

# “INNOVATION, TEAMWORK AND A 4 DAY CLOSURE”

## Bunker Creek Bridge, Durham, NH



### INNOVATION:

- Complex Accelerated Bridge Construction (ABC) techniques utilized to meet 4 day closure schedule
- First use of foamed glass aggregate (FGA), a sustainable lightweight aggregate made from recycled glass, in New England
- First use of Ultra High Performance Concrete (UHPC) for end diaphragm and wingwall field-cast connections in NH
- Incorporated FGA along causeway to maintain minimal settlement
- Modified prefabricated bridge unit (PBU) to include integral concrete end diaphragms

### TEAMWORK:

- SPS New England Inc. and WSP USA Inc. combined on this Design-Build effort
- Constant collaboration on all design and construction details to provide best value to NHDOT

### REDUCED IMPACTS:

- Optimized bridge span length and vertical profile to reduce overall construction costs
- Project Constructed with only 4 day closure, 10 days less than owner’s requirement
- Successful proactive and robust Public Outreach plan utilizing social media and construction signing

**CLIENT:** *New Hampshire*  
**DOT**  
 Department of Transportation

**LOCATION:** Durham, New Hampshire

**ACEC** ENGINEERING  
*Excellence*  
 AWARDS

**ENTERING FIRMS:**

WSP USA, Inc. / SPS New England, Inc.

