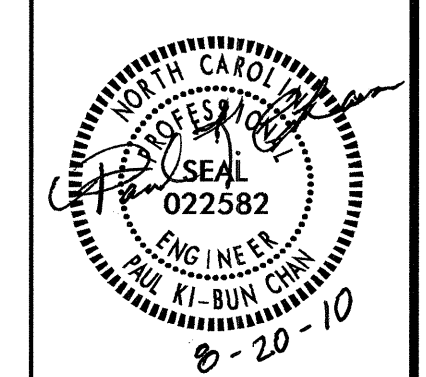


# PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION



### NOTES

- 1 AT THESE LOCATIONS, PROVIDE ELECTRICAL DUCT IN ACCORDANCE WITH NEC EQUIRMENTS FOR AN APPROVED RACEWAY FOR ELECTRICAL CIRCUITS. SEE TABLE "C"
- 2 INSTALL ALL BORE PITS OUTSIDE THE CLEAR ZONE, AS DEFINED BY THE 2002 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 2002 AASHTO ROADSIDE DESIGN GUIDE.
- 5 TYPE PC18 JUNCTION BOXES ARE 18" L X 12" W X 18" H.
- 6 TYPE PC36 JUNCTION BOXES ARE 36" L X 24" W X 18" H.
- 7 REPLACE EXISTING PULL BOX WITH JB24. REPLACE EXISTING CIRCUITRY AND CONDUIT BETWEEN JB23 AND JB24.
- 8 INSTALL JB23 AND INTERCEPT EXISTING CONDUIT AND CIRCUITRY.

### SCOPE OF WORK

PLACE ROADWAY LIGHTING SYSTEM INTO SERVICE BY PROVIDING AND INSTALLING 60', 80' & 100' HIGH MOUNT STANDARDS AND SINGLE ARM LIGHT STANDARDS WITH HIGH PRESSURE SODIUM LUMINAIRES, UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES.

### DESIGN CRITERIA

- 2005 AASHTO ROADWAY LIGHTING DESIGN GUIDE
- 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, AND LATEST INTERIM SPECIFICATIONS VALID AT THE TIME OF LETTING
- FATIGUE CATEGORY II SHALL BE USED IN DESIGN
- DESIGN HIGH MOUNT SUPPORT FOR BASIC WIND SPEED SHOWN IN AASHTO of 90 MPH.
- DESIGN HIGH MOUNT STANDARD FOUNDATION FOR BASIC WIND SPEED OF 110 MPH. ANY CONTRACTOR-DESIGNED SITE SPECIFIC FOUNDATION DESIGN SHALL BE DESIGNED FOR THE SAME WIND SPEED
- 2008 NATIONAL ELECTRICAL CODE
- 2002 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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD NO. | TITLE   |
|---------|---|
| 1401.01 | HIGH MOUNT STANDARD   |
| 1402.01 | HIGH MOUNT FOUNDATION ( USE ATTACHED DETAIL SHEET 1402D01 IN LIEU OF STANDARD DRAWING 1402.01 SHEET 1 OF 1) |
| 1403.01 | HIGH MOUNT LUMINAIRES   |
| 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 (USE ATTACHED DETAIL SHEET 1408D01 IN LIEU OF STANDARD DRAWING 1408.01 SHEET 2 OF 3)   |
| 1409.01 | ELECTRICAL DUCT   |
| 1410.01 | FEEDER CIRCUITS   |
| 1411.01 | ELECTRICAL JUNCTION BOXES   |

ALL WORK SHALL BE IN CONFORMANCE WITH DIVISION 14 OF THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JULY 2006.

### LEGEND

- PROPOSED 60' HIGH MAST STANDARD W/ HM FOUNDATION & (4) HM LUMINAIRES 400W HPS, MEDIUM, CUTOFF, TYPE V
- PROPOSED 80' HIGH MAST STANDARD W/ HM FOUNDATION & (8) HM LUMINAIRES 400W HPS, MEDIUM, CUTOFF, TYPE V
- PROPOSED 100' HIGH MAST STANDARD W/ HM FOUNDATION & (6) HM LUMINAIRES 750W HPS, MEDIUM, CUTOFF, TYPE V
- PROPOSED CONTROL SYSTEM WITH PC36 JUNCTION BOX. BREAKER SIZE SHOWN IN LOAD SCHEDULE, SHEET E2 & E4.
- PROPOSED LIGHT STANDARD TYPE MTLT 45' WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION TYPE R1 OR R2 & 250W HPS FLAT GLASS ROADWAY LUMINAIRE. IES DISTRIBUTION: MEDIUM, CUTOFF, TYPE III
- EXISTING LIGHT STANDARD. STANDARD AND ARM TO BE REMOVED. CONCRETE FOUNDATION TO BE REMOVED OR ABANDONED. REFER TO SECTION 2.00 OF ROADWAY LIGHTING PROJECT SPECIAL PROVISIONS FOR POLE REMOVAL.
- EXISTING LIGHT STANDARD TO REMAIN IN PLACE.
- PROPOSED ELECTRICAL JUNCTION BOX SEE DETAILS & TABLE B, THIS SHEET
- REFERENCE TO CORRESPONDING NOTE AS NUMBERED
- 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
- EXISTING UNDERGROUND CIRCUITRY TO REMAIN
- EXISTING UNDERGROUND ELECTRICAL DUCT TO REMAIN
- EXISTING HIGH MAST
- EXISTING PULL BOX
- EXISTING CONTROL SYSTEM

