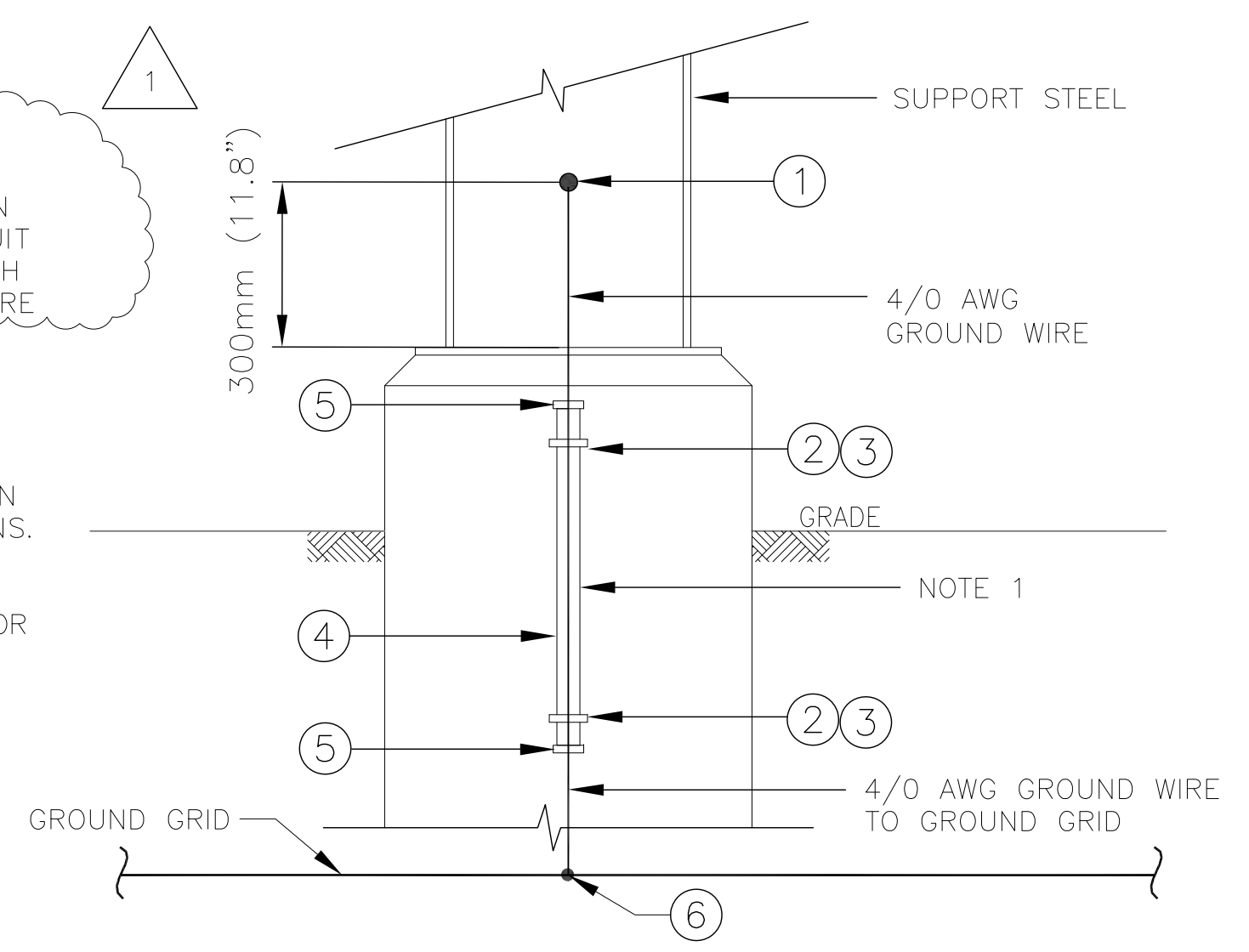


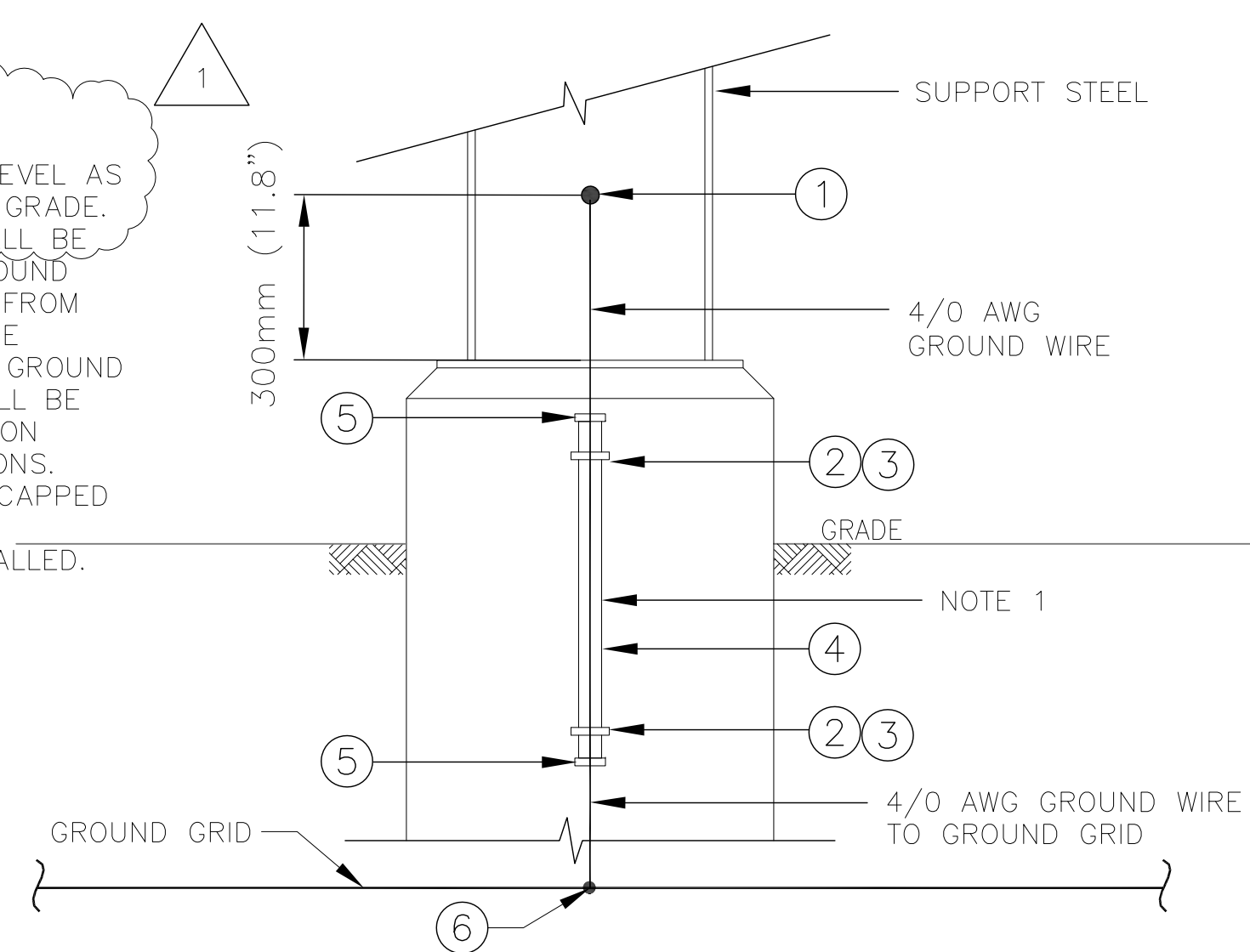
PLOTTED DATE: 2015/04/20 PAPER SIZE AT FULL: ANSI D (22.00 x 34.00 INCHES) FILE: \\FILE-RGDC01\DEPT\GOIC017\PROGRAM MANAGEMENT & STANDARDS\PMPS DESIGN STANDARDS\7 ELECTRIFICATION\GROUNDING AND BONDING STANDARD DRAWINGS\MXS-200-008 REV1.DWG

NOTES:
 1. CONDUITS SHALL BE TERMINATED AT SAME LEVEL AS FOUNDATION ABOVE GRADE. CONDUIT DEPTH SHALL BE SUCH THAT THE GROUND WIRE IS PROTECTED FROM DAMAGE AND CAN BE CONNECTED TO THE GROUND GRID. THE DEPTH WILL BE DETERMINED BASED ON LOCAL SITE CONDITIONS. CONDUIT SHALL BE CAPPED UNTIL GROUNDING CONDUCTOR IS INSTALLED.

