

# Casco Bay Steel Structures, Inc.

## WELDING PROCEDURE SPECIFICATION

Material specification ASTM - Gr 50 - 50W  
 Welding process Submerged Arc welding Power source Power source  
 Manual or machine Machine  
 Position of welding Flat + Horizontal  
 Filler metal specification A5-23  
 Filler metal classification F8A2-ENi1-Ni1-H8  
 Flux Lincoln 960 - Elec. LA 75  
 Shielding gas NA Flow rate NA  
 Single or multiple pass Single + Multiple  
 Single or multiple arc Single  
 Welding current Alternating  
 Polarity AC  
 Welding progression see Details  
 Root treatment Grind - wire brush - Area Free of Slag - Rust - Moisture  
 Preheat and interpass temperature see table  
 Postheat temperature NA  
 Heat input Min 47.1 kJ/in Max 24.0 kJ/in PQR - PWT - 67.3 KJ/in

Minimum Preheat and Interpass Temperature, °C [°F]

Welding Process (Base Metal)	To 20 mm [3/4 in] incl.	Thickness of Thickest Part at Point of Welding, mm (in)		
		Over 20 mm [3/4 in] to 40 mm [1-1/2 in] incl.	Over 40 mm [1-1/2 in] to 65 mm [2-1/2 in] incl.	Over 65 mm [2-1/2 in]
SAW; OMAW; FCAW; SMAW (M270M [M270] [A 709M (A 709)] Gr. 250 [36], 345 [50], 345W [50W], HPS 345W (HPS 50W))	10 [50]	20 [70]	65 [150]	110 [225]
SAW; OMAW; FCAW; SMAW (M270M [M270] [A 709M (A 709)] Gr. HPS 485W (HPS 70W), 690 [100], 690W [100W])	10 [50]	50 [125]	80 [175]	110 [225]

Vermont Agency of Transportation

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CK'D BY JWC OK'D BY

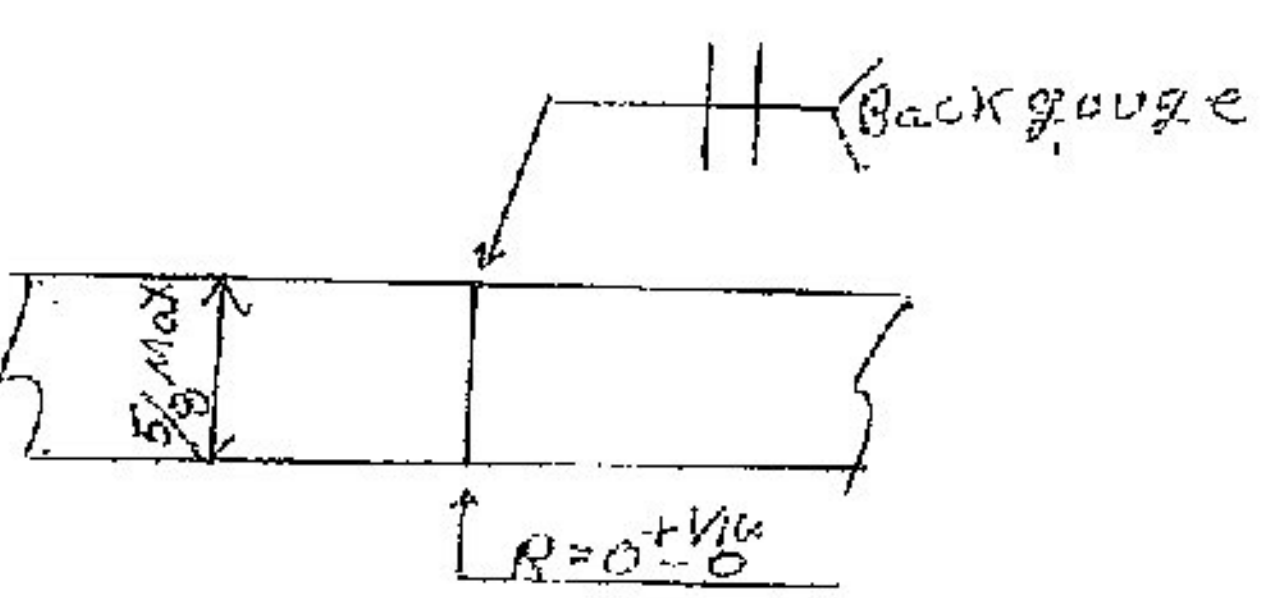
November 4, 2013

RESUBMIT No Approved  
 BY James Lacroix DATE 11/08/2013

VT-AOT, Bristol  
 Bridge No. 31  
 Proj. No. BRD 1446 (D)  
 CBSS NO. 534

### WELDING PROCEDURE

Max Interpass = 480°F

Pass no.	Electrode size	Welding current		Travel speed	Notes
		Amperes	Volts		
AS Req.	5/32	827	38	28 IPM	Sec 5.13 A.W.S. D1-5 Joint detail B L1a-5 
		744	35	24	
		70	70	70	
		910	41	32	

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. PW 2020 - ST of VT

Contractor Casco Bay Steel

Authorized By Paul E. Woodale

Date April 13 - 2012