



EXCELLENCE IN CONSTRUCTION PARTNERING First Annual Awards



ITD/AGC Annual Excellence in Construction Partnering Awards - 2020 Nomination Form -

Contract Number/Route/Milepost: 8543/I 90/14.920-14.366	Construction Engineer: Justin Wuest
Project Name: Pennsylvania Ave OPass, CDA	Date Project Started: 3/2/2020
Contractor Name: N.A. Degerstrom, Inc.	Date Project Completed if applicable: 11/4/2020
Email: shannon.stein@itd.idaho.gov	Phone #: (208)772-8013

1. Did the Contractor/ITD team participate in a Partnership Workshop or informal partnering?

Y ☒ N ☐

2. Category of Award (select one):

State Highway Projects (select size):

- ☐ Projects less than \$1 million
- ☐ Projects \$1 million - \$5 million
- ☒ Projects \$5 million - \$10 million
- ☐ Projects greater than \$10 million

Local Road Projects (select size):

- ☐ Projects less than \$3 million
- ☐ Projects greater than \$3 million

3. Application:

Please provide an overview of the project explaining scope of work, cost, and schedule. Be sure to include the below evaluation criteria where applicable.

Evaluation Criteria:

(1) Safety First, (2) Customer-Focused Results, (3) Innovative Problem Solving, (4) Overcoming Extraordinary Challenge, (5) Effective Contract Administration, and (6) Timely Completion of Project.

Project Overview:

During the 2020 construction season, the Idaho Transportation Department (ITD) and N.A. Degerstrom (NAD) replaced two concrete bridges that carry I-90 over Pennsylvania Avenue in Coeur d'Alene, ID. A major priority for ITD was to limit impacts to the traveling public to a single year, therefore this project was designed using Accelerated Bridge Construction (ABC) methodology to ensure that construction could be completed within a single season. The new Pennsylvania Ave bridge is a three span, pre-stressed concrete bridge with a total length of 166ft and width of 100ft.

ABC methodology is a rarely used construction method for ITD and a new method for NAD. Despite this, the ABC bridge method proved to be a huge benefit to ITD and the construction crew by simplifying the construction process and reducing the amount of concrete formwork on-site. The bridge abutments, piers, and girders were cast off-site by Knife River Prestress in Spokane while work proceeded at the construction site. NAD used three cranes on-site to facilitate the pile driving and erection of the precast concrete pieces with one 100 ton crane located at each end of the bridge and one 125 ton crane located in the center on Pennsylvania Ave. This paid off by allowing pile driving to proceed at one end while crews were working on other tasks on other sections of the bridge and also avoiding any re-mobilization of a crane from one part of the jobsite to another. Construction was planned in two phases with traffic flowing on the east half of the existing structure while the west half was demolished and built in Phase 1. Traffic was then switched onto the new structure and the process was repeated for the second bridge with the final result being a single structure carrying all four lanes of traffic. Using the lessons learned in Phase 1, NAD was able take the existing, in service bridge and proceed with traffic control, demolition, excavation, pile driving, precast erection, and girder erection within only 32 calendar days during Phase 2.

Throughout the project, communication and collaboration between ITD and NAD was exemplary. NAD was proactive in providing advance notice of potential issues and changes to ITD. Several conference calls were held with ITD Bridge, the ITD Construction Team, and NAD that allowed the team to effectively and collaboratively develop solutions prior to these issues having major adverse impacts on the project.

NAD requested several key changes to the project design that allowed the bridge to be constructed faster and more effectively. The project team discussed these changes and negotiated change orders to incorporate them into the project. A high-early strength concrete was substituted for several normal-strength concrete pours which reduced the overall concrete cure time, the existing rumble strips were filled in with a temporary Crafco product to start construction earlier, the traffic control plan was modified to be only two lanes instead of three lanes, and a highway on-ramp was closed to reduce traffic conflict points and improve worker's safety. The change to the normal concrete pours alone accelerated construction time by cutting over 60 days of cure time from the overall project and negotiated as a no-cost change order.

The traffic control plan was modified by NAD and TrafficCorp to reduce both lanes of I-90 to a single lane as opposed to ITD's proposed three lanes of traffic. This eliminated conflict points in the traffic diversion and eliminated vehicles from lane changes within the construction zone, thus improving safety for the public and the contractor. The closure of the Sherman Avenue eastbound on-ramp during Phase 2 of construction eliminated another conflict point and potential unprotected entry point to the jobsite.

Due to COVID, NAD experienced a major delay from a supplier. NAD immediately communicated this to ITD. NAD and ITD came to mutual agreement that there would be working days warranted due to the delay and NAD proceeded with work and re-sequenced activities to minimize total delay to the schedule. NAD and ITD met regularly until material was delivered to assess impacts to the schedule and were able to agree upon the amount of additional time warranted with no debate.

Regarding the contractor's safety record, there were over 16,000 manhours spent by the prime contractor alone plus the work of 13 individual subcontractors with no OSHA reportable accidents and no lost time injuries. Local COVID regulations were followed throughout the job, resulting in no shutdowns.

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All traffic control was handled smoothly and without incident by TrafficCorp, including several traffic diversions and night-shift work. Opposing directions of traffic were separated by concrete barrier, eliminating the potential for head-on collisions in the work zone.

Overall, ITD and NAD were able to complete this project on-time and within the ITD's goal of completion within the 2020 construction season.



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