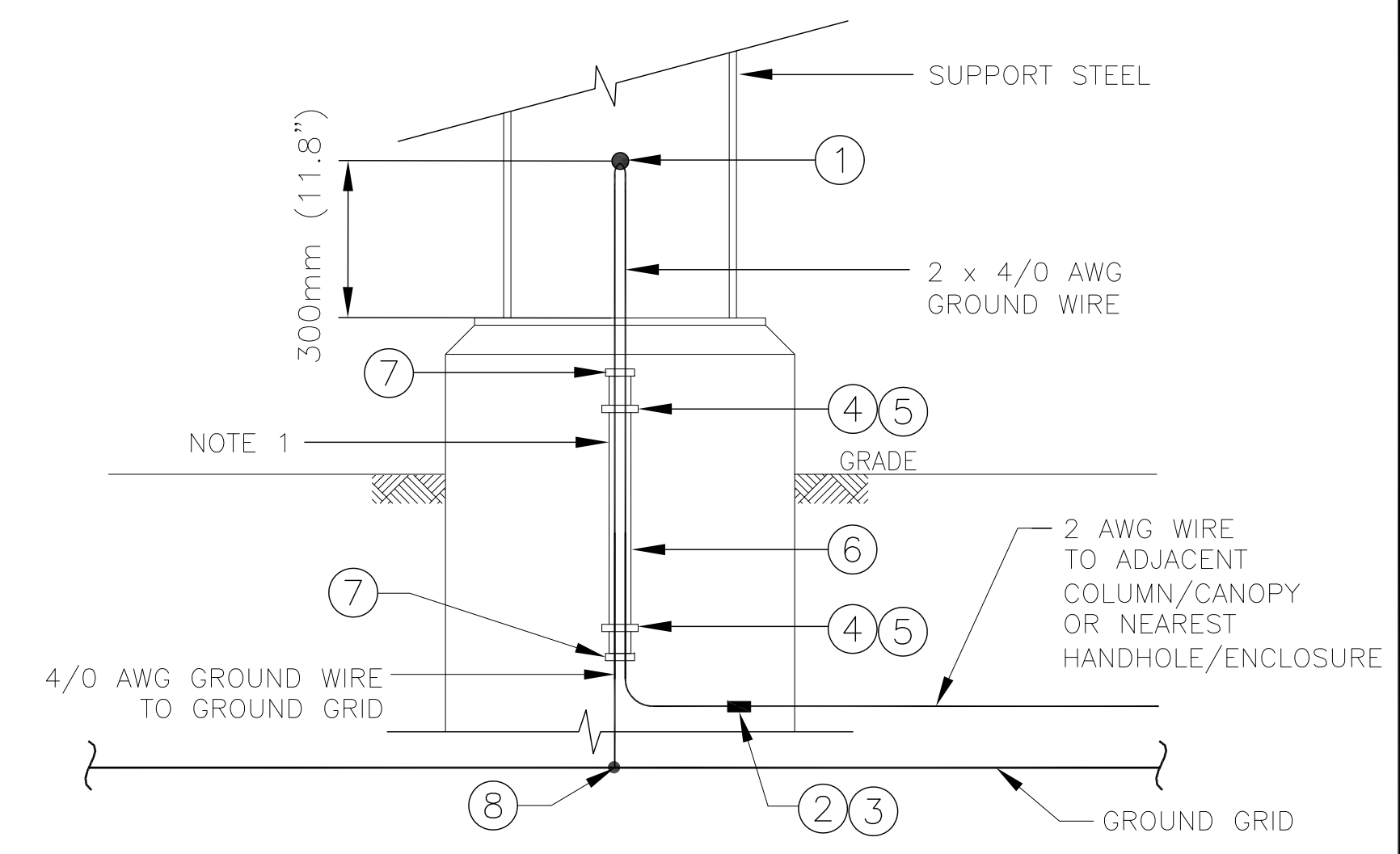


DETAIL 1 - LIGHTING POLES

NOTES:
 1. CONDUITS SHALL BE TERMINATED SAME LEVEL AS FOUNDATION ABOVE GRADE. CONDUIT DEPTH SHALL BE SUCH THAT THE GROUND WIRE IS PROTECTED FROM DAMAGE AND CAN BE CONNECTED TO THE GROUND GRID. THE DEPTH WILL BE DETERMINED BASED ON LOCAL SITE CONDITIONS. CONDUIT SHALL BE CAPPED UNTIL GROUNDING CONDUCTOR IS INSTALLED.



