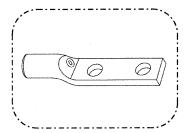
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GROUNDING SYSTEM

- 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 (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 EQUAL)

GROUNDING ELECTRODE CONDUCTOR

-3/4" × 10' (20mm × 3.0m) COPPER CLAD GROUND ROD

NOTES:

ACCESS COVER

• 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.

EQUIPMENT GROUNDING 1/C #6 GROUND (GREEN COLOR CODED)

HANDHOLE COVER

DETAIL "A"

DETAIL "B"

GROUND CABLES

TO POLE OR

POST AS REQ'D.

TO CONTROLLER DOUBLE HANDHOLE

HANDHOLF COVER

HANDLE

- SEE DETAIL "B"

- RECESSED COVER

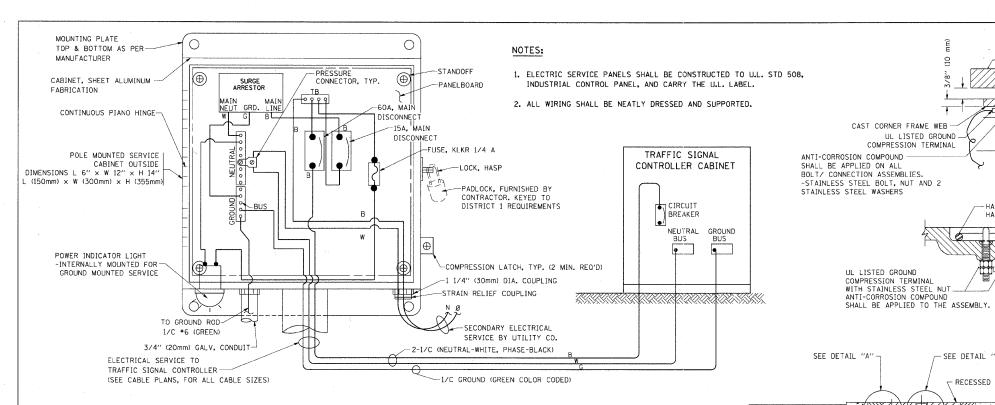
-U.L. LISTED

SPLICE KIT

DIRECT BURIAL

GROUND LUG (BURNDY TYPE KC, K2C, OR APPROVED EQUAL) 1/C #6 GROUND (GREEN COLOR CODED) HEAVY DUTY GROUND ROD CLAMP, EXOTHERMIC WELD, OR U.L. APPROVED CONNECTOR. (TYPICAL FOR ALL GROUND RODS)

MAST ARM POLE / POST-GROUNDING DETAIL



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

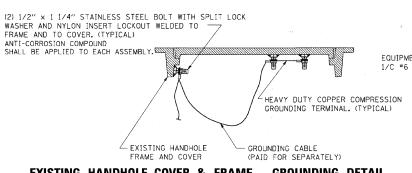
(NOT TO SCALE:

SERVICE INSTALLATION POLE MOUNT (SHOWN)

13.75" (0.35 m) DOOR OPENING I.D.O.T. IDENTIFICATION DECALS
SHALL BE MOUNTED TO FRONT OF DOORS OF ALL TYPES **ELECTRIC** 10' (3.0m) MAX. UTILITY DOOR-**ENCLOSURE** -ELECTRICAL SERVICE LOCK SEE PANEL DIAGRAM, ABOVE (ABOVE OR BELOW GROUND) CONDUIT BUSHINGS -SEE CABINET BASE, BELOW CHAMFER, CONTINUOUS SEE ELECTRICAL FINISH GRADE-SERVICE 24" (0.60m), - 4" (1.2m) DEPTH SQUARE FOUNDATION, TYPE A PANEL DIAGRAM 3" MAX TO TRAFFIC SIGNAL CONTROLLER 2" (50mm) GALV. CONDUIT **SERVICE INSTALLATION** ' × 10' (20mm × 3.0m) COPPER CLAD GROUND ROD **GROUND MOUNT** (413 mm) 16,25" CABINET BASE-CABINET - BASE BOLT PATTERN

HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

DESIGNED -DAD REVISED DRAWN ВСК REVISED c:\pw_work\PWIDOT\BAUERDL\dØ1Ø8315\tsØ PINT SCALE = 50.00000 '/ IN CHECKED DAD REVISED PLOT DATE = 11/4/2009

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

CABLE HOOKS

HANDHOLES.

EQUIPMENT GROUNDING

1/C #6 GROUND (GREEN

COLOR CODED)

DISTRICT ONE 0085 STANDARD TRAFFIC SIGNAL DESIGN DETAILS SHEET NO. 3 OF 6 SHEETS STA.

SECTION COUNTY MCHENRY 292 169 00-00246-02-FP CONTRACT NO. 63522 TS-05 FED, ROAD DIST, NO. 1 ILLINOIS FED, AID PROJECT

(29 mm) -ANCHOR BOLT LOCATIONS