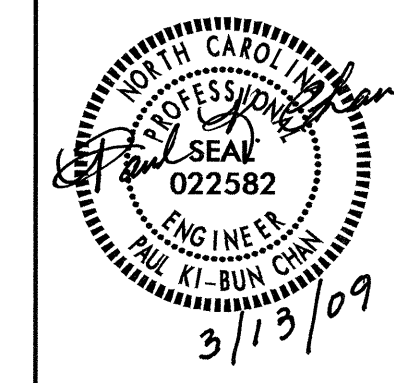


PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL WORK



△ NOTES

- 1 RELOCATE EXISTING TWIN-ARM POLE #3 INSIDE THE TRANSITION BARRIER, 5' FROM THE CONSTRUCTION JOINT AT THE EXISTING MEDIAN BARRIER. REFER TO STANDARD DRAWING 1405.01 SHEET 2 OF 3.
- 2 INSTALL NEW CIRCUITRY IN CONDUIT AS REQUIRED BY CONSTRUCTION. AVOID BRIDGE PILES AND FOOTING.
- 3 REPLACE EXISTING CONDUCTORS AS SHOWN. RE-USE EXISTING CONDUIT UNDER BARRIER. TIE IN TO NEW CIRCUITRY IN CONDUIT, USING APPROVED COUPLINGS AND FITTINGS.

SCOPE OF WORK

RELOCATE TWIN-ARM LIGHT STANDARD TO AVOID CONFLICT WITH BRIDFORD PARKWAY BRIDGE OVER I-40 AT THE I-40/GUILDFORD COLLEGE ROAD INTERCHANGE.

RENOVATE EXISTING LIGHTING SYSTEM BY TROUBLESHOOT AND REPAIR FAULTS NECESSARY TO MAKE EXISTING LIGHTING SYSTEM FULLY OPERATIONAL.

DESIGN CRITERIA

- 2005 AASHTO ROADWAY LIGHTING DESIGN GUIDE
- 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
1403.01	HIGH MOUNT LUMINAIRES
1406.01	LIGHT STANDARD LUMINAIRES
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

- △ REFERENCE TO CORRESPONDING NOTE AS NUMBERED
- ⊗-□-⊗ EXISTING TWIN-ARM LIGHT STANDARD
- ⊗-■-⊗ RELOCATED TWIN-ARM LIGHT STANDARD
- ⊗ EXISTING SINGLE-ARM LIGHT STANDARD

TABLE "A"
CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE

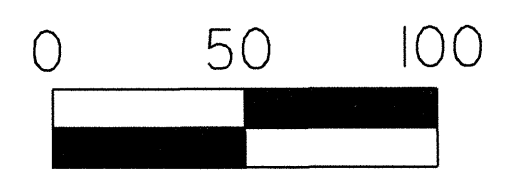
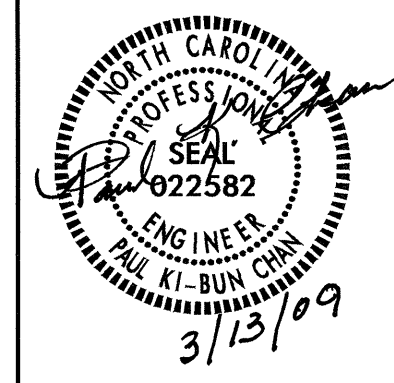
PLAN SYMBOL	DESCRIPTION	CONTRACT ITEM
6	2#6 Ø 1 #8G 1.5" P	2 - 6 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*6	2#6 Ø 1 #8G	2 - 6 W/G FEEDER CIRCUIT
4	2#4 Ø 1 #6G 1.5" P	2 - 4 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*4	2#4 Ø 1 #6G	2 - 4 W/G FEEDER CIRCUIT
2	2#2 Ø 1 #4G 1.5" P	2 - 2 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*2	2#2 Ø 1 #4G	2 - 2 W/G FEEDER CIRCUIT
1	2#1 Ø 1 #2G 1.5" P	2 - 1 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*1	2#1 Ø 1 #2G	2 - 1 W/G FEEDER CIRCUIT

