

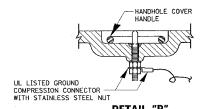
## ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN)

DOOR OPENING IDOT IDENTIFICATION DECAIS SHALL BE MOUNTED TO FRONT OF DOORS OF ALL TYPES ELECTRIC 10' (3.0m) MAX. UTILITY DOOR--- ELECTRICAL SERVICE SEE PANEL DIAGRAM, ABOVE ENCLOSURE LOCK (ABOVE OR BELOW 13.75" (0.35m) GROUND) -CONDUIT BUSHINGS -SEE CABINET BASE, BELOW CHAMFER, CONTINUOUS SEE ELECTRICAL FINISH GRADE--24" (0.60m), - 4' (1.2m) DEPTH PANEL DIAGRAM TO TRAFFIC SIGNAL CONTROLLER 2" (50mm) GALV. CONDUIT (76 mm) GALV. CONDUIT \_\_\_\_\_\_\_ **SERVICE INSTALLATION** -3/4" x 10' (20mm x 3.0m) COPPER CLAD GROUND ROD **GROUND MOUNT** (413 mm) 16.25" (0.29 m) CABINET BASE-1.44" (37 mm) BOLT LOCATIONS

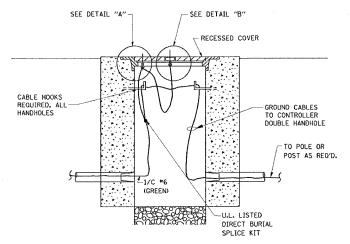
**CABINET - BASE BOLT PATTERN** 

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508,

HANDHOLE COVER IANDHOLF FRAME CAST CORNER FRAME WEB UL LISTED GROUND -COMPRESSION CONNECTOR ANTI-CORROSION COMPOUND SHALL BE APPLIED ON ALI BOLT/ CONNECTION ASSEMBLIES.
-STAINLESS STEEL NUT AND 2 STAINLESS DETAIL "A"



DETAIL "B"



## HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

(2)  $1/2" \times 1 1/4"$  STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER. (TYPICAL) HEAVY DUTY COPPER COMPRESSION GROUNDING TERMINAL. (TYPICAL) EXISTING HANDHOLE GROUNDING CABLE FRAME AND COVER **EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL** 

(NOT TO SCALE)

NOTES:

(847) 705-4139.

GROUNDING SYSTEM

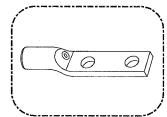
## COUNTY TOTAL SHEE SHEETS NO. F.A.P. SECTION 334 2005-002 TS LAKE 12 STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO. 62906

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

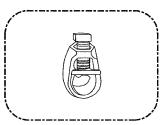
ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT

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 CONDUCTORS BE CONNECTED.

- 3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS
- 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



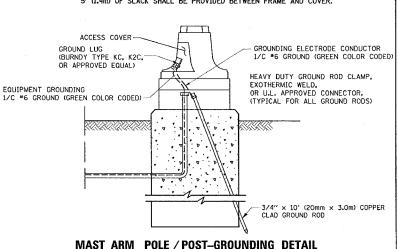
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

## 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.



(NOT TO SCALE)

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