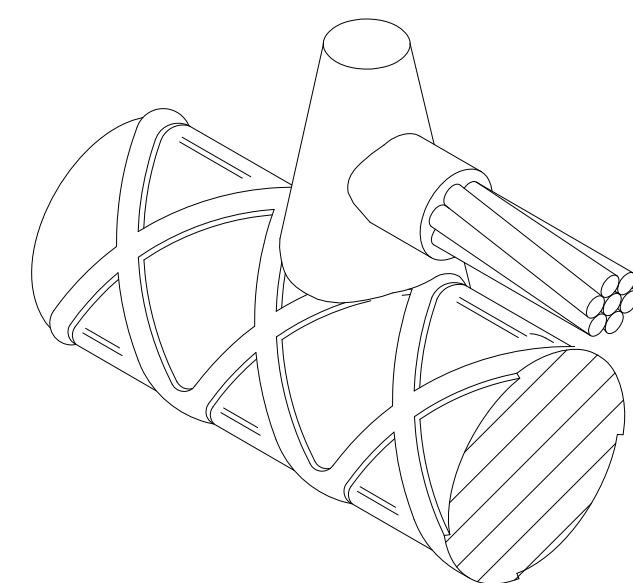


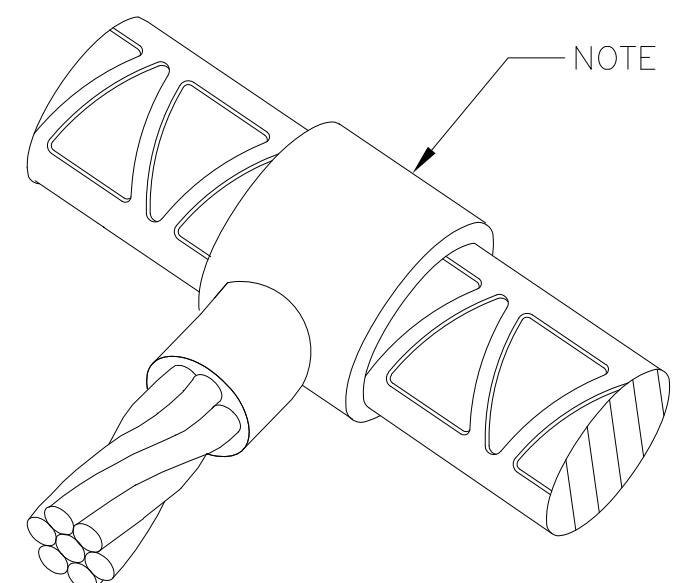
NOTES:

- GRAPHITE MOLD IS CLAMPED TO REBAR. ONCE THE WELD PROCESS IS INITIATED THE LIQUID WELD METAL WILL FLOW AROUND THE REBAR INSIDE THE MOLD. ONCE COOLED, THE MOLD WILL BE REMOVED AND WELD METAL WILL REMAIN AROUND THE REBAR. NO RING OR SLIDE ON CONNECTOR IS REQUIRED. THIS PROCESS IS TYPICAL FOR ALL EXOTHERMIC CONNECTIONS.

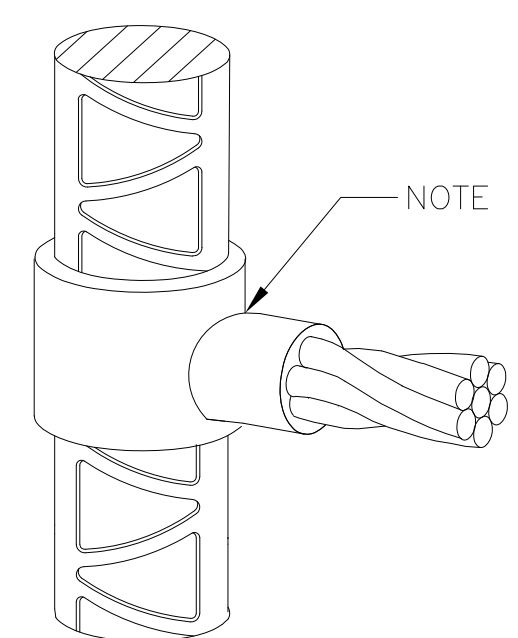
NOTE:
THIS DRAWING IS PROVIDED FOR INSTRUCTIONAL DESIGN PURPOSES ONLY BASED ON METROLINX GO TRANSIT DESIGN GUIDELINES AND REQUIREMENTS. THE CONSULTANT SHALL VERIFY FOR LOCAL CODE COMPLIANCE, EXISTING SITE CONDITIONS AND INTER DISCIPLINARY DRAWING COORDINATION. ALL DIMENSIONS AND SPECIFICATIONS SHOULD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



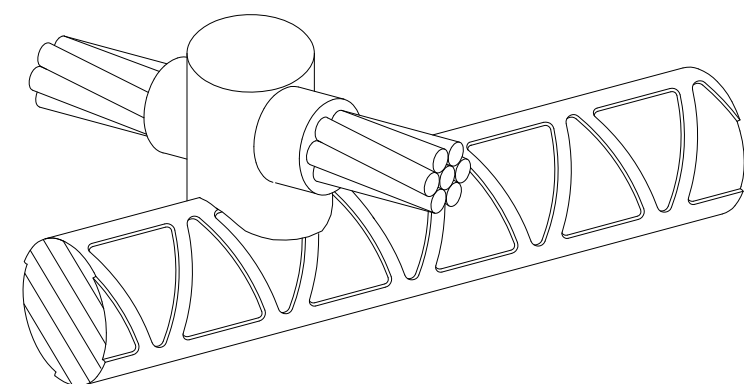
DETAIL 4A – HORIZONTAL WIRE PARALLEL TO REBAR



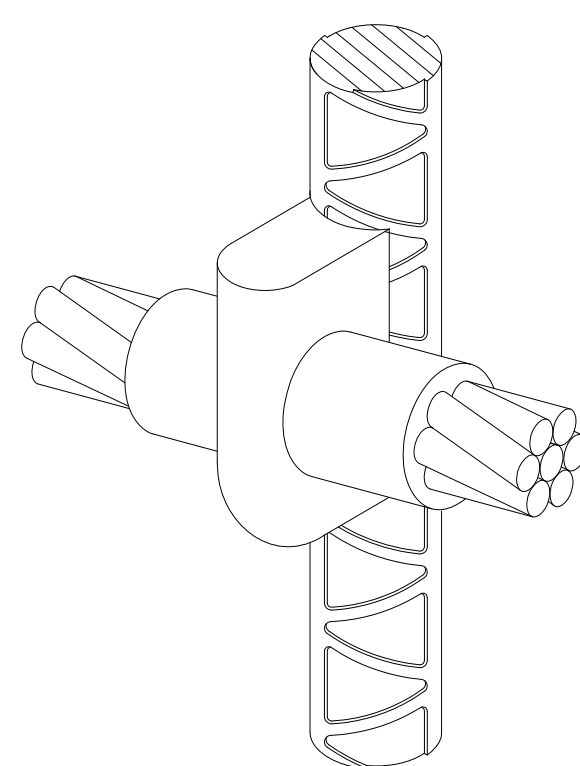
DETAIL 4B – HORIZONTAL WIRE TO HORIZONTAL REBAR



DETAIL 4D – HORIZONTAL WIRE TO VERTICAL REBAR



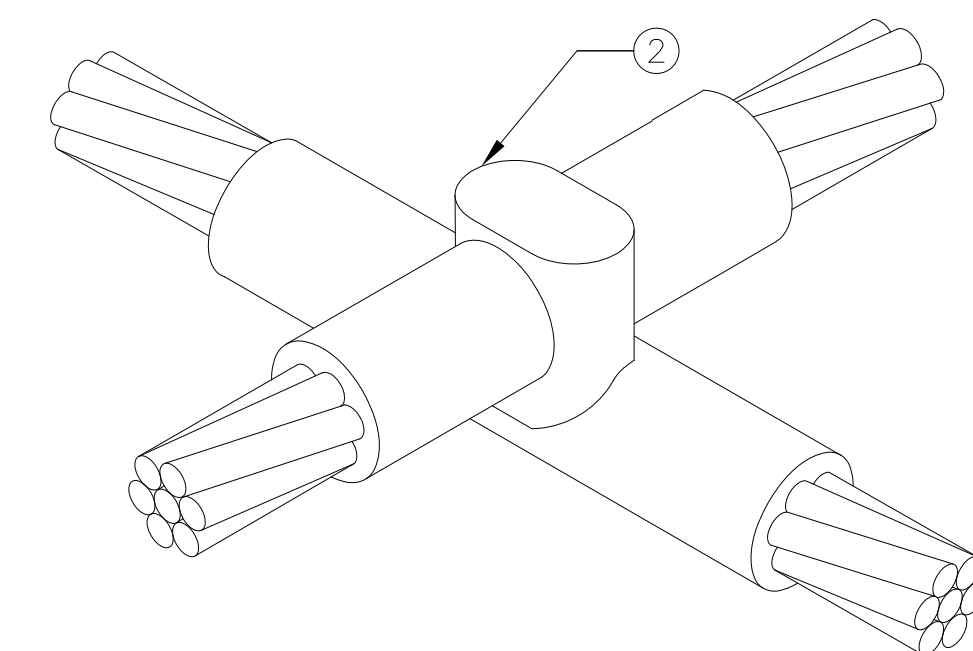
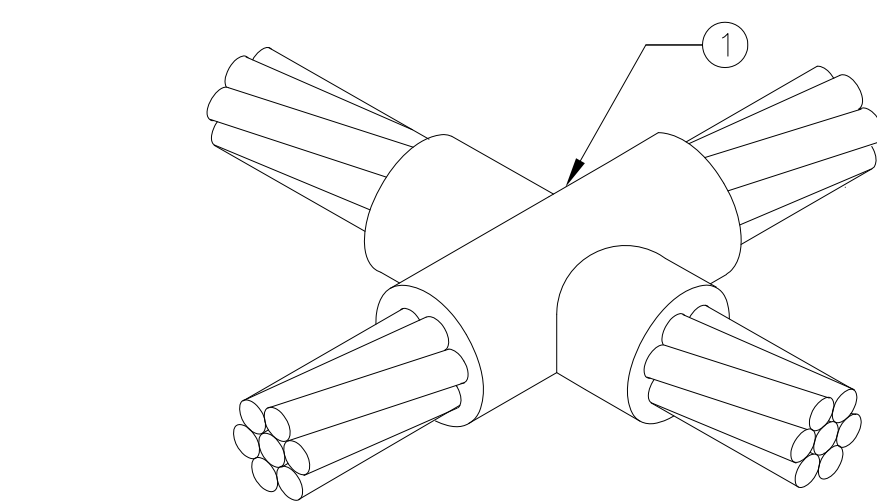
DETAIL 4C – HORIZONTAL THROUGH WIRE TO HORIZONTAL REBAR



