 Rev: 08/01/20	CIVIL UNDERGROUND STRUCTURE GROUNDING	1488
		Sheet 1 of 1

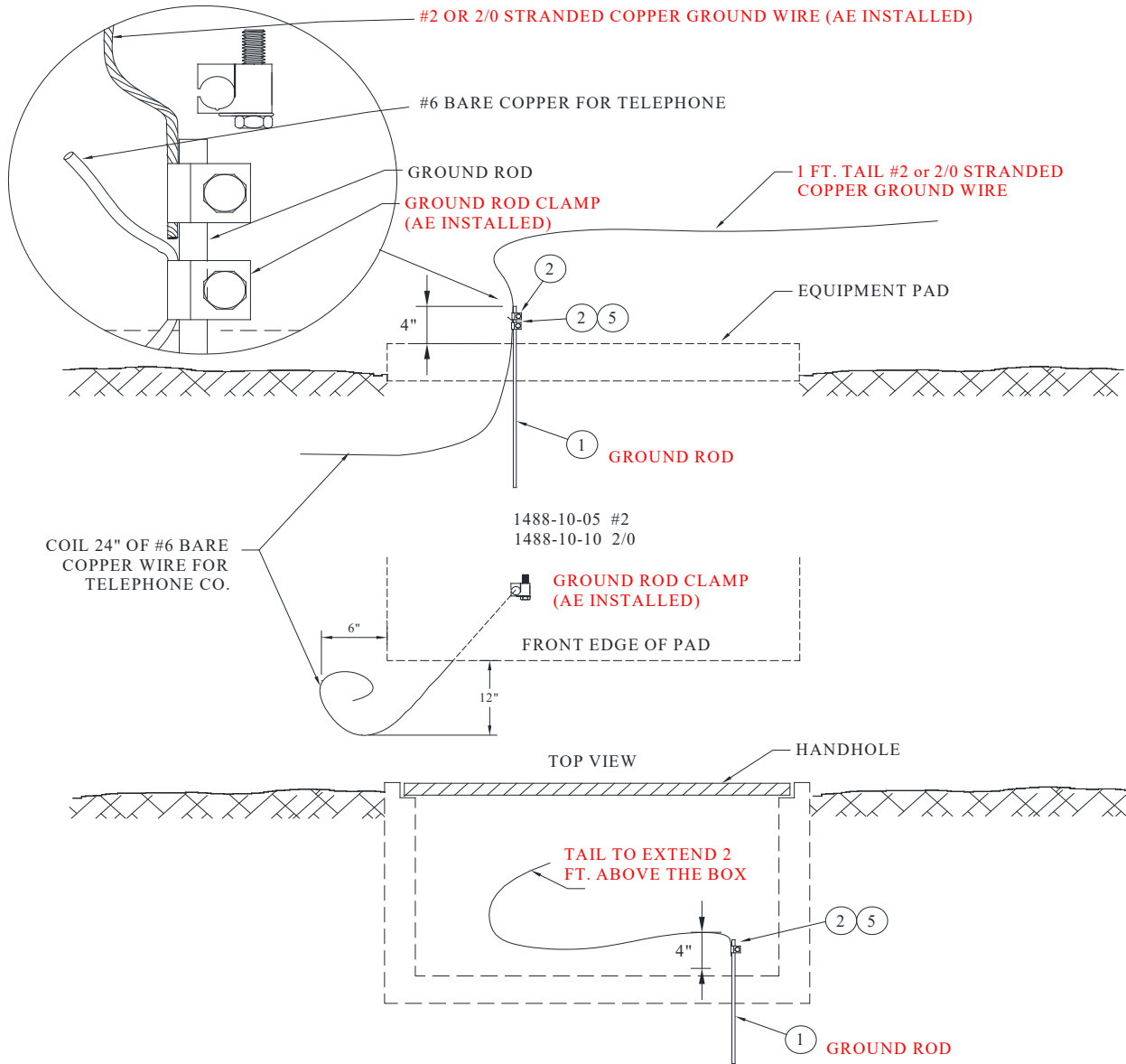
# 1488

## UNDERGROUND STRUCTURE GROUNDING

### CONTAINS


- 1488-10      GROUNDING STRUCTURES IN SOFT SOIL**
- 1488-20      GROUNDING STRUCTURES IN ROCKY SOIL**

UNDERGROUND STRUCTURES GROUNDING  
GROUNDING STRUCTURES IN SOFT SOIL



NOTES:

1. WHEN INSTALLED IN SOFT SOIL, EQUIP ALL PAD-MOUNTED EQUIPMENT LOCATIONS AND SUBSTRUCTURES WITH PRIMARY CABLE SPLICES, WITH AT LEAST ONE GROUND ROD.
2. EXACT LOCATIONS OF GROUND RODS AND GROUND WIRES ARE SPECIFIED IN EQUIPMENT PAD DETAILS. ALL SWITCHGEAR PADS, REQUIRE THE INSTALLATION OF AT LEAST TWO GROUND RODS, AT THE LOCATIONS SHOWN ON PAD DETAILS.
3. THE GROUND WIRE SHALL BE #2 STRANDED SOFT-DRAWN CU, AT ALL TRANSFORMER PADS AND HANDHOLES, WITH 500 KCMIL AND 750 KCMIL SPLICES AND IS AE INSTALLED.
4. INSTALL #6 BARE CU GROUND FOR TELEPHONE CO AT ALL PAD-MOUNTED TRANSFORMER LOCATIONS AS SHOWN.
5. GROUND RESISTANCE SHOULD BE LESS THAN 25 OHMS AT THE TIME OF INSTALLATION.
6. IF ONE DRIVEN GROUND ROD IS NOT ADEQUATE TO ACHIEVE 25 OHMS OF GROUND RESISTANCE, AE MAY ASK FOR ADDITIONAL GROUND RODS OR BURIED ENCASED ELECTRODE GROUND INSTALLATION AS SHOWN ON PAGE 1488-20.

 Rev: 08/01/20	<b>CIVIL</b> <b>UNDERGROUND STRUCTURES GROUNDING</b> <b>GROUNDING STRUCTURES IN SOFT SOIL</b>	<b>1488-10</b> Sheet 2 of 2

**CU**

<b>CU-ID</b>	<b>CU-REF</b>	<b>CU-DESCRIPTION</b>
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GRNDRODSOFT2WIR	14881005	GRND SOFT SOIL W/ROD #2 STRND
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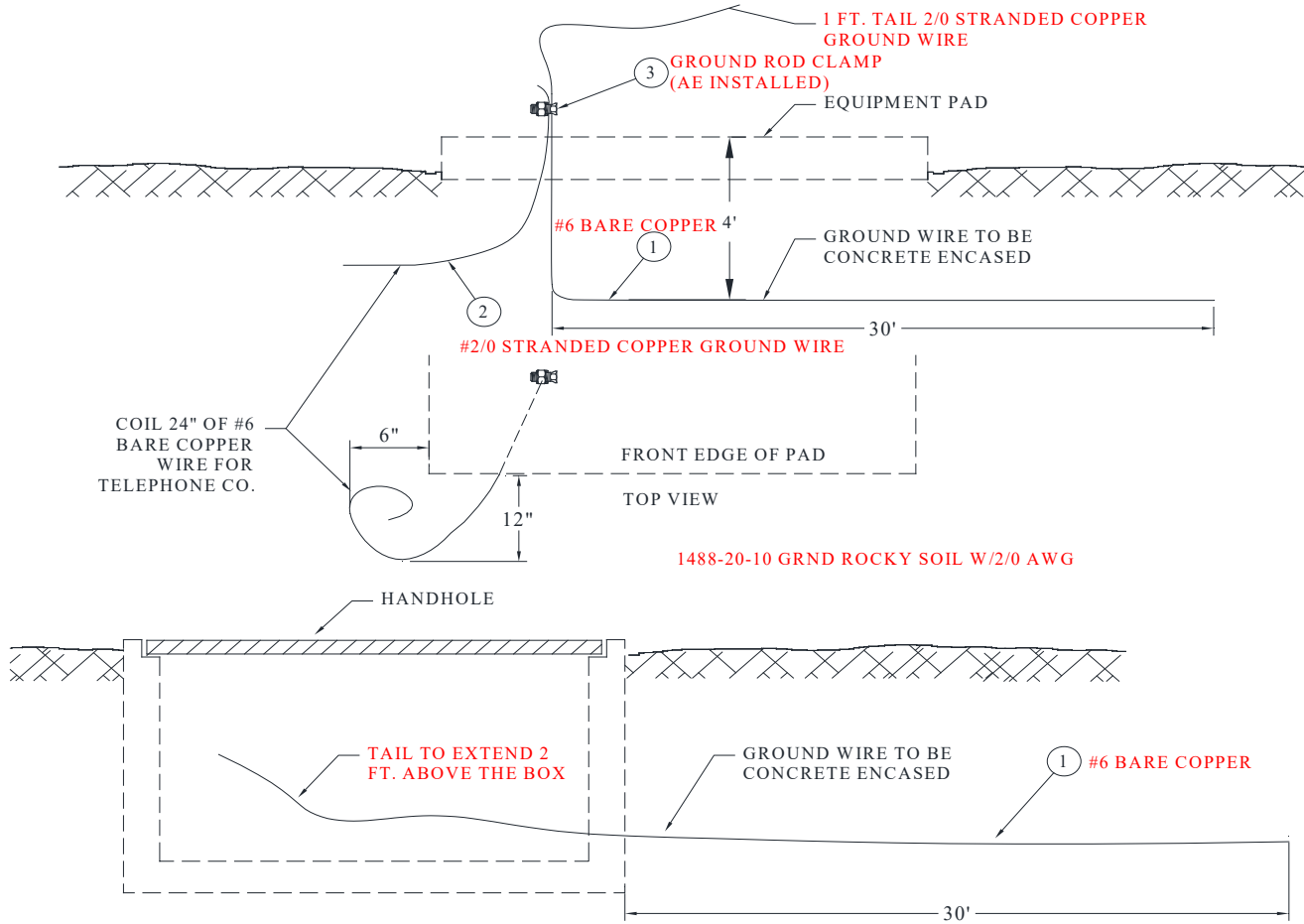
ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14881005
2	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14881005
3	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	2	EA	14881005
4	0000004533	CABLE BARE STRD COP TINNED SOFT # 2 2400/FT	3	EA	14881005

GRNDRODSOFT2/0WIR	14881010	GRND SOFT SOIL - W/ROD 2 /0 AWG STR
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ID	PART NUM	PART DESC	QTY	EA	CU-REF
1	0000007469	ROD GROUND 5/8 IN X 8 FT COPPERWELD EL230	1	EA	14881010
2	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	5	EA	14881010
3	0000017302	CLAMP GROUND VISE TYPE FOR 5/8 GROUND ROD CAST BRONZE	1	EA	14881010
4	0000006798	CLAMP GRND BRNZ #4 WIRE TO 1/2 IN ROD OR 1 IN PIPE	1	EA	14881010
5	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14881010


FOR DETAILS	SEE PAGE
GROUNDING IN ROCKY SOIL	1488- 20

UNDERGROUND STRUCTURES GROUNDING  
GROUNDING STRUCTURES IN ROCKY SOIL



NOTES:

1. ALL PAD-MOUNTED EQUIPMENT LOCATIONS AND SUBSTRUCTURES WITH PRIMARY CABLE SPLICES SHALL BE EQUIPPED WITH A BURIED ENCASED ELECTRODE GROUND, WHEN INSTALLED IN ROCKY SOIL OR WHERE THE INSTALLATION OF A GROUND ROD AS SHOWN ON PAGE 1488-10 IS DEEMED ADEQUATE.
2. LOCATIONS OF GROUND RODS AND GROUND WIRES ARE SPECIFIED IN EQUIPMENT PAD DETAILS.
3. THE GROUND WIRE SHALL BE 2/0 STRANDED SOFT-DRAWN CU FOR TRANSFORMER PADS AND SECTIONALIZING CABINETS AND IS AE INSTALLED.
4. THE BURIED ELECTRODE SHALL BE 2/0 STRANDED SOFT-DRAWN CU AT ALL TRANSFORMER PADS AND HANDHOLES WITH 1/0 AWG AL SPLICES.
5. THE BURIED ELECTRODE SHALL BE INSTALLED SURROUNDED BY A 2-IN. CONCRETE ENVELOPE. IN URD INSTALLATIONS, WHERE SAND IS THE PREFERRED BACKFILL MATERIAL, THE PORTION OF THE CONDUIT WITH THE ENCASED ELECTRODE SHALL BE CONCRETE ENCASED.
6. FOR TRANSFORMER INSTALLATIONS, THE ENCASED ELECTRODE SHALL ALWAYS BE INSTALLED IN THE PRIMARY CONDUIT TRENCH.

 Rev: 08/01/20	<b>CIVIL</b> <b>UNDERGROUND STRUCTURES GROUNDING</b> <b>GROUNDING STRUCTURES IN ROCKY SOIL</b>	<b>1488-20</b>
		Sheet 2 of 2

**CU**

**CU- ID    CU- REF    CU- DESCRIPTION**

GRNDRODROCK2WIR    14882005    GRND ROCKY SOIL - W/#2 STR CU

ID	PART NUM	PART DESC	QTY		CU- REF
1	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14882005
2	0000004533	CABLE BARE STRD COP TINNED SOFT # 2 2400/FT	40	EA	14882005
3	0000006804	CONNECTOR SPLIT BOLT #2 STRD COP	1	EA	14882005

GRNDRODROCK2/0WIR    14882010    GRND ROCKY SOIL - W/2/0 AWG

ID	PART NUM	PART DESC	QTY		CU- REF
1	0000004523	WIRE COP BARE MHD SOLID # 6 25LB/315/FT	10	EA	14882010
2	0000001211	CABLE BARE STRD COP TINNED SOFT 2/0 AWG	40	EA	14882010
3	0000001216	CLAMP TWO- BOLT FOR #2 STR- 2/0 STR TAP #6 STR- 2/0 STR	1	EA	14882010

FOR DETAILS	SEE PAGE
GROUNDING IN SOFT SOIL	1488- 10