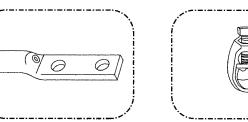
COUNTY SECTION 1321 0711 N-1 DU PAGE 54 37 NOTES: STA. TO STA. FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT GROUNDING SYSTEM

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 $3/4^{\prime\prime}$ DIA. x $10^{\prime}-0^{\prime\prime}$ (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 CONDUCTORS BE CONNECTED.

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.

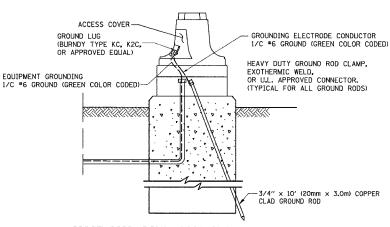


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

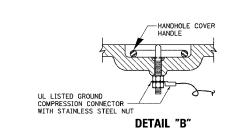
• ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED. GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

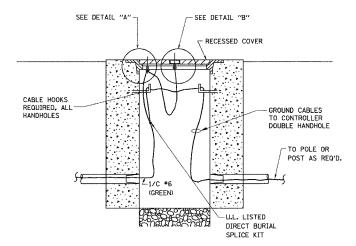


MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS SCALE: VERT. NONE HORIZ. NONE DATE 1-01-02

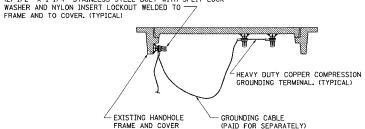
HANDHOLE COVER CAST CORNER FRAME WEB UL LISTED GROUND -COMPRESSION CONNECTOR ANTI-CORROSION COMPOUND SHALL BE APPLIED ON ALL
BOLT/ CONNECTION ASSEMBLIES.
-STAINLESS STEEL NUT AND 2 STAINLESS **DETAIL "A"** STEEL WASHERS





HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)

(2) 1/2" × 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK



EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

TRAFFIC SIGNAL CONTROLLER (SEE ALL CABLE PLAN, FOR ALL CABLE SIZES) -1/C GROUND (GREEN COLOR CODED) ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

0

DISCONNECT

-15A, MAIN

PRESSURE

CONNECTOR, TYP. 60A, MAIN

~STANDOFF

PANELBOARD

-FUSE, KLKR 1/4 A

-LOCK, HASP

-PADLOCK, FURNISHED BY

CONTRACTOR, KEYED TO

-1 1/4" (30mm) DIA. COUPLING

-SECONDARY ELECTRICAL

SERVICE BY UTILITY CO.

-STRAIN RELIEF COUPLING

2/C (NEUTRAL-WHITE, PHASE-BLACK)

DISTRICT 1 REQUIREMENTS

-COMPRESSION LATCH, TYP. (2 MIN. REQ'D)

NOTES:

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

TRAFFIC SIGNAL

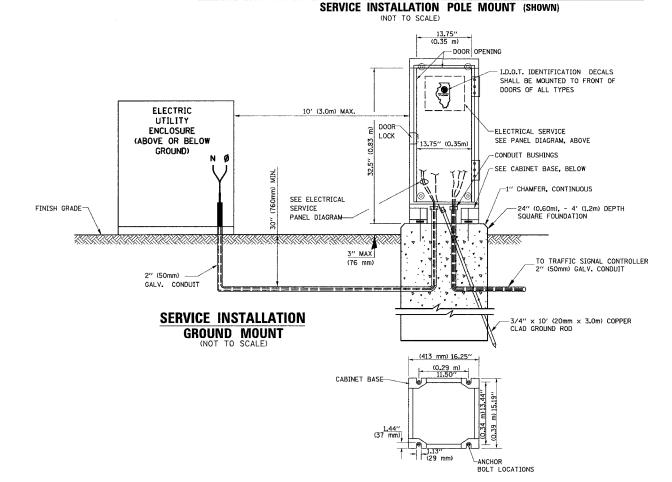
CONTROLLER CABINET

L CIRCUIT

BREAKER

INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.

2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



CABINET - BASE BOLT PATTERN

DATE-TIME

MOUNTING PLATE

MANUFACTURER

FABRICATION

TOP & BOTTOM AS PER-

CABINET, SHEET ALUMINUM

CONTINUOUS PIANO HINGE-

POLE MOUNTED SERVICE

POWER INDICATOR LIGHT
-INTERNALLY MOUNTED FORGROUND MOUNTED SERVICE

DIMENSIONS L 6" x W 12" x H 14"

CABINET OUTSIDE

Ô

TO GROUND ROD-

1/C *6 (GREEN)

ELECTRICAL SERVICE TO

3/4" (20mm) GALV. CONDUIT-