
September 2013 Update

Copper River Highway

Bridge 339, Cordova Alaska

AKSAS Project # 60555

September 13, 2013

Recent Changes

1. The eastward migration of the of the Copper River's main channel and erosion of the road continues at an accelerated pace:
 - a. October 2012 road breach approximately 185 feet (see Figure 1)
 - b. On May 30, 2013 a camera mounted on Bridge 339 captured over 50 feet of road erosion in a 24-hour period
 - c. June 2013 road breach approaching 800 feet (see Figure 2)
 - d. July 2013 road breach roughly 864 feet
 - e. August 2013 road breach around 972 feet (see Figure 3)
 - f. September 2013 road breach around 1055 feet. The river is 54' away from Bridge 340's east abutment (see Figure 5)
2. Sonar equipment mounted on the bridge indicates the deep (67') scour hole at piers 4 and 5 has filled in. Sand bars have appeared above the water surface just upstream and east of the bridge

Design Update

1. Mid August 2013 procured a Construction Consultant to answer questions about our design and constructability:
 - a. Is the current design appropriate?
 - b. How to remove the existing bridge?
 - c. How to build the new bridge?
 - d. How to transport construction equipment and materials across the river?
2. Late August 2013 conducted a site visit with the consultant to gather information to assist in the analysis of the bridge design and construction methods
3. Winter 2013/2014 in coordination with the design team the consultant will develop:
 - a. Design recommendations
 - b. Construction implementation phasing plans
 - c. Construction cost estimate(s)
 - d. A Bridge Constructability Report



Figure 1 – October 26, 2012 road breach (approx 185') looking east



Figure 2 – June 9, 2013 road breach (approx 800') east side of Bridge 339



Figure 3 – August 21, 2013 road breach (approx 972') looking east



Figure 4 – August 21, 2013 standing on Bridge 340 looking west at bridge 339



Figure 5 – September 10, 2013 road breach (approx. 1055') looking northeast at Bridge 340's approach guardrail

Conclusion

The design team is proceeding in developing a bridge replacement design.

As the river continues to migrate, the scope of the project increases and so does the design and construction costs. At this time the preliminary ball park construction estimate is around \$40 to \$50 million dollars.

No one on the design team (including the consultant) has experienced a river channel shifting its alignment in such an extreme or rapid manner. It's extremely difficult to predict where or how fast the river will continue to change and migrate.