

## Montgomery County Public Schools Facilities Guide

### DIVISION 16 – ELECTRICAL

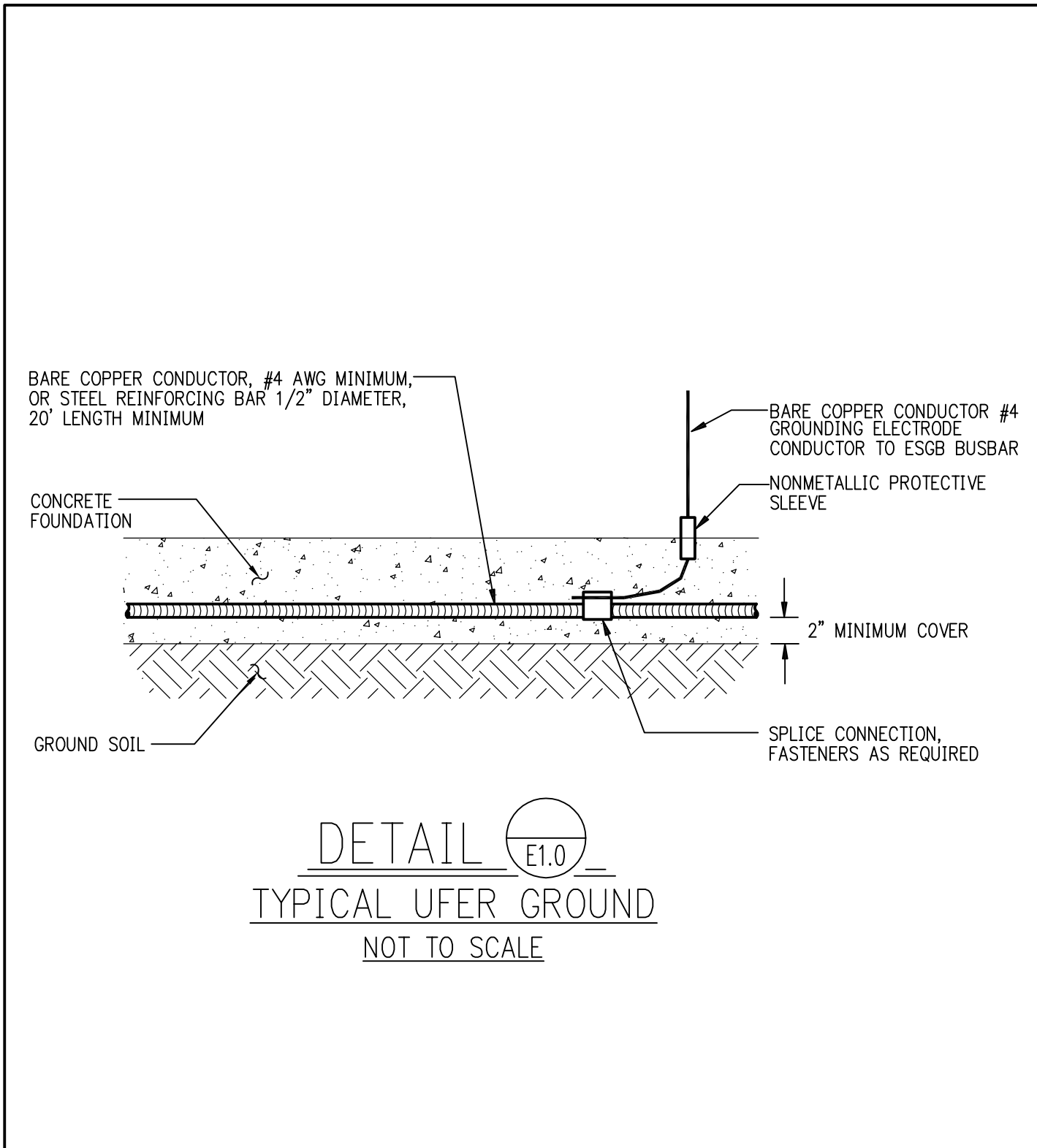
#### **SECTION 16060 GROUNDING**

##### **PART 1 – GENERAL**

- A. Provide a UFER ground as primary service ground. See Standard Detail E-1.0 on the following pages.
- B. Provide a grounding wiring diagram for the generator, service ground and automatic transfer switches. See Standard Detail E-2.0, E-3.0 and E-4.0 on the following pages.
- C. Provide a separate ground bus system for all MDF and IDF rooms. See Standard Detail E-5.0 on following the pages.



