

# Highway Safety Corporation

Glastonbury, CT

## Welding Procedure Specification

Material specification ASTM A709 gr 36/gr 50, ASTM A572 gr.36/gr.50, ASTM A36, A500 gr.B  
 Welding process Gas Metal Arc Welding (GMAW) Spray Transfer  
 Manual, semi-automatic, or automatic Semi-Automatic  
 Position of welding Flat (1F) or Horizontal (2F)  
 Filler metal specification AWS A5.18  
 Filler metal classification ER70S-6  
 Electrode and manufacturer Lincoln Electric Lincoln Weld L-56  
 Flux and manufacturer N/A  
 Shielding gas 86% Argon / 14% CO2 Flow rate 35-45 CFM  
 Single or multiple pass Single  
 Single or multiple arc Single  
 Welding current DCEP  
 Polarity Reverse - electrode positive  
 Welding progression Stringers  
 Root treatment clean base metal  
 Preheat and interpass temperature base metal up to 3/4" (50°F)  
 Postheat treatment None  
 Electrode extension 3/4" ± 1/4"

Vermont Agency of Transportation

**RECEIVED**

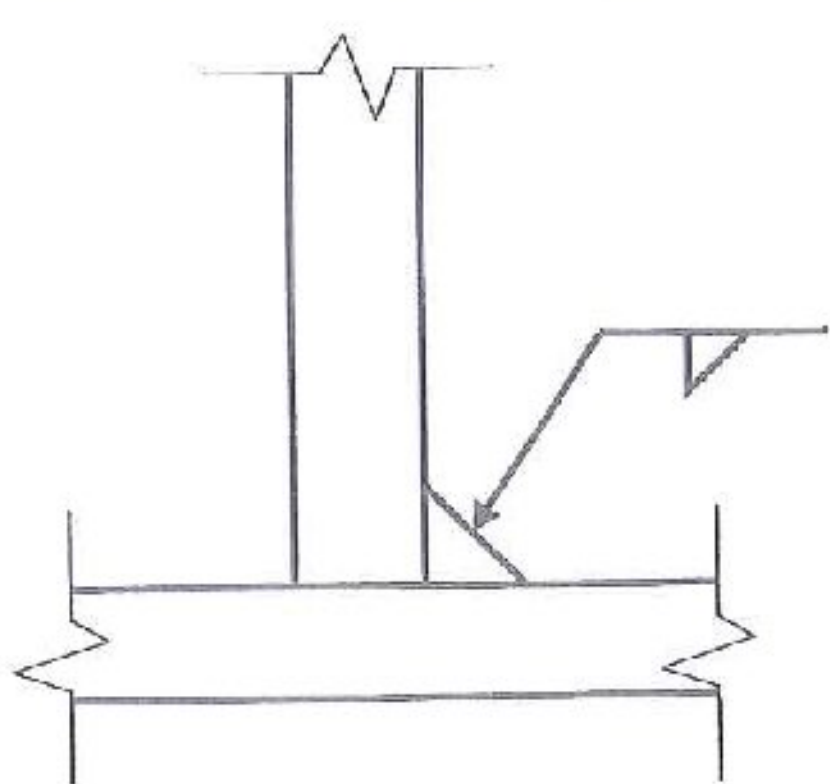
CK'D BY RK/JC OK'D BY RY

February 20, 2015

RESUBMIT No Approved

BY RY DATE 03/09/2015

### WELDING PROCEDURE

Weld size	Pass no.	Electrode size	Welding parameters		Travel speed	Joint detail
			Amperes	Volts		
1/8	1	.063"	300 A ± 30	29 V ± 2	15 ipm ± 2	TYPICAL FILLET WELDS (5/16" MAX) 
3/16	1	.063"	300 A ± 30	29 V ± 2	15 ipm ± 2	
1/4	1	.063"	300 A ± 30	29 V ± 2	15 ipm ± 2	
5/16	1	.063"	300 A ± 30	29 V ± 2	15 ipm ± 2	

This procedure may vary due to fabrication sequence, fit-up, pass size, etc. within the limitation of variables given in section 5 of latest edition AWS D1.1 / D1.5

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