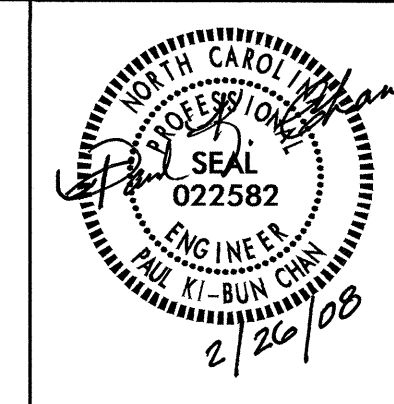


PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION



NOTES

- 1 AT THESE LOCATIONS, PROVIDE ELECTRICAL DUCT IN ACCORDANCE WITH NEC REQUIREMENTS FOR AN APPROVED RACEWAY FOR ELECTRICAL CIRCUITS. SEE TABLE "C".
- 2 LOCATE ALL JUNCTION BOXES IN AN AREA UNLIKELY TO BE USED BY TRAFFIC.
- 3 INSTALL ALL BORE PITS OUTSIDE CLEAR ZONE AS DEFINED BY THE 2002 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY THE ENGINEER.
- 4 USE SCALED DIMENSIONS FOR ELECTRICAL DUCTS NOT LOCATED WITH STATION NUMBERS.
- 5 REFER TO ROADWAY PLANS FOR GUARDRAIL INSTALLATION AT HM#1 AND HM#4.

SCOPE OF WORK

PROVIDE ROADWAY LIGHTING BY PROVIDING AND INSTALLING HIGH PRESSURE SODIUM LUMINAIRES ON 60' & 100' HIGH MOUNT STANDARDS, INCLUDING UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES.

DESIGN CRITERIA

- 2005 AASHTO ROADWAY LIGHTING DESIGN GUIDE
- 2002 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS
- 2008 NATIONAL ELECTRICAL CODE

ROADWAY STANDARDS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "NCDOT ROADWAY STANDARD DRAWINGS", ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JULY 2006 AND THE STANDARD DRAWING AS REVISED (NUMBER CONTAINING THE LETTER "D") AND ATTACHED HEREWITH, ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD NO.	TITLE
1401.01	HIGH MOUNT STANDARD
1402D01	HIGH MOUNT FOUNDATION
1403.01	HIGH MOUNT LUMINAIRE
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
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 130 MPH WIND SPEED.
- PROPOSED 100' HIGH MAST STANDARD W/ HM FOUNDATION & 6 HM LUMINAIRES 750W HPS MEDIUM, CUTOFF, TYPE V 130 MPH WIND SPEED.
- PROPOSED SINGLE-ARM LGT STD W/ STD FOUNDATION TYPE R1 & BREAKAWAY BASE, & 250W HPS LUMINAIRE 35 FT MOUNTING HEIGHT IES DISTRIBUTION: FLAT GLASS, FULL CUTOFF, TYPE III
- PROPOSED CONTROL SYSTEM. BREAKER SIZE SHOWN IN LOAD SCHEDULE, SHEET E3
- PROPOSED ELECTRICAL JUNCTION BOX TYPE PC18, 18" L X 12" W X 18" H TYPE PC30, 30" L X 24" W X 18" H LOCATION: SEE TABLE B, THIS SHEET
- REFERENCE TO CORRESPONDING NOTE AS NUMBERED
- PROPOSED FEEDER CIRCUIT CONTROL SYSTEM(A), CIRCUIT(1) PLAN SYMBOL (6) LOCATION: SEE TABLE A, THIS SHEET
- PROPOSED 30' CLASS 4 SERVICE POLE AND LATERAL 3#1/0 USE CONDUCTORS 2" CONDUIT
- PROPOSED ELECTRICAL DUCT, SIZE 3" OR 4" TYPE (JA) OR (BD) LOCATION: SEE TABLE C, THIS SHEET

PLAN SYMBOL	DESCRIPTION	CONTRACT ITEM
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
*8	2 AWG #8 CONDUCTOR (BK & RD) 1 AWG #10 GROUNDING CONDUCTOR	2 #8 W/G FEEDER CIRCUIT