TYPICAL UFER GROUND	DESIGNED BY: <u>LRM</u>	REV <u>041709</u>
	APPROVED BY: <u>MCPS</u>	STANDARD NO.
	DATE <u>02/06/09</u>	E-1.0



<h2>GENERATOR GROUNDING WIRING DIAGRAM</h2>	DESIGNED BY: <u>LRM</u>	REV <u>041709</u>
	APPROVED BY: <u>MCPS</u>	STANDARD NO.
	DATE <u>02/06/09</u>	E-2.0

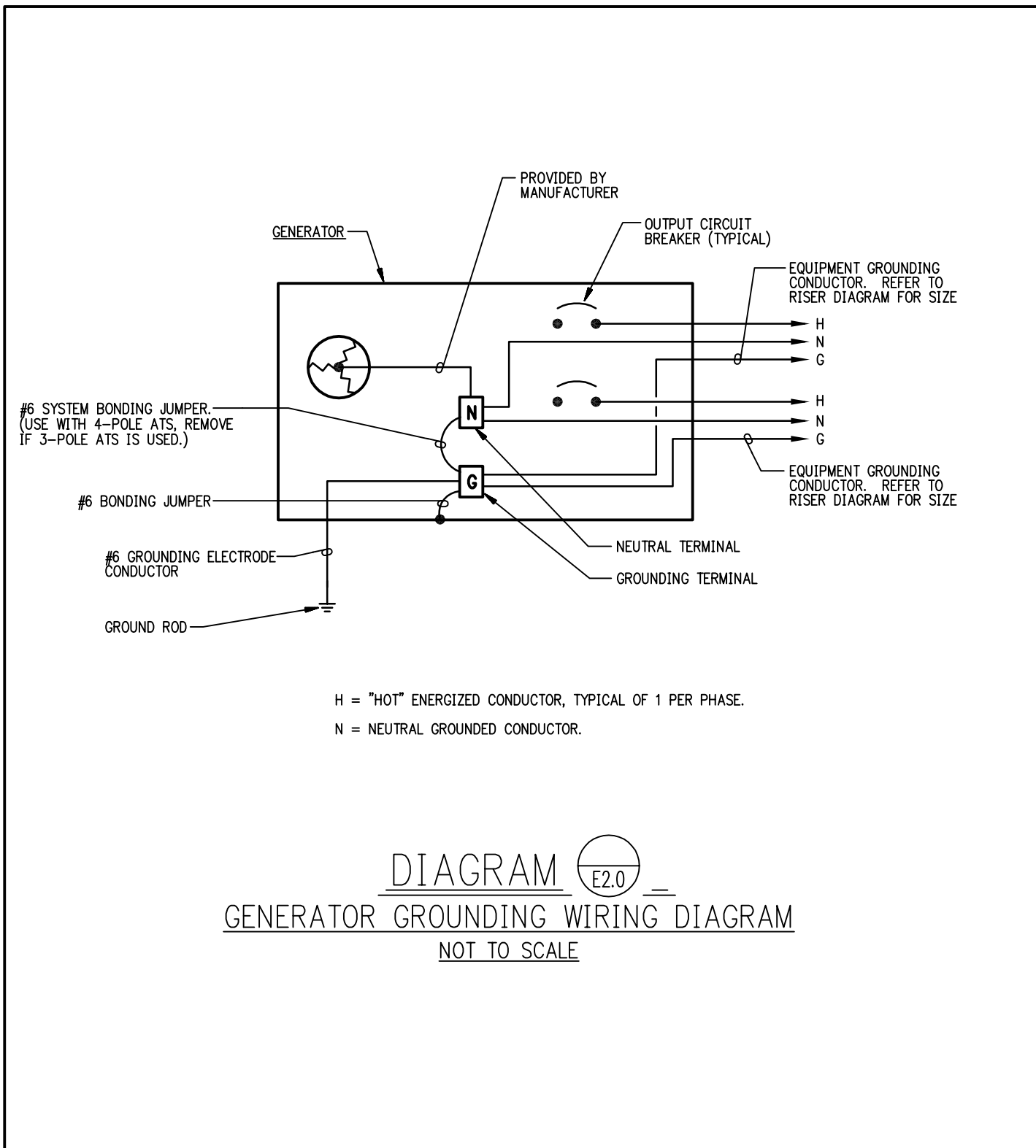
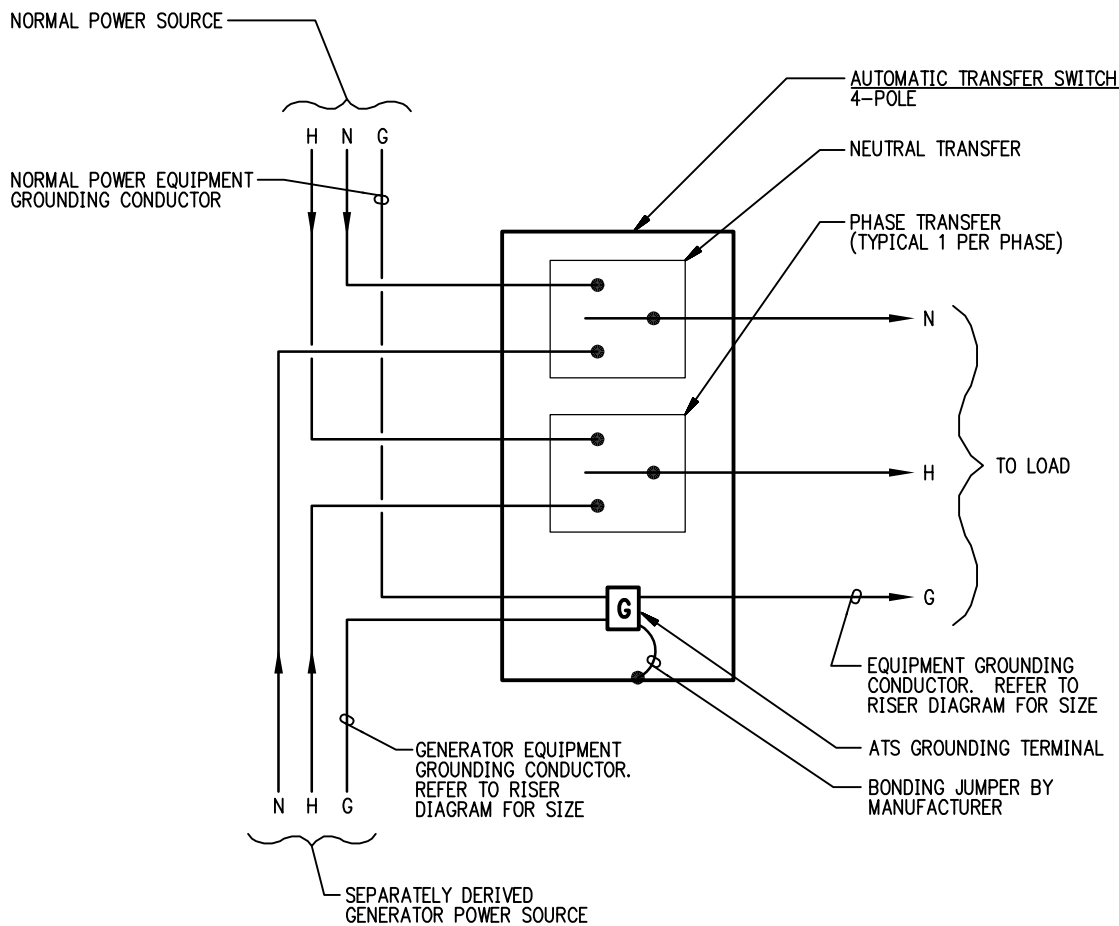


DIAGRAM E2.0  
GENERATOR GROUNDING WIRING DIAGRAM  
NOT TO SCALE

<h2 style="margin: 0;">AUTOMATIC TRANSFER SWITCH GROUND WIRING DIAGRAM</h2>	DESIGNED BY: <u>LRM</u>	REV <u>041709</u>
	APPROVED BY: <u>MCPS</u>	STANDARD NO.
	DATE <u>02/06/09</u>	E-3.0



H = "HOT" ENERGIZED CONDUCTOR, TYPICAL OF 1 PER PHASE.  
N = NEUTRAL GROUNDED CONDUCTOR.

