

STREET LIGHTING GENERAL NOTES

CONCRETE BASES

WHEN CONCRETE BASES ARE INSTALLED IN SLOPING GROUND, THE GREATEST EXPOSED HEIGHT TO KEEP ALL OF THE TOP ABOVE GROUND MUST BE DOUBLED AND THEN ADDED TO THE MINIMUM DEPTH FOR THE TOTAL BASE DEPTH.

CARE SHOULD BE TAKEN WHERE CONCRETE BASES, DRAINAGE STRUCTURES OR UTILITIES ARE CLOSE TOGETHER.

THE OFFSET FOR CONCRETE BASES (FACE OF CURB OR EDGE OF PAVEMENT TO CENTER OF CONCRETE BASE) SHALL BE A MINIMUM OF 2'-6" OR AS OTHERWISE NOTED ON THE PLANS.

POLES, ANCHOR BASES AND ARM

ALL NEW STREET LIGHTS POLES, BASES AND LUMINAIRE ARMS SHOULD BE ALUMINUM, PAINTED FLAT BLACK.

ALL STREET LIGHT POLES SHALL HAVE A FRANGIBLE OR BREAKAWAY DEVICE (TRANSFORMER BASE, UNLESS NOTED ON THE PLANS).

UTILIZE APPROVED DUAL-RATED PARALLEL TAP CONNECTOR WITH INSULATING COVER TO TAPS AT POLE BASES.

A U.L. LISTED, WATERPROOF GROUND FAULT INTERRUPTER (GFI) POWER RECEPTACLE (110V) SHALL BE INSTALLED ON EACH NEW STREET LIGHT POLE. THESE RECEPTACLES SHALL BE INSTALLED PER THE NATIONAL ELECTRIC CODE (NEC) AND ALL OTHER LOCAL REGULATIONS. PAYMENT WILL BE INCLUDED UNDER CONTRACT ITEM 679.45 - LIGHT POLE

LUMINAIRES

LUMINAIRES SHALL BE I.E.D. TYPE.

POLE-MOUNTED LUMINAIRES SHALL BE ONE OF THE FOLLOWING:

- BETALED LEDWAY IP SERIES
- HOLOPHANE LEDGENDS SERIES
- LRL LED #SAT-96M SERIES

ALL POLE-MOUNTED LUMINAIRES MUST BE EQUIPPED WITH BIRD SPIKES ON THE TOP.

ALL LUMINAIRE HOUSINGS SHALL BE PAINTED FLAT BLACK.

CONDUIT SLEEVE

THE SLEEVE SHALL EXTEND TO WITHIN 2 FEET OF THE SIDE OF A CONCRETE BASE OR PULLBOX. WHERE NO CONCRETE BASE OR PULLBOX IS PRESENT, THE SLEEVE SHALL EXTEND 4 FEET BEYOND THE OUTSIDE EDGE OF SHOULDER OR FACE OF CURB. BACKFILLING AROUND A SLEEVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE SLEEVE SHALL BE SCHEDULE 80.

WIRE

ALL WIRING BETWEEN THE METER AND/OR POWER SOURCE AND THE FIRST POLE AND/OR PULLBOX AND BETWEEN POLES AND/OR PULLBOXES SHALL BE COPPER AND SIZE AS SPECIFIED ON THE PLANS. ALL WIRE SHALL HAVE TYPE XHHW INSULATION OR EQUIVALENT.

CIRCUIT CONDUCTORS SHALL BE CLEARLY IDENTIFIED BY CORROSION RESISTANT TAGS INDICATING CIRCUIT NUMBER AND PANEL SOURCES AT EVERY POLE BASE AND HANDHOLE.

GROUNDING

ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUNDING CONDUCTOR. ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

THE GROUNDING CONDUCTOR SHALL BE CONTINUOUS.

ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

PULLBOXES, HANDHOLES AND JUNCTION BOXES

POLYMER CONCRETE AND REINFORCED FIBERGLASS U.L. LISTED PULLBOXES AND HANDHOLES SHALL BE INSTALLED WITH HEAVY DUTY COVERS.

ALL CONNECTIONS IN HANDHOLES SHALL BE MADE WITH INSULATED WATERPROOF MECHANICAL SCREW-TYPE CONNECTOR SUITABLE FOR DIRECT BURIAL. NO BARE OR COMPRESSION TYPE CONNECTORS MAY BE USED.

GENERAL

THE LOAD ON EACH BRANCH OF A THREE WIRE CIRCUIT SHALL BE AS BALANCED AS POSSIBLE. LOAD TO NEUTRAL.

THE LAST CONCRETE POLE BASE AT THE END OF EACH CIRCUIT AND SOME PULLBOXES SHALL HAVE A CONDUIT SWEEP WITH CAP INSTALLED FOR FUTURE USE.

