THE 2011 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY THE ENGINEER. LOCATE ALL JUNCTION BOXES OUTSIDE CLEAR ZONE AND IN AN AREA

UNLIKELY TO BE USED BY TRAFFIC.

INSTALL ALL BORE PITS OUTSIDE THE CLEAR ZONE. AS DEFINED BY



AS DEFINED BY THE 2011 AASHTO ROADSIDE DESIGN GUIDE INSTALL RIGID GALVANIZED CONDUIT (RGC) ABOVE GROUND, AND POLYVINYL CHLORIDE (PVC) SCHEDULE 40 CONDUIT UNDERGROUND EXCEPT AS MODIFIED ON THESE PLANSHEETS OR IN APPLICABLE

SECTIONS OF THE ROADWAY STANDARD DRAWINGS FOR THIS PROJECT

LOCATE PROPOSED CONTROL SYSTEM IN AN AREA ACCESSIBLE



ALL IN GROUND JUNCTION BOXES SHALL BE 18" HIGH AND ALL FORMED OPENINGS SHALL BE 6" HIGH, UNLESS OTHERWISE NOTED.



CONTRACTOR SHALL RECORD THE GPS COORDINATES OF EACH JUNCTION BOX WITHIN 3' ACCURACY, IN THE JUNCTION BOX SUMMARY, TABLE C. PROVIDE A COPY OF THE JUNCTION BOX SUMMARY WITH THESE COORDINATES TO THE LIGHTING ENGINEER DURING PROJECT INSPECTION.



POLE NUMBERING CONVENTION: CONTROL SYSTEM-POLE #-CKT # (A-3-2). JUNCTION BOXES SHOWN NEAR LIGHT STANDARDS (LSJB & HMJB) ARE



SHOWN FOR CLARITY. THESE JUNCTION BOXES ARE TO BE USED AS A TEE POINT FOR CIRCUITRY TO THE STANDARD, AND SHALL BE INSTALLED FOR BEST ALIGNMENT OF CIRCUITRY WHILE MAINTAINING THE OFFSETS SHOWN IN TABLE "C". SEE STANDARD DRAWINGS 1401.01 AND 1406.01 FOR INSTALLATION DETAILS.



SERVICE POLE SHALL NOT BE INSTALLED PRIOR TO COORDINATION WITH THE LOCAL UTILITY. PROVIDE PROOF OF COORDINATION AND PROOF OF NEED TO THE ENGINEER AFTER CONSULTING WITH THE LOCAL UTILITY. THE SERVICE POLE MAY BE DELETED FROM THE CONTRACT IF NOT REQUIRED. REFER TO ARTICLE 1407-3 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.



WHERE A CURRENT TRANSFORMER (CT) CABINET IS REQUIRED, THE CT CABINET AND ASSOCIATED HARDWARE IS INCIDENTAL TO THE PAY ITEM FOR THE LIGHTING CONTROL PANEL



WHERE IT IS NOTED (BY LEGEND OR A DELTA NOTE) THAT EXISTING LIGHTING IS TO BE REMOVED, EXISTING FOUNDATIONS, CONDUIT AND CONDUCTOR MAY BE REMOVED OR ABANDONED. SEE ARTICLE 1400-10 OF THE STANDARD SPECIFICATIONS. REFER TO LIGHTING SPECIAL PROVISIONS.



SEE BRIDGE CONDUIT DETAIL SHEET E6



ADD A STUB OF DUCT HERE TO EXTEND CURRENT DUCT TO THE ADJACENT JUNCTION BOX AS SHOWN.



REMOVE AND DISPOSE OF CONTROL PANEL



INSTALL LIGHTING POLES BEHIND RETAINING WALL. INSTALL SHORTER POLES SUCH THAT MOUNTING HEIGHT IS UNIFORM WITH REST OF PROJECT.



JB9 IS TO BE ABANDONED. INSTALL JBB2 WITHIN CONCRETE OF NEW BULB-OUT AND CONNECT TO CONTROL SYSTEM "B".



BURIED

LIGHT

PHASE

SER LAT

TRENCHLESS

MOUNTING HEIGHT

SERVICE LATERAL

IN GROUND JUNCTION BOX HM

CONTRACTOR SHALL INTERCEPT EXISTING 1.5" CONDUIT, CONNECT NEW 1.5" CONDUIT TO EXISTING 1.5" CONDUIT, AND INSTALL NEW CONDUCTOR, SIZED AS SHOWN BETWEEN TERMINATION POINTS.

ABBREVIATIONS

PVC PVC SCHEDULE 40 CONDUIT

CONDUIT

CIRCUIT

NEUTRAL

HIGH MAST

GROUND

LIGHT EMITTING DIODE LSJB LIGHT STANDARD JUNCTION BOX

HIGH MAST JUNCTION BOX CSJB CONTROL SYSTEM JUNCTION BOX

RGC RIGID GALVANIZED STEEL CONDUIT

TABLE "A'

SCOPE OF WORK

DESIGN CRITERIA

REQUIREMENT WAIVED)

2020 NATIONAL ELECTRICAL CODE

2011 AASHTO ROADSIDE DESIGN GUIDE

0.6 AVERAGE FOOTCANDLE ON TRAVEL LANES

2024 AASHTO ROADWAY LIGHTING DESIGN GUIDE

FATIGUE CATEGORY II SHALL BE USED IN DESIGN

PLACE ROADWAY LIGHTING SYSTEM INTO SERVICE BY PROVIDING AND

UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES.

