

**WELDING PROCEDURE SPECIFICATION (WPS)**  
**PREQUALIFIED  QUALIFIED BY TESTING**   
**or PROCEDURE QUALIFICATION RECORDS (PQR) Yes**   
**AASHTO/AWS D1.5 Qualification Type 5.12.1  – 5.12.2  – 5.12.4**

Contractor/  
 Organization \_\_\_\_\_  
 Welding Process(es) \_\_\_\_\_  
 Type:   Manual             Semiautomatic   
           Mechanized            Automatic   
           Tandem                 Parallel

Identification \_\_\_\_\_  
 Revision \_\_\_\_\_ Date \_\_\_\_\_ By \_\_\_\_\_  
 Authorized by \_\_\_\_\_ Date \_\_\_\_\_  
 Supporting PQR No.(s) \_\_\_\_\_

**JOINT DESIGN USED**

Single                                   Double Weld   
 Backing: Yes  No  Material \_\_\_\_\_  
 Root Opening \_\_\_\_\_ Root Face Dimension \_\_\_\_\_  
 Groove Angle \_\_\_\_\_ Radius (J-U) \_\_\_\_\_  
 Backgouging: Yes  No  Method \_\_\_\_\_  
 Root Treatment \_\_\_\_\_

**POSITION**

Position of Groove \_\_\_\_\_ Fillet \_\_\_\_\_  
 Vertical Progression: Up  Down

**ELECTRICAL CHARACTERISTICS**

Transfer Mode (GMAW): Globular  Spray   
 Current: AC  DCEP  DCEN  Pulsed   
 Electrical Stick Out \_\_\_\_\_  
 Other \_\_\_\_\_

**BASE METALS**

Material Spec. \_\_\_\_\_  
 Type or Grade \_\_\_\_\_  
 Thickness: Groove \_\_\_\_\_ Fillet \_\_\_\_\_  
 Diameter (Pipe) \_\_\_\_\_

**TECHNIQUE**

Stringer or Weave Bead \_\_\_\_\_  
 Multi-pass or Single Pass (per side) \_\_\_\_\_  
 Number of Electrodes \_\_\_\_\_  
 Electrode Spacing: Longitudinal \_\_\_\_\_  
 Lateral \_\_\_\_\_ Angle \_\_\_\_\_  
 Interpass Cleaning \_\_\_\_\_

**FILLER METALS**

AWS Specification \_\_\_\_\_  
 AWS Classification \_\_\_\_\_  
 Manufacturer Trade Name \_\_\_\_\_

**PREHEAT**

Preheat Temp., Min. \_\_\_\_\_  
 Interpass Temp., Min. \_\_\_\_\_  
 Interpass Temp., Max. \_\_\_\_\_

**SHIELDING**

Flux \_\_\_\_\_ Mfg. Trade Name \_\_\_\_\_  
 Electrode-Flux (Class) \_\_\_\_\_  
 Gas Composition \_\_\_\_\_  
 Flow Rate \_\_\_\_\_ Gas Cup Size \_\_\_\_\_

**POSTWELD HEAT TREATMENT**

Temp. \_\_\_\_\_ Hold Time \_\_\_\_\_  
 Heating/Cooling Rate \_\_\_\_\_

**HEAT INPUT**

Calculated Heat Input Value: kJ/in  kJ/mm   
 Max. Heat Input \_\_\_\_\_ Min. Heat Input \_\_\_\_\_

**WELDING PROCEDURE**

Pass or Weld Layer(s)	Process	Filler Metals	Current		Volts	Travel Speed	Joint Details
		Diam.	Type & Polarity	Amps or Wire Feed Speed			

Form N-2

**Form N-2—Sample Welding Procedure Specification**