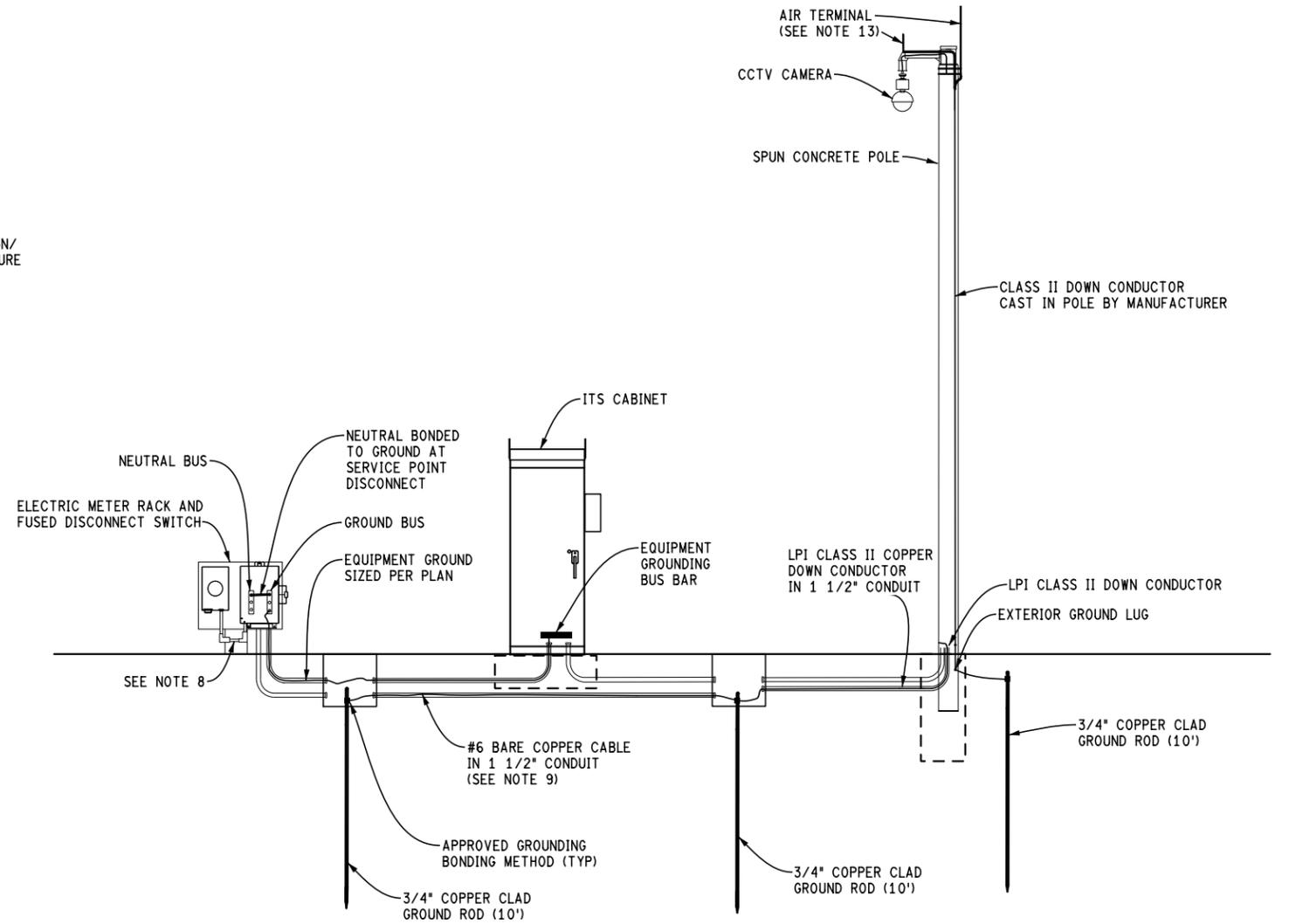


ITS (DMS) SITE GROUNDING

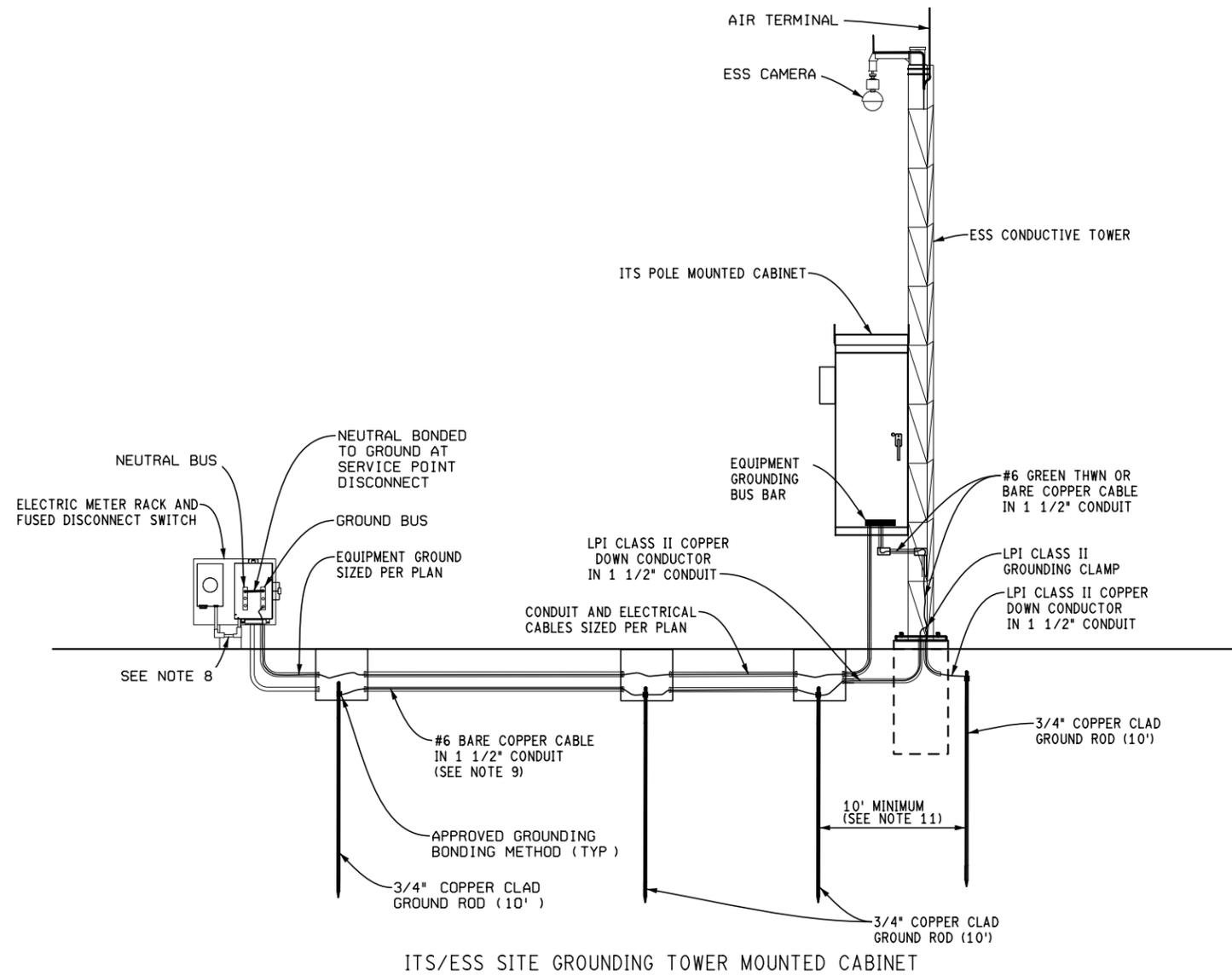


ITS (CCTV CAMERA) SITE GROUNDING

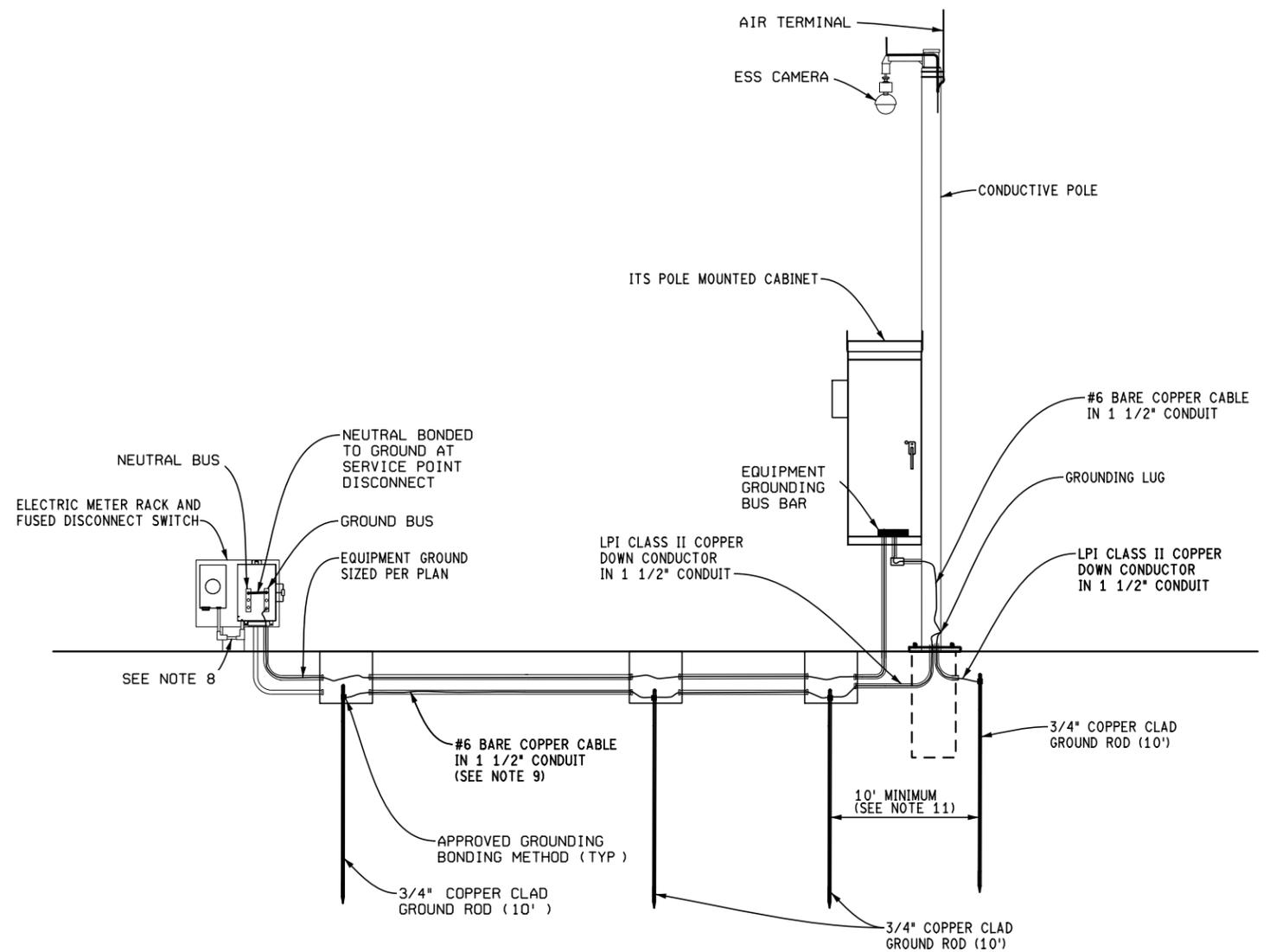
NOTES:

- 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 GROUND 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. TWO DISSIMILAR METALS SHALL NOT BE CONNECTED UNLESS PREVENTATIVE MEASURES ASSURE NON-GALVANIC CORROSION.
- 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) THAT IS 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.
- RIGID GALVANIZED STEEL (RGS) CONDUIT MUST BE BONDED PER NEC AND LOCAL UTILITY REQUIREMENTS. USE OF BONDING BUSHINGS IS PREFERRED.
- #6 COPPER BONDING CABLE AND 1 1/2" CONDUIT REQUIRED IF STRUCTURE OR POLE IS WITHIN 100 FEET OF THE METER RACK.
- ALL BONDING CABLES MUST BE INSTALLED IN 1 1/2" SCHEDULE 80 PVC CONDUIT.
- SEE DMS STRUCTURE DETAIL FOR CONNECTION OF AIR TERMINALS TO DMS HOUSING.
- GROUND RODS SHALL BE PLACED AT A MINIMUM OF 10' APART AT APPROXIMATELY 180°
- SEE ITS040 SURVEILLANCE SYSTEMS DETAIL FOR AIR TERMINAL(S) DETAILS.