TABLE "A"  
CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE

| PLAN SYMBOL | DESCRIPTION                | CONTRACT ITEM   |  |
|-------------|----------------------------|---|--|
| 8           | 2 #8 Ø<br>1 #10G<br>1.5" P | 2 AWG SIZE 8 CONDUCTOR (BK & RD)<br>1 AWG SIZE 10 GROUNDING CONDUCTOR<br>1.5" PVC CONDUIT | 2 - 8 W/G FEEDER CIRCUIT IN 1.5" CONDUIT |
| *8          | 2 #8 Ø<br>1 #10G           | 2 AWG SIZE 8 CONDUCTOR (BK & RD)<br>1 AWG SIZE 10 GROUNDING CONDUCTOR                     | 2 - 8 W/G FEEDER CIRCUIT                 |
| 6           | 2 #6 Ø<br>1 #8G<br>1.5" P  | 2 AWG SIZE 6 CONDUCTOR (BK & RD)<br>1 AWG SIZE 8 GROUNDING CONDUCTOR<br>1.5" PVC CONDUIT  | 2 - 6 W/G FEEDER CIRCUIT IN 1.5" CONDUIT |
| *6          | 2 #6 Ø<br>1 #10G           | 2 AWG SIZE 6 CONDUCTOR (BK & RD)<br>1 AWG SIZE 8 GROUNDING CONDUCTOR                      | 2 - 6 W/G FEEDER CIRCUIT                 |
| 4           | 2 #4 Ø<br>1 #6G<br>1.5" P  | 2 AWG SIZE 4 CONDUCTOR (BK & RD)<br>1 AWG SIZE 6 GROUNDING CONDUCTOR<br>1.5" PVC CONDUIT  | 2 - 4 W/G FEEDER CIRCUIT IN 1.5" CONDUIT |
| *4          | 2 #4 Ø<br>1 #6G            | 2 AWG SIZE 4 CONDUCTOR (BK & RD)<br>1 AWG SIZE 6 GROUNDING CONDUCTOR                      | 2 - 4 W/G FEEDER CIRCUIT                 |
| 2           | 2 #2 Ø<br>1 #4G<br>1.5" P  | 2 AWG SIZE 2 CONDUCTOR (BK & RD)<br>1 AWG SIZE 4 GROUNDING CONDUCTOR<br>1.5" PVC CONDUIT  | 2 - 2 W/G FEEDER CIRCUIT IN 1.5" CONDUIT |
| *2          | 2 #2 Ø<br>1 #4G            | 2 AWG SIZE 2 CONDUCTOR (BK & RD)<br>1 AWG SIZE 4 GROUNDING CONDUCTOR                      | 2 - 2 W/G FEEDER CIRCUIT                 |

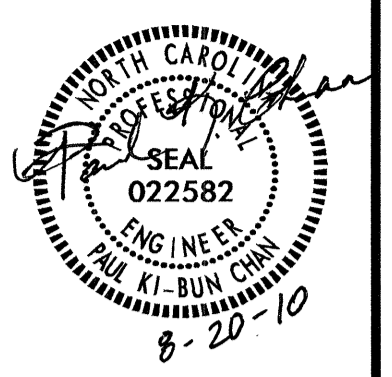
EQUIVALENTS

| TRADE SIZE | METRIC | ENGLISH |
|------------|--------|---------|
| 1/2        | 16mm   | 1/2"    |
| 3/4        | 21mm   | 3/4"    |
| 1          | 27mm   | 1"      |
| 1.5        | 41mm   | 1 1/2"  |
| 2          | 53mm   | 2"      |
| 3          | 78mm   | 3"      |

ABBREVIATIONS

|         |                 |     |                                |
|---------|-----------------|-----|--------------------------------|
| BD      | BURIED          | PVC | PVC SCHEDULE 40 CONDUIT        |
| LT      | LIGHT           | RGC | RIGID GALVANIZED STEEL CONDUIT |
| JA      | JACKED          | C   | CONDUIT                        |
| MH      | MOUNTING HEIGHT | CKT | CIRCUIT                        |
| Ø       | PHASE           | N   | NEUTRAL                        |
| SER LAT | SERVICE LATERAL | G   | GROUND                         |
|         |                 | HM  | HIGH MAST                      |

COMPUTED BY: AB DATE: 8-20-10  
 CHECKED BY: PKC DATE: 8-20-10



## PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

CONTROL SYSTEM "A"

| TABLE "B"<br>JUNCTION BOX SUMMARY |                            |      |      |       |
|-----------------------------------|----------------------------|------|------|-------|
| NUMBER                            | LOCATION                   | TYPE |      | SHEET |
| JB1                               | STA. -L- 54+16 RT 667'     | PC18 |      | E2    |
| JB2                               | STA. -L- 53+84 RT 940'     | PC18 |      | E3    |
| JB3                               | STA. -L- 54+80 RT 940'     | PC18 |      | E3    |
| JB4                               | STA. -L- 54+45 RT 480'     |      | PC36 | E2    |
| JB5                               | STA. -L- 54+96 RT 562'     | PC18 |      | E2    |
| JB6                               | STA. -L- 55+92 RT 562'     | PC18 |      | E2    |
| JB7                               | STA. -L- 57+40 RT 555'     | PC18 |      | E2    |
| JB8                               | STA. -L- 58+70 RT 424'     | PC18 |      | E2    |
| JB9                               | STA. -L- 58+50 RT 394'     | PC18 |      | E2    |
| JB10                              | STA. -L- 58+90 RT 286'     | PC18 |      | E2    |
| JB11                              | STA. -L- 60+84 RT 286'     | PC18 |      | E2    |
| JB12                              | STA. -L- 62+70 RT 85'      | PC18 |      | E2    |
| JB13                              | STA. -L- 54+70 RT 330'     | PC18 |      | E2    |
| JB14                              | STA. -L- 54+70 RT 294'     | PC18 |      | E2    |
| JB15                              | STA. -L- 53+95 RT 175'     | PC18 |      | E2    |
| JB16                              | STA. -L- 56+40 RT 65'      | PC18 |      | E2    |
| JB17                              | STA. -L- 56+40 RT 70'      | PC18 |      | E2    |
| JB18                              | STA. -L- 57+30 RT 176'     | PC18 |      | E2    |
| JB19                              | STA. -L- 57+94 LT 300'     | PC18 |      | E2    |
| JB20                              | STA. -L- 58+22 LT 314'     | PC18 |      | E2    |
| JB21                              | STA. -L- 58+72 RT 526'     | PC18 |      | E2    |
| JB22                              | STA. -L- 59+68 RT 526'     | PC18 |      | E2    |
| JB23                              | STA. -I40LPD- 13+35 RT 50' | PC18 |      | E3    |
| JB24                              | STA. -I40LPD- 13+35 LT 50' | PC18 |      | E3    |
| TOTALS                            |                            | 23   | 1    |       |