DETAIL 4E – HORIZONTAL THROUGH WIRE TO VERTICAL REBAR

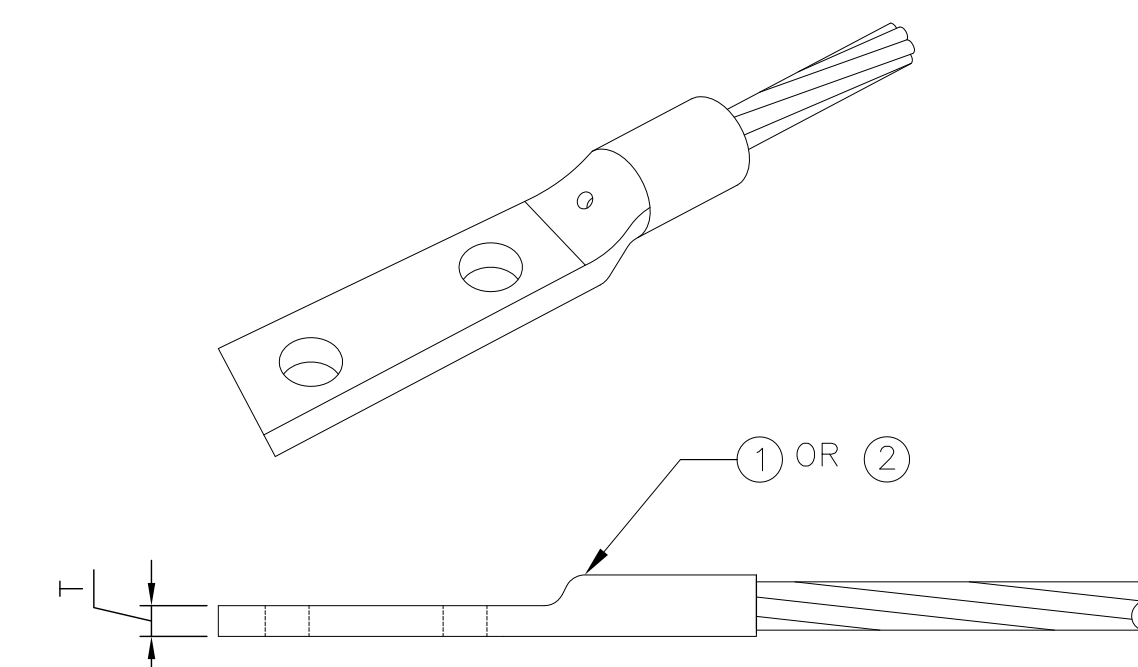
DETAIL 4 – GROUND WIRE TO REBAR EXOTHERMIC CONNECTION

ITEM	MATERIAL DESCRIPTION	MANUFACTURER	WIRE SIZE	REBAR SIZE	CAT. NO.				
					DETAIL 4A	DETAIL 4B	DETAIL 4C	DETAIL 4D	DETAIL 4E
N/A	GROUND WIRE TO REBAR EXOTHERMIC CONNECTION	BURNDY OR EQUIVALENT	2 AWG	3	B-7502	B-7590	B-7710	B-7886	B-7622
			2 AWG	4	B-7510	B-7598	B-7718	B-7894	B-7630
			2 AWG	5	B-7510	B-7606	B-7726	B-7902	B-7638
			2 AWG	6	B-7510	B-7614	B-7734	B-7910	B-7646
			2 AWG	>7	B-7510	B-7614	B-7734	B-7918	B-7654
			4/0 AWG	3	B-7507	B-7595	B-7715	B-7891	B-7627
			4/0 AWG	4	B-7515	B-7603	B-7723	B-7899	B-7635
			4/0 AWG	5	B-7523	B-7611	B-7731	B-7907	B-7643
			4/0 AWG	6	B-7531	B-7619	B-7739	B-7915	B-7651
4/0 AWG	>7	B-7531	B-7619	B-7739	B-7923	B-7659			



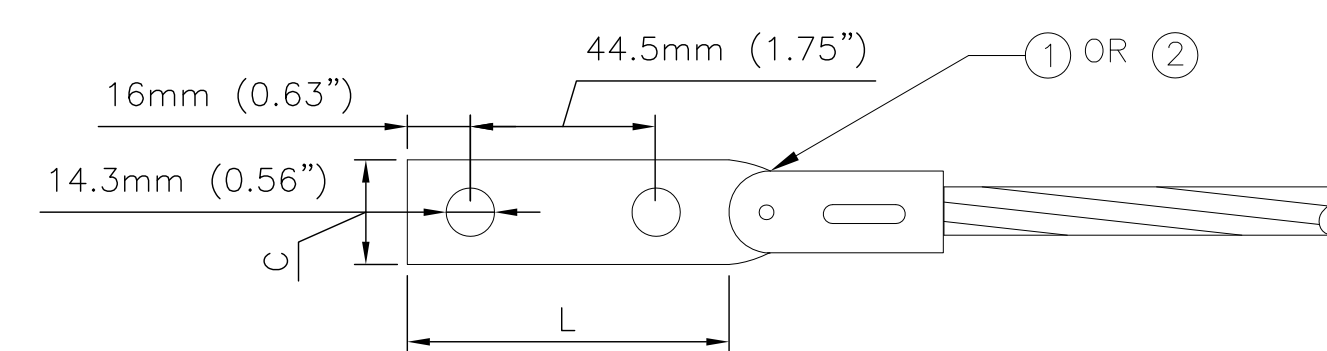
DETAIL 1 – HORIZONTAL TO HORIZONTAL GROUND WIRE (CROSS CONNECTION)

ITEM	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	HORIZONTAL TO HORIZONTAL 4/0 AWG GROUND WIRE EXOTHERMIC CONNECTION	BURNDY: B-443 OR EQUIVALENT
2	HORIZONTAL TO HORIZONTAL 4/0 AWG GROUND WIRE EXOTHERMIC CONNECTION	BURNDY: B-2707 OR EQUIVALENT



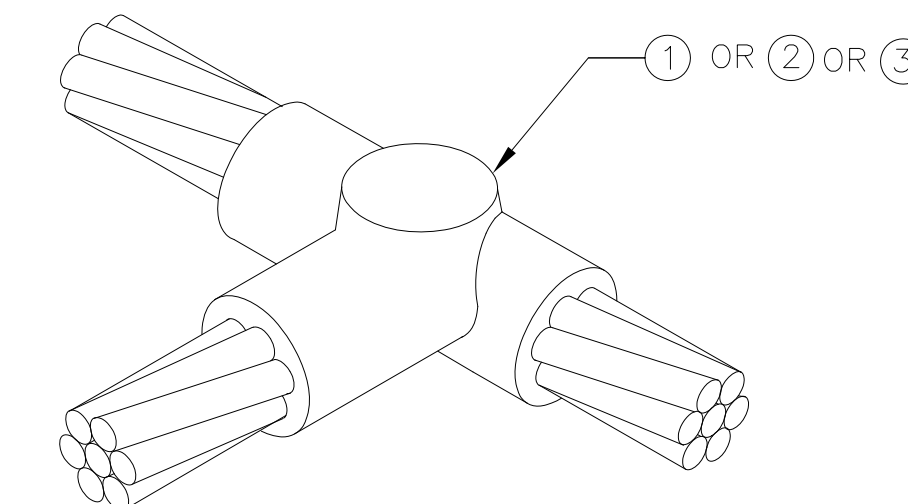
DETAIL 3 – GROUND WIRE TO GROUND WIRE EXOTHERMIC CONNECTION

ITEM	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	4/0 AWG WIRE TO 4/0 AWG WIRE	BURNDY: B-208 OR EQUIVALENT
2	2 AWG WIRE TO 2 AWG WIRE	BURNDY: B-5625 OR EQUIVALENT



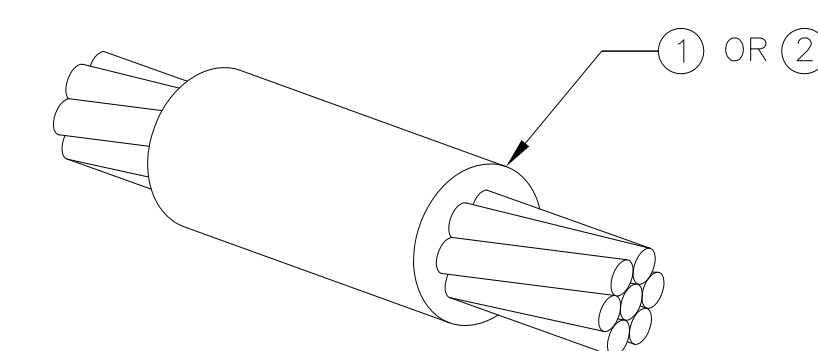
DETAIL 5 – GROUND WIRE TO WIRE LUG-COMPRESSION CONNECTION

ITEM	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.	L	C	T
1	4/0 AWG GROUND WIRE TO WIRE LUG –COMPRESSION CONNECTION	BURNDY: YGHA28-2N OR EQUIVALENT	125mm (4.92")	31mm (1.22")	8mm (0.31")
2	2 AWG GROUND WIRE TO WIRE LUG –COMPRESSION CONNECTION	BURNDY: YGHA2C-2N OR EQUIVALENT	106mm (4.17")	24.4mm (0.96")	6.5mm (0.25")



DETAIL 2 – HORIZONTAL WIRE TAP TO HORIZONTAL WIRE RUN WITH EXOTHERMIC CONNECTION (T-CONNECTION)

ITEM	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	4/0 AWG WIRE TAP TO 4/0 AWG WIRE RUN	BURNDY: B-241 OR EQUIVALENT
2	4/0 AWG WIRE TAP TO 2 AWG WIRE RUN	BURNDY: B-246 OR EQUIVALENT
3	2 AWG WIRE TAP TO 2 AWG WIRE RUN	BURNDY: B-223 OR EQUIVALENT



ITEM	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	4/0 AWG WIRE TO 4/0 AWG WIRE	BURNDY: B-208 OR EQUIVALENT
2	2 AWG WIRE TO 2 AWG WIRE	BURNDY: B-5625 OR EQUIVALENT

DETAIL 6 – GROUND WIRE TO GROUND WIRE WITH COMPRESSION CONNECTION

ITEM	MATERIAL DESCRIPTION	MANUFACTURER & CAT. NO.
1	4/0 AWG GROUND WIRE TO 4/0 AWG GROUND WIRE –COMPRESSION CONNECTION	BURNDY: YGHS28 OR EQUIVALENT
2	2 AWG GROUND WIRE TO 2 AWG GROUND WIRE –COMPRESSION CONNECTION	BURNDY: YGHS2C OR EQUIVALENT

PLOTTED BY: PAULRI PLOTTED DATE: 2015/04/01 PAPER SIZE AT FULL: ANSI D (22.00 x 34.00 INCHES) FILE: \\FILE-RGDC01\DEPT\GOIC017 PROGRAM MANAGEMENT & STANDARD\RD\SPMPS DESIGN STANDARDS\7 REFERENCE MATERIAL\24 ELECTRIFICATION\GROUNDING AND BONDING STANDARD DRAWINGS\MXS-100-001.DWG

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
GROUND WIRE CONNECTIONS

CONTRACT NO. RQ-2011-PP-032	DWG. NO. MXS-100-001	REV. 0	SHEET 4/26
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