DETAIL 4 - PROTECTIVE CANOPIES AND CANOPY COLUMNS



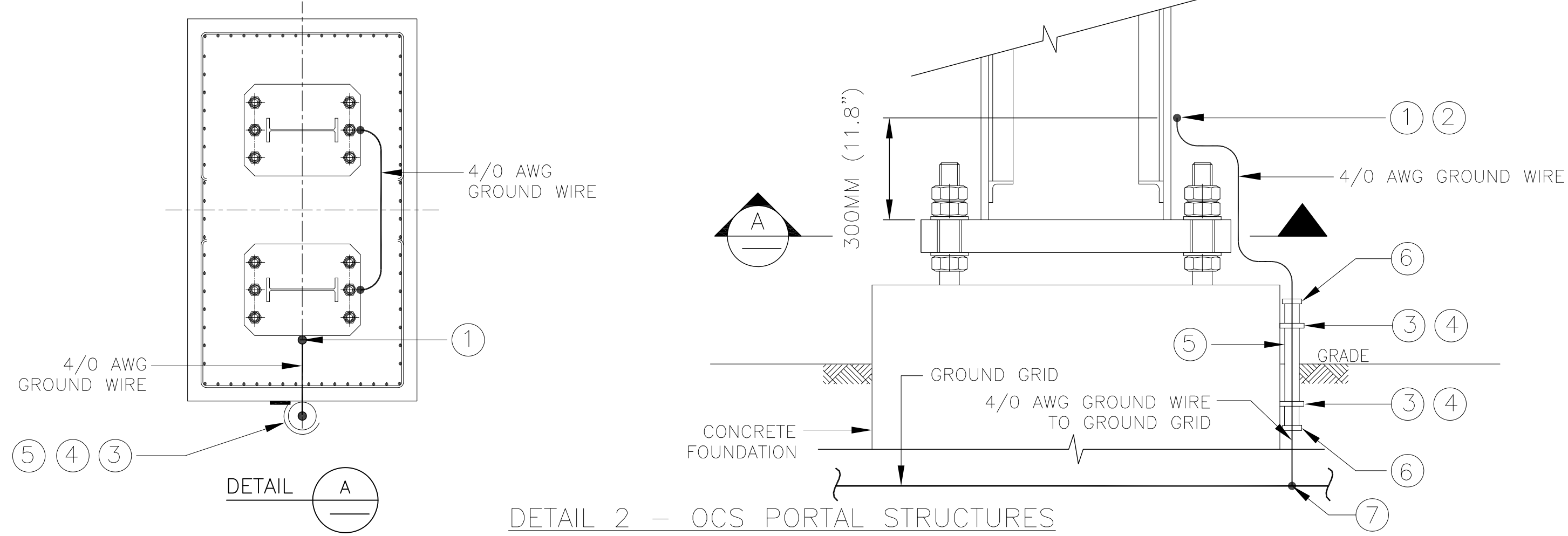
DETAIL 3 - OCS POLES

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	VERTICAL WIRE TAP TO VERTICAL STEEL SURFACE.	BURNDY: B-8718 OR EQUIVALENT
2	2	EA	ANCHOR, 1 1/4", SS 304,316	HILTI: KB3 1/4" 2-1/4" OR EQUIVALENT
3	2	EA	27mm (1") CONDUIT CLAMP 1-HOLE	T&B: 1278 OR EQUIVALENT
4	PER DESIGN	N/A	27mm (1") CONDUIT	(GENERIC)
5	2	EA	BUSHING	(GENERIC)
6	1	EA	4/0 WIRE TAP TO 4/0 WIRE RUN	BURNDY: B-241 OR EQUIVALENT

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	VERTICAL WIRE TAP TO VERTICAL STEEL SURFACE.	BURNDY: B-8718 OR EQUIVALENT
2	2	EA	ANCHOR, 1 1/4", SS 304,316	HILTI: KB3 1/4" 2-1/4" OR EQUIVALENT
3	2	EA	27mm (1") CONDUIT CLAMP 1-HOLE	T&B: 1278 OR EQUIVALENT
4	PER DESIGN	N/A	27mm (1") CONDUIT	(GENERIC)
5	2	EA	BUSHING	(GENERIC)
6	1	EA	4/0 WIRE TAP TO 4/0 WIRE RUN	BURNDY: B-241 OR EQUIVALENT

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	HORIZONTAL 4/0 WIRE THROUGH TO STEEL SURFACE EXOTHERMIC CONNECTION	BURNDY: B-8718 OR EQUIVALENT
2	1	EA	END TO END WIRE EXOTHERMIC CONNECTION	BURNDY: B-208 OR EQUIVALENT
3	1	EA	4/0 AWG TO 2 AWG WIRE SLEEVE	BURNDY: B-203/240 OR EQUIVALENT
4	2	EA	ANCHOR, 1 1/4", SS 304,316	HILTI: KB3 1/4" 2-1/4" OR EQUIVALENT
5	2	EA	27mm (1") CONDUIT CLAMP 1-HOLE	T&B: 1278 OR EQUIVALENT
6	PER DESIGN	N/A	27mm (1") CONDUIT	(GENERIC)
7	2	EA	BUSHING	(GENERIC)
8	1	EA	4/0 WIRE TAP TO 4/0 WIRE RUN	BURNDY: B-241 OR EQUIVALENT

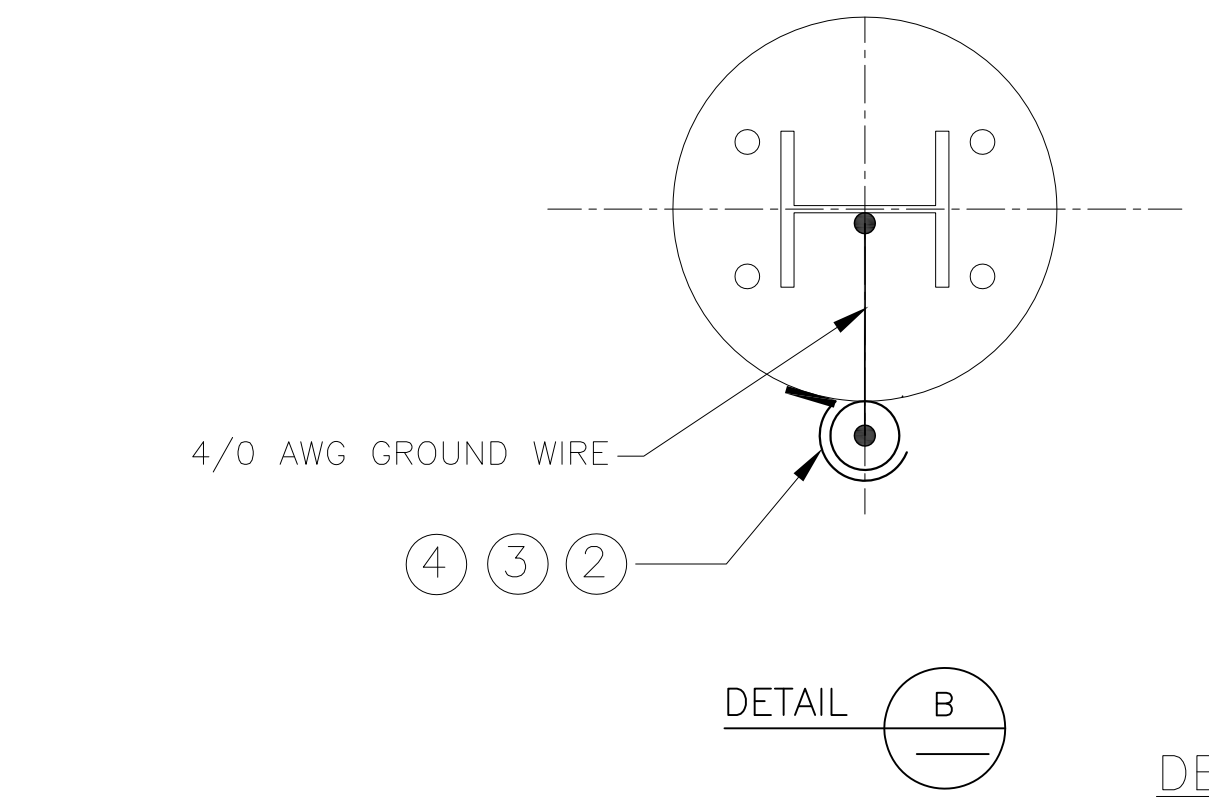
NOTES:
 1. CONDUITS SHALL BE TERMINATED SAME LEVEL AS FOUNDATION ABOVE GRADE. CONDUIT DEPTH SHALL BE SUCH THAT THE GROUND WIRE IS PROTECTED FROM DAMAGE AND CAN BE CONNECTED TO THE GROUND GRID. THE DEPTH WILL BE DETERMINED BASED ON LOCAL SITE CONDITIONS. CONDUIT SHALL BE CAPPED UNTIL GROUNDING CONDUCTOR IS INSTALLED.



