

PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

NOTES

- 1. INSTALL ALL BORE PITS OUTSIDE THE CLEAR ZONE, AS DEFINED BY THE 2009 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY THE ENGINEER.
- 2. LOCATE ALL JUNCTION BOXES OUTSIDE CLEAR ZONE AND IN AN AREA UNLIKELY TO BE USED BY TRAFFIC.
- 3. LOCATE PROPOSED CONTROL SYSTEM IN AN AREA ACCESSIBLE FOR MAINTENANCE VEHICLES AND OUTSIDE OF CLEAR ZONE AS DEFINED BY THE 2009 AASHTO ROADSIDE DESIGN GUIDE.
- 4. TYPE PC18 JUNCTION BOXES ARE 18" L X 11" W X 18" H.
- 5. LOCATE ALL 25' DECORATIVE POST TOP LIGHT STANDARDS BEHIND SIDEWALK WHERE APPLICABLE.
- 6. LOCATE ALL 25' DECORATIVE POST TOP LIGHT STANDARDS 10' BEHIND GUTTERLINE OF THE CURB AND GUTTER WHERE APPLICABLE.
- 7. COORDINATE WITH DUKE ENERGY FOR METER SERVICE AT THE ROUNDABOUT.

SCOPE OF WORK

PLACE ROADWAY LIGHTING SYSTEM INTO SERVICE BY PROVIDING AND INSTALLING 25' POST TOP DECORATIVE LIGHT STANDARDS WITH HIGH PRESSURE SODIUM LUMINAIRES, UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES.

DESIGN CRITERIA

- 2005 AASHTO ROADWAY LIGHTING DESIGN GUIDE
- 2009 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 5TH EDITION AND LATEST INTERIM SPECIFICATIONS VALID AT THE TIME OF LETTING
- 2011 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 JANUARY 2012 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 |
| 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 JANUARY 2012.

LEGEND

- PROPOSED LIGHT STANDARD TYPE 25' DECORATIVE METAL POLE. INCLUDES STANDARD FOUNDATION TYPE R1 OR R2 & 250W HPS TEARDROP LUMINAIRES. IES DISTRIBUTION: MEDIUM, CUTOFF, TYPE V
- PROPOSED CONTROL SYSTEM, SEE DETAIL SHEET E3. BREAKER SIZE SHOWN IN LOAD SCHEDULE, SHEET E2
- 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 9.1M CLASS 4 3#1/0 USE CONDUCTORS TS2 CONDUIT
- PROPOSED ELECTRICAL DUCT SIZE TS2, TS3 OR TS4 TYPE (JA) OR (BD) LOCATION: SEE TABLE C, THIS SHEET

| 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 1.5" PVC CONDUIT | 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 | 16+16 -LREV- 50' LT | PC18 | E2 |
| JB2 | 16+16 -LREV- 50' RT | PC18 | E2 |
| JB3 | 10+76 -Y3REV- 45' RT | PC18 | E2 |
| JB4 | 10+76 -Y3REV- 45' LT | PC18 | E2 |
| JB5 | 15+50 -Y1- 45' RT | PC18 | E2 |
| JB6 | 15+50 -Y1- 55' LT | PC18 | E2 |
| TOTALS | | 6 | |

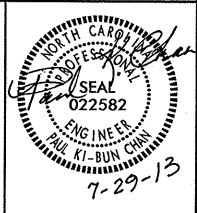
| LOCATION | SHEET | TYPE | | | | | |
|---------------|-------|---------------------|---------|---------|---------------------|---------|---------|
| | | JACKED (JA) FEET | | | BURIED (BD) FEET | | |
| | | SIZE 2" | SIZE 3" | SIZE 4" | SIZE 2" | SIZE 3" | SIZE 4" |
| 16+16 -LREV- | E2 | | 80 | | | | |
| 10+76 -Y3REV- | E2 | | 80 | | | | |
| 15+50 -Y1- | E2 | | 80 | | | | |
| TOTALS | | | 240 | | | | |

| | | | |
|---------|-----------------|-----|--------------------------------|
| 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 |