ABBREVIATIONS

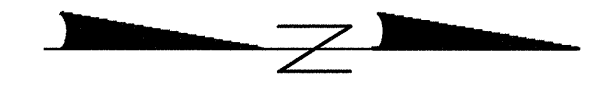
BD	BURIED	PVC	PVC SCHEDULE 40 CONDUIT
LT	LIGHT	RGC	RIGID GALVANIZED STEEL CONDUIT
JA	JACKED	C	CONDUIT
MH	MOUNTING HEIGHT	CKT	CIRCUIT
Ø	PHASE	N	NEUTRAL
SER LAT	SERVICE LATERAL	G	GROUND
		HM	HIGH MAST

COMPUTED BY: PKC DATE: 3/13/09
 CHECKED BY: *[Signature]* DATE: 3-13-09

02/03/98



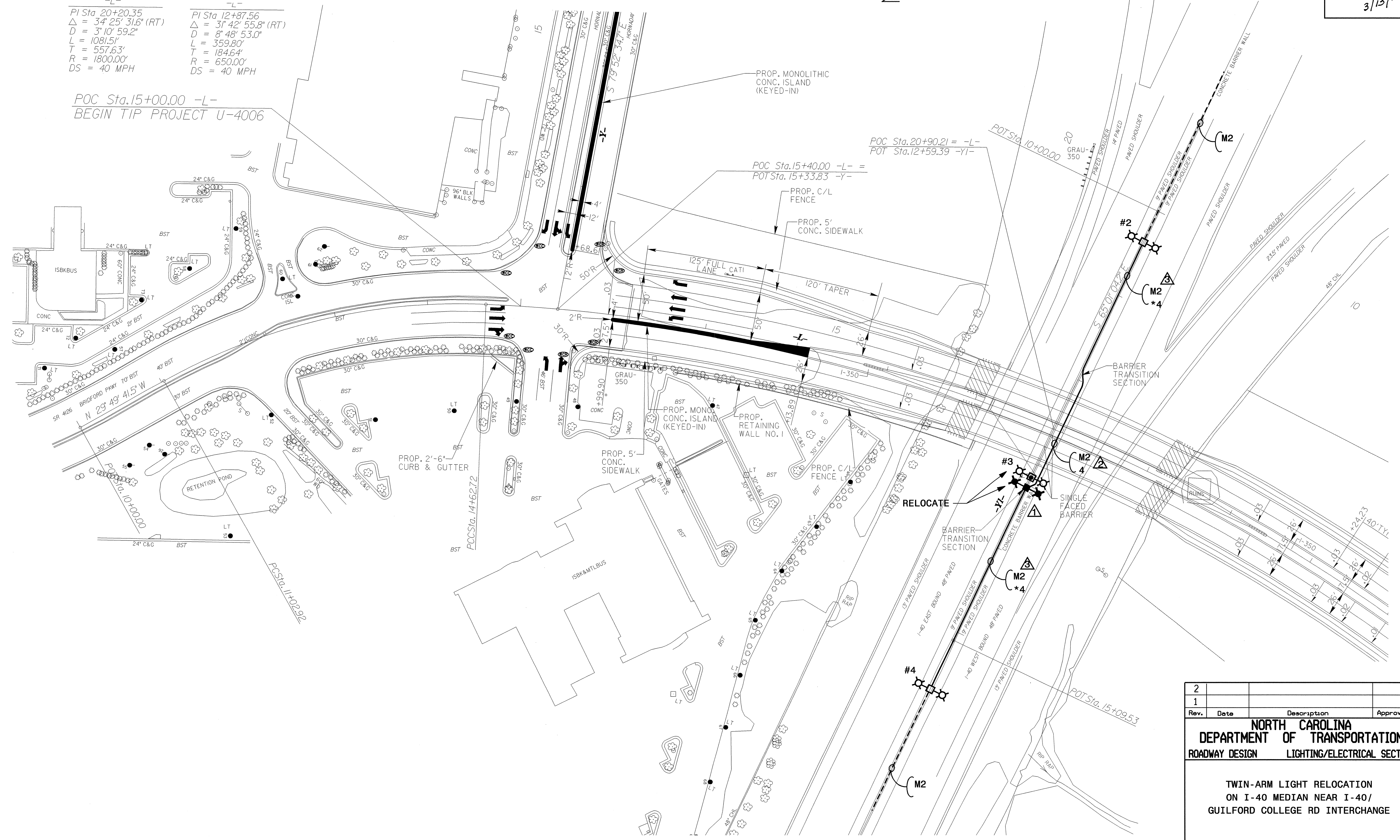
USE FOR LIGHTING CONSTRUCTION ONLY



-L-
 PI Sta. 20+20.35
 $\Delta = 34^{\circ} 25' 31.6''$ (RT)
 $D = 3^{\circ} 10' 59.2''$
 $L = 1081.51'$
 $T = 557.63'$
 $R = 1800.00'$
 $DS = 40$ MPH

-L-
 PI Sta. 12+87.56
 $\Delta = 31^{\circ} 42' 55.8''$ (RT)
 $D = 8^{\circ} 48' 53.0''$
 $L = 359.80'$
 $T = 184.64'$
 $R = 650.00'$
 $DS = 40$ MPH

POC Sta. 15+00.00 -L-
BEGIN TIP PROJECT U-4006



2			
1			
Rev.	Date	Description	Approved

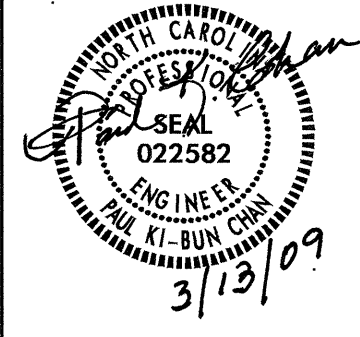
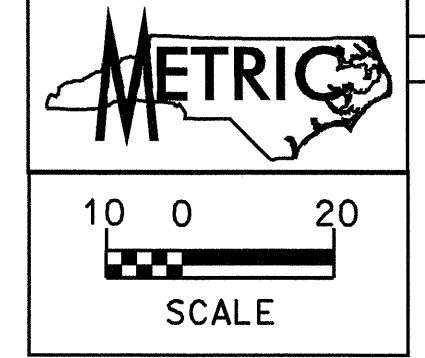
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