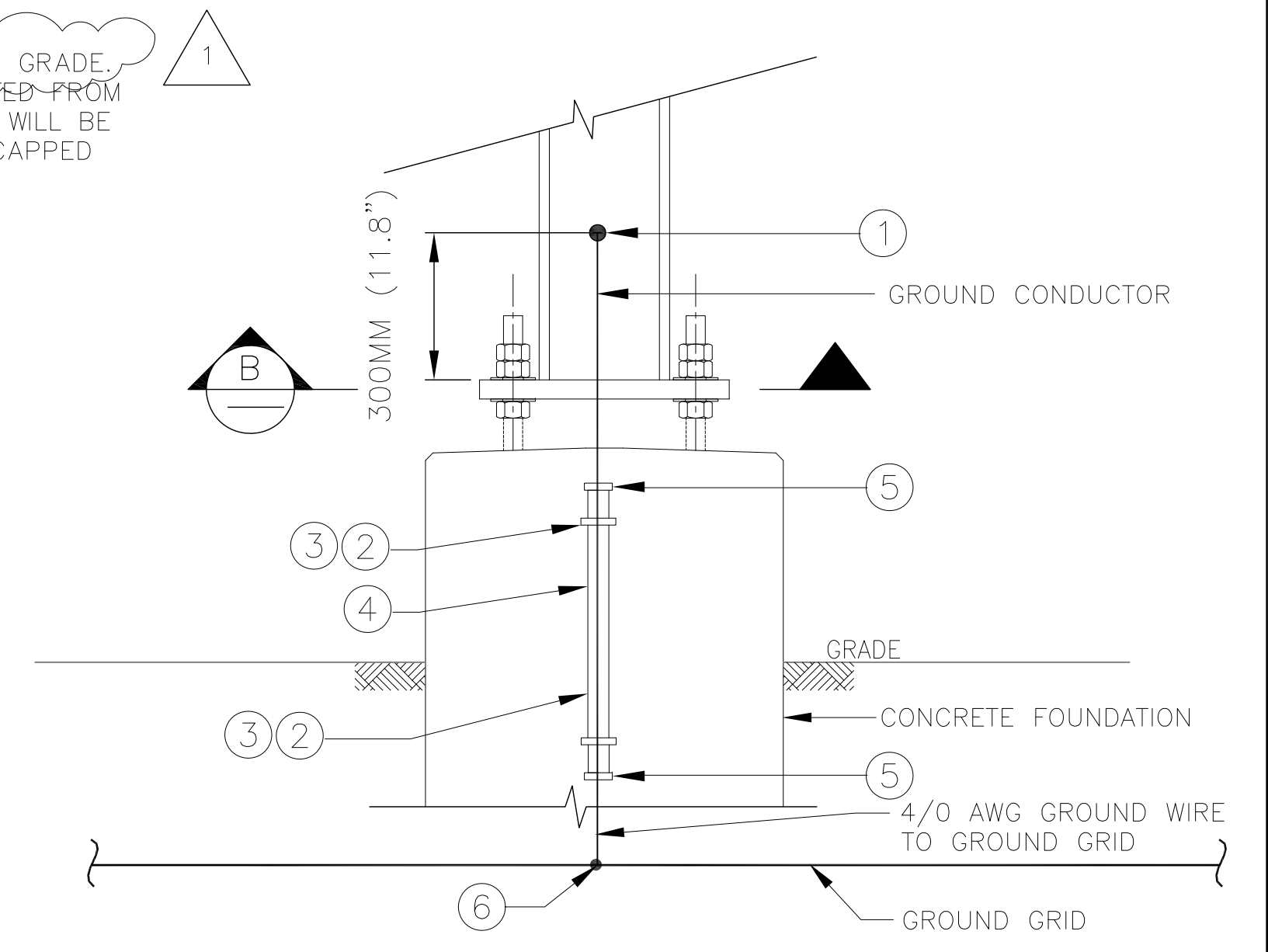
DETAIL 2 - OCS PORTAL STRUCTURES

NOTES:
 1. CONDUITS SHALL BE TERMINATED SAME LEVEL AS FOUNDATION ABOVE GRADE. CONDUIT DEPTH SHALL BE SUCH THAT THE GROUND WIRE IS PROTECTED FROM DAMAGE AND CAN BE CONNECTED TO THE GROUND GRID. THE DEPTH WILL BE DETERMINED BASED ON LOCAL SITE CONDITIONS. CONDUIT SHALL BE CAPPED UNTIL GROUNDING CONDUCTOR IS INSTALLED.

NOTE: THIS DRAWING IS PROVIDED FOR INSTRUCTIONAL DESIGN PURPOSES ONLY BASED ON METROLINX GO TRANSIT DESIGN GUIDELINES AND REQUIREMENTS. THE CONSULTANT SHALL VERIFY FOR LOCAL CODE COMPLIANCE, EXISTING SITE CONDITIONS AND INTER DISCIPLINARY DRAWING COORDINATION. ALL DIMENSIONS AND SPECIFICATIONS SHOULD BE VERIFIED BY CONSULTANT AND/OR CONTRACTOR BEFORE ACTUAL CONSTRUCTION BEGINS.



DETAIL B



DETAIL 3 - OCS POLES

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	VERTICAL WIRE TAP TO VERTICAL STEEL SURFACE.	BURNDY: B-8718 OR EQUIVALENT
2	1	EA	HORIZONTAL WIRE TO A VERTICAL STEEL SURFACE	BURNDY: B-1633 OR EQUIVALENT
3	2	EA	ANCHOR, 1 1/4", SS 304,316	HILTI: KB3 1/4" 2-1/4" OR EQUIVALENT
4	2	EA	27mm (1") CONDUIT CLAMP 1-HOLE	T&B: 1278 OR EQUIVALENT