CONTROL SYSTEM "B"

| TABLE "B"<br>JUNCTION BOX SUMMARY |                       |      |      |       |
|-----------------------------------|-----------------------|------|------|-------|
| NUMBER                            | LOCATION              | TYPE |      | SHEET |
| JB1                               | -MLK- 35+10 RT 80'    |      | PC36 | E4    |
| JB2                               | -L- 100+70 LT 60'     |      | PC36 | E4    |
| JB3                               | -L- 98+80 LT 65'      | PC18 |      | E4    |
| JB4                               | -L- 96+80 LT 55'      | PC18 |      | E4    |
| JB5                               | -L- 94+83 LT 55'      | PC18 |      | E4    |
| JB6                               | -L- 92+47 LT 55'      | PC18 |      | E4    |
| JB7                               | -L- 100+70 LT 60'     | PC18 |      | E4    |
| JB8                               | -MLK- 38+80 LT 170'   | PC18 |      | E4    |
| JB9                               | -L- 101+78 LT 65'     | PC18 |      | E4    |
| JB10                              | -MLKLPB- 11+32 LT 65' | PC18 |      | E4    |
| JB11                              | -MLKLPB- 17+78 RT 35' | PC18 |      | E4    |
| JB12                              | -MLKLPB- 17+78 LT 20' | PC18 |      | E4    |
| JB13                              | -L- 106+66 LT 82'     | PC18 |      | E4    |
| TOTALS                            |                       | 11   | 2    |       |

CONTROL SYSTEM "A"

| TABLE "C"<br>ELECTRICAL DUCT SUMMARY<br>(ESTIMATED LENGTH IN FEET) |                  |       |                     |         |         |                     |         |         |
|--|------------------|-------|---------------------|---------|---------|---------------------|---------|---------|
| I-40 / US 52 INTERCHANGE   |                  |       | TYPE                |         |         |                     |         |         |
|  |                  |       | JACKED (JA)<br>FEET |         |         | BURIED (BD)<br>FEET |         |         |
| LOCATION   | RACEWAY $\Delta$ | SHEET | SIZE 3"             | SIZE 4" | SIZE 6" | SIZE 2"             | SIZE 3" | SIZE 4" |
| STA -L- 54+20 RT 485'  |                  | E2    |                     |         | 35      |                     |         |         |
| STA -L- 54+20 RT 485'  | CS "A" JB - JB4  | E2    |                     |         |         |                     | 80      |         |
| STA -L- 54+32 RT 940'  |                  | E3    | 110                 |         |         |                     |         |         |
| STA -L- 55+44 RT 562'  |                  | E2    |                     | 110     |         |                     |         |         |
| STA -L- 55+44 RT 562'  | JB5 - JB6        | E2    |                     |         |         | 120                 |         |         |
| STA -L- 58+60 RT 410'  |                  | E2    | 30                  |         |         |                     |         |         |
| STA -L- 54+70 RT 312'  |                  | E2    | 30                  |         |         |                     |         |         |
| STA -L- 56+40  |                  | E2    |                     | 120     |         |                     |         |         |
| STA -L- 56+40  | JB16 - JB17      | E2    |                     |         |         | 130                 |         |         |
| STA -L- 58+8 LT 306'   |                  | E2    | 30                  |         |         |                     |         |         |
| STA -L- 59+20 LT 526'  |                  | E2    | 110                 |         |         |                     |         |         |
| TOTALS   |                  |       | 310                 | 230     | 35      | 250                 | 80      |         |

CONTROL SYSTEM "B"

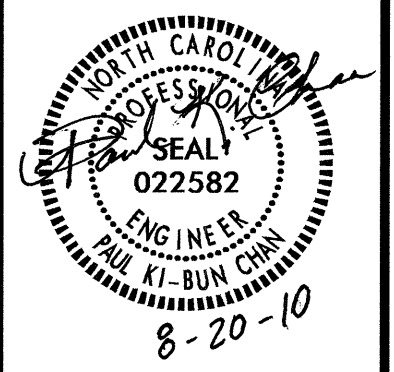
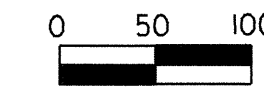
| TABLE "C"<br>ELECTRICAL DUCT SUMMARY<br>(ESTIMATED LENGTH IN FEET) |                  |       |                     |         |         |                     |         |         |
|--|------------------|-------|---------------------|---------|---------|---------------------|---------|---------|
| US 52 / MLK BLVD. INTERCHANGE                                      |                  |       | TYPE                |         |         |                     |         |         |
|  |                  |       | JACKED (JA)<br>FEET |         |         | BURIED (BD)<br>FEET |         |         |
| LOCATION   | RACEWAY $\Delta$ | SHEET | SIZE 3"             | SIZE 4" | SIZE 6" | SIZE 2"             | SIZE 3" | SIZE 4" |
| -MLKRC- 24+34  |                  | E4    |                     | 35      |         |                     |         |         |
| -MLKRC- 24+34  | CS "B" JB - JB1  | E4    |                     |         |         | 90                  |         |         |
| -L- 100+70   |                  | E4    | 110                 |         |         |                     |         |         |
| -MLK- 35+80  |                  | E4    | 70                  |         |         |                     |         |         |
| -MLKLPB- 17+78   |                  | E4    | 30                  |         |         |                     |         |         |
| TOTALS   |                  |       | 210                 | 35      |         | 90                  |         |         |

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 CHECKED BY: PKC      DATE: 8-20-10

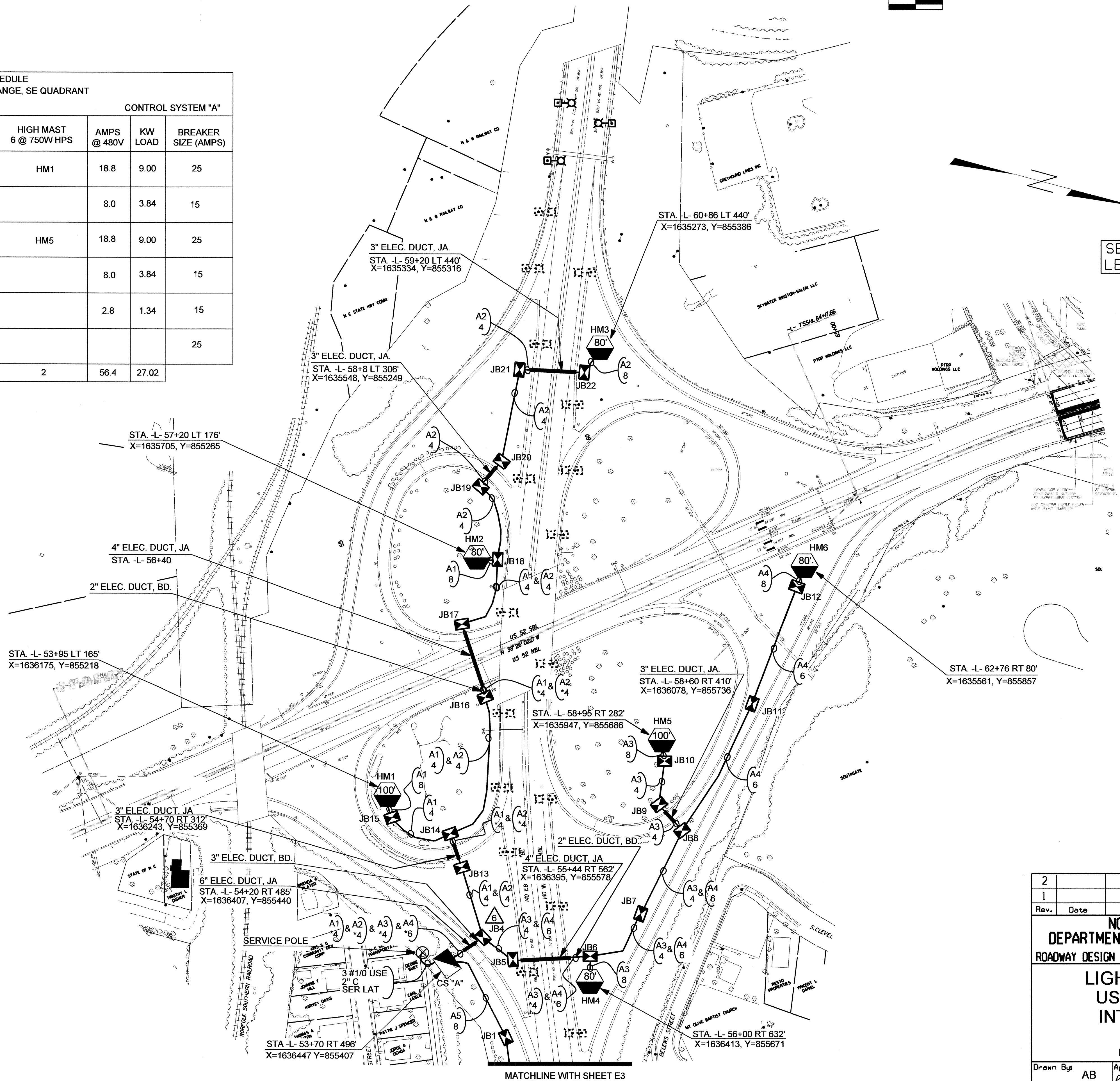
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USE FOR LIGHTING CONSTRUCTION ONLY



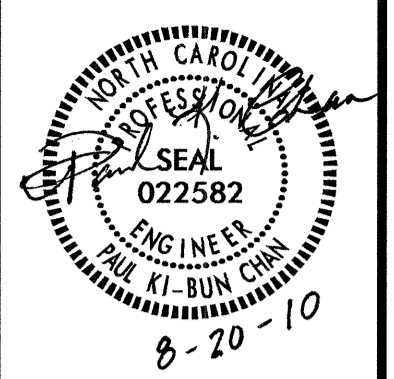
| LOAD SCHEDULE<br>I-40 BUS./US 52 INTERCHANGE, SE QUADRANT |                            |                           |                           |                |            |                        |
|---|----------------------------|---------------------------|---------------------------|----------------|------------|------------------------|
| 1Ø, 3W, 240/480 VAC                                       |                            |                           | CONTROL SYSTEM "A"        |                |            |                        |
| CKT   | SINGLE ARM<br>1 @ 250W HPS | HIGH MAST<br>8 @ 400W HPS | HIGH MAST<br>6 @ 750W HPS | AMPS<br>@ 480V | KW<br>LOAD | BREAKER<br>SIZE (AMPS) |
| A1  |                            | HM2                       | HM1                       | 18.8           | 9.00       | 25                     |
| A2  |                            | HM3                       |                           | 8.0            | 3.84       | 15                     |
| A3  |                            | HM4                       | HM5                       | 18.8           | 9.00       | 25                     |
| A4  |                            | HM6                       |                           | 8.0            | 3.84       | 15                     |
| A5  | A1,A2,A3,A4                |                           |                           | 2.8            | 1.34       | 15                     |
| SPARE   |                            |                           |                           |                |            | 25                     |
| TOTAL   | 4                          | 4                         | 2                         | 56.4           | 27.02      |                        |



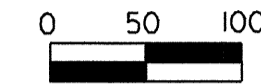
SEE SHEET "E1" FOR  
LEGEND & △ NOTES

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|--|------|--------------|-------------|
| 1  |      |              |             |
| Rev.   | Date | Description  | Approved    |
| <b>NORTH CAROLINA</b><br><b>DEPARTMENT OF TRANSPORTATION</b><br>ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION |      |              |             |
| <b>LIGHTING LAYOUT</b><br><b>US 52/I-40 BUS.</b><br><b>INTERCHANGE</b><br>SHEET 1 OF 2<br>FORSYTH COUNTY   |      |              |             |
| Drawn By:  | AB   | Approved By: | PKC 8-20-10 |
| Dwg No.:   |      |              |             |

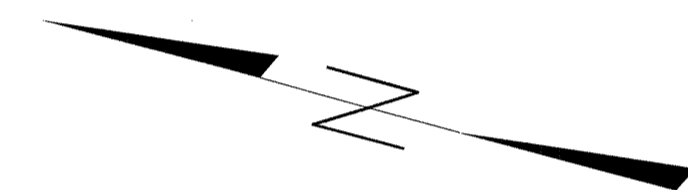
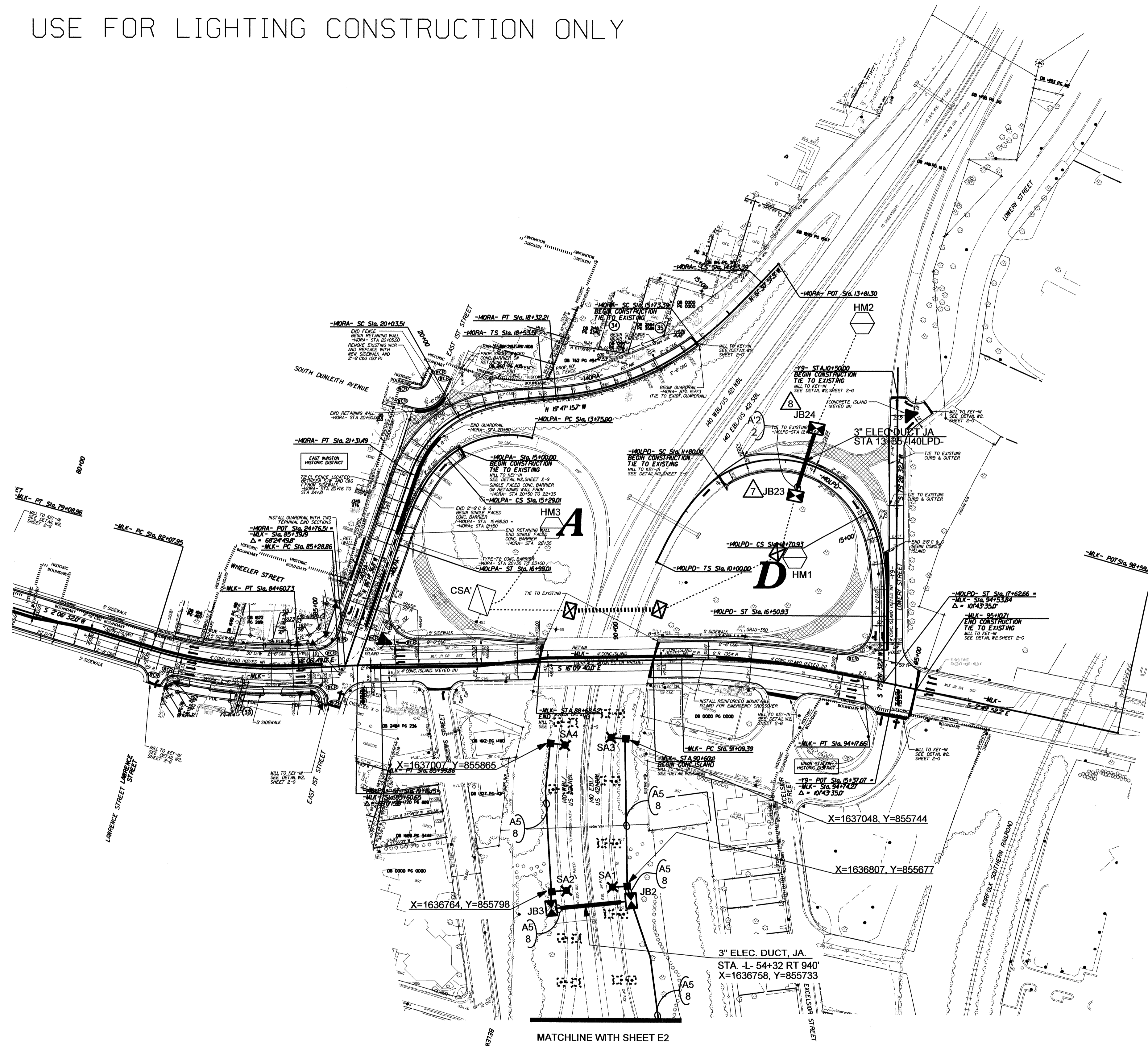
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USE FOR LIGHTING CONSTRUCTION ONLY



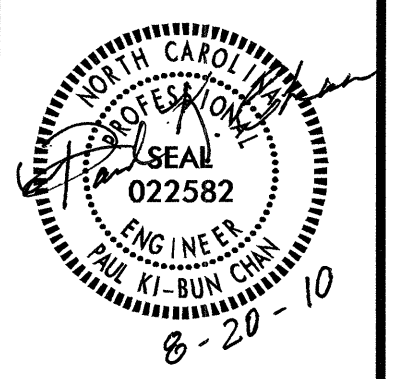
SEE SHEET "E1" FOR LEGEND & Δ NOTES



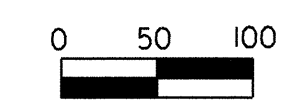
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|---|--------------|-------------|----------|
| 1   |              |             |          |
| Rev.  | Date         | Description | Approved |
| <b>NORTH CAROLINA</b><br><b>DEPARTMENT OF TRANSPORTATION</b><br>ROADWAY DESIGN      LIGHTING/ELECTRICAL SECTION |              |             |          |
| <b>LIGHTING LAYOUT</b><br><b>US 52/I-40 BUS.</b><br><b>INTERCHANGE</b>  |              |             |          |
| SHEET 2 OF 2<br>FORSYTH COUNTY  |              |             |          |
| Drawn By:   | Approved By: | Dwg No.:    |          |
| AB  | PKC 8-20-10  |             |          |