NO.	LOCATION	TYPE	SHEET
JB1	17+90 -RPB- RT	PC30	E3
JB2	17+90 -RPB- LT	PC18	E3
JB3	17+50 -RPB- LT	PC18	E3
JB4	16+40 -RPA- RT	PC18	E3
JB5	16+30 -RPA- RT	PC18	E3
JB6	19+25 -RPD- RT	PC18	E2
JB7	16+25 -RPD- RT	PC18	E2
JB8	13+25 -RPD- RT	PC18	E2
JB9	54+40 -L- RT	PC18	E2
JB10	54+00 -L- RT	PC18	E2
JB11	54+00 -L- LT	PC18	E3
JB12	13+40 -RPA- RT	PC18	E3
JB13	10+30 -RPA- RT	PC18	E3
TOTALS		1	12

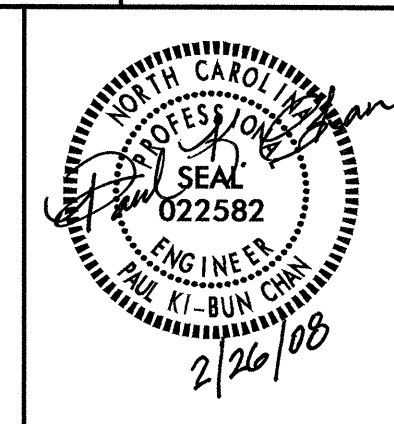
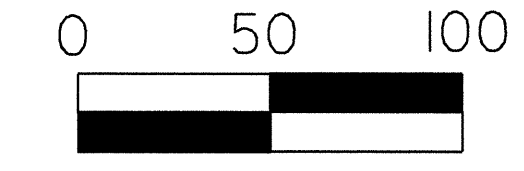
LOCATION	RACEWAY	SHEET	TYPE						
			BURIED (BD)			JACKED (JA)			
			2"	3"	4"	2"	3"	4"	
17+90 -RPB-	JB1 - JB2	E3	75'						
17+90 -RPB-		E3							60'
BETWEEN QUAD A & B	JB3 - JB4	E3	100'						
SLEEVE (JB3 - JB4)		E3							60'
SLEEVE (JB4 - JB5)		E3						45'	
54+00 -L-	JB10 - JB11	E2&E3	115'						
54+00 -L-		E2&E3							95'
SLEEVE (JB8 - JB9)		E2						35'	
TOTALS			290'					80'	215'

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

Drawn By: [Signature] Checked By: [Signature] Approved By: [Signature]

