

**Transmission & Distribution**  
**Material & Installation Specification**

**Ground Rod Test**

**I. Quantity**

The base bid shall include the number of ground rods and extensions, tests and data reports as hereinafter specified.

**II. Material**

- A. The material shall be equal in quality, design, performance, and appearance to the ground rods specified on various TDMIS drawings for modules or assemblies that include ground rods.
- B. All ground rods installed in City of Columbus, Division of Power systems shall be ½"x 10', 10 mil copper clad steel as manufactured by Erico Cat #611303, IEC® EN 62561-2, ANSI ®/NEMA® GR1, CSA, cULus and Erico #CC12f compression couplings, or engineer approved equal.
- C. Test equipment shall be Fluke #1630 Earth Ground Clamp Meter, or engineer approved equal.

**III. Installation**

- A. Grounding electrodes - Installation process shall be as follows; drive 1<sup>st</sup> rod leaving top 12" exposed, test rod to earth resistance using a clamp-on ground rod tester specified above. Record reading. If resistance is higher than 25 ohms, couple a second rod to the first with an ERICO # CC12f compression coupling and continue driving first and second rod. Retest and add rods as required until a resistance of less than 25 ohms is achieved. This procedure applies to all grounding electrode rods installed on City of Columbus, Division of Power systems. Repeat for each grounding electrode (rod) location shown. Contractor shall provide a certified report for each electrode location detailing procedure, date, weather, soil conditions observed, resistance readings at each measurement and each rod segment.

- B. Ground rod installation and tests shall be witnessed by the designated project inspector who shall sign report.
- C. Prerequisite weather conditions shall be not less than 72 hours after any measurable precipitation at the site as documented by the National Weather Service.

CITY OF COLUMBUS DEPT. OF PUBLIC UTILITIES – DIVISION OF POWER		
SPECIFICATION GROUND ROD TEST		
DRAWN BY: AEC	DATE: 01/01/2018	<b>TDMIS-1607</b>
APPROVED: R. SPRITE		
SHEET 1 of 2		

PLEASE INSERT FORM OF TEST IN THIS PAGE

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SPECIFICATION		
GROUND ROD TEST		
DRAWN BY: AEC	DATE: 01/01/2018	TDMIS-1607
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