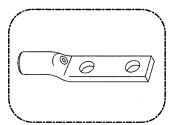


- 1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, 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 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.



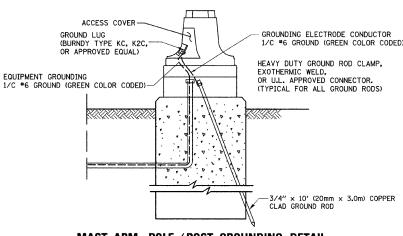
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



CONTRACT NO. 63055

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

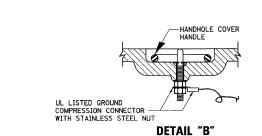
· ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED. • GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



DISTRICT 1 STANDARD TRAFFIC SIGNAL

DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET 3 OF 4

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508. HANDHOLE COVER HANDHOLE FRAME CAST CORNER FRAME WEB UL LISTED GROUND -COMPRESSION CONNECTOR ANTI-CORROSION COMPOUND SHALL BE APPLIED ON ALL BOLT/ CONNECTION ASSEMBLIES. DETAIL "A" -STAINLESS STEEL NUT AND 2 STAINLESS



-SEE DETAIL "B"

RECESSED COVER

DIRECT BURIAL SPLICE KIT

GROUND CABLES

TO CONTROLLER

TO POLE OR

POST AS REQ'D.

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

-1/C GROUND (GREEN COLOR CODED)

NOTES:

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

TRAFFIC SIGNAL

♣ CIRCUIT

BREAKER

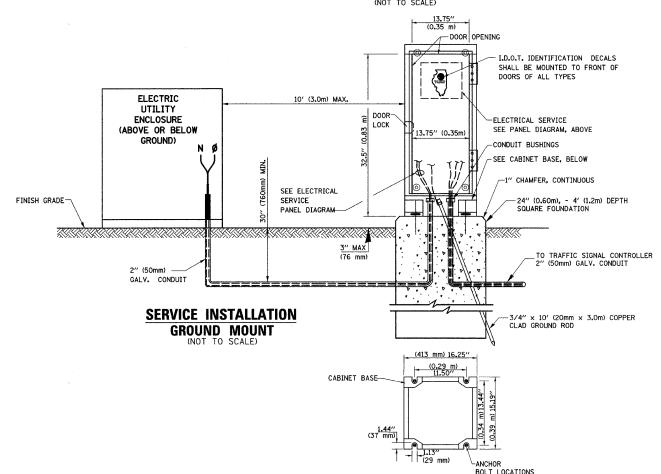
BUS

NEUTRAL

CONTROLLER CABINET

2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

SERVICE INSTALLATION POLE MOUNT (SHOWN)



0

DISCONNECT

—15A. MAIN

DISCONNECT

-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

(NEUTRAL-WHITE, PHASE-BLACK)

DISTRICT 1 REQUIREMENTS

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

MOUNTING PLATE

MANUFACTURER

FABRICATION

TOP & BOTTOM AS PER-

CABINET, SHEET ALUMINUM

CONTINUOUS PIANO HINGE-

POLE MOUNTED SERVICE

POWER INDICATOR LIGHT -INTERNALLY MOUNTED FOR-GROUND MOUNTED SERVICE

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

CABINET OUTSIDE

 $^{\prime}$

TO GROUND ROD

1/C #6 (GREEN)

FLECTRICAL SERVICE TO

TRAFFIC SIGNAL CONTROLLER

3/4" (20mm) GALV. CONDUIT

(SEE ALL CABLE PLAN, FOR ALL CABLE SIZES)

SURGE ARRESTOR

PRESSURE

CONNECTOR, TYP.

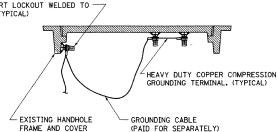
CABINET - BASE BOLT PATTERN (NOT TO SCALE)

(2) 1/2" \times 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO \longrightarrow FRAME AND TO COVER. (TYPICAL)

SEE DETAIL "A"

CABLE HOOKS

REQUIRED, ALL



EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(GREEN)

HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

(NOT TO SCALE)

MAST ARM POLE / POST-GROUNDING DETAIL ILLINOIS DEPARTMENT OF TRANSPORTATION

1-01-02

DESIGN DETAILS