIT STYLE LIGHT STANDARDS, WITH 250 WATT HIGH PRESSURE SODIUM(HPS) LUMINAIRE; UNDERGROUND CIRCUITRY IN CONDUIT; JUNCTION BOXES, AND CONTROL SYSTEM.

DESIGN CRITERIA

- 2005 AASHTO "ROADWAY LIGHTING DESIGN GUIDE"
- 2005 NATIONAL ELECTRICAL CODE
- 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRE, AND TRAFFIC SIGNALS

PLAN SYMBOL	DESCRIPTION	CONTRACT ITEM
2	2 AWG #2 CONDUCTOR (BK & RD) 1 AWG #4 GROUNDING CONDUCTOR 1.5" PVC CONDUIT	2 #2 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*2	2 AWG #2 CONDUCTOR (BK & RD) 1 AWG #4 GROUNDING CONDUCTOR	2 #2 W/G FEEDER CIRCUIT
4	2 AWG #4 CONDUCTOR (BK & RD) 1 AWG #6 GROUNDING CONDUCTOR 1.5" PVC CONDUIT	2 #4 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
8	2 AWG #8 CONDUCTOR (BK & RD) 1 AWG #10 GROUNDING CONDUCTOR 1.5" PVC CONDUIT	2 #8 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
10	2 AWG #10 CONDUCTOR 1.5" PVC CONDUIT	2 #10 FEEDER CIRCUIT IN 1.5" CONDUIT

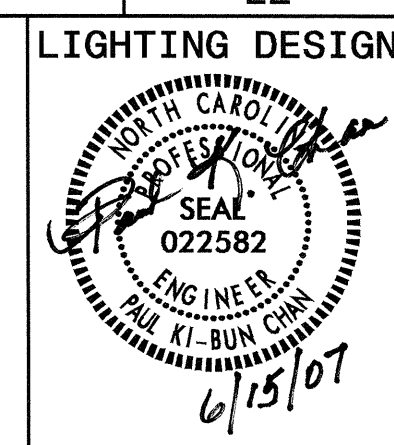
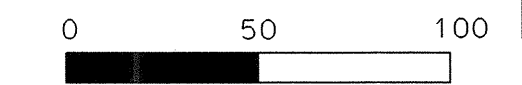
NO.	LOCATION	TYPE	SHEET
JB1	NEAR BUILDING (NORTH SIDE)	PC30	E2
JB2	37+25 -L2- RT	PC30	E2
JB3	37+25 -L2- LT	PC18	E2
JB4	38+25 -L2- LT	PC18	E2
JB5	43+50 -L2- LT	PC18	E2
JB6	39+45 -L2- RT	PC18	E2
JB7	29+00 -L2- LT	PC18	E2
JB8	41+45 -L2- RT	PC18	E2
JB9	NEAR BUILDING (NORTH SIDE)	PC12	E2
JB10	AT STONE RETAINING WALL	PC12	E2
JB11	AT STONE RETAINING WALL	PC12	E2
JB12	AT STONE RETAINING WALL	PC12	E2
JB13	NEAR PT #32	PC18	E2
JB14	NEAR PT #42	PC18	E2
JB15	NEAR SA #22	PC18	E2
TOTALS		2 9 4	

LOCATION	RACEWAY	SHEET	TYPE							
			BURIED (BD)			JACKED (JA)				
			2"	3"	4"	2"	3"	4"		
29+00 -L2-		E2		35'						
37+25 -L2-		E2			45'					
37+25 -L2-	JB2 - JB3	E2	60'							
38+50 -L2-		E2		40'						
43+50 -L2-		E2		30'						
BETWEEN SA#2 & SA#3		E2		30'						
TOTALS			60'	135'	45'					

