

ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN)

DOOR OPENING I.D.O.T. IDENTIFICATION DECAUS SHALL BE MOUNTED TO FRONT OF DOORS OF ALL TYPES **ELECTRIC** 10' (3.0m) MAX. UTILITY DOOR ENCLOSURE -ELECTRICAL SERVICE LOCK (ABOVE OR BELOW SEE PANEL DIAGRAM, ABOVE GROUND) -CONDUIT BUSHINGS SEE CABINET BASE, BELOW SEE ELECTRICAL FINISH GRADE-SERVICE 24" (0.60m), - 4' (1.2m) DEPTH SQUARE FOUNDATION PANEL DIAGRAM TO TRAFFIC SIGNAL CONTROLLER 2" (50mm) GALV. CONDUIT __________ SERVICE INSTALLATION -3/4" x 10' (20mm x 3.0m) COPPER CLAD GROUND ROD **GROUND MOUNT** (NOT TO SCALE) (413 mm) 16.25" CABINET BASE-

CABINET - BASE BOLT PATTERN

NOTES:

HANDHOLE COVER

DETAIL "A"

HANDHOLE COVER

HANDLE

DETAIL "B"

RECESSED COVER

-U.L. LISTED

DIRECT BURIAL

HEAVY DUTY COPPER COMPRESSION

GROUNDING TERMINAL, (TYPICAL)

GROUND CABLES TO CONTROLLER DOUBLE HANDHOLE

POST AS REQ'D.

- SEE DETAIL "B"

CAST CORNER FRAME WEB

BOLT/ CONNECTION ASSEMBLIES.
-STAINLESS STEEL NUT AND 2 STAINLESS

SEE DETAIL "A"

(2) 1/2" \times 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TC \longrightarrow

FRAME AND TO COVER, (TYPICAL)

ANTI-CORROSION COMPOUND

SHALL BE APPLIED ON ALL

STEEL WASHERS

CABLE HOOKS REQUIRED, ALL-HANDHOLES

UL LISTED GROUND COMPRESSION CONNECTOR

UL LISTED GROUND

COMPRESSION CONNECTOR WITH STAINLESS STEEL NUT

(GREEN)

HANDHOLE COVER & FRAME - GROUNDING DETAIL

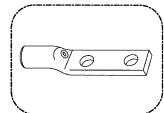
(NOT TO SCALE)

SECTION COUNTY 2845 3152WRS COOK STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

CONTRACT NO.

GROUNDING SYSTEM

- 1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC. ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- 2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND
- 3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



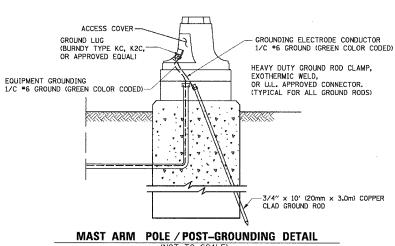
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

NOTES:

 ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED. • GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD TRAFFIC SIGNAL DESIGN DETAILS SCALE: VERT. NOT TO SCALE DRAWN BY JLA
DESIGNED BY KK/BPT CHECKED BY JTL/BPT / / DATE 5/17/2007

EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

GROUNDING CABLE
(PAID FOR SEPARATELY)

(NOT TO SCALE)

EXISTING HANDHOLE FRAME AND COVER

PLOT PLOT ISER

SHEET 34 OF 38