

## SMART BRIDGE



**Location:**  
Christiansburg, Virginia

**Owner:**  
Virginia DOT

**Client:**  
PCL Civil Constructors, Inc

**Construction Cost:**  
\$ 15 Million

**Completion Date:** 2000

### Project Description

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The bridge is a five span CIP segmental structure with a 144m main span constructed on integral piers. JSE provided a stress/capacity design check of the superstructure and substructure for each step of erection; including time effects for creep and shrinkage and unbalance moments during weekly cycles. Services included the casting curve to control geometry for the 72m cantilevers.

JSE provided tendon-stressing instructions and integrated shop drawings for placement of rebar and post-tensioning hardware. Our services included design of falsework towers and soffit to support the end-span segments. Periodic site visits were made to assist with construction and post-tensioning operations.

### Project Data:

<b>Total Length:</b>	605 m
<b>Number of Spans:</b>	5 Spans (86.5, 3 at 144, 86.5m)
<b>Width:</b>	12 m

