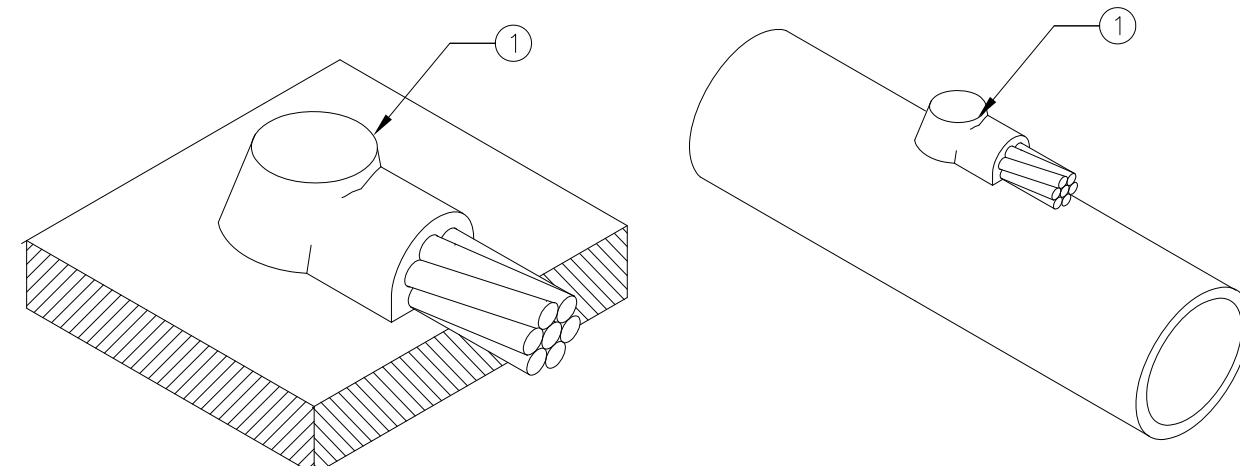
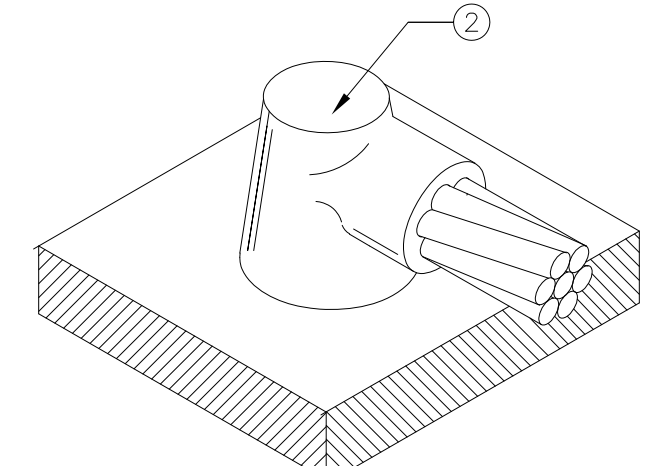


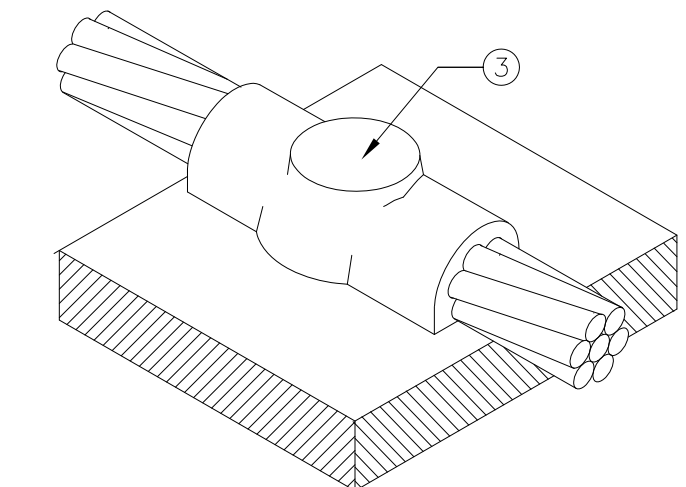
PLOTTED BY: PAULRI PLOTTED DATE: 2015/04/01 PAPER SIZE AT FULL: ANSI D (22.00 x 34.00 INCHES) FILE: \\FILE-RGDC01\DEPT\PROGRAM MANAGEMENT & STANDARD\SPMPS DESIGN STANDARDS\7 REFERENCE MATERIAL\24 ELECTRIFICATION\GROUNDING AND BONDING STANDARD DRAWINGS\MXS-100-003.DWG



