SIBC Webinar Q&A
August 11, 2015

Questions	Answers
Do you have an estimate of how much the slide itself cost the project?	The total detour piece of work was about $18M (the structure work itself was about $11M); overall total project cost was in excess of $300M. The slide piece of work was about $700,000 which included the equipment to make the slide along with the ancillary pieces and parts.
What problems arose from not "doubling up" information on the plans that were not in the spec?	The cost of the cradle piece of work did not get captured in the original $18M. The General Contractor (GC) thought the cost was part of what the slide supplier was going to include and the slide supplier thought that was a piece of work the GC was going to supply. Ultimately, in the end, it fell through the cracks from a cost standpoint.
What was the total distance the bridge was moved over the 13-hour time period?	66 feet at the west end and 33 feet at the east end.
Did you experience any issues with roadway surface cracking?	No, not really. The roadway surface on the old bridge was in pretty poor condition. But no, the structure itself really survived and we had no issues during the transition.
Was there a reason why the temporary permanent structure was not constructed parallel to the existing bridge to avoid the skew?	The new structure is flared. The west end of the structure has a left turn lane built on to it. The new structure is not square. We had to skew the structure to get it out of the way of the new construction.
Was there a maximum wind velocity at which the slide operation would have stopped?	We didn't publish one. This needed to be a game time decision. Certainly, if it was more than 20 mph, we were going to have a serious discussion. If it was more than 30 mph, we were going to have to shut it down.
What was the maximum deflection during the slide?	The numbers were very small. We had monitors on the structure in several locations. Interestingly, from a general standpoint, it was not much use while the structure was being moved itself. The vibrations of the bridge, while it's moving, caused most of those monitors to swing quite far out of their scale. Then you stopped and waited for everything to settle down and then you found you were in line again. So we didn't really have any issues with differential deflections. We had a very tight specification on it, and we required less than an inch, and they stayed within that quite well.
How much money was saved using this method versus building a new temporary structure?	We saved more than we spent on it. The main goal behind the slide was it avoided a staged construction activity for the main span bridge. Given that the new bridge was an arch bridge, and it was going to be a deck arch bridge, the difference was that we went from a 4-rib arch configuration to a 2-rib arch configuration. You still have to put much of the steel in that, but it's much less work from a labor standpoint. We predicted, and we believe this is still true, about 1 year to 18 months less construction time on the project. Multiply that by the amount of labor on the project, and you get into some numbers that exceed the $18M cost. The contractor agreed that there was savings beyond that. User cost was a major part of it as well. It certainly cuts down on how much additional direction was traveled throughout the course of the project.
How long was the bridge actually closed to traffic?	A weekend. We opened 14 hours early. Closed Friday night and opened up before Monday morning. We were up and going by Sunday night. About 2 days total. There were other minor closures but this was the only major closure.
Did the contractor team have past experience with lateral slide projects?	Omega Morgan has done this a few times. Not so much with bridges but they certainly lift and move items quite a bit. We had teamed previously on a design/build project with Slayden Sundt and did some lateral slide work with them previously as well.
Was there incentive/disincentive built into the project? And if so, how would the wind stoppage be counted?	Not for this aspect of the project. The issue here is life safety. The temporary support work was designed to support the dead weight of the structure with minimal consideration of dynamic loads (a percentage added to the dead loading). To account for unknowns, the assumption was minimal wind on the day of the move and that is how it occurred. Since it was not dealt with and therefore did not play out, we can only assume it would have been handled under the typical "act of God" provisions and the owner would be liable for the costs of the shut down. Of course, we had been monitoring the weather reports and would have issued a warning several days ahead if the reports had not looked favorable.

SIBC Webinar Q&A
August 11, 2015

Questions	Answers
How many bidders were there for the slide?	Under the CM/GC model, the General Contractor interviewed a number of firms and invited 2 firms to present their proposed strategy and supply a quote for bid.
What was the advantage of using CM at risk delivery vs. a Design-Build approach?	In this case the CM at risk delivery allowed for collaboration on the configuration of the supporting system. The support work, as designed by the Engineer, was "custom" fit to support and work with the system supplied for the slide. This is the same as has been done in a Design/Build approach, so in that comparison there was no particular advantage. This is an advantage over the traditional Design-Bid-Build procurement.
Why the soap if the steel plates are Teflon coated ?	The soap reduces the friction further. Teflon can still experience friction heating which can cause a cascading failure as the heat can reduce the bond to the steel and in some cases it has then rolled up under the skid, causing a halt in the work. The soap is an extra protection, and very inexpensive.