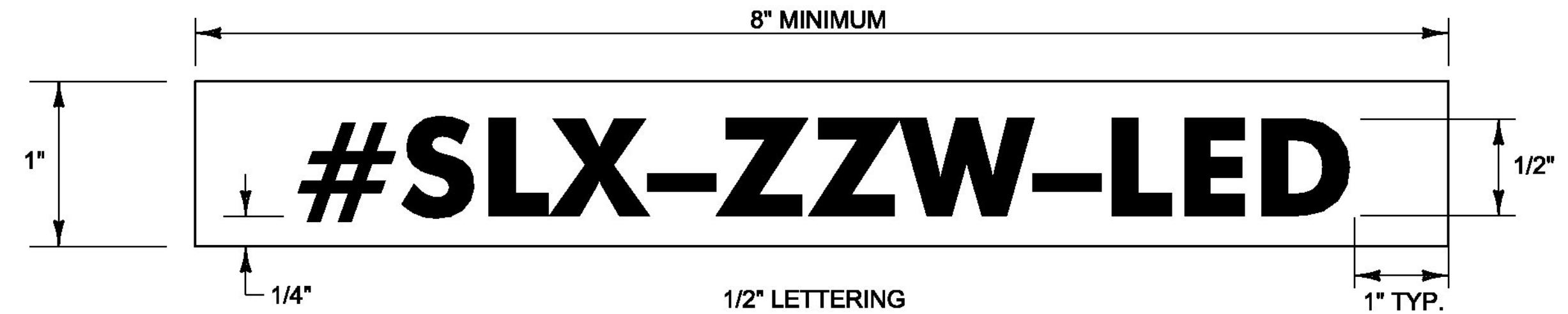
THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY TO PROVIDE A PERMANENT POWER SUPPLY TO THE STREET LIGHTING SYSTEM. IF APPLICABLE, THE ROUTING OF POWER TO THE SYSTEM SHALL BE SUCH THAT THE AGENCY OF TRANSPORTATION HAS FULL RESPONSIBILITY FROM THE TRANSFORMER THROUGH THE LIGHTING SYSTEM. NO INTERVENING OWNERSHIP OR RESPONSIBILITY SHALL BE ALLOWED.

ALL CONNECTING HARDWARE (NUTS, BOLTS, ETC.) SHALL BE STAINLESS STEEL.

MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS.

ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL CODES, REGULATIONS AND REQUIREMENTS OF ALL MUNICIPAL, STATE, FEDERAL AND OTHER PUBLIC OR PRIVATE AUTHORITIES WHICH HAVE JURISDICTION. IN EACH CASE, CODES ARE MINIMUM REQUIREMENTS.

A MANUAL DISCONNECT BREAKER FOR EACH CIRCUIT SHALL BE INSTALLED IN A RAINPROOF (NEMA 3R), LOCKED CABINET ON A STANCHION NEXT TO OR BELOW THE METER SOCKET.



LEGEND: BLACK OR WHITE (NON-REFLECTIVE) - STAMPED PRIOR TO PRINTING/PAINTING. BACKGROUND: NATURAL ALUMINUM OR FLAT BLACK SURFACE, THE SAME AS POLE FINISH.

NOTES:

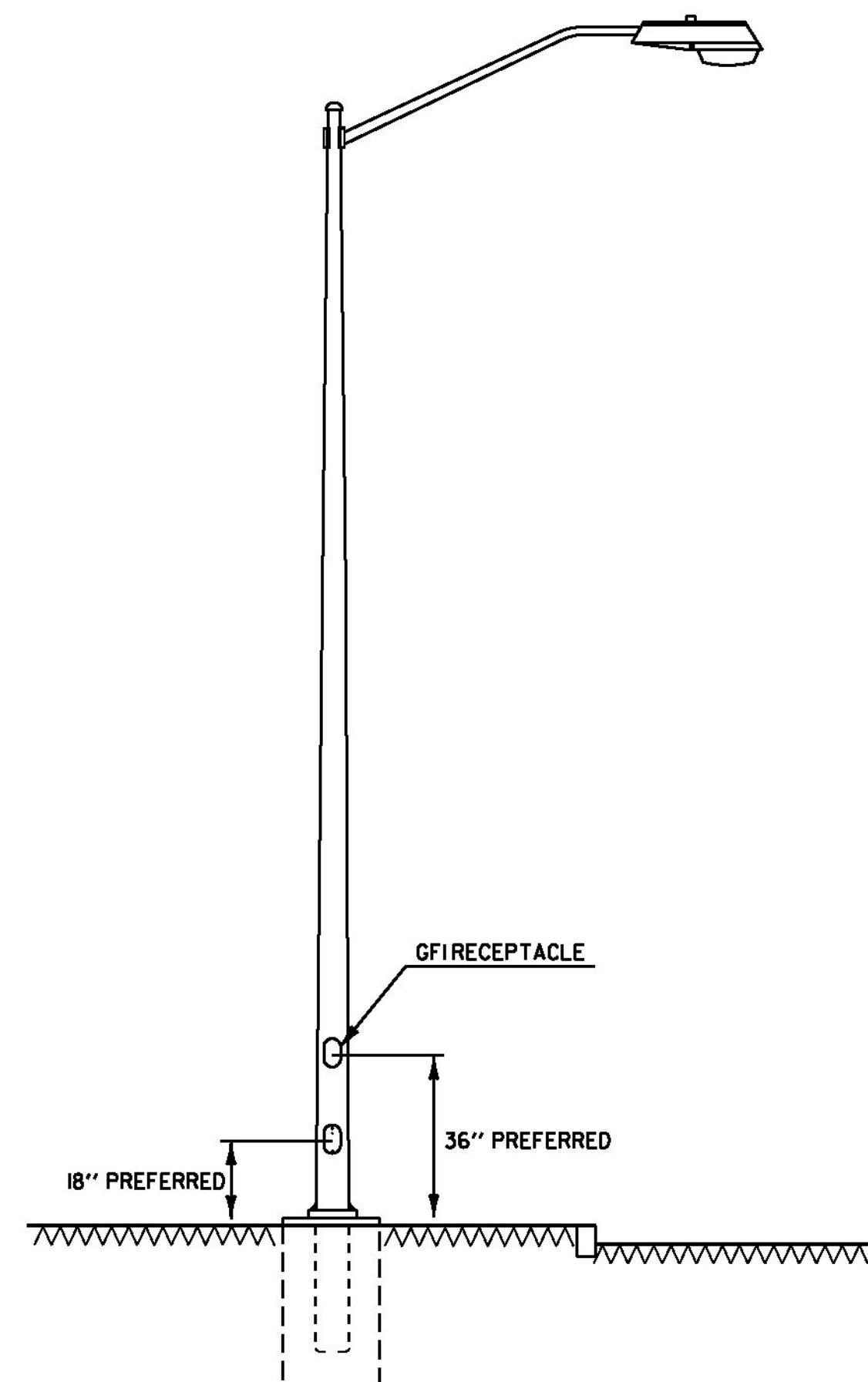
1. THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED, SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH A MINIMUM THICKNESS OF 0.10 INCHES.
4. THE TAG SHALL BE ATTACHED TO THE POLE ABOVE THE HANDHOLE, 6 INCHES MAXIMUM, IF THE POLE HAS A TRANSFORMER BASE, ATTACH TAG TO COVER.
5. FIXTURE TAG CHARACTER "X" SHALL BE THE DESIGNATED SL NUMBER AS SHOWN ON THE LIGHTING PLANS.
6. FIXTURE TAG CHARACTER "ZZ" SHALL BE THE WATTAGE OF THE LUMINAIRE.

DETAIL FOR TAGS ATTACHED TO STREET LIGHT POLES

NOT TO SCALE

WIRED CONDUIT SCHEDULE

LOCATION	WIRED CONDUIT 4" #6 CU. POWER	WIRED CONDUIT 2" #6 CU. CIRCUIT "A"	WIRED CONDUIT 2" #6 CU. CIRCUIT "B"	DESCRIPTION
PP-A9/2 TO STANCHION	220'			POLE TO STANCHION
STANCHION TO PB-4		22'		POWER SUPPLY
PB-4 TO LP-4		93'		
PB-4 TO PB-3		108'		VIA SLEEVE S2
PB-3 TO LP-3		59'		
LP-3 TO LP-2		154'		
LP-2 TO PB-2		25'		
PB-2 TO PB-1		107'		VIA SLEEVE S1
PB-1 TO LP-1		28'		
STANCHION TO PB-4			22'	POWER SUPPLY
PB-4 TO PB-3			108'	VIA SLEEVE S2
PB-3 TO LP-6			55'	
LP-6 TO LP-5			151'	
PB-4 TO LP-7			55'	
LP-7 TO LP-9			195'	
LP-9 TO LP-8			173'	
SUBTOTAL	220'	596'	759'	
ROUNDING	30'		45'	
TOTAL	250'		1400'	



GFI RECEPTACLE DETAIL

NOT TO SCALE

PROJECT NAME: GUILFORD
PROJECT NUMBER: IM-IR 091-1(25)

FILE NAME: D91A222_CLOCK_2D_UTI.DGN PLOT DATE: 22-JUL-2013
PROJECT LEADER: LIBBY DRAWN BY: BEYOR
DESIGNED BY: BEYOR CHECKED BY: BOMBARDIER
LIGHTING DETAILS & NOTES SHEET 20 OF 46