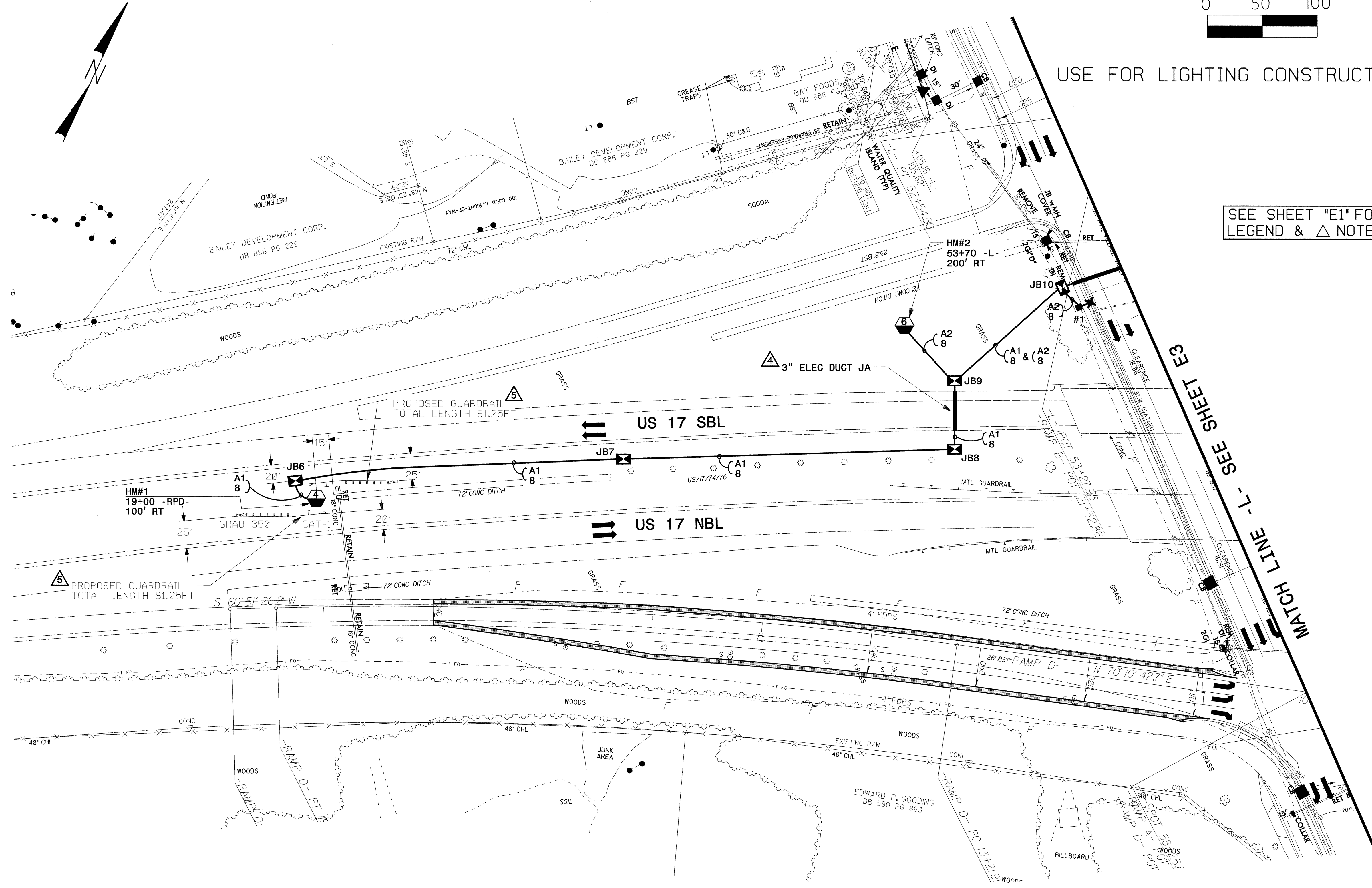
02/03/08
 r:\lighting\electrical\lighting design\r4002.le.psh-el.dgn
 26-FEB-2008 09:44
 \$\$\$USERNAME\$\$\$

02/03/98



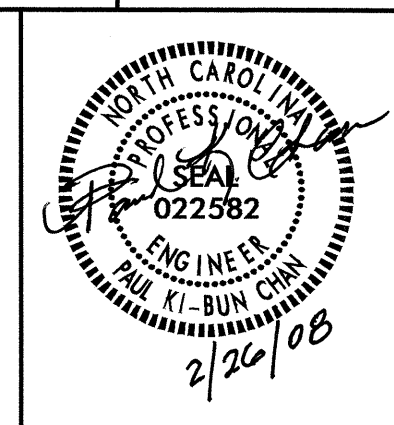
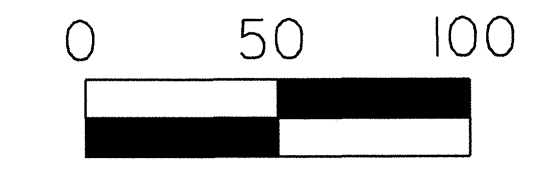
USE FOR LIGHTING CONSTRUCTION ONLY

