

LEGEND		
SYMBOLS	ONE LINE DIAGRAM	DESCRIPTION
	┌	ALUMINUM LIGHTING POLE 40FT., MOUNTING HEIGHT SINGLE BRACKET, AS PER P.R.E.P.A. AND P.R.H.T.A. SHOE NON-BREAKAWAY BASE. LETTER INDICATES LENGTH OF BRACKET.
	┐	SAME AS ABOVE BUT DOUBLE BRACKET. (A) 4 FT. (C) 12 FT. (B) 8 FT. (D) 15 FT.
	┌	SAME AS ABOVE BUT BREAKAWAY TRANSFORMER BASE
	┌	SPECIAL LIGHTING STANDARD "A"
	┌	SPECIAL LIGHTING STANDARD "B"
	┌	SPECIAL LIGHTING STANDARD "C"
	┌	TEMPORARY LIGHTING STANDARD "A" (A) 4 FT., 30' CREOSOTED WOODEN POLE. (B) 8 FT., 30' CREOSOTED WOODEN POLE. (B) 12 FT., 33' CONCRETE OCTAGONAL POLE. (B) 15 FT., 33' CONCRETE OCTAGONAL POLE.
		HIGH MAST LIGHTING POLE
	┌	EXISTING LIGHTING POLE TO REMAIN.
		EXISTING LIGHTING POLE TO BE REMOVED.
		EXISTING LIGHTING POLE TO BE RELOCATED. NUMBER INDICATES RELOCATION DESIGNATION.
	┌	REMOVED LIGHTING POLE TO BE INSTALLED. NUMBER INDICATES RELOCATION DESIGNATION.
	U	UNDERPASS LIGHTING STANDARD
	U	BRIDGE FENCE LIGHTING STANDARD
	U	PEDESTRIAN BRIDGE LIGHTING STANDARD
	PB(A)	PULL OR SPLICE BOX. SIZE AS INDICATED
		NEW POLE MOUNTED SUBSTATION
	T	NEW TRANS-CLOSURE SUBSTATION
		NEW PAD MOUNTED SUBSTATION
	#10 (1)	SECONDARY LINE, UNDERGROUND 2/C# (AS SHOWN ON DWGS) COPPER, "USE (XLP)" TYPE CONDUCTORS, 600 VOLT INSULATION AND 1/C#8 OR AS SHOWN ON DWGS. TW, COPPER, GROUND CONDUCTOR IN 2". NUMBER IN PARENTHESIS INDICATES CIRCUIT NUMBER. SEE TRENCH DETAILS.

DESIGN CRITERIA

MAX. ROADWAY WIDTH CONSIDERED	AS INDICATED
LUMINAIRE OVERHANG	AS INDICATED
UNIFORMITY RATIO	3:1

LUMINAIRE

ENCLOSURE TYPE	"COBRA"
DISTRIBUTION TYPE	TYPE III TYPE I, II, IV OR V WHEN INDICATED ON DRAWINGS.
BALLAST	CAPACITY- 200 W. TYPE- REGULATOR P.F.- 98% MOUNTING- BUILT IN
VOLTAGE	120 V. FOR 100 WATTS. 240 V. FOR 200 WATTS.

SUBSTATION

TYPE, AS INDICATED.	POLE MOUNTED. TRANS-CLOSURE. PAD MOUNTED.
PRIMARY VOLTAGE	AS INDICATED BY P.R.E.P.A.
SECONDARY VOLTAGE	120 V. FOR 100 WATTS. 240 V. FOR 200 WATTS.
MAX. VOLTAGE DROP.	3%, AT END OF CIRCUIT.

ILLUMINATION (MAINTAINED FOOT-CANDLE)

TYPE	URBAN	INTERMEDIATE	RURAL
MAJOR	2.0	1.2	0.9
COLLECTOR	1.2	0.9	0.6
LOCAL	0.9	0.6	0.2

EXPRESSWAYS

CONTINUOUS		INTERCHANGE	
URBAN	RURAL	URBAN	RURAL
1.4	1.0	2.0	1.4

UNLESS OTHERWISE INDICATED ALL DIMENSIONS ARE IN MILLIMETERS
 (") FOR INCHES, 2" (TWO INCHES)
 (') FOR FEET, 1'-6" (ONE FOOT-SIX INCHES)
 (m) FOR METERS 3.5m (3.5 METERS)