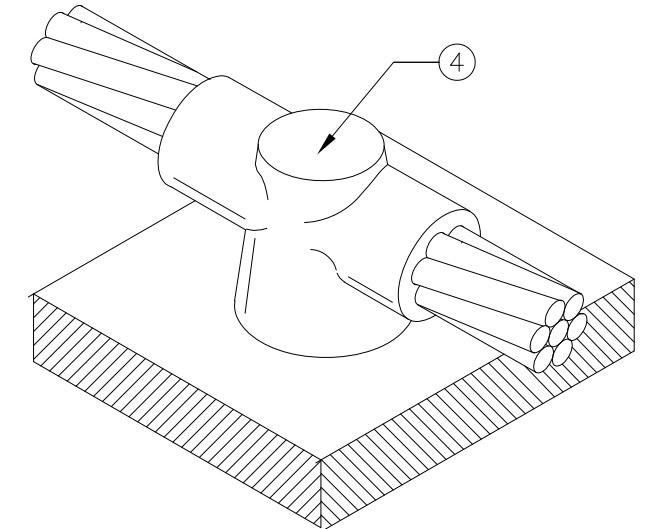
DETAIL 1A - HORIZONTAL WIRE TAP TO A HORIZONTAL STEEL SURFACE. WIRE ON THE SURFACE.



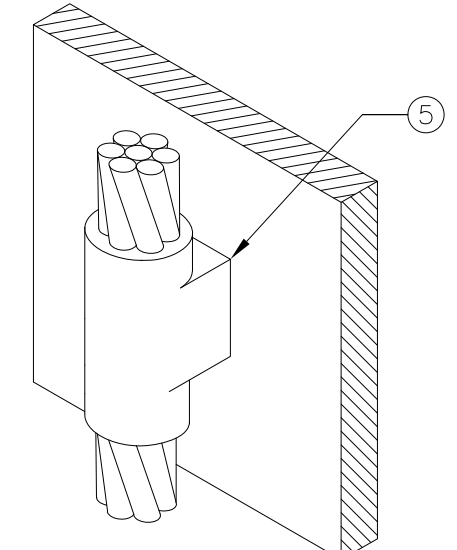
DETAIL 1B - HORIZONTAL WIRE TAP TO A HORIZONTAL STEEL SURFACE. WIRE OFF THE SURFACE.



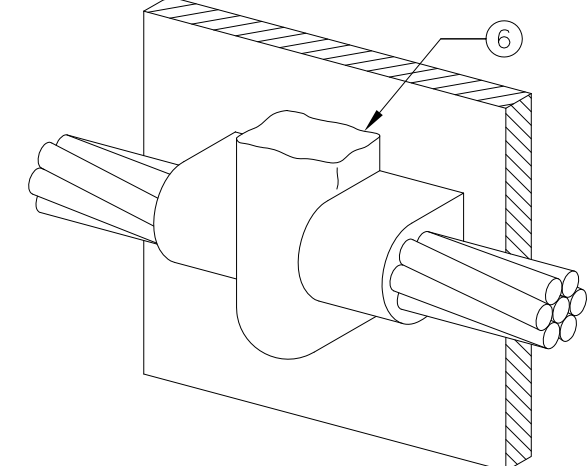
DETAIL 1C - HORIZONTAL THROUGH WIRE TO A HORIZONTAL STEEL SURFACE. WIRE ON THE SURFACE.



