



## Winona Bridge Work Package #5

### Bridge No. 5900 (Existing Bridge) Rehabilitation and Reconstruction

### Installment #1 - Project Budget History and Performance

February 25, 2016

The budget for the Winona Bridge project was set in 2009 by the MnDOT Chapter 152 Program Management team. The Chapter 152 program was implemented by the Minnesota Legislature in 2008 and because it affects bridges across the state, MnDOT implemented a programmatic management approach to budgeting and reporting for this program.

At that time, \$142 million was budgeted for the construction and engineering of the project -- \$125.5 million for construction and \$16.5 million for engineering. This was deemed to be a “maximum price cap” for these project elements.

When the Final Design team assumed project management responsibility in May 2013, we were instructed that the \$142 million budget remained as was set in 2009. We reviewed the scope of work competed during preliminary design and the respective cost estimating work to date. Several items were noteworthy to us at that time:

- There was a contractor style estimate completed by a consulting firm in May 2013 that estimated the construction costs to be \$115.7 million, again, based on the preliminary design scope of work and the two bridge concept supported by the Winona community. This compared well to the \$112.3 estimate from the preliminary design team. So, at that time, the overall project construction and engineering budget did not appear to be problematic.
- The biggest risk factor to the construction budget, based on our review, was the scope of work related to the rehabilitation work on the through truss of the existing bridge. Recent similar bridge rehabilitation projects in Minnesota to the work on the through truss had seen significant price increases once they were let or near letting. Some even more recent examples include:
  - **Bridge No. 4930** – Trunk Highway 99 over the Minnesota River in St. Peter, project letting in April 2014. Scope of work: structural steel truss repair, re-decking, replacement of one abutment and structural steel painting. Low bid was \$4.3 million (3 bidders) which was >30% over the last *Final Design Phase cost estimate*. The low bid was not accepted.



Bridge No. 4930

- **Bridge No. 9100** – Trunk Highway 1 over the Red River in Oslo (at ND/MN Border), project letting October 2014. Scope of work: structural steel plating, traffic rail replacement and repair and structural steel painting. Low bid was \$6.1 million (2 bidders) which was >50% over the *Final Design Phase cost estimate*. The low bid was not accepted.



Bridge No. 9100

- **Bridge No. 5380** – Trunk Highway 40 over Lac Que Parle Lake, 3.8 miles west of junction T.H. 59, only early steel package made letting in May 2015. Scope of work: structural steel truss repair (replace floor beams, replace stringers, gusset plate stiffening and other steel repair), re-decking and structural steel painting. An early steel contract for the floor beams and stringers was let but rejected because the low bid Low bid was approximately \$490,000 (only 1 bidder) which was >300% over the *Final Design phase cost estimate*. The overall project was deferred because of the large increase in estimated costs (that these repairs were approaching the replacement cost of the structure) and local public pressure to replace the bridge to better accommodate farm equipment.



Bridge 5380

Based on this, we recommended the Construction Manager General Contractor (CMGC) procurement methodology to ensure we were not only able to move forward quickly on the new bridge, but to also ensure that we captured any pricing increase on the existing bridge through truss rehabilitation work as early as possible, from a cost and budget perspective.

Work Packages #1-4, for building the new bridge and some work on the existing bridge, were budgeted at approximately \$80 million and we are on target to be finished at or slightly under this amount. This was done on an extremely accelerated schedule, which required a cost premium to do, and also with cost increases in the roadway work to accomplish this important collaborative goal. The initial budget left approximately \$45 million for the work on the existing bridge, what we migrated under CMGC to work package #5.

The current projection for the rehabilitation and reconstruction work on the existing bridge (work package #5) is \$65 million, a \$20 million cost overrun of the overall construction budget for the project and of the anticipated cost for the work package #5 work. In addition, the overall engineering costs are projected at \$26.5 million, an additional \$10 million overrun from the initial budget. This accounts for the \$30 million overall projected cost growth for the project. It is important to note this is a *PROJECTED* cost overrun as we are basing the construction cost overruns on *Final Design phase estimates* and have not yet let the work package #5 contract.

To fully understand the reasons behind the cost growth, one needs to understand the Project Planning, Scoping, Preliminary Design, and Final Design phases of project delivery, along with the existing bridge scope of work in Preliminary Design as compared to where we are at currently in Final Design.

These will be the next installments of background information, so please be patient until further materials are provided to help you see the full process and understand how the project has arrived at this point in time.