



ITS SITE GROUNDING

NOTES:

- FENCES AND OTHER METALLIC STRUCTURES WITH PATHS TO GROUND SHALL BE CONNECTED TO THE GROUNDING CONDUCTOR IF THEY ARE LOCATED WITHIN 25' OF THE GROUNDING ELECTRODE SYSTEM OR ANY OBJECT GROUNDED TO THE GROUNDING ELECTRODE SYSTEM. GROUNDING ELECTRODE SYSTEM CONNECTIONS TO FENCING SHALL BE MADE USING HEAVY DUTY TINNED LISTED PIPE CLAMPS DESIGNED FOR GROUNDING, STAINLESS STEEL HARDWARE, AND #2 TINNED COPPER CABLE.
- GROUND ROD ELECTRODES NOT INSIDE A HANDHOLE SHALL BE BURIED TO A MINIMUM DEPTH OF 12 INCHES BELOW FINISHED GRADE. GROUND ROD ELECTRODES AT HANDHOLES SHALL BE INSTALLED INSIDE AT THE BASE OF THE HANDHOLE, KEEPING THE CONNECTION TO GROUND WIRE VISIBLE.
- ALL EQUIPMENT GROUNDS SHALL BE PROPERLY CONNECTED TO A CHASSIS: ALL PAINT AND OTHER COATINGS, INCLUDING GALVANIZATION, SHALL BE REMOVED PRIOR TO TERMINATION OF A GROUND. AFTER THE GROUND IS TERMINATED A NON-OXIDIZING COATING SHALL BE PAINTED OVER THE EXPOSED METAL SURFACES.
- ALL GROUNDING DIAGRAMS ARE SCHEMATIC ONLY. DIAGRAM SHOWS MAIN BONDING JUMPERS, GROUNDING ELECTRODE CONDUCTORS, AND COMMON BONDING OF GROUNDING SYSTEMS. DIAGRAM DOES NOT SHOW THE GROUNDED CONDUCTOR (NEUTRAL) OR GROUNDING CONDUCTOR (GROUND) THAT ARE ROUTED IN CONDUIT WITH POWER CONDUCTORS.
- AT LEAST AN 8 INCH MINIMUM BENDING RADIUS SHALL BE MAINTAINED ON ALL LIGHTNING PROTECTION DOWN CONDUCTORS. THE ANGLE OF ANY BEND SHALL NOT BE MORE THAN 90 DEGREES.
- LIGHTNING PROTECTION DOWN CONDUCTORS SHALL ALWAYS ROUTE AS STRAIGHT AS POSSIBLE.
- WHENEVER POSSIBLE, LIGHTNING PROTECTION GROUND ROD ELECTRODES SHALL BE INSTALLED NO CLOSER THAN 2' FROM CONCRETE FOUNDATIONS.
- THE BONDING CONDUCTOR BETWEEN THE LIGHTNING PROTECTION GROUND ROD ELECTRODES TO THE ELECTRICAL GROUNDING SYSTEM SHALL BE AWG #2 TINNED COPPER.
- RIGID GALVANIZED STEEL (RGS) CONDUIT MUST BE BONDED PER NEC AND LOCAL UTILITY REQUIREMENTS. USE OF BONDING BUSHINGS IS PREFERRED.
- GROUND METAL FRAMES OF HANDHOLES TO GROUND ROD ELECTRODE WITH #2 TINNED COPPER CABLE.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								MDOT Michigan Department of Transportation		NO SCALE		DATE: 7/7/2014		CS:		ITS SITE GROUNDING AND BONDING		DRAWING SHEET	
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