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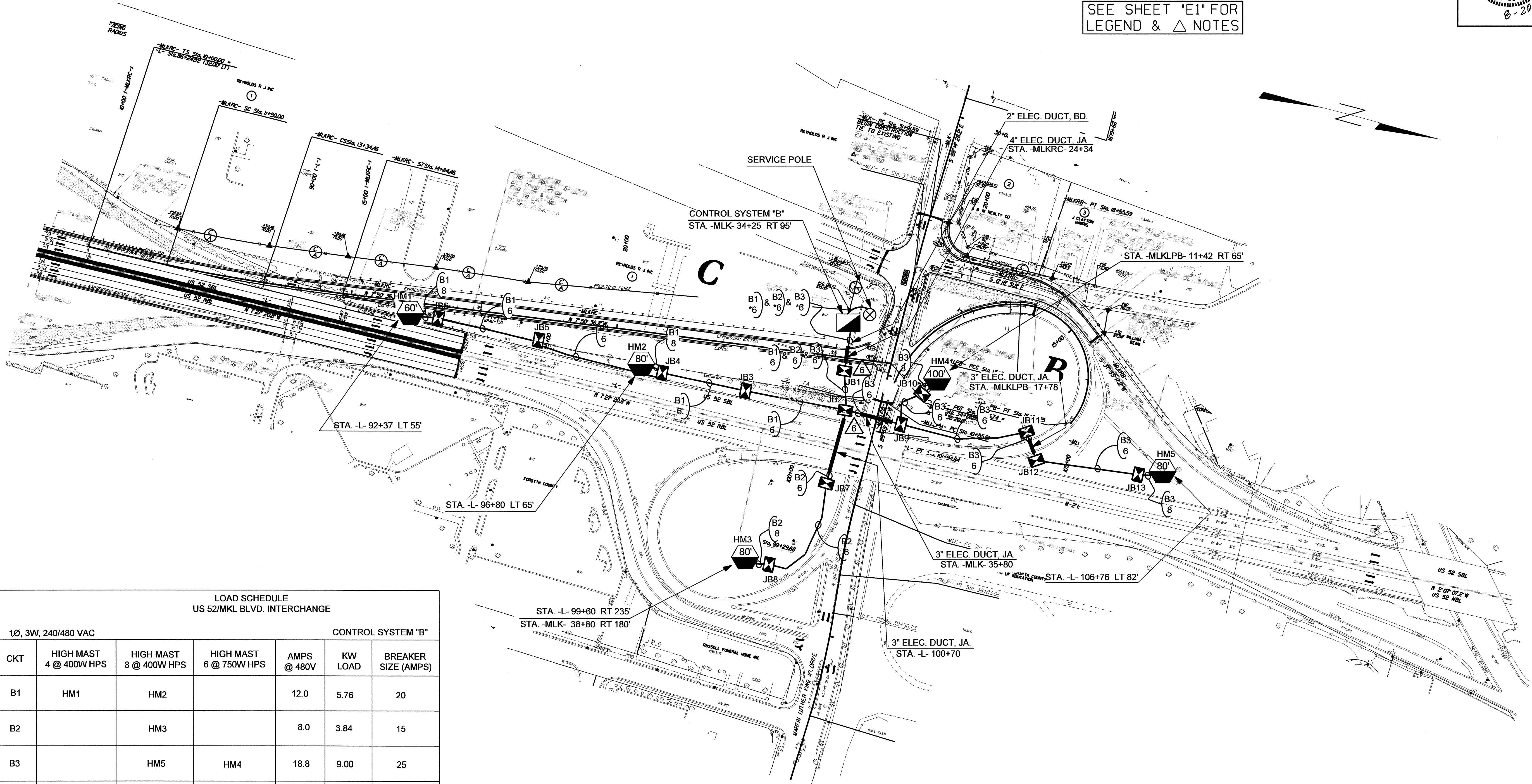
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USE FOR LIGHTING CONSTRUCTION ONLY



SEE SHEET "E1" FOR  
LEGEND & △ NOTES



| LOAD SCHEDULE<br>US 52/MLK BLVD. INTERCHANGE |                           |                           |                           |                    |            |                        |
|--|---------------------------|---------------------------|---------------------------|--------------------|------------|------------------------|
| 1Ø, 3W, 240/480 VAC                          |                           |                           |                           | CONTROL SYSTEM "B" |            |                        |
| CKT  | HIGH MAST<br>4 @ 400W HPS | HIGH MAST<br>8 @ 400W HPS | HIGH MAST<br>6 @ 750W HPS | AMPS<br>@ 480V     | KW<br>LOAD | BREAKER<br>SIZE (AMPS) |
| B1   | HM1                       | HM2                       |                           | 12.0               | 5.76       | 20                     |
| B2   |                           | HM3                       |                           | 8.0                | 3.84       | 15                     |
| B3   |                           | HM5                       | HM4                       | 18.8               | 9.00       | 25                     |
| SPARE  |                           |                           |                           |                    |            | 25                     |
| TOTAL  | 1                         | 3                         | 1                         | 38.8               | 18.60      |                        |

| 2  |                  |                  |          |
|--|------------------|------------------|----------|
| 1  |                  |                  |          |
| Rev.   | Date             | Description      | Approved |
| <b>NORTH CAROLINA</b><br><b>DEPARTMENT OF TRANSPORTATION</b><br>ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION |                  |                  |          |
| <b>LIGHTING LAYOUT</b><br><b>US 52/ MLK JR BLVD</b><br><b>INTERCHANGE</b>                                  |                  |                  |          |
| FORSYTH COUNTY   |                  |                  |          |
| Drawn By: AB   | Approved By: PKC | Dwg No.: 8-20-10 |          |

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02/03/98

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

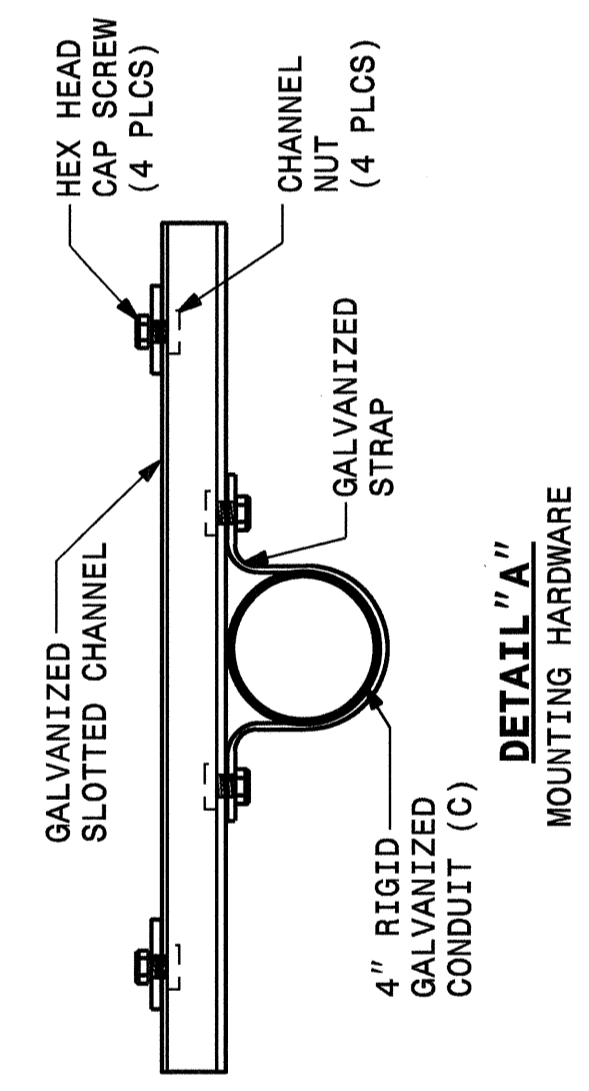
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ENGLISH STANDARD DRAWING FOR  
**LIGHT CONTROL SYSTEM**  
 ASSEMBLY

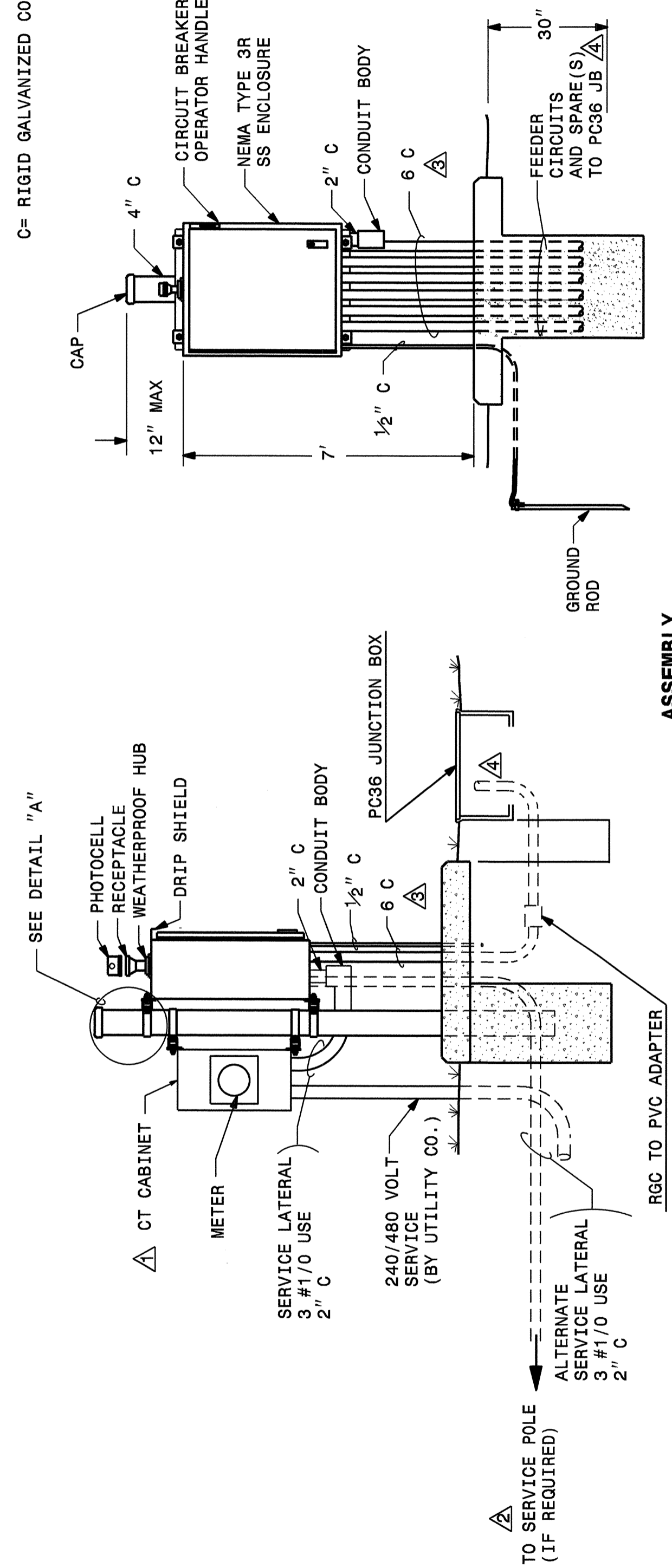
SHEET 2 OF 3  
**1408D01**

- NOTES**
- ▲ CURRENT TRANSFORMER (CT) CABINET AND METER MAY BE MOUNTED ON SERVICE POLE OR BACK OF CONTROL ENCLOSURE.
  - ▲ SEE SECTION 1407 OF THE STANDARD SPECIFICATIONS FOR SERVICE POLE AND SERVICE LATERAL.
  - ▲ SEE PLANS FOR SIZE OF CONDUITS AND/OR ELECTRICAL DUCT.
  - ▲ STUB FEEDER CIRCUIT CONDUITS INTO JUNCTION BOX. CAP UNUSED CONDUITS. FEEDER CIRCUITS MUST BE MINIMUM 30" BELOW GRADE.
  - ▲ SEE SECTION 1411 OF THE STANDARD SPECIFICATIONS FOR JUNCTION BOX INSTALLATION.