ITS/ESS SITE GROUNDING TOWER MOUNTED CABINET

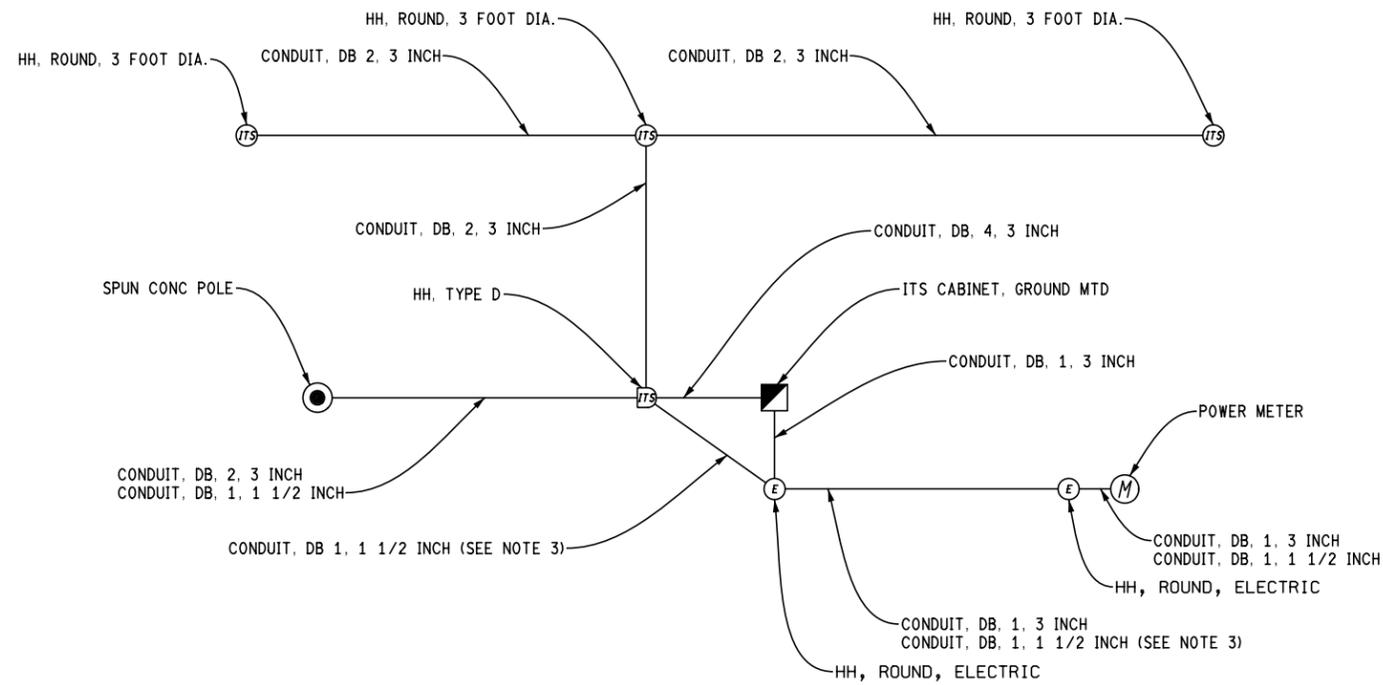


ITS/ESS SITE GROUNDING POLE MOUNTED CABINET

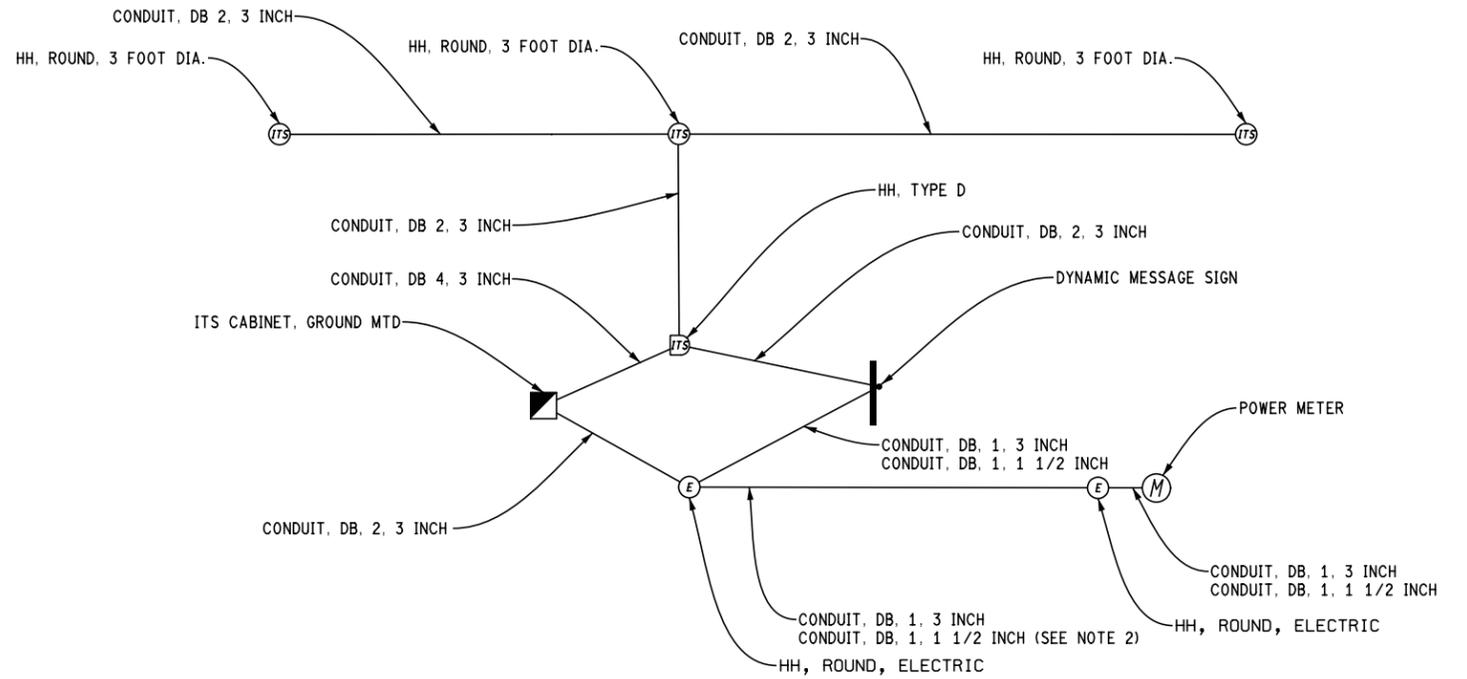
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- GROUND ROD ELECTRODES NOT INSIDE A HANDHOLE SHALL BE BURIED TO A MINIMUM DEPTH OF 12 INCHES BELOW FINISHED GRADE. GROUND ROD ELECTRODES AT HANDHOLES SHALL BE INSTALLED INSIDE AT THE BASE OF THE HANDHOLE, KEEPING THE CONNECTION TO GROUND WIRE VISIBLE.