DIAGRAM E3.0  
AUTOMATIC TRANSFER SWITCH GROUND WIRING DIAGRAM  
NOT TO SCALE



<b>SERVICE GROUND WIRING DIAGRAM</b>	DESIGNED BY: <u>LRM</u>	REV <u>041709</u>
	APPROVED BY: <u>MCPS</u>	STANDARD NO.
	DATE <u>02/06/09</u>	E-4.0

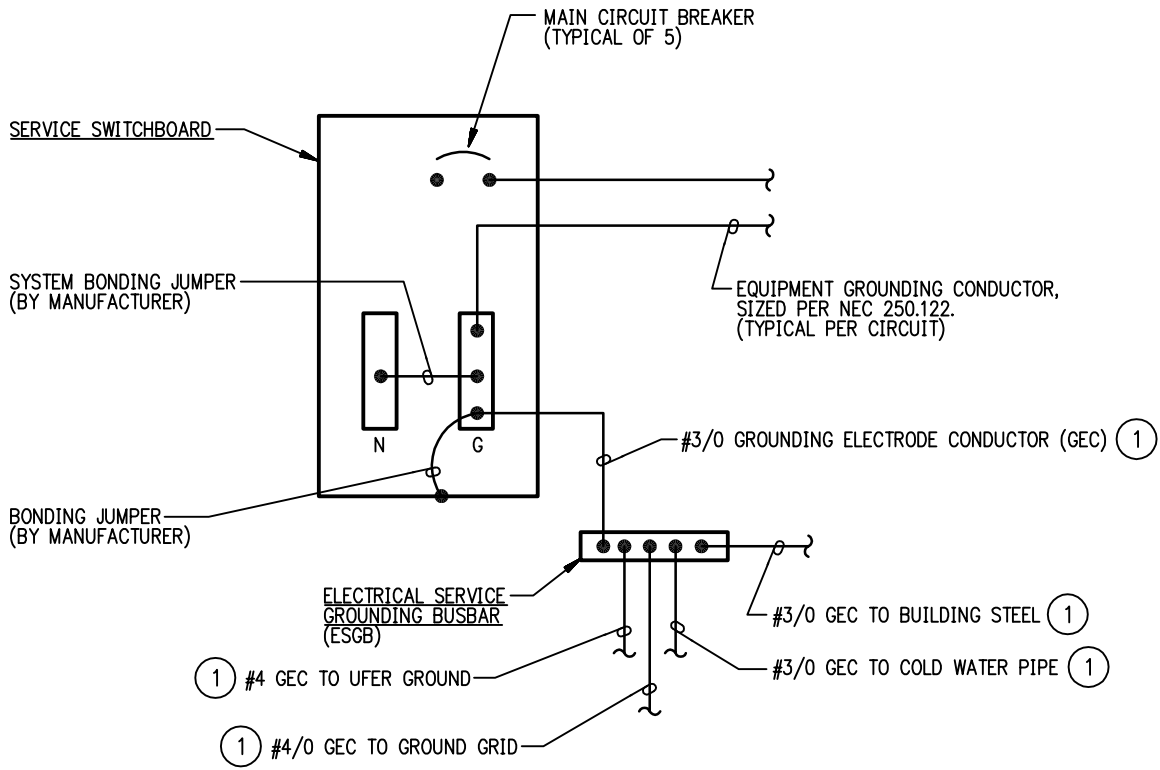
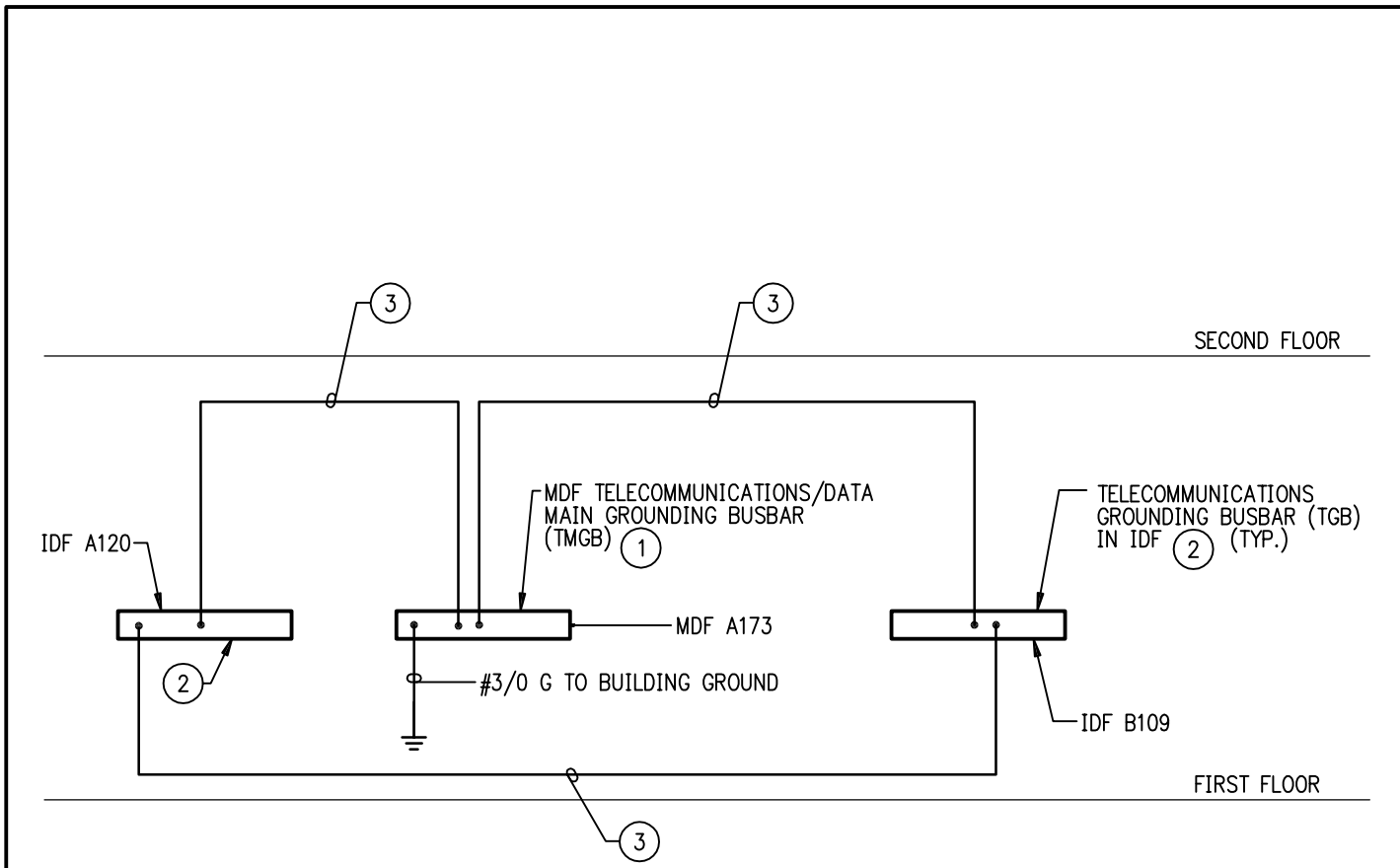


DIAGRAM E4.0  
SERVICE GROUND WIRING DIAGRAM  
 NOT TO SCALE

SPECIFIC NOTES:  
 (1) SIZE GEC PER TABLE 250.66 (2005 & 2008 NEC).



TELE/DATA GROUND SYSTEM	DESIGNED BY: <u>LRM</u>	REV <u>041709</u>
	APPROVED BY: <u>MCPS</u>	STANDARD NO.
	DATE <u>02/06/09</u>	E-5.0



SPECIFIC NOTES:

- ① 1/4"x4" WIDE x24" LONG ELECTROTIN PLATED COPPER MOUNTED TO WALL WITH 2-2" INSULATOR OFFSETS.
- ② 1/4"x2" WIDE x18" LONG ELECTROTIN PLATED COPPER MOUNTED TO WALL WITH 2-2" INSULATOR OFFSETS.
- ③ #2 INSULATED COPPER IN 3/4" PVC. SIZE PER TIA/EIA J-STD-607A 5.4.4.1.

DIAGRAM E5.0  
TELE/DATA GROUND SYSTEM  
NOT TO SCALE