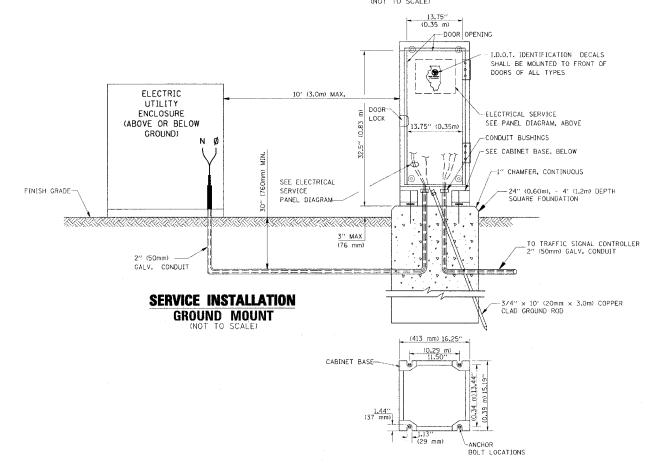
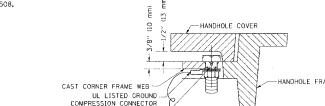


# ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN)



## CABINET - BASE BOLT PATTERN

(NOT TO SCALE)



ANTI-CORROSION COMPOUND

SHALL BE APPLIED ON ALL BOLT/ CONNECTION ASSEMBLIES.

-STAINLESS STEEL NUT AND 2 STAINLESS STEEL WASHERS

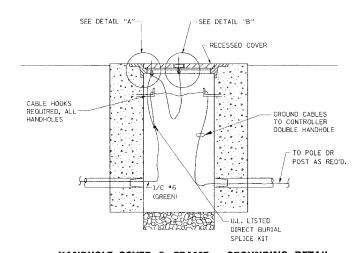
HANDHOLE COVER HANDLE

ULLISTED GROUND

COMPRESSION CONNECTOR WITH STAINLESS STEEL N

#### DETAIL "B"

DETAIL "A"



### HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

(2) 1/2" × 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
FRAME AND COVER (PAID FOR SEPARATELY)

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

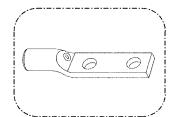
(NOT TO SCALE)

#### NOTES:

# GROUNDING SYSTEM

I. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR
TYPE KLP, 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. × 10'-0" (20mm × 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

- 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.



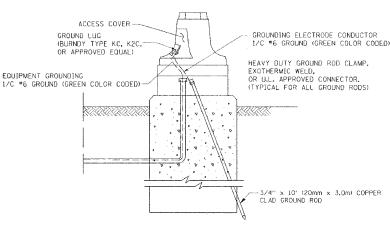
HEAVY-DUTY COMPRESSION TERMINAL
(BURNDY TYPE YGHA OR APPROVED EQUAL)



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,



## MAST ARM POLE / POST-GROUNDING DETAIL

REVISIONS

NAME DATE

CADD 5/30/00

CADD 3/15/01

BUREAU OF TRAFFIC 1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE HORIZ. DATE 10/18/2002

SICNED BY: DAD CKED BY: DAZ ET 3 OF 4

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