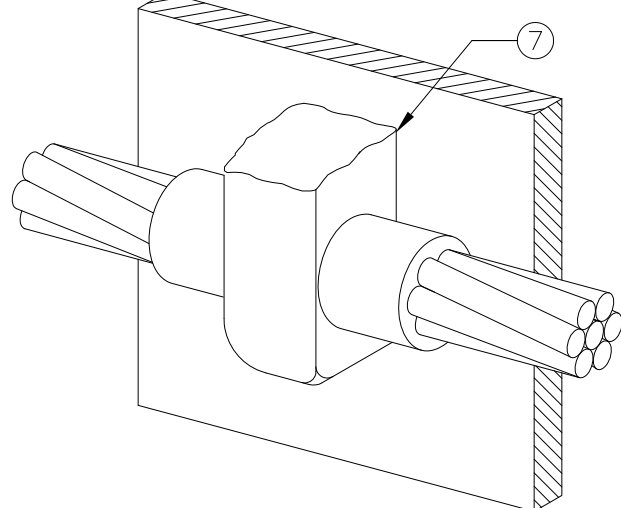
DETAIL 1D - HORIZONTAL THROUGH WIRE TO A HORIZONTAL STEEL SURFACE. WIRE OFF THE SURFACE.



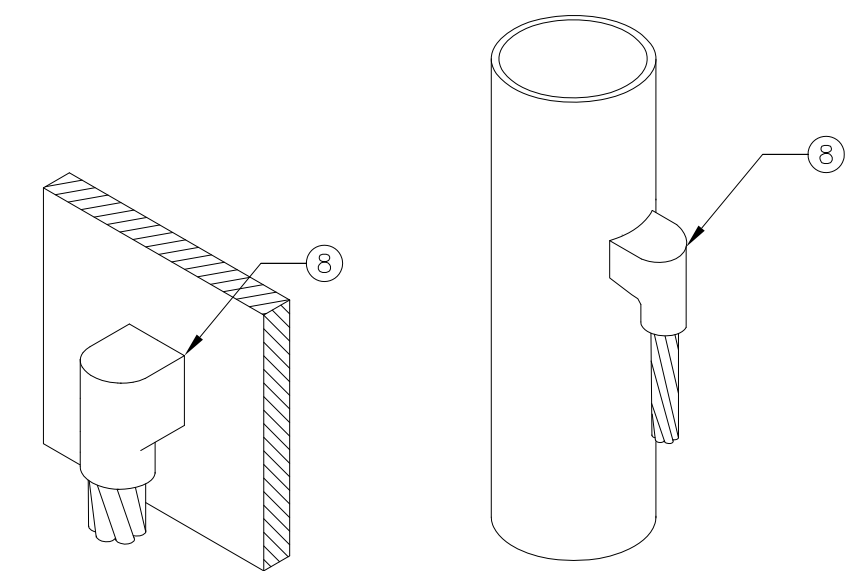
DETAIL 1E - VERTICAL THROUGH WIRE TO A VERTICAL STEEL SURFACE.