SEE SHEET "E1" FOR LEGEND & △ NOTES



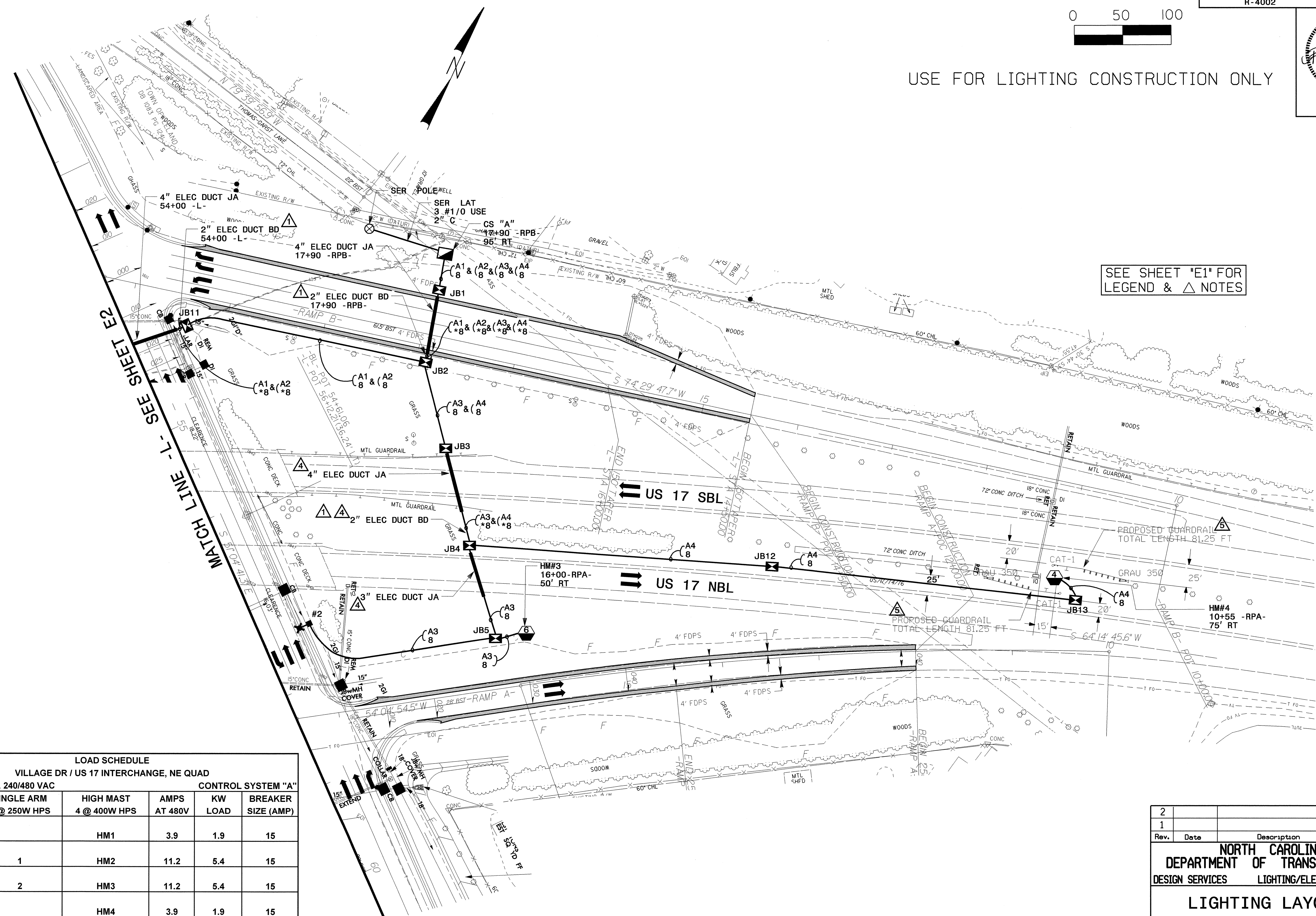
26-FEB-2008 09:46 N:\lighting\electrical\lighting design\4002_1e_psh_e2.dgn

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DESIGN SERVICES LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT VILLAGE DR (SR1472) / US 17 INTERCHANGE BRUNSWICK CO			
Drawn By: PKC	Checked By:	Approved By:	



USE FOR LIGHTING CONSTRUCTION ONLY

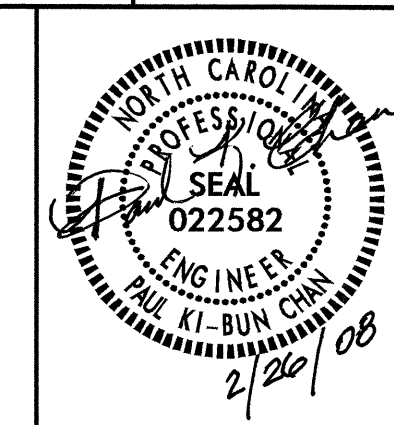
SEE SHEET "E1" FOR LEGEND & △ NOTES



LOAD SCHEDULE					
VILLAGE DR / US 17 INTERCHANGE, NE QUAD					
1 PHASE, 3 WIRE, 240/480 VAC			CONTROL SYSTEM "A"		
CKT NO	SINGLE ARM 1 @ 250W HPS	HIGH MAST 4 @ 400W HPS	AMPS AT 480V	KW LOAD	BREAKER SIZE (AMP)
A1		HM1	3.9	1.9	15
A2	1	HM2	11.2	5.4	15
A3	2	HM3	11.2	5.4	15
A4		HM4	3.9	1.9	15
SPARE					15
TOTAL	2	4	30.2	14.6	

2			
1			
Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DESIGN SERVICES LIGHTING/ELECTRICAL SECTION			
LIGHTING LAYOUT VILLAGE DR (SR1472) / US 17 INTERCHANGE BRUNSWICK CO			
Drawn By PKC	Approved By <i>[Signature]</i>	Dwg No.	

02/03/08
 26-FEB-2008 12:09
 N:\lighting\electrical\lighting design\R-4002_1e_psh_e3.dgn
 \$\$\$USERNAME\$\$\$



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

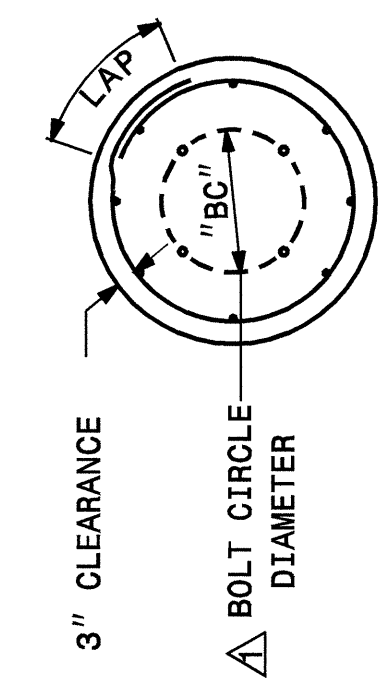
ENGLISH STANDARD DRAWING FOR
HIGH MOUNT FOUNDATION

SHEET 1 OF 1
1402D01

TABLE OF FOUNDATION DIMENSIONS AND QUANTITIES

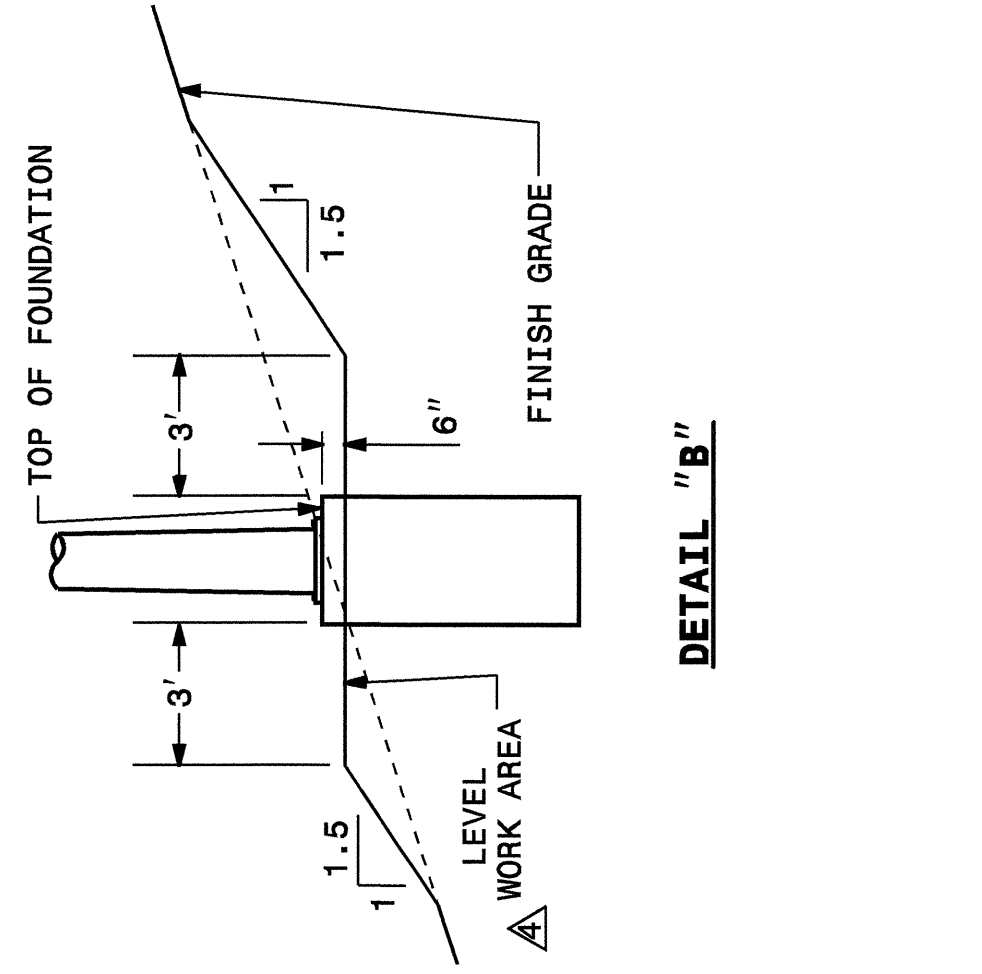
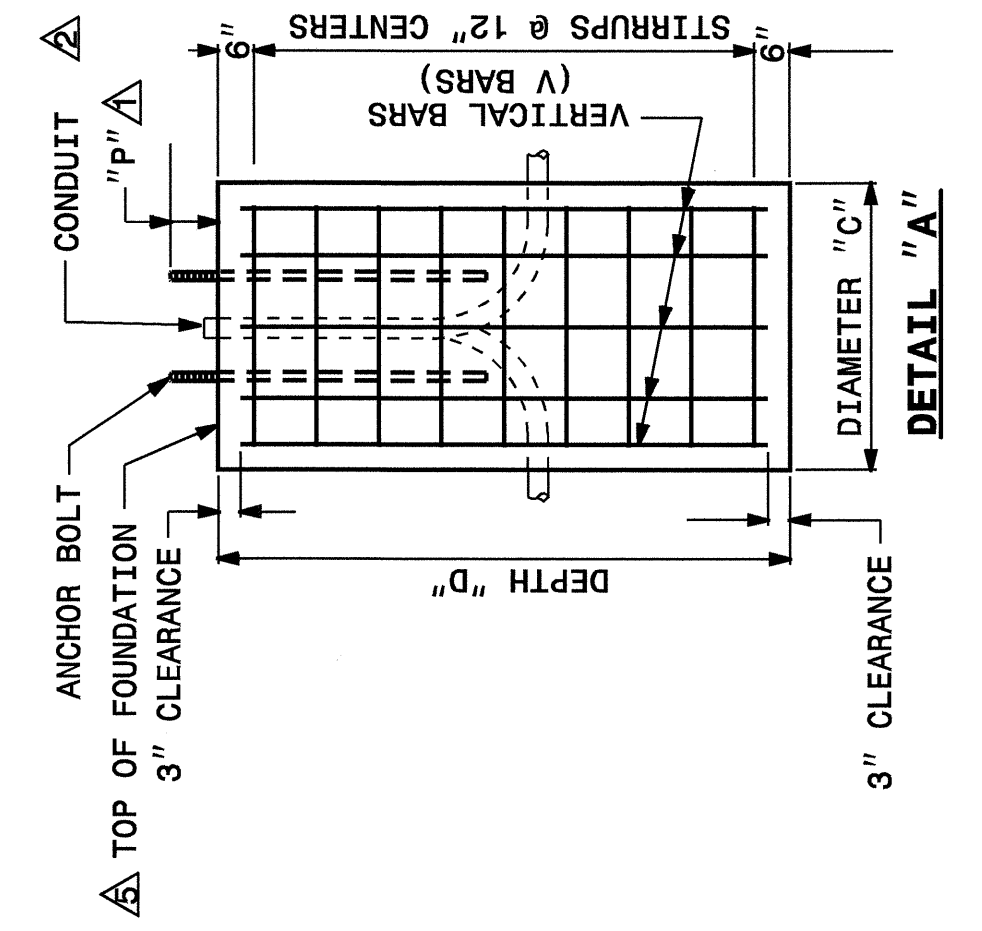
HEIGHT OF HIGH MOUNT FT	DIAMETER "C" FT	STIRRUPS		WIND VELOCITY MPH														
		SIZE	LAP-FT	90		110		130										
				DEPTH "D" FT	V BARS QTY	REINF. * STEEL LBS	CONCRETE CY	DEPTH "D" FT	V BARS QTY	REINF. * STEEL LBS	CONCRETE CY							
60	3.5	#3	1.0	11	8	#8	280	3.9	12	8	#8	306	4.3	13	8	#8	331	4.6
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)



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 SPACE 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".



2			
1			
Rev.	Date	Description	Approved

NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

LIGHTING DETAILS
 HIGH MAST FOUNDATION

Drawn By: **PKC**
 Approved By: *[Signature]*
 Dwg No.: