

DSBROWN Production Joint Welding Procedure Specification (D1.5-02)

Procedure No: **A-FF-01** Date Issued: **8-12-03** Revision No: **0** Rev. Date: _____

Contractor (Fabricator) **D. S. Brown Company** Prepared by: **James R. Connor, Quality Assurance Manager**

1. Non-Fracture Critical Fracture Critical WPS Expiration Date: _____
2. Qualified in accordance with: **AWS D1.5-2002 (5.12.1)**
- Referenced PQR No(s): **PQR-FCAW-01-03**
- Referenced FWST No(s): **PQR-FCAW-FWST-01(03)**, **PQR-FCAW-FWST-01A(03)**
3. Material specification(s) **ASTM A709 Gr. 36, 50, 50W**
4. Material Thickness (es) **Unlimited**
5. Welding process **FCAW**
6. Manual , machine , or semiautomatic
7. Position(s) of welding **1F, 2F**
8. Filler metal specification **AWS A5.20**
9. Filler metal class and brand name **E71T-1, E71T-9 Lincoln Outershield Elite**
10. Flux class & brand **N/A**, Type **N/A**
11. Shielding gas **100% CO2** Flow rate **45 CFH**
12. Single pass Or multiple pass
13. Single arc Or multiple arc
14. Welding Current **DCEP**
15. Polarity **Reverse**
16. Welding progression **stringers**
17. Root treatment **Clean to bright sound metal or per AWS D1.5 (3.2.1 & 3.11)**
18. Postheat treatment **N/A**
19. Calculated Heat Input (KJ/in) Min **31.20 KJ/in** Max **50.72 KJ/in**
20. Electrode extension (electrical stickout) **3/4"**

For DOT Approval

V.A.O.T. RECEIVED
 NOV 16 2004
 RESUBMIT APPROVED
 BY DATE 11-30-04

Weld Size (in)	Pass No(s)	Electrode Size (in)	Welding Process Variables		Travel Speed (IPM)	T1-T2
			AMPS/WFS*	VOLTS		
**1/4"	1	1/16"	260-310	26-30	11-13	
5/16"	1	1/16"	260-310	26-30	11-13	
3/8"	2-3	1/16"	260-310	26-30	11-13	
7/16"	3-5	1/16"	260-310	26-30	11-13	
1/2"	4-6	1/16"	260-310	26-30	11-13	
5/8"	5-7	1/16"	260-310	26-30	11-13	
3/4"	6-8	1/16"	260-310	26-30	11-13	

* Wire feed speed may be used along with amperage (include chart)

Prepared By: *James R. Connor* DSB QA Manager

Project: **Granite Street over Stevens Branch of the Winooski River**

DSB Job: **12550-1042**

Base Metal Thickness range	Minimum Preheat (°F)	Max Preheat & Interpass (°F)
≤ 3/4"	50°F	450°F
>3/4" to ≤1.5"	70°F	450°F
>1.5" to ≤2.5"	150°F	450°F
>2.5"	225°F	450°F

Note: When this procedure is used for A709Gr50W materials, it shall be limited to 5/16" single pass or material be coated.