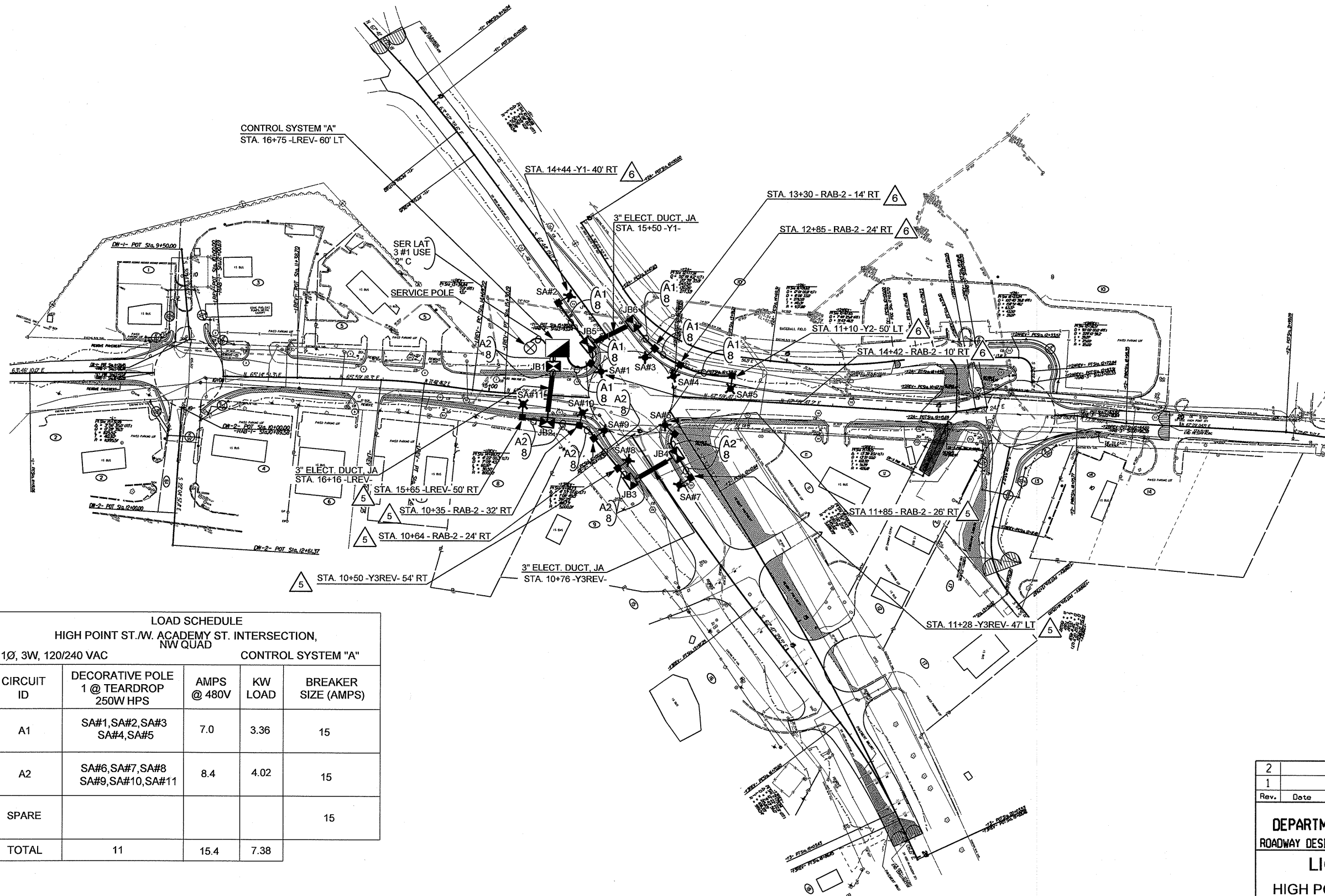
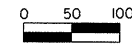
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02/03/98



USE FOR LIGHTING CONSTRUCTION ONLY



| LOAD SCHEDULE HIGH POINT ST./W. ACADEMY ST. INTERSECTION, NW QUAD 1Ø, 3W, 120/240 VAC CONTROL SYSTEM "A" | | | | |
|---|--|-------------|---------|---------------------|
| CIRCUIT ID | DECORATIVE POLE 1 @ TEARDROP 250W HPS | AMPS @ 480V | KW LOAD | BREAKER SIZE (AMPS) |
| A1 | SA#1, SA#2, SA#3 SA#4, SA#5 | 7.0 | 3.36 | 15 |
| A2 | SA#6, SA#7, SA#8 SA#9, SA#10, SA#11 | 8.4 | 4.02 | 15 |
| SPARE | | | | 15 |
| TOTAL | 11 | 15.4 | 7.38 | |

| 2 | | | |
|--|------|--------------|----------|
| 1 | | | |
| Rev. | Date | Description | Approved |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING LAYOUT HIGH POINT ST / W ACADEMY ST ROUNDABOUT INTERSECTION RANDOLPH COUNTY | | | |
| Drawn By: | AB | Approved By: | PKC |
| Dwg No.: | | | |

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