5	PER DESIGN	N/A	27mm (1") CONDUIT	(GENERIC)
6	2	EA	BUSHING	(GENERIC)
7	1	EA	4/0 WIRE TAP TO 4/0 WIRE RUN	BURNDY: B-241 OR EQUIVALENT

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	VERTICAL WIRE TAP TO VERTICAL STEEL SURFACE.	BURNDY: B-8718 OR EQUIVALENT
2	2	EA	ANCHOR, 1 1/4", SS 304,316	HILTI: KB3 1/4" 2-1/4" OR EQUIVALENT
3	2	EA	27mm (1") CONDUIT CLAMP 1-HOLE	T&B: 1278 OR EQUIVALENT
4	PER DESIGN	N/A	27mm (1") PVC CONDUIT	(GENERIC)
5	2	EA	BUSHING	(GENERIC)
6	1	EA	4/0 WIRE TAP TO 4/0 WIRE RUN	BURNDY: B-241 OR EQUIVALENT

REFERENCE DRAWINGS		ISSUE		REVISIONS	
DWG NO.	TITLE	NO.	DATE	ISSUED FOR	REV.
		3	15/04/06	FINAL DESIGN	
		2	15/03/06	100% DESIGN	
		1	15/02/09	90% DESIGN	
		0	15/01/16	60% DESIGN	
		1	15/04/15	REVISED NOTES	

DRAWN BY: RCW 14/11/12 CHECKED BY: CTG 15/01/16 SCALE: NTS	DESIGNED BY: SXF 14/11/12 APPROVED BY: ZBT 15/01/16 FULL SIZE ONLY
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TRACTION ELECTRIFICATION
 GROUNDING AND BONDING
 STANDARD INSTALLATION DESIGN DETAILS
 CANOPY COLUMNS AND OCS POLES

CONTRACT NO. RQQ-2011-PP-032	DWG. NO. MXS-200-008	REV. 1	SHEET 16/26
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