



ABC PEER TO PEER EXCHANGE

BIG SKY COUNTRY PERSPECTIVES

SHRP2 Solutions

Innovative Bridge Designs for Rapid Renewal



ABC Techniques Used

- Prestressed Concrete Superstructure Elements – Bulb Tees / Tri-Decks
- Modular Steel I-Girders with Integral Concrete Deck
- Precast Concrete Cap on Driven Piles
- Longitudinal Concrete Deck Panels with Closure Pours
- GRS (Geotextile Reinforced Soil) / IBS (Integrated Bridge System)



Prefabricated Bridge Element System



Span 1 added in 2012

07 18 2013 AE



Old Abut 1 is now Bent 3

Profile looking back SE

Abut 1

8-29-12
APL/TH

Prefabricated Bridge Element System with Driven Piles – Bulb Tee Beams

Profile facing North.



Departure facing West.



Prefabricated Bridge Element System with Driven Piles – Bulb Tee Beams



Prefabricated Bridge Element System – Tri Deck Beams



Modular Steel I-Girders with Integral Concrete Deck and CIP Closure Pours



Modular Steel I-Girders with Integral Concrete Deck and CIP End Walls



Longitudinal Concrete Deck Panels on Steel Girders



Geotextile Reinforced Soil



So Why Does Montana Do It?

- Remote Locations
- Short Construction Seasons
- Limited Detour Options / Narrow Corridors / Topography
- Environmental & Wetlands Impacts
- Safety Concerns with Long Term Use of Detour Routes
- High Cost of Traffic Control Can Outweigh Additional Cost of ABC



Lessons Learned

- Quality Fabricators and Experienced Contractors are a Must
- Prepare for a Steep Learning Curve
- Pay Attention to the Details of Constructability – 
- Allow for Errors and Field Modifications
- Skews are Not Your Friends
- Public is Less Interested in How You Did It and More on You Just Getting It Done

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