TWIN-ARM LIGHT RELOCATION
 ON I-40 MEDIAN NEAR I-40/
 GUILFORD COLLEGE RD INTERCHANGE

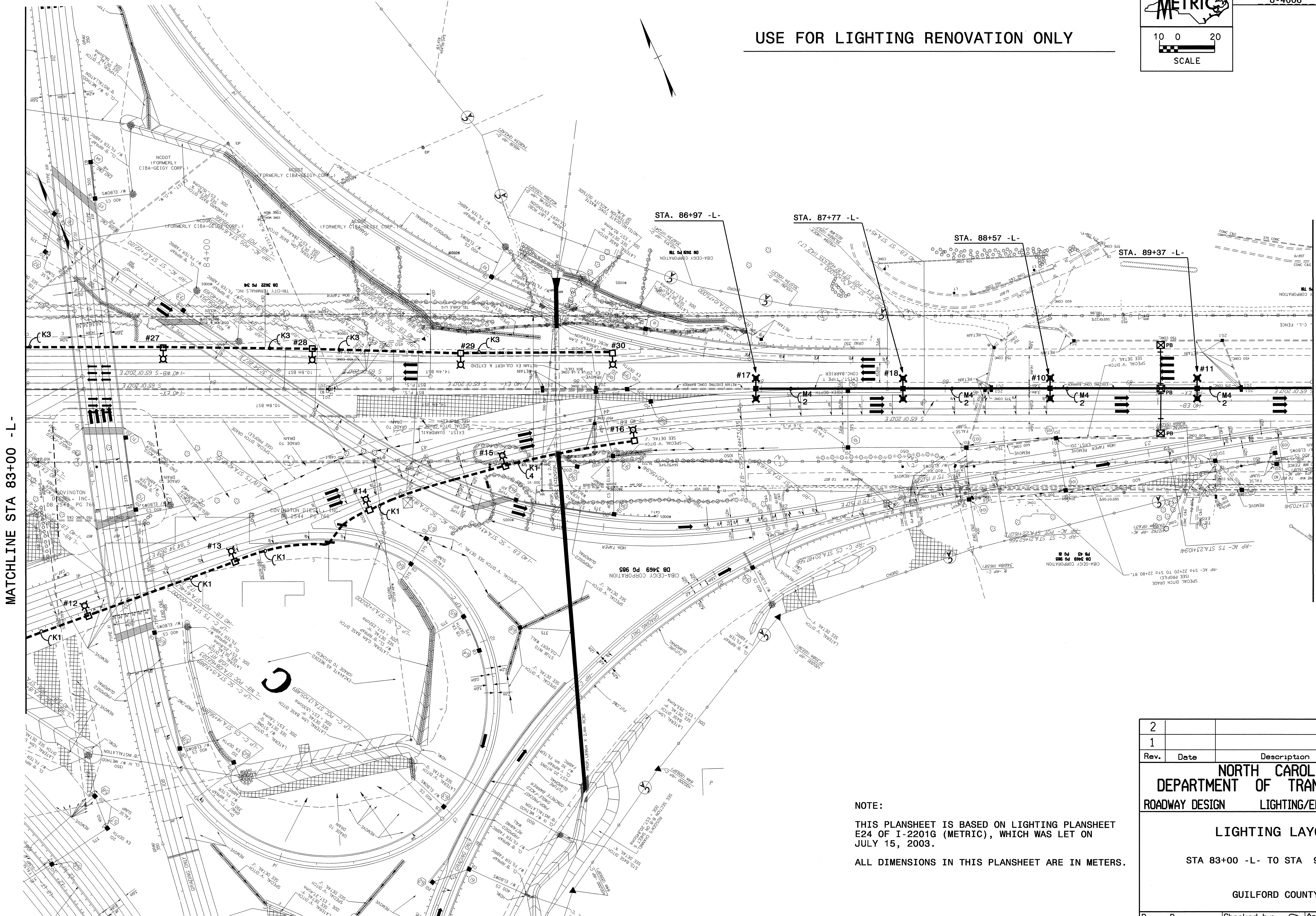
Drawn By: PKC 3/13/09
 Approved By: [Signature]
 Dwg No.:

I3-MAR-2009 10:32
 R:\Lighting\electrical\Design\4006_1e.dsn.dgn
 \$\$\$USERNAME\$\$\$

2/13/09



USE FOR LIGHTING RENOVATION ONLY



MATCHLINE STA 83+00 -L-

MATCHLINE STA 90+00 -L- SEE SHEET E4

2			
1			
Rev.	Date	Description	Approved

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

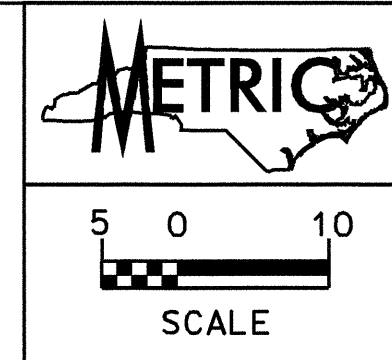
LIGHTING LAYOUT

STA 83+00 -L- TO STA 90+00 -L-

GUILFORD COUNTY

NOTE: THIS PLANSHEET IS BASED ON LIGHTING PLANSHEET E24 OF I-2201G (METRIC), WHICH WAS LET ON JULY 15, 2003. ALL DIMENSIONS IN THIS PLANSHEET ARE IN METERS.

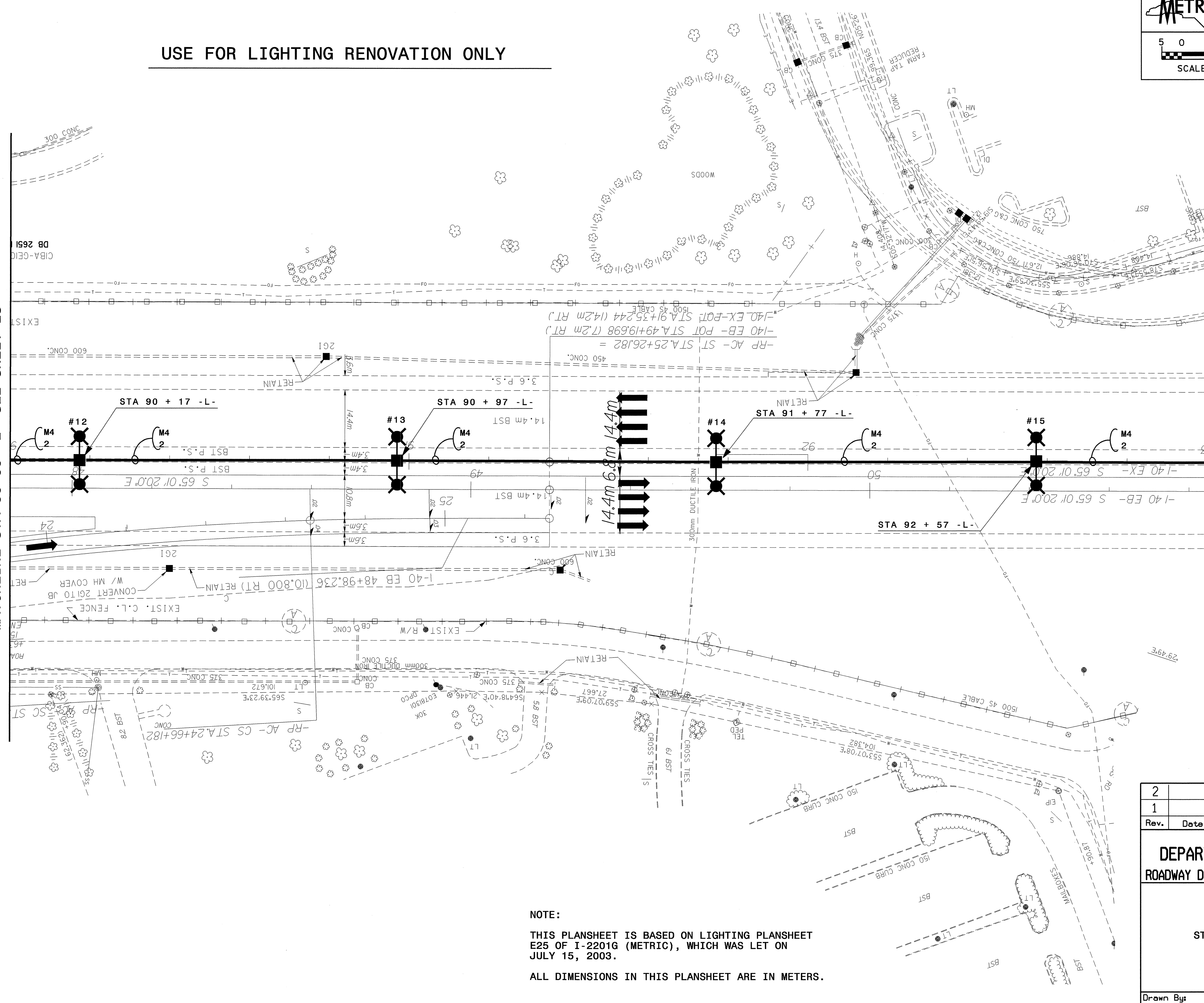
Drawn By: PKC 3/11/09	Checked by: <i>[Signature]</i>	Approved By:
--------------------------	-----------------------------------	--------------



USE FOR LIGHTING RENOVATION ONLY

MATCHLINE STA 90+00 -L- SEE SHEET E3

MATCHLINE STA 93+00 -L- SEE SHEET E5

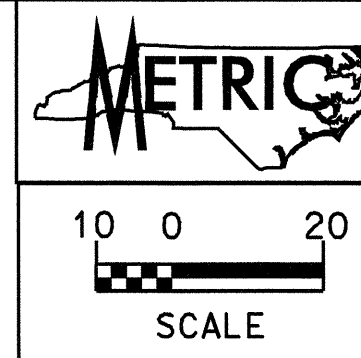


NOTE:
 THIS PLANSHEET IS BASED ON LIGHTING PLANSHEET E25 OF I-2201G (METRIC), WHICH WAS LET ON JULY 15, 2003.
 ALL DIMENSIONS IN THIS PLANSHEET ARE IN METERS.

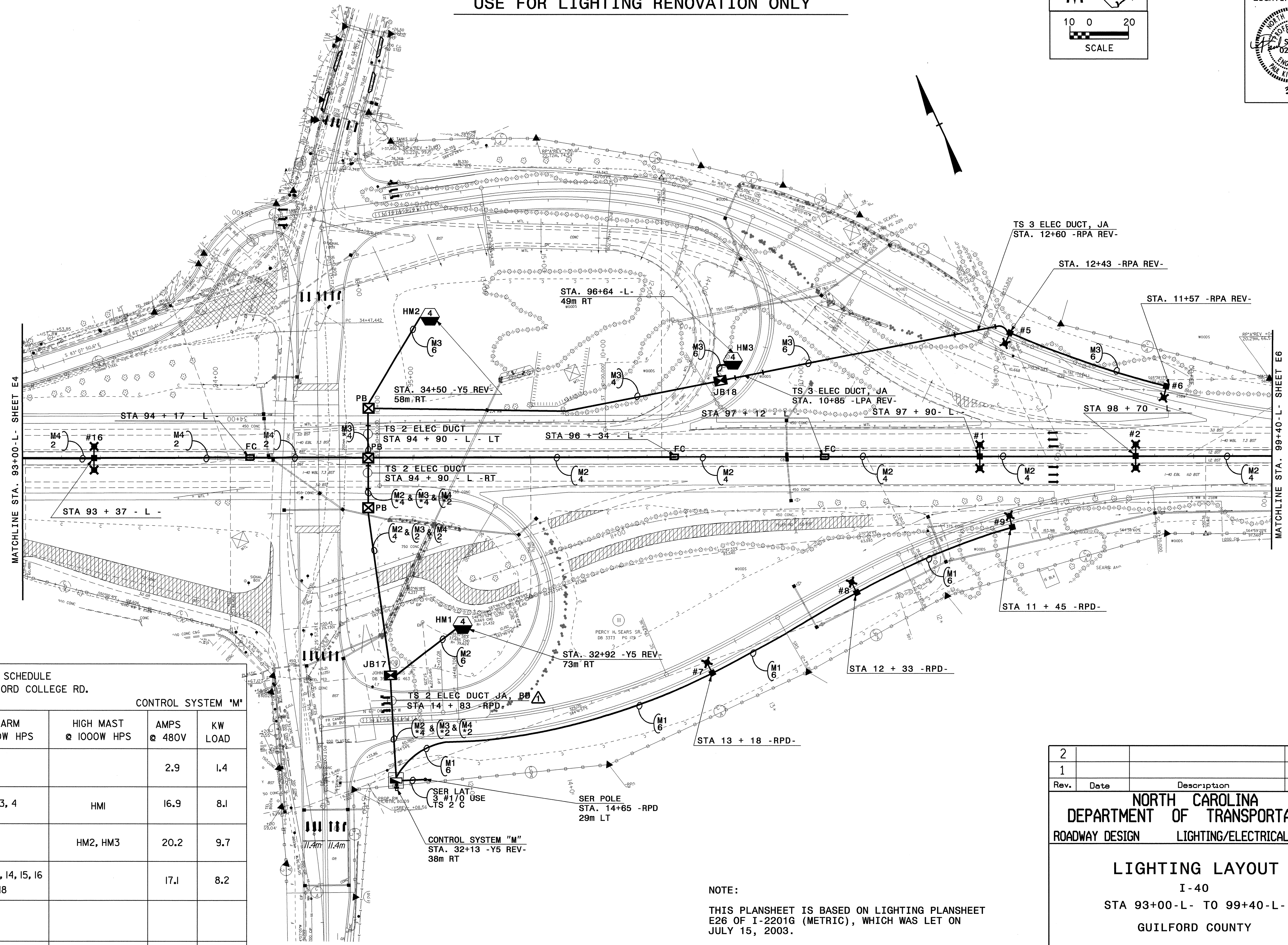
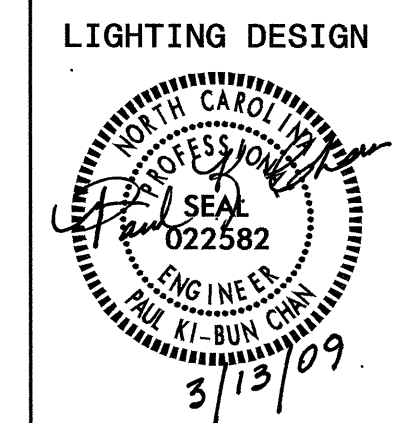
2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING LAYOUT STA 90+00 -L- TO STA 93+00 -L- GUILFORD COUNTY			
Drawn By:	Checked by:	Approved By:	
PKC 3/11/09	<i>[Signature]</i>	<i>[Signature]</i>	

I:\Lighting\9301\2201G\2201G25_u006e4.dwg
 13-MAR-2009 10:04
 2/13/09

USE FOR LIGHTING RENOVATION ONLY



PROJECT REFERENCE NO. U-4006 SHEET NO. E5



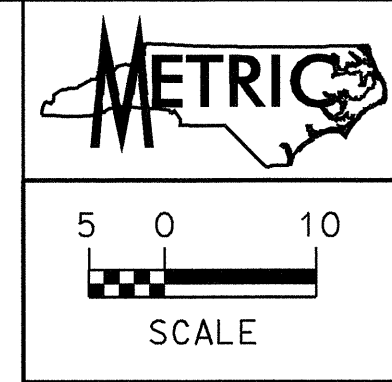
LOAD SCHEDULE I-40 / GUILFORD COLLEGE RD.					
1Ø, 3W, 240/480V		CONTROL SYSTEM "M"			
CKT	SINGLE ARM Ø 400W HPS	TWIN ARM 2 Ø 400W HPS	HIGH MAST Ø 1000W HPS	AMPS Ø 480V	KW LOAD
M1	7, 8, 9			2.9	1.4
M2		1, 2, 3, 4	HMI	16.9	8.1
M3	5, 6		HM2, HM3	20.2	9.7
M4		10, 11, 12, 13, 14, 15, 16, 17, 18		17.1	8.2
M5					
TOTAL	5	13	3	57.1	27.4

NOTE:
THIS PLANSHEET IS BASED ON LIGHTING PLANSHEET E26 OF I-2201G (METRIC), WHICH WAS LET ON JULY 15, 2003.
ALL DIMENSIONS IN THIS PLANSHEET ARE IN METERS.

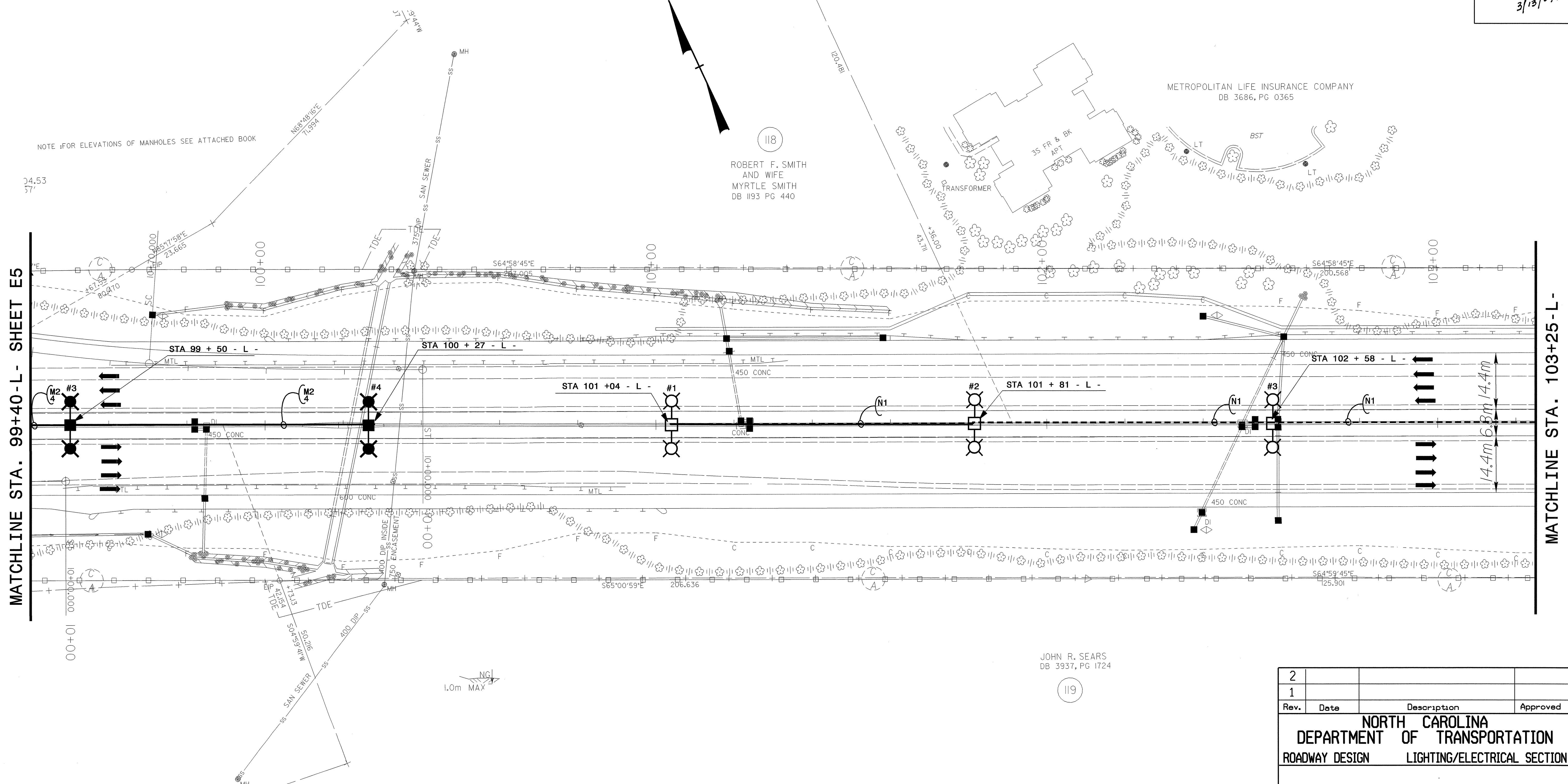
2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION LIGHTING LAYOUT I-40 STA 93+00-L- TO 99+40-L- GUILFORD COUNTY			
Drawn By:	Checked by:	Approved By:	
PKC 3/12/09	<i>[Signature]</i>	<i>[Signature]</i>	

13-MAR-2009 10:00 \\000\2201g\2201g_e26_u4006e5.dwg
 2/13/09

USE FOR LIGHTING RENOVATION ONLY



PROJECT REFERENCE NO. U-4006	SHEET NO. E6
LIGHTING DESIGN	
3/13/09	



NOTE: FOR ELEVATIONS OF MANHOLES SEE ATTACHED BOOK

MATCHLINE STA. 99+40-L - SHEET E5

MATCHLINE STA. 103+25-L -

JOHN R. SEARS
DB 3937, PG 1724



NOTE:
THIS PLANSHEET IS BASED ON LIGHTING PLANSHEET E27 OF I-2201G (METRIC), WHICH WAS LET ON JULY 15, 2003.
ALL DIMENSIONS IN THIS PLANSHEET ARE IN METERS.

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT I-40 STA 99+40-L- TO STA 103+25-L-			
GUILFORD COUNTY			
Drawn By: PKC 3/13/09	Checked by: 	Approved By: 	

13-MAR-2009 09:53 v2201g v2201g.dwg u4006e6.dwg