3" ELEC. DUCT, JA

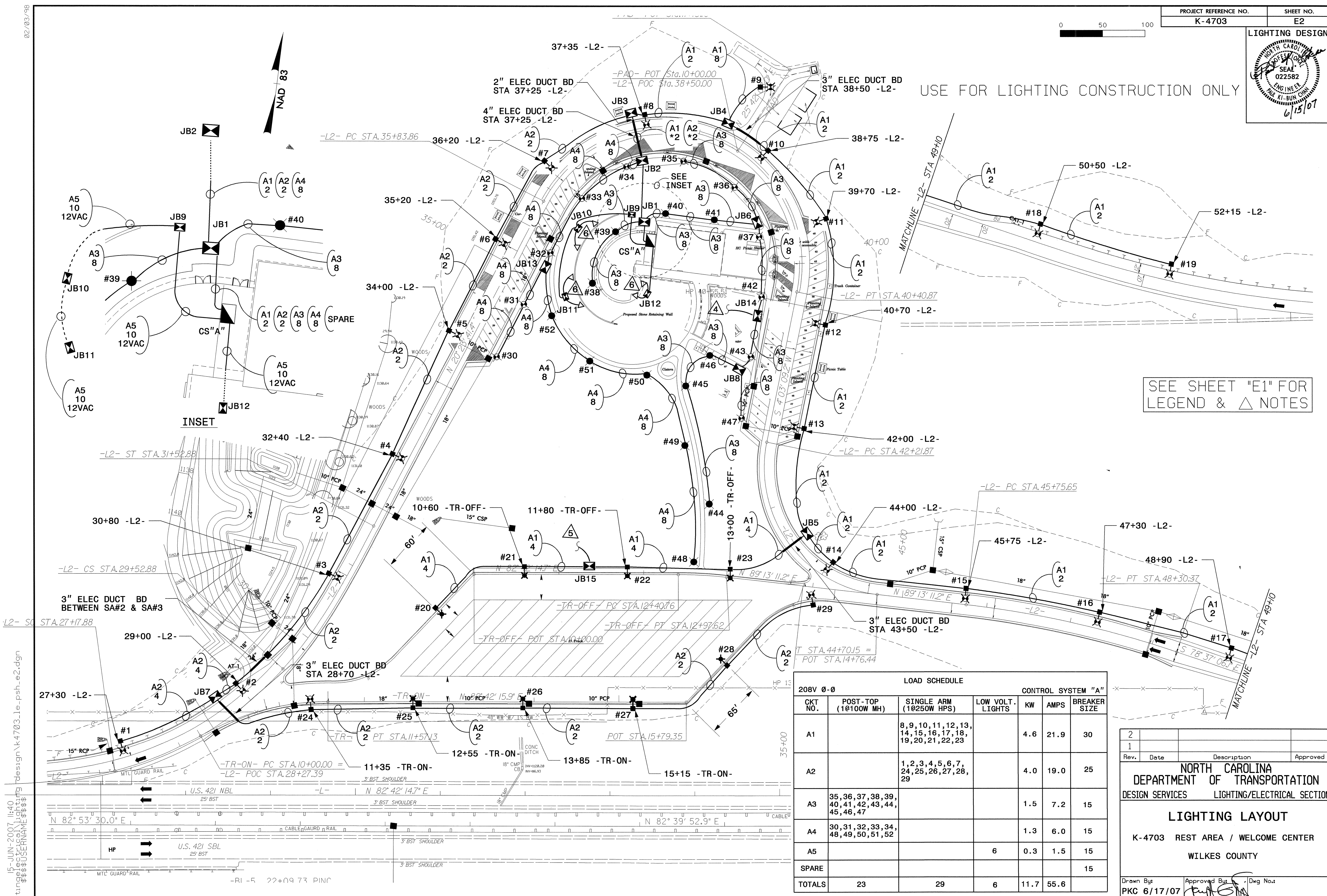
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1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING K-4703 REST AREA/WELCOME CENTER WILKES COUNTY			
Drawn By:	Checked by:	Approved By:	
PKC 6/14/07			

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USE FOR LIGHTING CONSTRUCTION ONLY

SEE SHEET "E1" FOR LEGEND & Δ NOTES



208V 0-0		LOAD SCHEDULE		CONTROL SYSTEM "A"		
CKT NO.	POST-TOP (1@100W MH)	SINGLE ARM (1@250W HPS)	LOW VOLT. LIGHTS	KW	AMPS	BREAKER SIZE
A1		8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23		4.6	21.9	30
A2		1, 2, 3, 4, 5, 6, 7, 24, 25, 26, 27, 28, 29		4.0	19.0	25
A3		35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47		1.5	7.2	15
A4		30, 31, 32, 33, 34, 48, 49, 50, 51, 52		1.3	6.0	15
A5			6	0.3	1.5	15
SPARE						15
TOTALS	23	29	6	11.7	55.6	

208V 0-0

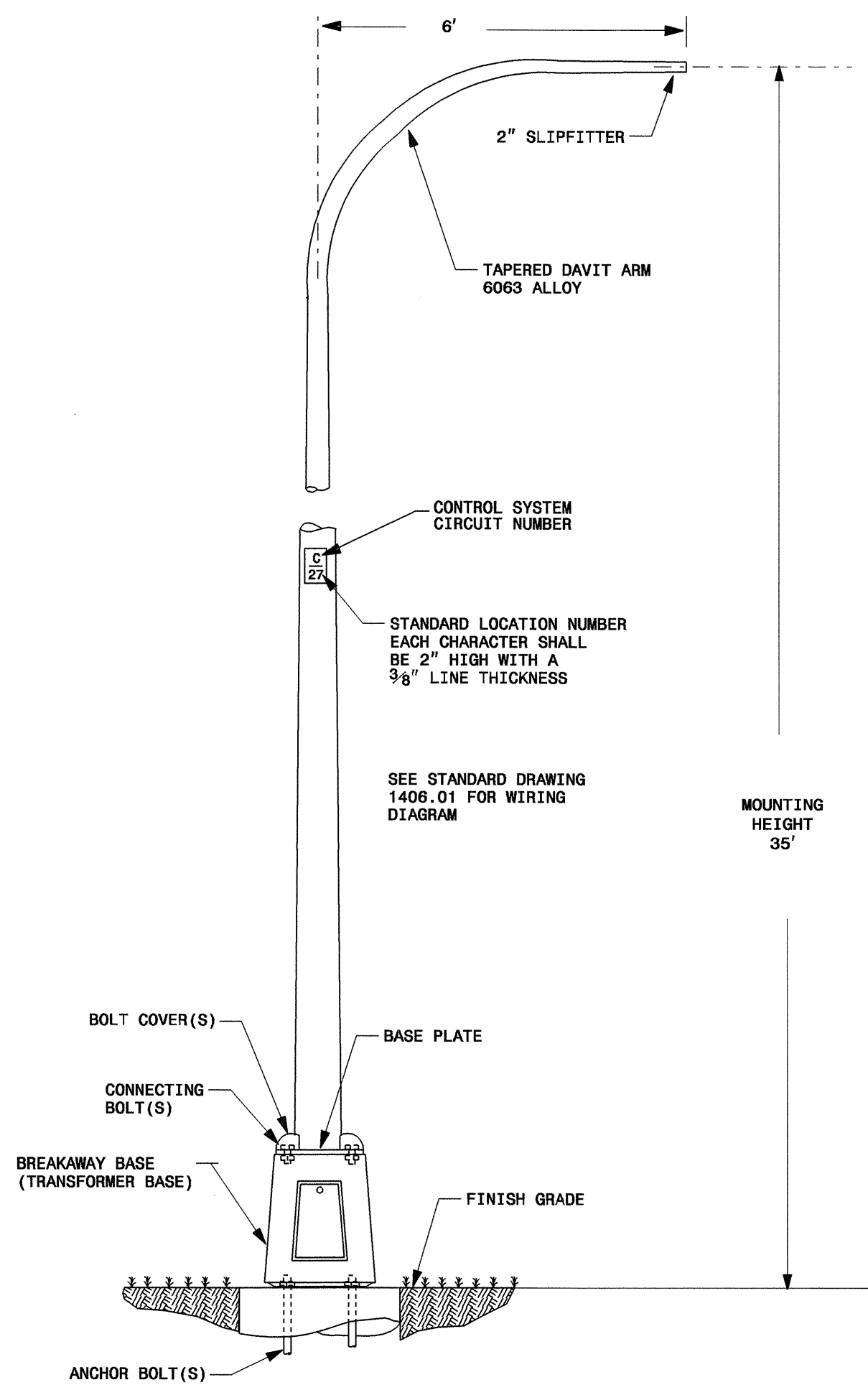
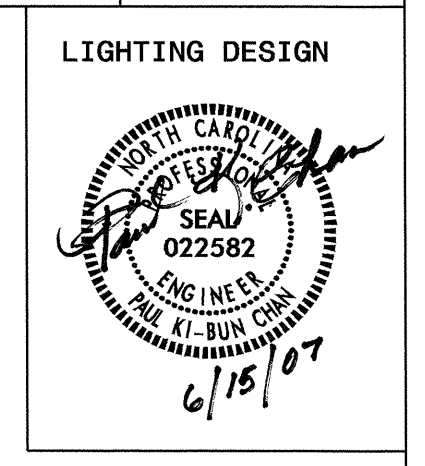
Rev.	Date	Description	Approved

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DESIGN SERVICES LIGHTING/ELECTRICAL SECTION

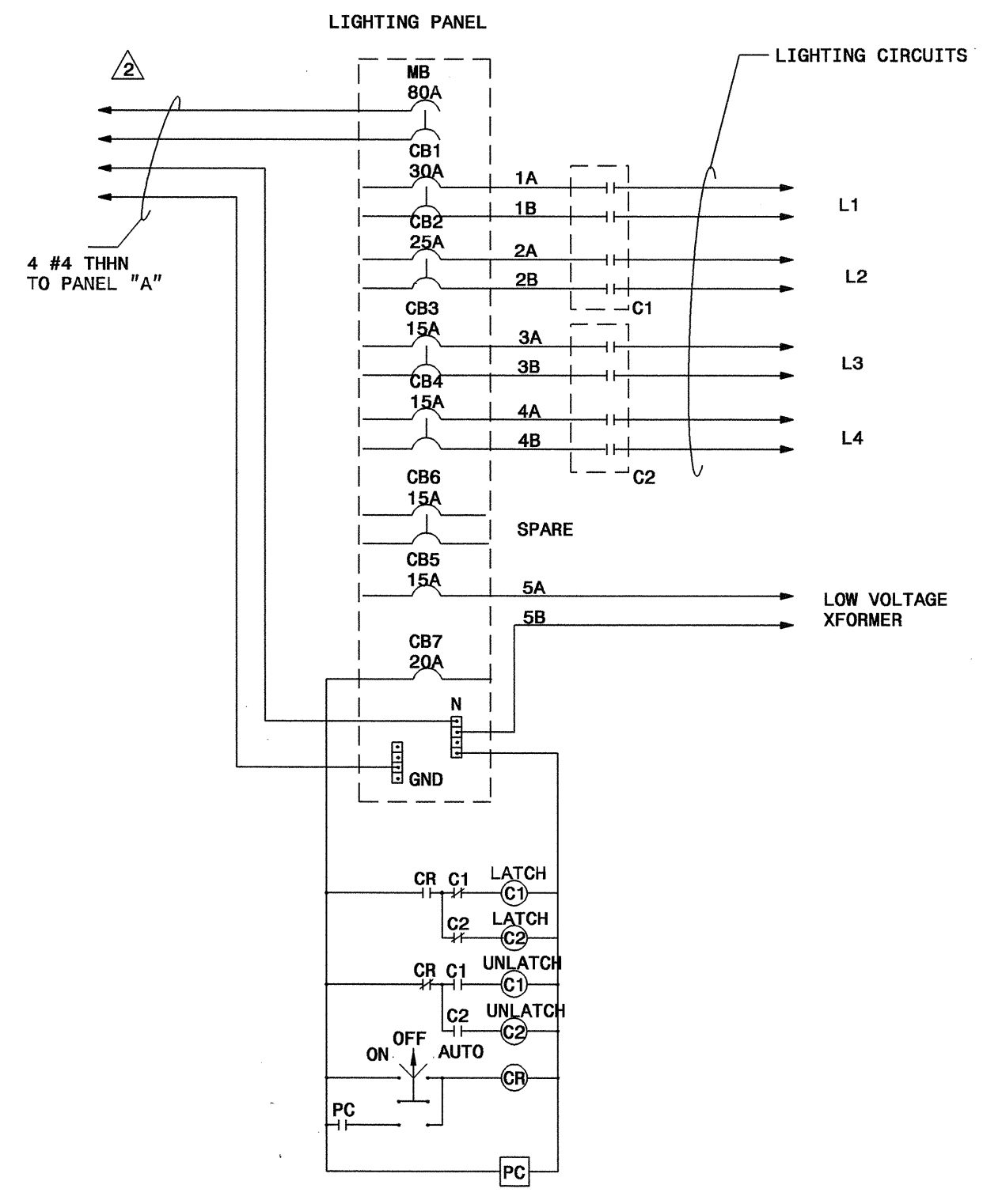
LIGHTING LAYOUT
 K-4703 REST AREA / WELCOME CENTER
 WILKES COUNTY

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 Approved By: [Signature]
 Dwg No: [Blank]

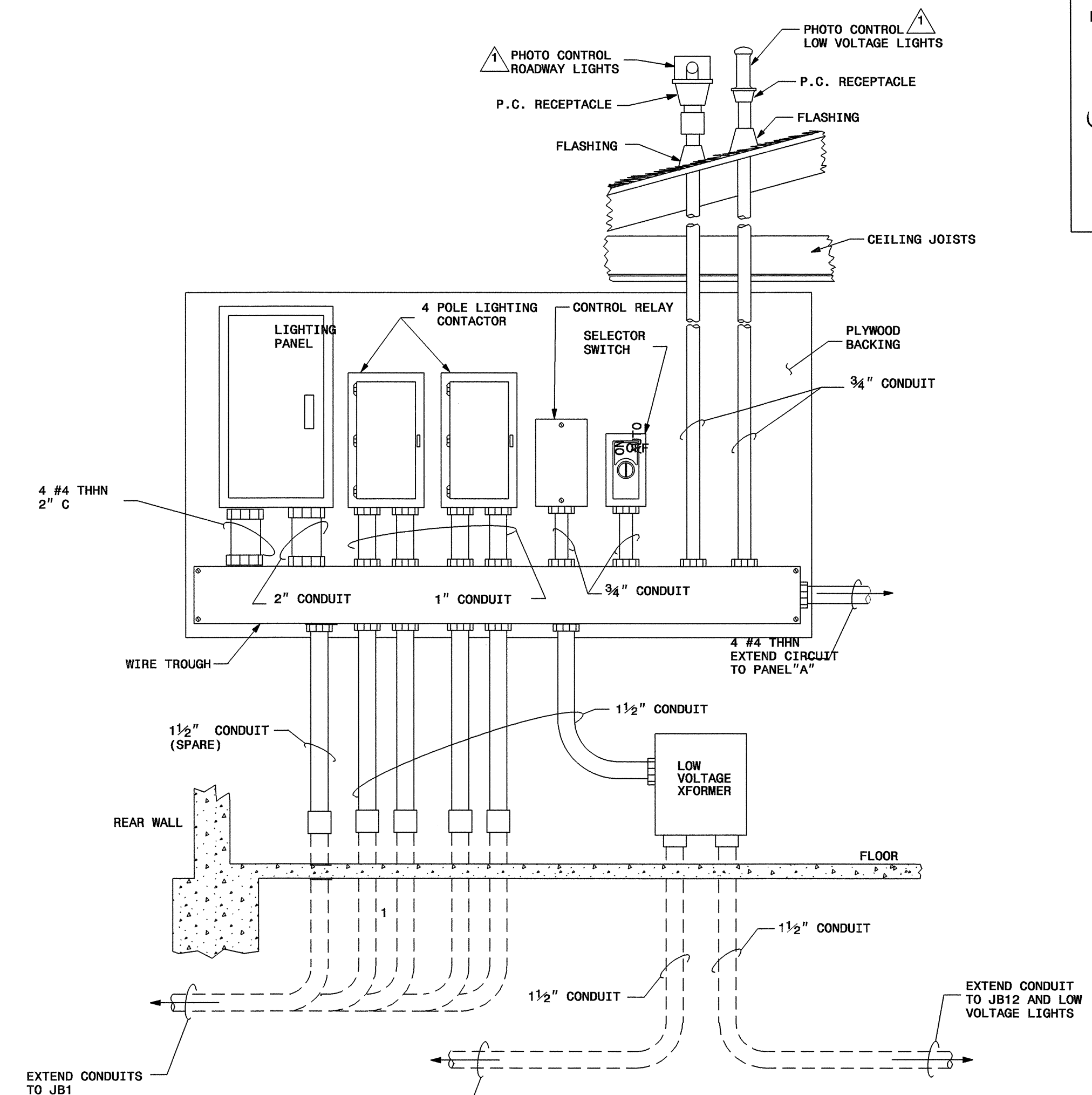
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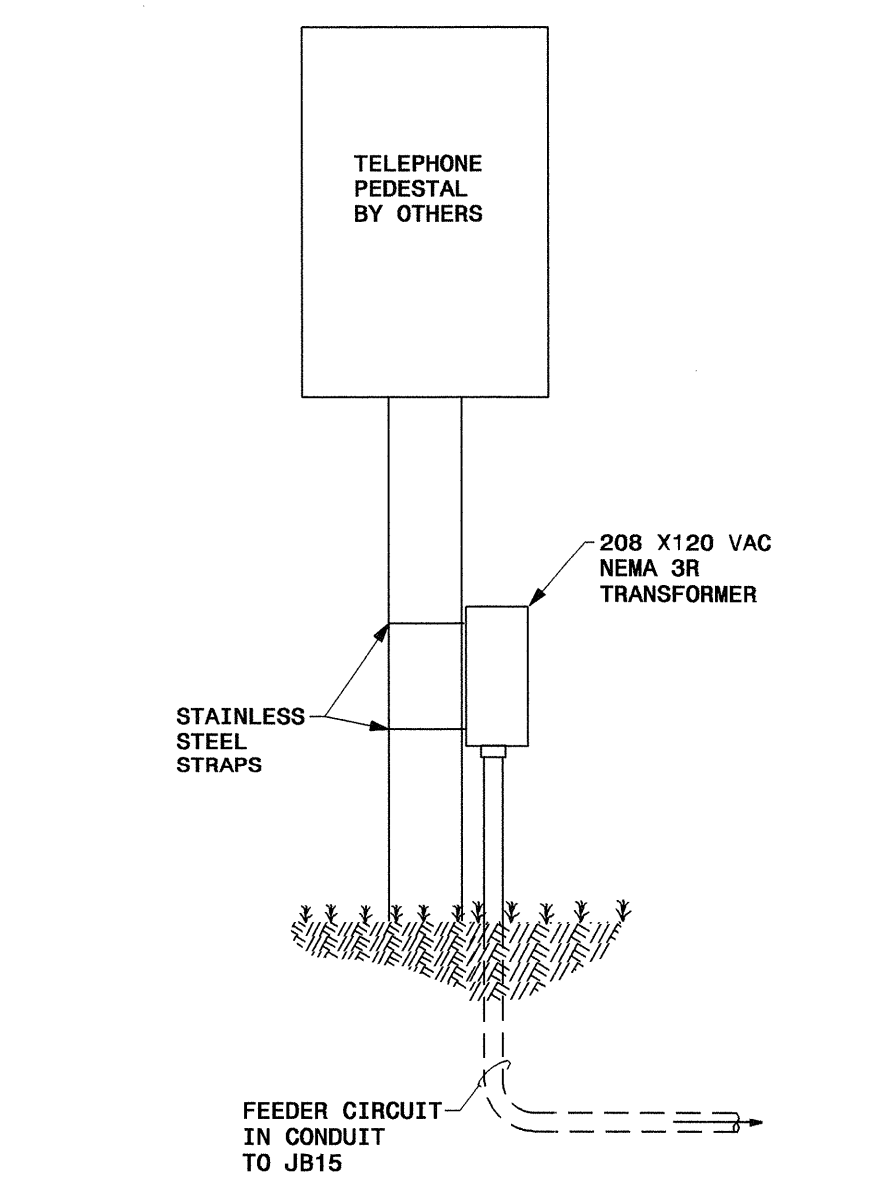
LIGHT STANDARD DAVIT STYLE MH 35' SA 6'
NOT TO SCALE