C= RIGID GALVANIZED CONDUIT



**DETAIL "A"**  
 MOUNTING HARDWARE



**ASSEMBLY**

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

ENGLISH STANDARD DRAWING FOR  
**LIGHT CONTROL SYSTEM**  
 ASSEMBLY

SHEET 2 OF 3  
**1408D01**

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

7-06

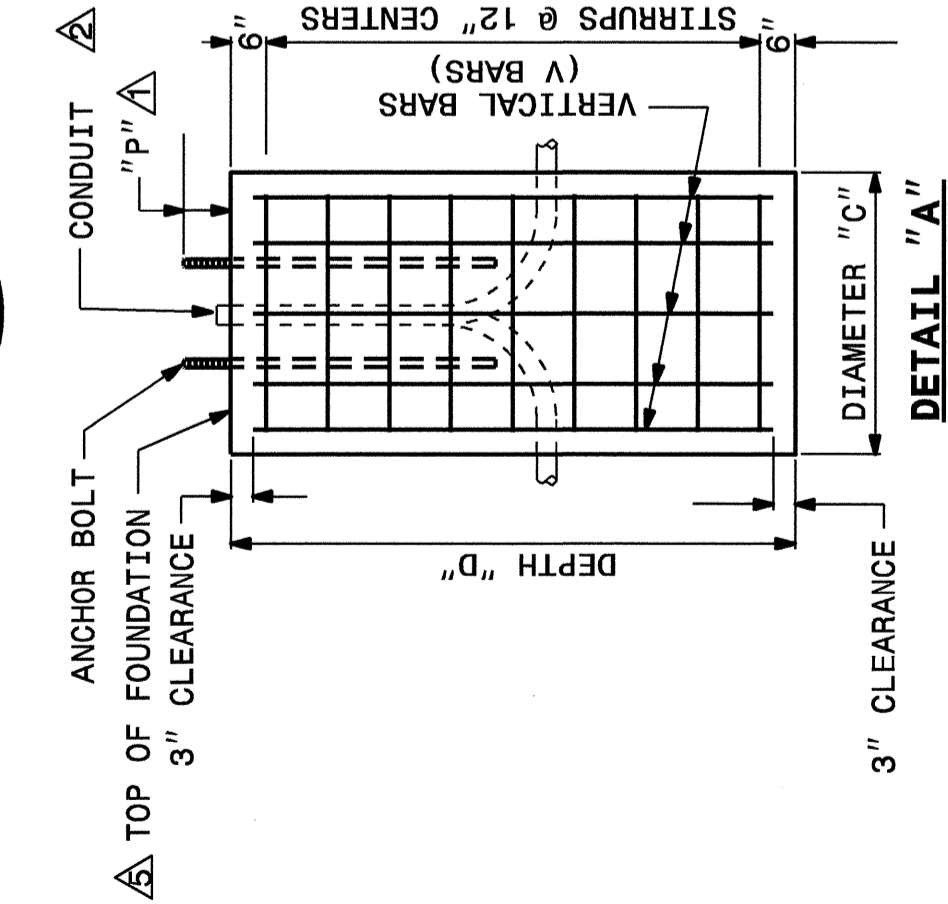
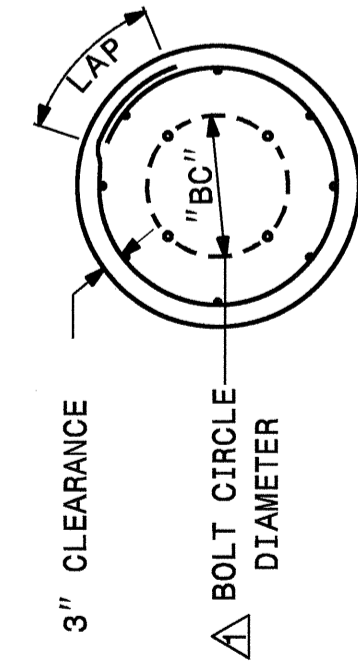
ENGLISH STANDARD DRAWING FOR  
**HIGH MOUNT FOUNDATION**

SHEET 1 OF 1  
**1402D01**

**TABLE OF FOUNDATION DIMENSIONS AND QUANTITIES**

| HEIGHT OF HIGH MOUNT FT | STIRRUPS        |        | CONCRETE |    | REINFORCING STEEL |     | DEPTH |     | WIND VELOCITY MPH |                  | CONCRETE     |                  | REINFORCING STEEL |                  |   |     |     |      |
|-------------------------|-----------------|--------|----------|----|-------------------|-----|-------|-----|-------------------|------------------|--------------|------------------|-------------------|------------------|---|-----|-----|------|
|                         | DIAMETER "C" FT | LAP-FT | CY       | CY | SIZE              | QTY | SIZE  | FT  | 90                |                  | 110          |                  | 130               |                  |   |     |     |      |
|                         |                 |        |          |    |                   |     |       |     | DEPTH "D" FT      | REINF. STEEL LBS | DEPTH "D" FT | REINF. STEEL LBS | DEPTH "D" FT      | REINF. STEEL LBS |   |     |     |      |
| 60                      | 3.5             | #3     | 1.0      | 11 | 8                 | #8  | 280   | 3.9 | 12                | 8                | #8           | 306              | 4.3               | 13               | 8 | #8  | 331 | 4.6  |
| 80                      | 3.5             | #3     | 1.0      | 12 | 8                 | #8  | 306   | 4.3 | 13                | 8                | #8           | 331              | 4.6               | 15               | 8 | #8  | 382 | 5.3  |
| 100                     | 4.0             | #3     | 1.0      | 13 | 8                 | #9  | 413   | 6.1 | 15                | 8                | #9           | 477              | 7.0               | 16               | 8 | #9  | 509 | 7.4  |
| 120                     | 4.5             | #3     | 1.0      | 15 | 8                 | #10 | 557   | 8.2 | 16                | 8                | #10          | 636              | 9.4               | 18               | 8 | #10 | 716 | 10.6 |

\* INCLUDES STIRRUPS AND VERTICAL BARS (V BARS)



**DETAIL "B"**

**NOTES**

- ▲ ANCHOR BOLTS CONFORM NUMBER, SIZE, AND LENGTH OF ANCHOR BOLTS, BOLT CIRCLE DIAMETER "BC", AND ANCHOR BOLT PROJECTION "P" TO APPROVED HIGH MOUNT STANDARD DRAWINGS.

**CONDUITS**

MATCH ORIENTATION, QUANTITY, TYPE, AND SIZE OF CONDUITS TO THE LAYOUT SHEETS. STUB AND CAP ONE SPARE CONDUIT AT EACH FOUNDATION. PROJECT CONDUIT A MAXIMUM OF 2" ABOVE TOP OF FOUNDATION. PLACE CONDUIT 30" BENEATH FINISH GRADE.

**DIMENSIONS & QUANTITIES**

DIMENSIONS AND QUANTITIES OF CONCRETE AND REINFORCING STEEL ARE GIVEN FOR THE PURPOSE OF OBTAINING BID PRICES ONLY. SEE STANDARD SPECIFICATIONS SECTION 1402, FOR OTHER STRUCTURAL REQUIREMENTS.

**WORK AREA**

PROVIDE A LEVEL WORK AREA AROUND EACH FOUNDATION. CUT/FILL SLOPES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

**ELEVATION**

SET TOP OF FOUNDATION AT .6" ABOVE LEVEL WORK AREA. SEE DETAIL "B".

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ENGLISH STANDARD DRAWING FOR  
**HIGH MOUNT FOUNDATION**

SHEET 1 OF 1  
**1402D01**

|      |      |             |          |
|------|------|-------------|----------|
| 2    |      |             |          |
| 1    |      |             |          |
| Rev. | Date | Description | Approved |

NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

LIGHT CONTROL ASSEMBLY  
 & HIGH MOUNT FOUNDATIONS  
 SPECIAL DETAILS

Drawn By: AB Approved By: PKC 8-20-10 Dwg No.:

