

Recent Construction Highlights

Flatiron Constructors Intermountain completed Span 3 WB closure segment and is currently stressing the longitudinal post-tensioning for this span. Pedestrian curb construction is ongoing and barrier construction is scheduled to begin shortly. Cantilever construction continues at Cantilever 3 EB. The following is a summary of the construction progress for the last month.



Figure 1 – Span 3 WB Closure Joint Construction – December 23, 2009:

Workers rig a chain hoist on the strongback on the superstructure to pick the closure segment platform, which is being delivered by forklifts in the far background (right of the existing bridge pier). Span 4 WB on the left side of the photo is complete.

Figure 2 – Span 3 WB Closure Segment Construction – December 23, 2009:

The closure segment bottom slab platform is delivered below the superstructure with forklifts. Flatiron coordinated with the UPRR to allow for platform delivery to occur when no trains were staged in the yard below this closure segment. The platform was hoisted using a chain fall on one side and the 50-ton crane staged on Cantilever 3 WB hoisting the other side. Trains moved in and were stored on the tracks below the closure segment the next day.



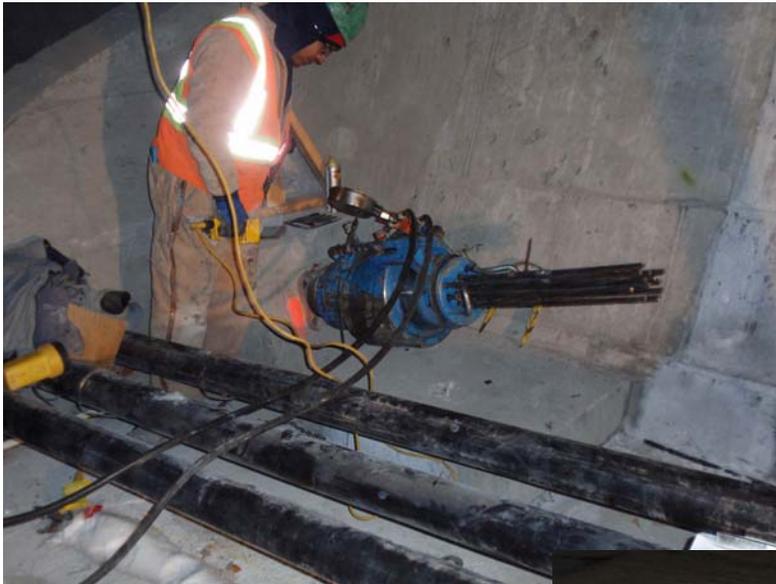


Figure 3 – Span 4 WB Closure Segment Construction – December 29, 2009:
A Flatiron employee watches the gauge as he stresses a 12-strand bottom slab tendon for Span 4 WB. This bottom slab tendon anchors in a deviator diaphragm for the draped tendons.

Figure 4 – Span 3 WB Closure Segment Construction – January 5, 2010:
Workers begin forming the inside portion of the closure segment at Span 3 WB. The workers set the posts using string lines to avoid conflicts with the draped tendons, when stressed.



Figure 5 – Cantilever 3 EB Segmental Construction – January 5, 2010:
The rails for the side-span traveler are set on Pier Table 3 EB. These rails cantilever off the pier table because the rails for the main-span traveler cannot be launched any further ahead. These rails hanging off the pier table make finishing the segment more difficult, but this only occurs for the first segment.

Figure 6 – Cantilever 3 EB Segmental Construction – January 5, 2010:

The lower deck drive is partially assembled on the westbound bridge and flown into position on the flood wall. PT bars in the bottom slab of the pier table hold the rear end and timbers on the top of the levee support the front end. The lower deck drive was only partially assembled due to the limited capacity of the tower crane. The remaining beams and formwork were later installed.



Figure 7 – Span 3 WB Closure Segment Construction – January 13, 2010:

The jack is installed and ready to stress one of the tendons at a double blister in the main-span. Three sets of double anchor blocks occur in the main-span, along with five single anchor blocks.

Figure 8 – Span 2 WB Pedestrian Curb Construction – January 13, 2010:

A 61-m pump is used to place the pedestrian curb concrete. Concrete is planned to be pumped using the new westbound bridge for segment and pedestrian curb pours until traffic switch occurs, keeping the Contractor out of the Rail Yard.





Figure 9 – Cantilever 3 EB Segmental Construction – January 19, 2010: Segment E3-1E concrete placement occurs with a 52 meter pump and another 100' of pedestrian curb on the westbound bridge is scheduled to follow.

Figure 10 – Span 3 WB Closure Segment Construction – January 20, 2010: After setting counterweights on the main-span, the crew begins to lower the bottom slab platform at Span 3 WB Closure Segment. The counterweights are an alternative to allow immediate stressing of all the bottom slab tendons and avoid over-compressing the bottom slab, rather than waiting for 60-days per the Plans



Figure 11 – Span 3 WB Closure Segment Construction – January 20, 2010: The bottom slab platform for the closure segment is lowered into the Rail Yard when train storage is minimal. Two forklifts were used to remove the platform from the Rail Yard, similar to installation.

Figure 12 – WB Pedestrian Curb Construction – January 20, 2010:
The pedestrian forms are stripped and are being prepared to be advanced. The forms are connected together and are advanced using the forklift.



Figure 13 – WB Pedestrian Curb Construction – January 20, 2010:
The reinforcing cage is pre-tied and dropped into place using the forklift before the forms are advanced.



Figure 14 – WB Pedestrian Curb Construction – January 20, 2010:
This photo shows the pedestrian curb construction from the City trail. The gap in the curb is at the pedestrian overlook at Pier 2, which will be stick-formed.



Project Summary:

January 22, 2010
 Day 768 of 1278

Substructure Construction	<u>To</u> <u>Date</u>		<u>Total</u>	<u>Unit</u>	<u>% Complete</u>
48" Diameter Drilled Shafts (Monuments)	3	of	4	Each	75%
48" Diameter Drilled Shafts (Abutments)	11	of	14	Each	79%
60" Diameter Drilled Shafts (Pier 2 & 5)	6	of	8	Each	75%
96" Diameter Drilled Shafts (Pier 3 & 4)	8	of	8	Each	100%
Type I Footings (Pier 2 & 5)	3	of	4	Each	75%
Type II Footings (Pier 3 & 4)	4	of	4	Each	100%
3'-6" Piers (Pier 2 & 5)	3	of	4	Each	75%
7'-1" Piers (Pier 3 & 4)	4	of	4	Each	100%
Abutments	1 1/2	of	2	Each	75%

Superstructure Construction	<u>To</u> <u>Date</u>		<u>Total</u>	<u>Unit</u>	<u>% Complete</u>
Westbound					
End Span CIP Westbound	2	of	2	Each	100%
Abutment Diaphragm Westbound	2	of	2	Each	100%
Pier Diaphragm Westbound	2	of	2	Each	100%
Pier Table Westbound	2	of	2	Each	100%
Cantilever 3 Segments Westbound	22	of	22	Each	100%
Cantilever 4 Segments Westbound	20	of	20	Each	100%
Closure Segments Westbound	3	of	3	Each	100%
Eastbound					
End Span CIP Eastbound	1	of	2	Each	50%
Abutment Diaphragm Eastbound	1	of	2	Each	50%
Pier Diaphragm Eastbound	1	of	2	Each	50%
Pier Table Eastbound	2	of	2	Each	100%
Cantilever 3 Segments Eastbound	3	of	22	Each	14%
Cantilever 4 Segments Eastbound	0	of	20	Each	0%
Closure Segments Eastbound	0	of	3	Each	0%

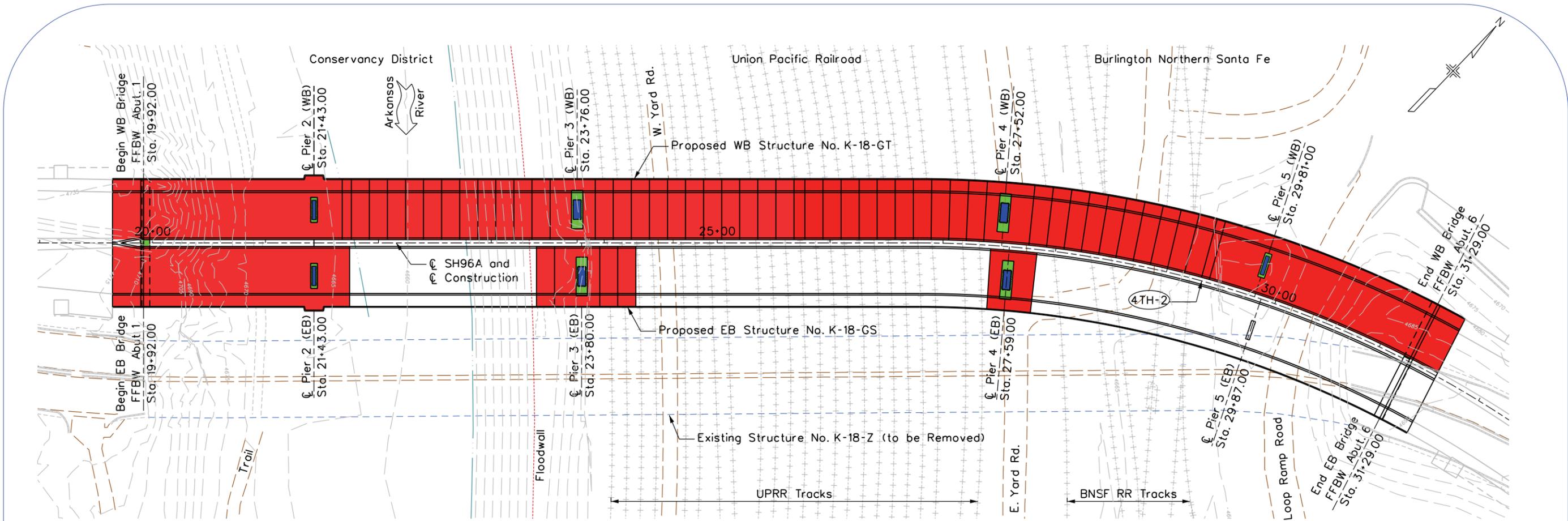


Project Milestone Dates

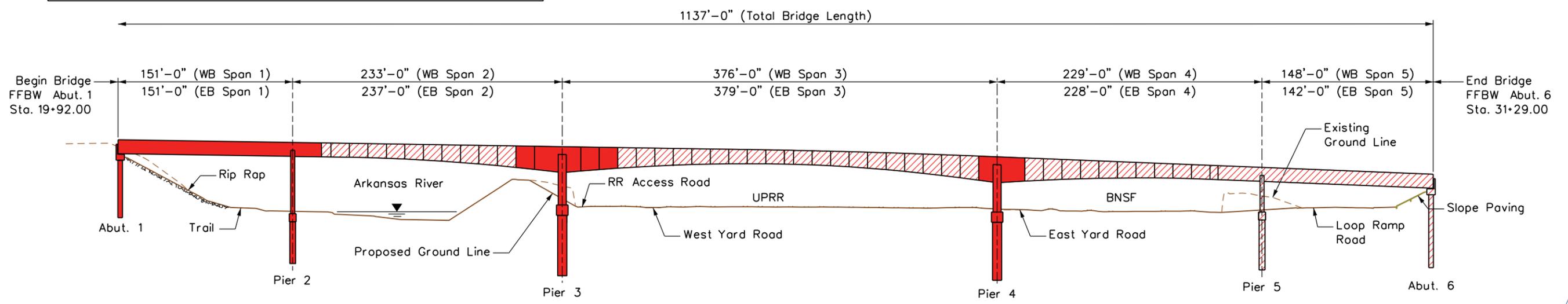
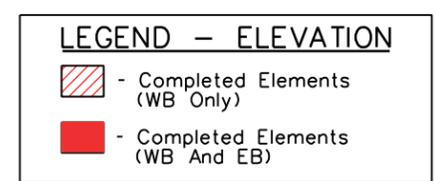
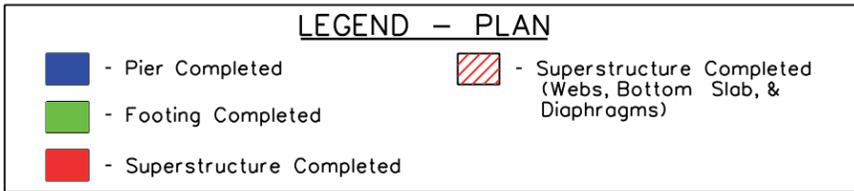
Milestone Event	April 2008 Baseline Finish Date	Actual
Project Award	October 18, 2007	October 18, 2007
Notice to Proceed	November 8, 2007	November 8, 2007
Form and Pour First Segment – W3-1E	November 19, 2008	February 16, 2009
Form and Pour First Closure – Span 2 WB	May 19, 2009	August 14, 2009
W4-10E Post Tension	October 20, 2009	November 19, 2009
Span 4 WB Closure Form/Rebar/Pour	November 2, 2009	December 16, 2009
Span 3 WB Closure Form/Rebar/Pour	November 13, 2009	January 7, 2010
E3-1E Pour	February 01, 2010	December 29, 2009
Shift Traffic to New WB Structure	February 17, 2010	
Bridge Demolition - Remove Bridge Deck	April 1, 2010	
Install Last Drilled Caissons – Abutment 6 (EB Only)	April 26, 2010	
Form and Pour Last Segment – E4-10E	October 12, 2010	
Form and Pour Last Closure – Span 3 EB	November 16, 2010	
Complete Structure and Final Traffic Configuration	March 4, 2011	

All items are based on the April 2008 Baseline Schedule. All dates represent the “Finish” of the activity, unless otherwise noted. Refer to the October 2009 Project Updates for previous milestone dates.

Cantilever construction continues on the eastbound bridge with both travelers in operation and ahead of schedule. However, the westbound bridge opening is planned for late March with all of the barrier and finish work to be performed prior to traffic switch. This places demolition of the bridge on the critical path in order to begin constructing Span 5 EB foundations. Flatiron continues that project completion will occur within contractual requirements.



PLAN



ELEVATION