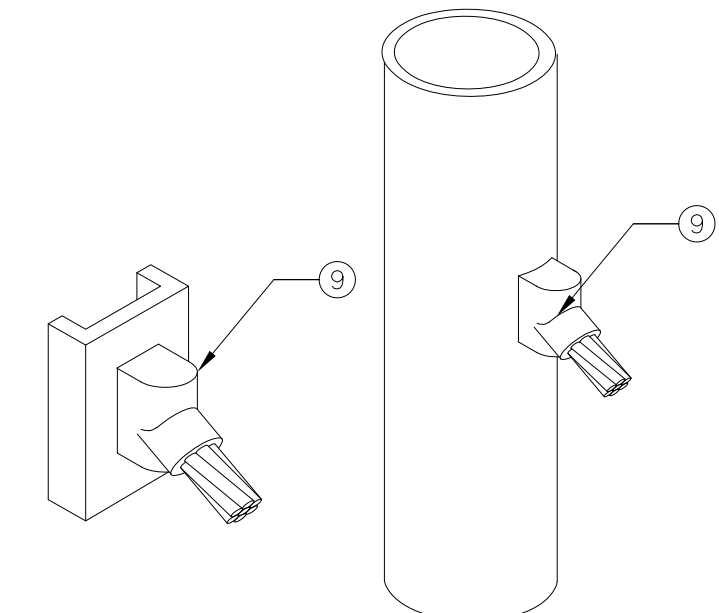
DETAIL 1F - HORIZONTAL THROUGH WIRE TO A VERTICAL STEEL SURFACE. WIRE ON THE SURFACE.



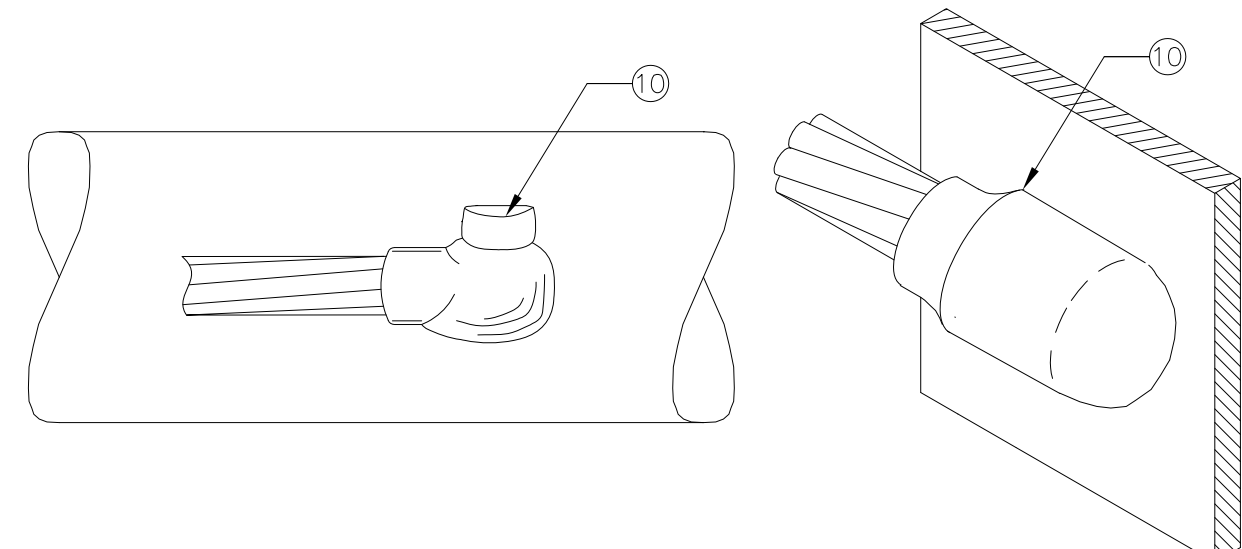
DETAIL 1G - HORIZONTAL THROUGH WIRE TO A VERTICAL STEEL SURFACE. WIRE OFF THE SURFACE.



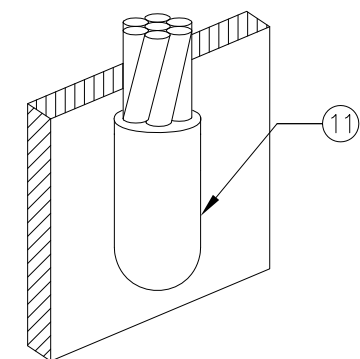
DETAIL 1H - VERTICAL WIRE TAP TO A VERTICAL STEEL SURFACE.



DETAIL 1I - WIRE DOWN AT 45 DEGREES TO A VERTICAL STEEL SURFACE.