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- ALL BONDING CABLES MUST BE INSTALLED IN 1 1/2" SCHEDULE 80 PVC CONDUIT.
- GROUND RODS SHALL BE PLACED AT A MINIMUM OF 10' APART AT APPROXIMATELY 180 DEGREES

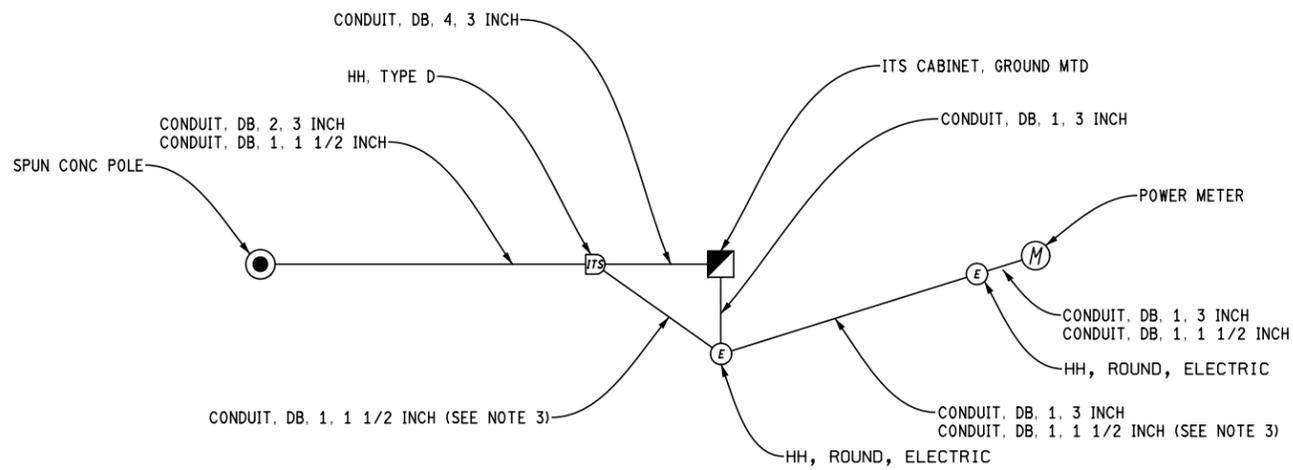
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							NO SCALE	DATE: 3/15/2023	DESIGN UNIT:	CS:	ITS SITE GROUNDING AND BONDING	DRAWING	SHEET			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE									AUTH	DESCRIPTION	
FILE: Gnd and Bnd- 3-15-2023_ITS020C											TSC:		JN:		SHEET 2 OF 3	



