PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

\triangle NOTES

DAVIT-STYLE POLE ROADWAY LIGHT POLE SETBACK 6', POLE ARM 6', MOUNTING HEIGHT 35', POLE SPACING 125'

DAVIT-STYLE POLE ROADWAY LIGHT POLE SETBACK 15', POLE ARM 6', MOUNTING HEIGHT 35', POLE SPACING 180'

DARK-SKY FRIENDLY HADCO POST-TOP LIGHT (100W HPS) POLE ON BREAKAWAY BASE, VISCO SIDE-ARM BRACKET MOUNTING HEIGHT 15'

REPLACE CIRCUITRY ON FLINT ST BRIDGE AND REPLACE LUMINAIRE FOR LIGHT STADARDS #5, #6, #7, #8 SCHEMATIC SHOWN BASED ON BEST AVAILABLE INFORMATION.

REMOVE EXPOSED CONDUIT CONNECTED TO THE EXIST. PB ON THE WING WALL. INSTALL NEW RGC 1.5" CONDUIT AND TIE TO EXIST. PB. USE REDUCING BUSHINGS AS REQUIRED.

INSTALL FOUNDATION COVER AFTER TWIN-ARM STANDARD IS REMOVED.

LOCATE ALL JUNCTION BOXES OUTSIDE CLEAR ZONE AND IN AN AREA UNLIKELY TO BE USED BY TRAFFIC. LOCATE ALL BORE PITS OUTSIDE CLEAR ZONE AS DEFINED BY THE 2002 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY ENGINEER.

REPLACE LUMINAIRE FOR LIGHT STANDARD #9 (250W HPS).
LIGHT STANDARD #9 IS CONNECTED TO LIGHT CONTROL SYSTEM WEST OF FLINT ST.

REPLACE EXIST. PB AT STA 28+50 -L- LT WITH PROPOSED JB6 AND RECONNECT TO THE EXIST. CONDUIT THAT LEAD TO THE PB IN THE MEDIAN BARRIER.

REPLACE LUMINAIRES ON MEDIAN TWIN-ARM STANDARDS (2@250W HPS).
REPLACE CONDUCTORS INSIDE THE STANDARDS AND IN THE MEDIAN BARRIER.

SPLICE NEW CONDUCTORS TO EXISTING SIGN CIRCUITRY CONDUCTORS INSIDE EXISTING PB.

REPAIR BRICK LINED DITCH AS NEEDED.

SCOPE OF WORK

PROVIDE ROADWAY LIGHTING BY PROVIDING AND INSTALLING HIGH PRESSURE SODIUM LUMINAIRES ON 80' HIGH MOUNT STANDARDS, SINGLE-ARM, TWIN-ARMS LIGHT STANDARDS, AND POST-TOP LIGHT STANDARDS, INCLUDING UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES.

DESIGN CRITERIA

1984 AASHTO "AN INFORMATIONAL GUIDE FOR ROADWAY LIGHTING" 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 2002 NATIONAL ELECTRICAL CODE

LOCATION

28+30 -L- LT

28+30 -L- LT

EXIT RMP WBL

ROADWAY STANDARDS

TITLE

STD NO.

THE FOLLOWING ROADWAY ENGLISH STANDARDS AS APPEAR IN "NCDOT ROADWAY STANDARD DRAWINGS - ENGLISH", ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JANUARY 2002 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

1401.01	HIGH MOUNT STANDARD
1402.01	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 JANUARY 2002.

LEGEND

PROPOSED 80' HIGH MAST STANDARD W/ HM FOUNDATION & 4 HM LUMINAIRES 400W HPS WITH GLARE SHIELDS SYMMETRICAL LIGHT DISTRIBUTION 90 MPH WIND SPEED.

PROPOSED DAVIT STYLE SA LGT STD W/ STD FOUNDATION TYPE R1 & BREAKAWAY BASE, & 250W HPS ROADWAY LUMINAIRE IES DISTRIBUTION: MEDIUM, CUTOFF, TYPE II

EXISTING SINGLE-ARM LIGHT STANDARD REPLACE LUMINAIRE 250W HPS IES DISTRIBUTION: MEDIUM, CUTOFF, TYPE II

EXISTING TWIN-ARM LIGHT STANDARD REPLACE LUMINAIRES 2 X 250W HPS IES DISTRIBUTION: MEDIUM, CUTOFF, TYPE III

> PROPOSED POST-TOP LIGHT STANDARD WITH BREAKAWAY BASE AND DECORATIVE "GLOBE" LUMINAIRE 100W HPS DARK-SKY FRIENDLY. SEE SPECIAL PROVISIONS

PROPOSED CONTROL SYSTEM. BREAKER SIZE SHOWN IN LOAD SCHEDULE, SHEET E3

PROPOSED ELECTRICAL JUNCTION BOX TYPE PC18 AND 18" L X 12' W X18' H LOCATION: SEE TABLE B, THIS SHEET

 \boxtimes EXISTING PULL BOX

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

JB1

3#1/0 USE CONDUCTORS 2" CONDUIT

3" OR 4" ELEC DUCT JA & BD

2" C

PROPOSED ELECTRICAL DUCT, SIZE 3" OR 4" TYPE (JA) OR (BD) LOCATION: SEE TABLE C, THIS SHEET

TABLE	"B"	

JUNCTION BOX SUMMARY				
NUMBER	LOCATION	TYPE	SHEET	
JB1	26+45 -L- LT	PC18	E3	
JB2	12+95 -Y1- LT	PC18	E3	
JB3	15+00 -Y1- LT	PC18	E3	
JB4	15+00 -Y1- RT	PC18	E3	
JB5	18+55 -L- LT	PC18	E2	
JB6	28+30 -L- LT	PC18	E3	
JB7	26+45 -L- RT	PC18	E3	
JB8	9+50 -LPD- RT	PC18	E3	
JB9	11+30 -RPD- RT	PC18	E3	
TOTALS		9		

LIGHT **JACKED** MOUNTING HEIGHT

BURIED

SERVICE LATERAL PVC SCHEDULE 40 CONDUIT

ABBREVIATIONS

RIGID GALVANIZED STEEL CONDUIT

CONDUIT CIRCUIT

NEUTRAL GROUND

Designed By: Checked By:

P. K. CHAN

TABLE "A" CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE DIAN

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

35 **E3** EXIT RMP WBL 35 ENTRY RMP WBL **E3** 110 **E3** 15+00 -Y1-65 E3 **BROADWAY ST** 25 **E2** 18+55 -L- LT **E3** 90 26+45 -L-**E3** 45 6+40 -LPD-**E3** 50 6+95 -RPD-**E3** 110 11+30 -RPD-530 75 TOTALS

TABLE "C" ELECTRICAL DUCT SUMMARY

SIZE

70

230

SHEET

E3

E3

E3

RACEWAY

CS"A" - JB6

JB6 - JB1

BURIED (BD)

SIZE

3"

TYPICAL LENGTH IN FEET

SIZE

4"

*JACKED (JA)

3"

SIZE

4"

40

SIZE SIZE

2"

*TRAFFIC CONTROL WILL BE REQUIRED TO PREVENT BORE & JACK OPERATION FROM ENCROACHING INTO THE CLEAR RECOVERY AREA