4:1 AVERAGE TO MINIMUM UNIFORMITY RATIO ON TRAVEL LANES

2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS

(HANDHOLE SHAFT DIAMETER REQUIREMENT AND HANDHOLE PLACEMENT

DESIGN HIGH MOUNT SUPPORT FOR BASIC WIND SPEED OF 90 MPH

DESIGN HIGH MOUNT STANDARD FOUNDATION FOR BASIC WIND

SPEED OF 90 MPH. ANY CONTRACTOR-DESIGNED SITE SPECIFIC

FOUNDATION DESIGN SHALL BE DESIGNED FOR THE SAME WIND SPEED

FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 6TH EDITION

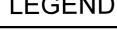
AND LATEST INTERIM SPECIFICATIONS VALID AT THE TIME OF LETTING

INSTALLING LIGHT STANDARDS WITH LIGHT EMITTING DIODE LUMINAIRES,

CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE			
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 #8Ø 1 #10G	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR	2 - 8 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 #10G	2 AWG SIZE 6 CONDUCTOR (BK & RD) 1 AWG SIZE 8 GROUNDING CONDUCTOR	2 - 6 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
2	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

PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

LEGEND



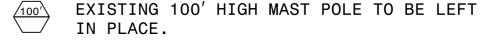
PROPOSED 120' HIGH MAST STANDARD W/ HM FOUNDATION JUNCTION BOX & 8 HM LED LUMINAIRES. 560W MAX, 54,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.



PROPOSED 100' HIGH MAST STANDARD W/ HM FOUNDATION, JUNCTION BOX & 6 HM LED LUMINAIRES. 560W MAX, 54,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.



PROPOSED 80' HIGH MAST STANDARD W/ HM FOUNDATION. JUNCTION BOX & 8 HM LED LUMINAIRES. 335W MAX, 27,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.



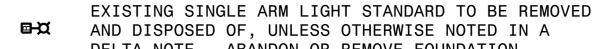
EXISTING 100' HIGH MAST POLE TO BE REMOVED.



PROPOSED LIGHT STANDARD TYPE MTLT IS 45' WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION TYPE R1 OR R2, JUNCTION BOX & 150W MAX LED ROADWAY LUMINAIRE. IES DISTRIBUTION: TYPE II OR III AS REQUIRED. MAXIMUM BUG RATING 3-0-3.



EXISTING SINGLE ARM LIGHT STANDARD TO BE LEFT IN PLACE.



IN PLACE.

AND DISPOSED OF, UNLESS OTHERWISE NOTED IN A DELTA NOTE. ABANDON OR REMOVE FOUNDATION.

EXISTING TWIN ARM LIGHT STANDARD TO BE LEFT



PROPOSED CONTROL SYSTEM WITH JUNCTION BOX. SEE PLANS FOR BREAKER SIZES.



EXISTING CONTROL SYSTEM, LEAVE IN PLACE UNLESS SPECIFIED OTHERWISE.



EXISTING ELECTRICAL JUNCTION BOX TO BE LEFT IN PLACE, UNLESS OTHERWISE NOTED.

PROPOSED ELECTRICAL JUNCTION BOX. SIZED AS SHOWN IN TABLE C, SHEETS E-1A-E-1D.

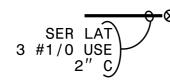
EXISTING ELECTRICAL JUNCTION BOX, TO BE REMOVED.



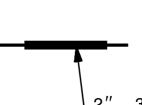
REFERENCE TO CORRESPONDING NOTE AS NUMBERED.



PROPOSED FEEDER CIRCUIT. CONTROL SYSTEM (A). CIRCUIT NUMBER (1) PLAN SYMBOL (6). SEE TABLE A, THIS SHEET.



PROPOSED 30' CLASS 4 SERVICE POLE AND LATERAL 3 #1/0 USE CONDUCTORS 2" CONDUIT

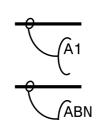


PROPOSED ELECTRICAL DUCT SIZE 2", 3" OR 4" TYPE (TL) OR (BD) LOCATION: SEE TABLE B, SHEET E-1A.

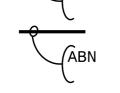
2", 3" OR 4" ELEC. DUCT TL & BD

SIZE 2", 3" OR 4"

---- EXISTING ELECTRICAL DUCT



EXISTING FEEDER CIRCUIT, TO BE RETAINED.

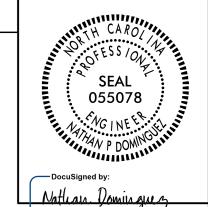


EXISTING FEEDER CIRCUIT, TO BE ABANDONED.

PROPOSED FORMED OPENING.

PROJECT REFERENCE NO. SHEET NO. 1-2513AA/AB E-I

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



12/21/2023

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 2024 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
1403.01	HIGH MOUNT LED 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
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 2024.

COMPUTED BY: MSQ DATE: CHECKED BY: RGH DATE: