

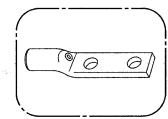
# NOTES:

(847) 705-4139.

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

- 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.



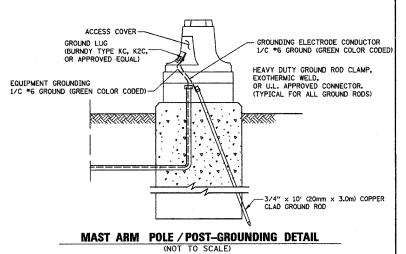
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

## 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.

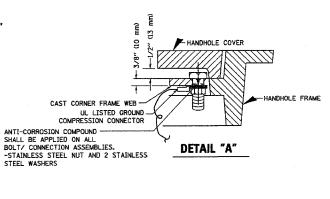


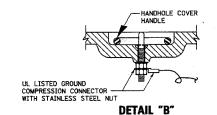
# ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: VERT. NONE

DATE 1-01-02





-SEE DETAIL "B"

RECESSED COVER

-U.L. LISTED

GROUNDING CABLE (PAID FOR SEPARATELY)

DIRECT BURIAL

TO CONTROLLER
DOUBLE HANDHOLE

POST AS REQ'D.

SEE DETAIL "A" -

CABLE HOOKS

REQUIRED, ALL

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

NOTES:

-PADLOCK, FURNISHED BY

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

-- SECONDARY ELECTRICAL

-1/C GROUND (GREEN COLOR CODED)

SERVICE BY UTILITY CO.

-STRAIN RELIEF COUPLING

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

DISTRICT 1 REQUIREMENTS

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

-PANEL BOARD

FUSE, KLKR 1/4 A

CONNECTOR, TYP.

DISCONNEC

DISCONNECT

1 FLECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO ULL, STD 508.

TRAFFIC SIGNAL

CIRCUIT

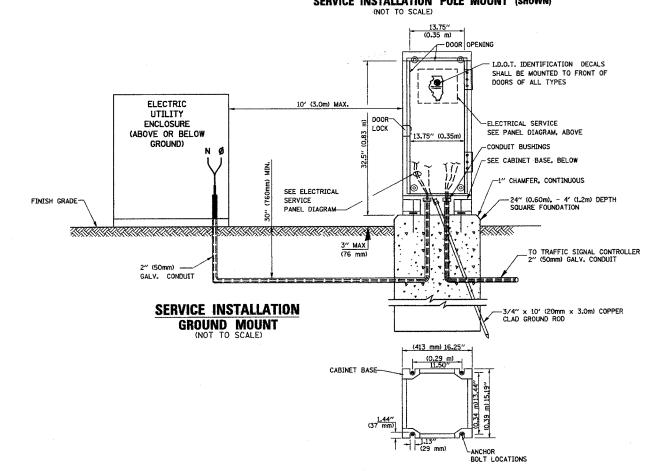
BUS

BUS

CONTROLLER CABINET

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

2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



(0

(A)

TO GROUND ROD-

1/C #6 (GREEN)

(SEE ALL CABLE PLAN, FOR ALL CABLE SIZES)

ELECTRICAL SERVICE TO

TRAFFIC SIGNAL CONTROLLER

TOP & BOTTOM AS PER-

CABINET, SHEET ALUMINUM

CONTINUOUS PIANO HINGE-

POLE MOUNTED SERVICE I

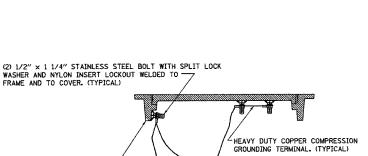
POWER INDICATOR LIGHT -INTERNALLY MOUNTED FOR --GROUND MOUNTED SERVICE

FABRICATION

CABINET OUTSIDE
DIMENSIONS L 6" × W 12" × H 14"

L (150mm) x W (300mm) x H (355mm

**CABINET - BASE BOLT PATTERN** 



HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

(GREEN)

**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL** 

∠EXISTING HANDHOLE

(NOT TO SCALE)