DETAIL 1J - HORIZONTAL TAP WIRE TO A VERTICAL STEEL SURFACE. WIRE ON THE SURFACE.

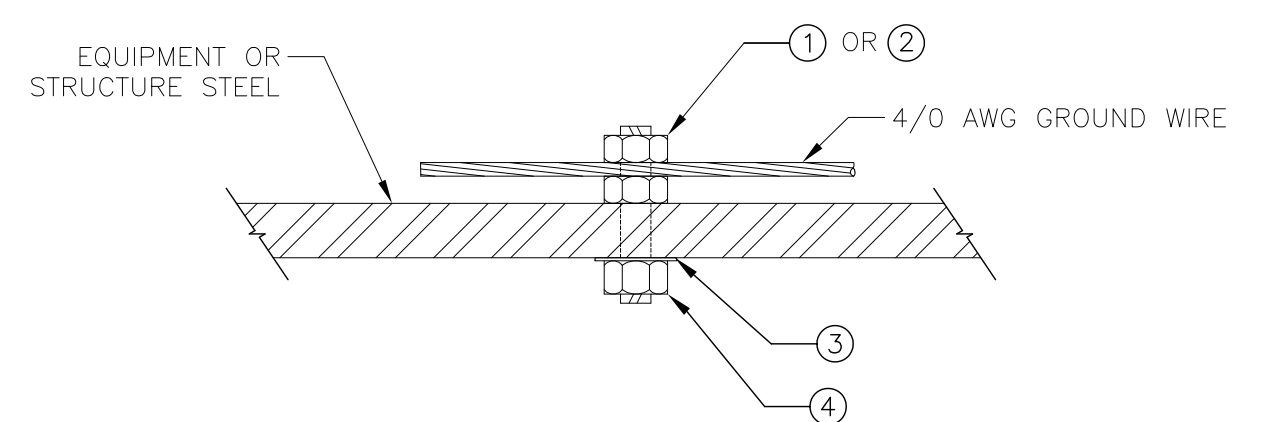


DETAIL 1K - VERTICAL WIRE TAP UP TO A VERTICAL STEEL SURFACE.

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.

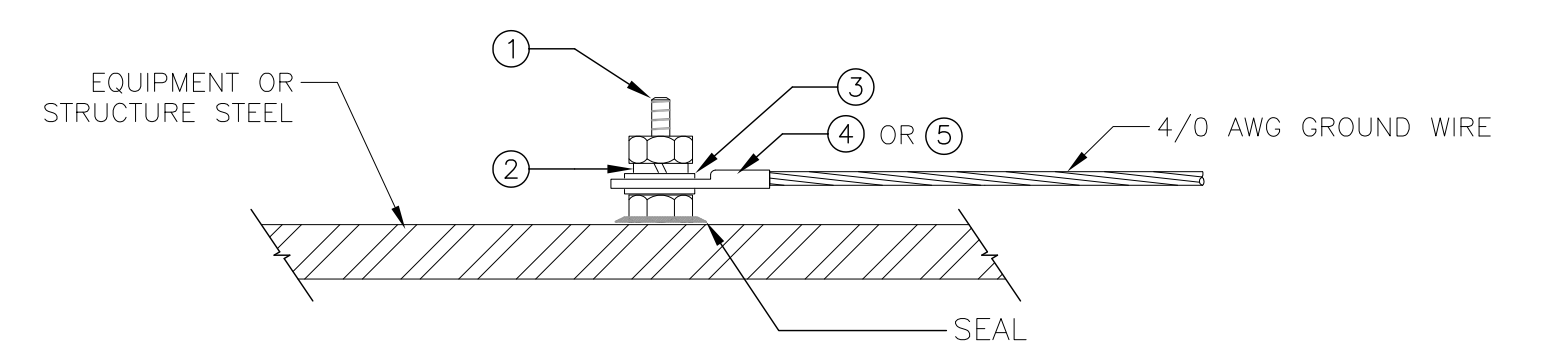
DETAIL 1 - GROUND WIRE TO PLATE EXOTHERMIC CONNECTION

ITEM	QTY	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	HORIZONTAL WIRE TAP TO A HORIZONTAL STEEL SURFACE. WIRE ON THE SURFACE.	BURNDY: B-6114 OR EQUIVALENT
2	1	HORIZONTAL WIRE TAP TO A HORIZONTAL STEEL SURFACE. WIRE OFF THE SURFACE.	BURNDY: B-647 OR EQUIVALENT
3	1	HORIZONTAL THROUGH WIRE TO A HORIZONTAL STEEL SURFACE. WIRE ON THE SURFACE.	BURNDY: B-7192 OR EQUIVALENT
4	1	HORIZONTAL THROUGH WIRE TO A HORIZONTAL STEEL SURFACE. WIRE OFF THE SURFACE.	BURNDY: B-619 OR EQUIVALENT
5	1	VERTICAL THROUGH WIRE TO A VERTICAL STEEL SURFACE.	BURNDY: B-1223 OR EQUIVALENT
6	1	HORIZONTAL THROUGH WIRE TO A VERTICAL STEEL SURFACE. WIRE ON THE SURFACE.	BURNDY: B-1633 OR EQUIVALENT
7	1	HORIZONTAL THROUGH WIRE TO A VERTICAL STEEL SURFACE. WIRE OFF THE SURFACE.	BURNDY: B-1633 OR EQUIVALENT
8	1	VERTICAL WIRE TAP TO A VERTICAL STEEL SURFACE.	BURNDY: B-8718 OR EQUIVALENT
9	1	WIRE DOWN AT 45 DEGREES TO A VERTICAL STEEL SURFACE.	BURNDY: B-593 OR EQUIVALENT
10	1	HORIZONTAL WIRE TAP TO A VERTICAL STEEL SURFACE. WIRE ON THE SURFACE.	BURNDY: B-9253 OR EQUIVALENT
11	1	VERTICAL WIRE TAP UP TO A VERTICAL STEEL SURFACE.	BURNDY: B-1643 OR EQUIVALENT



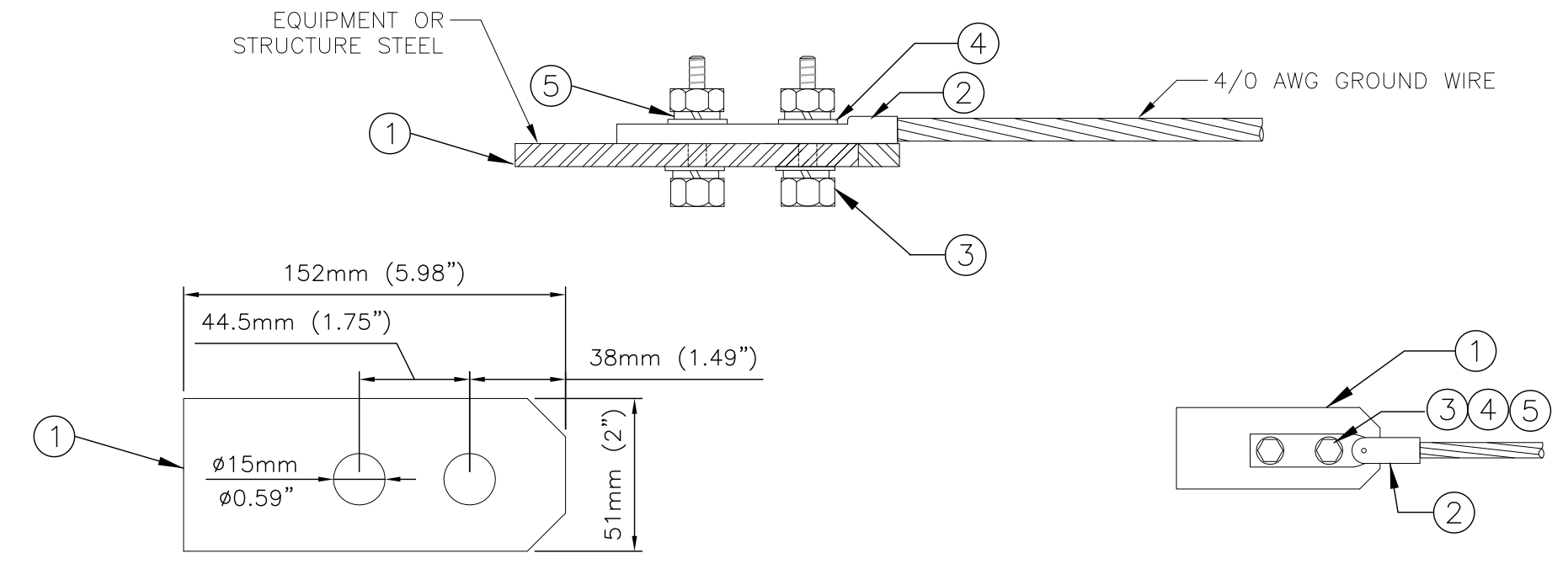
DETAIL 2 - GROUND WIRE TO PLATE C/W SERVIT POST CONNECTION

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	CONNECTOR SERVIT POST - KC28	BURNDY: KC28 OR EQUIVALENT
2	1	EA	CONNECTOR SERVIT POST - K2C28	BURNDY: K2C28 OR EQUIVALENT
3	2	EA	1/2" LOCKWASHER, BRONZE	(GENERIC)
4	1	EA	NUT MACH BRONZE 1/2"-16	(GENERIC)



DETAIL 3 - WELDED STUD CONNECTION TO STRUCTURAL STEEL

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	BOLT, HEX, SS, 1/2"-13 NC x 1", A304/A316 )	(GENERIC)
2	1	EA	WASHER, SPRING (LOCK), SS, 1/2", A304/A316	(GENERIC)
3	2	EA	WASHER, FLAT, SS, 1/2", A304/A316	(GENERIC)
4	1	EA	TERMINAL 1 HOLE FOR 2 AWG WIRE	BURNDY: YA2CL6-BOX OR EQUIVALENT
5	1	EA	TERMINAL 1 HOLE FOR 4/0 AWG WIRE	BURNDY: YA28L-BOX OR EQUIVALENT



DETAIL 4 - STEEL PLATE TO GROUND LOOP COMPRESSION CONNECTION

ITEM	QTY	UNIT	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	1	EA	PLATE, STEEL, A-36, 1/4" (6.35mm) THK, 6"x2" (152 x 51mm) (GENERIC ORDER BY DESCRIPTION)	(GENERIC)
2	1	EA	TERMINAL, 2 HOLE, SEE DRAWING MXS-100-001 DETAIL 5	BURNDY: YGHA2C-2N OR EQUIVALENT
3	2	EA	BOLT, HEX HEAD, 1/2"-13x1", SS W/NUT	(GENERIC)
4	4	EA	WASHER, FLAT, SS, 1/2", A304/A316	(GENERIC)
5	4	EA	WASHER, SPRING (LOCK), SS, 1/2", A304/A316	(GENERIC)

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

DRAWN BY: RCW 14/12/11	DESIGNED BY: SXF 14/12/11
CHECKED BY: CTG 15/01/16	APPROVED BY: ZBT 15/01/16
SCALE: NTS	FULL SIZE ONLY



TRACTION ELECTRIFICATION  
GROUNDING AND BONDING  
STANDARD INSTALLATION DESIGN DETAILS  
CONNECTIONS TO STEEL PLATE

CONTRACT NO. RQ-2011-PP-032	DWG. NO. MXS-100-003	REV. 0	SHEET 6/26
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