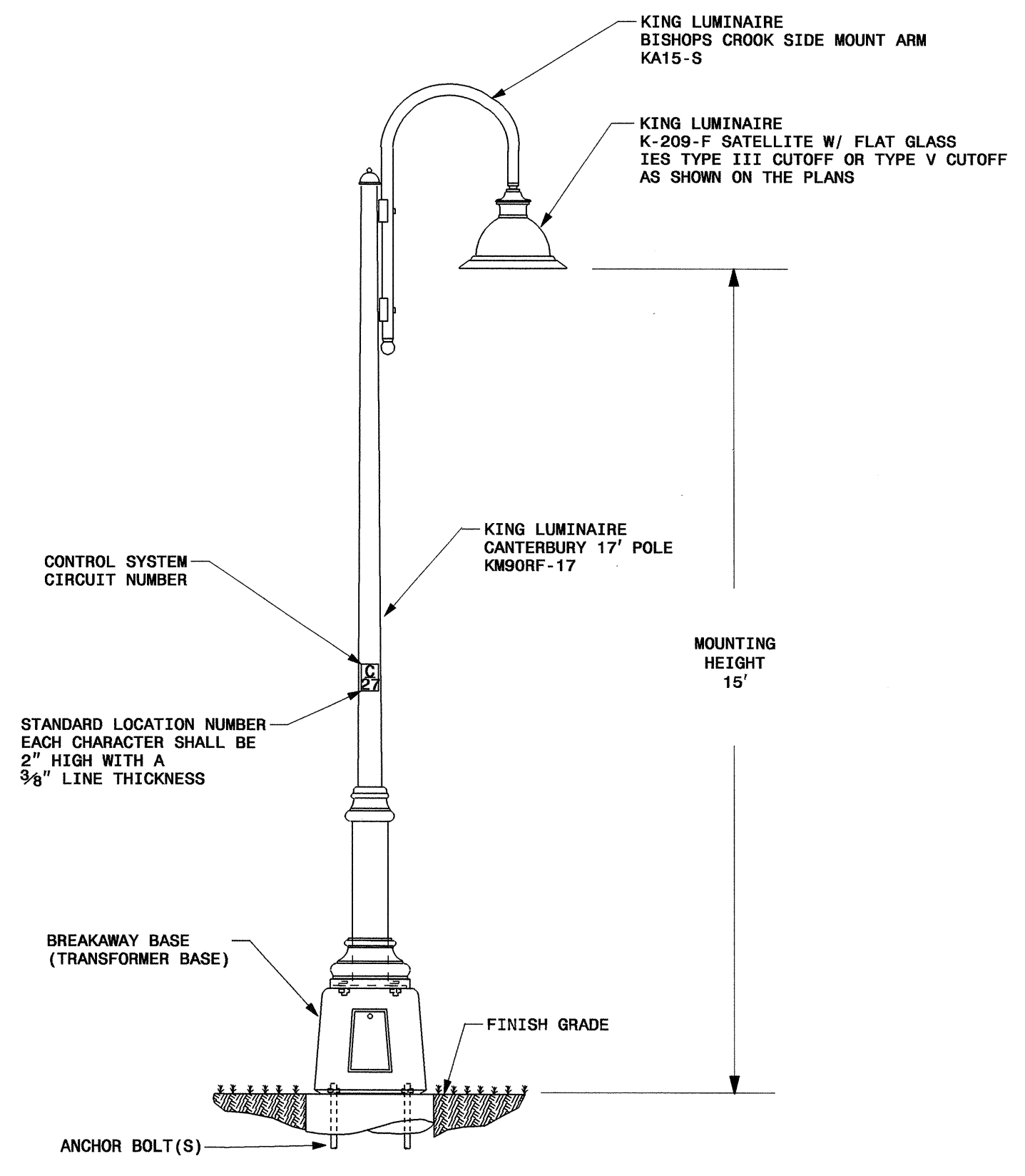
LIGHT CONTROL SCHEMATIC
EQUIPMENT GROUNDING CONDUCTORS NOT SHOWN



LIGHT CONTROL EQUIPMENT TYPE RA120/208V 80A
TYPICAL EQUIPMENT LAYOUT



TRANSFORMER AT TELEPHONE PEDESTAL



POST TOP LIGHT STANDARD MH 15'
NOT TO SCALE

- NOTES**
- 1. LOCATE PHOTO CELL IN AN UNSHADED AREA ON THE ROOF.
 - 2. INSTALL ONE 80 AMP 2 POLE BREAKER FOR LIGHTING PANEL SERVICE ADDED TO PANEL "A" UNDER OTHER CONTRACT PAY ITEM.
 - 3. REFER TO PROJECT SPECIAL PROVISIONS FOR OTHER DETAILS.

2			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DESIGN SERVICES LIGHTING/ELECTRICAL SECTION			
LIGHTING DETAILS K-4703 REST AREA/ WELCOME CENTER WILKES COUNTY			
Drawn By: PKC	6/13/07	Checked by: <i>[Signature]</i>	Approved By: <i>[Signature]</i>

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