GENERAL NOTES

- ALL THE INSTALLATION SHALL BE MADE ACCORDING TO THE APPLICABLE CONSTRUCTION STANDARDS OF P.R.E.P.A.
- ALL WORK ON EXISTING LINES SHALL BE DONE BY P.R.E.P.A. AT OWNER'S EXPENSE.
- PROVIDE ELECTRICAL 6" WIDE YELLOW WARNING RIBBON FOR UNDERGROUND CABLES. INSTALL OVER ALL UNDERGROUND CABLES AND DUCTS AT 12" DEEP. TAPE SHALL BE PERMANENTLY PRINTED WITH CONTINUOUS BLACK LETTER 1-1/4"x5/8" WITH THE WORDS "PELIGRO-PELIGRO-PELIGRO" ETC. ON THE TOP AND "LINEAS ELECTRICAS DEBAJO" ON BOTTOM.
- UNDER PAVED AREAS, SIDEWALKS AND WHERE ELECTRIC CONDUITS CROSS GAS, SEWAGE AND OTHER UTILITY FACILITIES, THE CONDUITS SHALL BE ENCASED IN 3" CONCRETE ENVELOPE.
- GROUND SYSTEM FOR LIGHTING POLES AND TRANSFORMERS UNIT SHALL HAVE MAXIMUM RESISTANCE OF TEN(10) OHMS. CONTRACTOR SHALL VERIFY THIS CONDITION IN THE FIELD.
- STRANDED COPPER CABLE WITH THE INDICATED INSULATION IN THE LEGEND SHALL BE USED.
- CABLE WILL RUN BETWEEN TERMINAL POINTS WITHOUT SPLICES.
- ENDORSEMENT BY P.R.E.P.A. DOES NOT INCLUDES STRUCTURAL AND FOUNDATION DETAILS.
- CONTRACTOR SHALL NOTIFY P.R.E.P.A. PREVIOUS TO THE BEGINNING OF ELECTRICAL WORK FOR PROPER INSPECTION, APPROVAL AND COORDINATION.
- CONTRACTOR SHALL LEAVE IN PERFECT WORKING CONDITIONS THE ELECTRICAL SYSTEM, AND IS RESPONSIBLE FOR ANY DEFECTS FOUND WHEN THE SERVICE IS CONNECTED.
- ALL ELEVATIONS ARE REFERRED TO MEAN SEA LEVEL AND GIVEN IN METERS.
- ELECTRICAL EQUIP., MATERIALS & CONSTRUCTION SHALL CONFORM TO ANSI, NEMA, N.E.C. & P.R.E.P.A. STDS.
- ALL CONSTRUCTION WORK SHALL BE DONE IN A THOROUGH AND WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND CONSTRUCTION DRAWINGS. THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE SHALL BE FOLLOWED EXCEPT WHERE LOCAL REGULATIONS ARE MORE STRINGENT, IN WHICH CASE, LOCAL REGULATIONS SHALL GOVERN.
- ALL EXISTING SERVICE WHICH IS INTERRUPTED DUE TO RELOCATION OR REMOVAL OF LINES WILL BE REESTABLISHED AT CONTRACTOR'S EXPENSE.
- P.R.E.P.A. WILL NOT ASSUME THE MAINTENANCE OF LUMINAIRES LOCATED ON METERED CIRCUITS.
- THE APPROVAL OF THESE DRAWINGS IS ON CONDITION THAT THE LOCAL MUNICIPAL AUTHORITY ACCEPTS (BEFORE CONSTRUCTION START) TO PAY THE P.R.E.P.A. FOR THE MAINTENANCE AND CONSUMPTION RATE OF THE NON-METERED LUMINAIRES.
- P.R.E.P.A. WILL NOT BE LIABLE FOR ANY CHANGE DURING CONSTRUCTION DUE TO FIELD CONDITIONS.
- THE CONTRACTOR IS RESPONSIBLE TO VERIFY PRIOR THE INSTALLATION OF THE ELECTRICAL UNDERGROUND CONDUITS ANY INTERFERENCE WITH THE EXISTING UTILITIES (TELEPHONE, WATER, ETC.) BURIED IN THE AREA.
- EXISTING CIRCUITS (SERIES OR MULTIPLE) FOR LUMINAIRES TO REMAIN SHALL BE LEFT IN GOOD WORKING CONDITIONS. MODIFICATIONS TO COMPLY WITH THIS DIRECTIVE SHALL BE COORDINATED DURING PROJECT CONSTRUCTION WITH P.R.E.P.A. INSPECTION PERSONNEL.
- ALL METALLIC POLES, LUMINAIRES, JUNCTION BOXES AND METALLIC ENCLOSURES SHALL BE GROUNDED.
- ANY RELOCATION SHALL BE EQUAL OR BETTER THAN THE EXISTING ONE AND IN ACCORD WITH THE LATEST APPLICABLE STANDARDS.
- UNLESS OTHERWISE INDICATED ALL LIGHTING STANDARDS INCLUDES CONNECTION TO ONE PULL BOX AS A SUBSIDIARY OBLIGATION.

EFFECTIVE DATE: JUNE 1996

COMMONWEALTH OF PUERTO RICO
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC WORKS
 HIGHWAY AND TRANSPORTATION AUTHORITY

**STANDARD
 LEGEND, NOTES
 &
 DESIGN CRITERIA**

RECOMMENDED BY: DESIGN AREA DIRECTOR DATE: 10/20/96	APPROVED BY: EXECUTIVE DIRECTOR DATE:
APPROVED BY: DIST. ENG. SUPERINT. P.R.E.P.A. DATE: 20 SEPT 1996	APPROVED BY: DIV. ADM. FHWA-PR DIVISION DATE: 8/22/96

DATE	REVISION	BY

STD. LS
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