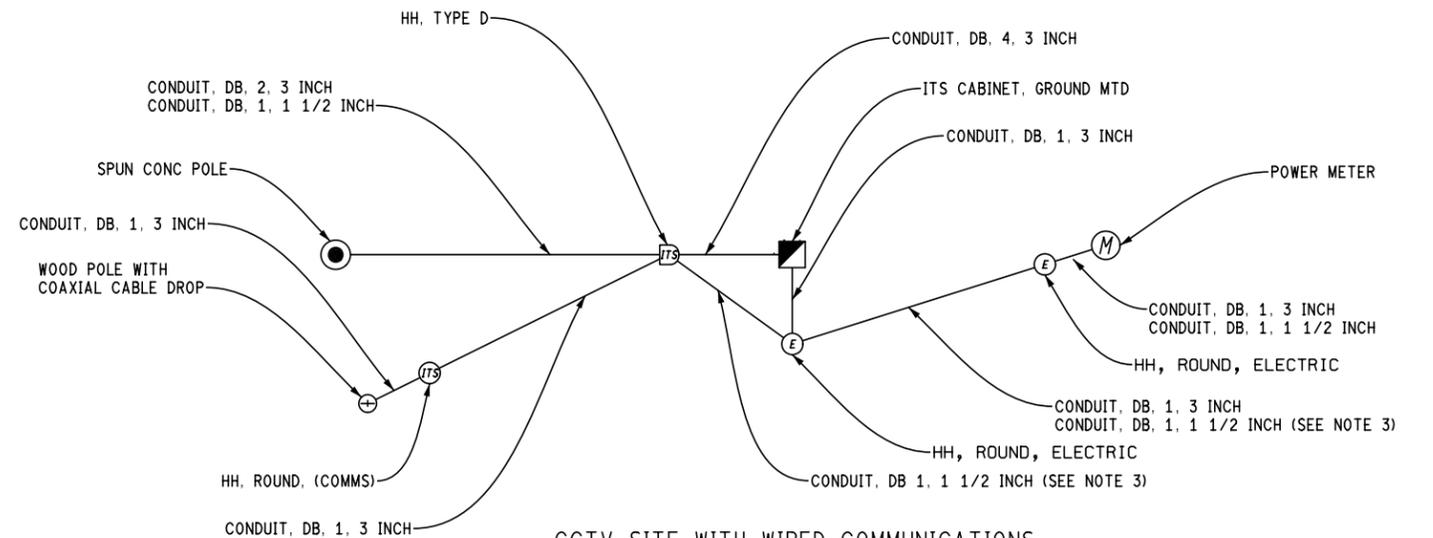
CCTV SITE WITH FIBER NETWORK



DMS SITE WITH FIBER NETWORK



CCTV SITE WITH WIRELESS COMMUNICATIONS



CCTV SITE WITH WIRED COMMUNICATIONS

NOTES

1. 1 1/2 INCH CONDUIT TO BE USED FOR BONDING CABLE.
2. INSTALL 1 1/2 INCH CONDUIT FOR BONDING CABLE IF DMS STRUCTURE IS WITHIN 100 FEET OF THE POWER METER RACK.
3. INSTALL 1 1/2 INCH CONDUIT FOR BONDING CABLE IF SPUN CONCRETE POLE IS WITHIN 100 FEET OF THE POWER METER RACK.

TYPICAL ITS SITE CONDUIT LAYOUTS FOR BONDING CABLE

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



NO SCALE

PRINT DATE: 3/15/2023
FILE: Gnd and Bnd-3-15-2023 ITS020C

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ITS SITE GROUNDING AND BONDING

DRAWING SHEET

SHEET 3 OF 3