

State Highway Projects \$5 Million – \$10 Million





- Pennsylvania Ave Overpass, CDA
 - District 1: Damon Allen; (208)772-1201
- US-93 200 South Rd, Jerome County
 - District 4: Jesse Barrus; (208)886-7801
- Willow Creek and Rock Creek Bridges
 - District 4: Jesse Barrus: (208)886-7801



EXCELLENCE IN CONSTRUCTION PARTNERING First Annual Awards



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

Contract Number/Route/Milepost:	Construction Engineer:
8543/I 90/14.920-14.366	Justin Wuest
Project Name:	Date Project Started:
Pennsylvania Ave OPass, CDA	3/2/2020
Contractor Name:	Date Project Completed if applicable:
N.A. Degerstrom, Inc.	11/4/2020
Email:	Phone #:
shannon.stein@itd.idaho.gov	(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
- $\hfill\square$ 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 TraffiCorp 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 TraffiCorp, 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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Contract Number/Route/Milepost:	Construction Engineer:
8539/US 93/56.2-57.2	Sam Purser
Project Name:	Date Project Started:
US 93 200 South RD, Jerome CO	11/18/2019
Contractor Name:	Date Project Completed if applicable:
Idaho Materials and Construction	9/18/2020
Email:	Phone #:
Sam.Purser@itd.idaho.gov	208-886-7812

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Y 🗹 N 🗆

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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:

The US-93, 200 South Road Project consisted of widening US-93 from the existing two-lane configuration to four, 12-foot lanes with a 16-foot median and also replacing two canal structures. The project cost of construction was approximately \$6.8 million and consisted of 132 working days. This portion of US-93 is part of a major route that connects I-84 and the Magic Valley region to Sun Valley and Stanley.

The partnership on this project successfully demonstrated ITD's vision of "One Highway" by bringing the lead inspector Ramon Gutierrez from District 5 to work in District 4 - harnessing his effective partnering with the Contractor, Idaho Materials and Construction (IMC). Partnering also encompassed Safety First, Customer- Focused Results, Innovative Problem Solving, Overcoming Extraordinary Challenges, Effective Contract Administration, and Timely Completion of Project. The partners responsible for completing a quality construction project on schedule include:

IMC – PM – Jamie Gray IMC – Foreman – Robert Larsen ITD – Inspector – Ramon Gutierrez ITD – PM – Sam Purser ITD – RE – Walter Burnside

Safety First

The District 5 inspector, Ramon Gutierrez, and the Contractor's foreman, Robert Larsen, partnered very effectively to ensure that work zone safety was maintained and remained the number one priority throughout the project. If ever the ITD project manager noticed a potential problem, the Contractor or the onsite ITD inspector, would have the issue fixed before the ITD project manager even had an opportunity to mention the issue. The fact that ITD did not receive complaints from the traveling public throughout the one year duration of this project, showcases the benefits of this cohesive partnership.

Customer-Focused Results

This project required acquisition of property from 13 landowners, working with the County and also working with the Canal Company.

Throughout construction, the effective communication between stakeholders and the Contractor and onsite ITD inspector that informed stakeholders of project impacts, is just one of many examples of customer-focused results that showed the positive communication channels that the Contractor and ITD maintained throughout construction.

Innovative Problem Solving

During construction of this project, it was identified that in order to tie in the new four-lane roadway to the existing two-lane roadway, more effort than full time flagging operations would likely be required. Having flaggers would have required workers onsite 24 hours a day for several weeks to complete the work. ITD and the Contractor discussed this plan and determined it posed many safety issues. Alternatives were discussed and ultimately, the method that was decided upon was traffic signals. There was a timing impact to traffic with vehicles having to be stopped for a period of approximately 3-4 minutes, however, this was still less than what it would have likely been had flagging taken place instead.

The Contractor and the onsite ITD inspector always had an open mind when looking for ways to innovate and problem solve on the project.

Overcoming Extraordinary Challenges

Due to the numerous stakeholders involved with this project -13 landowners, Jerome County and the Canal Company- there were a few challenges that required overcoming. An example of one such challenge, was when a property owner was not pleased with the outcome of their parking. The parking in question happened to be on the construction portion of the county road, and therefore required coordination with the County, the property owner, ITD, and the Contractor. The Contractor was instrumental in coordinating with all the parties and finding a solution that was agreeable to everyone.

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Effective Contract Administration

Communication on this project occurred on a daily basis. Because the ITD project manager, the Contractor, and the ITD Inspector understood the specifications and what was required for material submittals and change orders, submittals were timely, correct, and had little to no errors. If a problem occurred on the project that was possibly outside of the materials specifications the Contractor would instantly alert ITD. The Contractor provided a spreadsheet that tracked submittals and both the ITD inspector and the Contractor had an interest and participated in an end of project meeting to ensure that all submittals were accounted for.

Timely Completion of Project

This project involved the timely construction of 2 canal structures and the removal of several buildings. The timely and accurate completion of a hazardous materials report was of the utmost importance to complete the project on schedule. Again, with the diligence and productive communication between ITD and the Contractor, the report and removal of the structures were completed successfully.











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Contract Number/Route/Milepost:	Construction Engineer:
8452, 8453, US-20 MP 165-173	Walter Burnside
Project Name:	Date Project Started:
Willow Cr and Rock Cr Bridges	4/8/2019
Contractor Name:	Date Project Completed if applicable:
Knife River	11/19/2019
Email:	Phone #:
mark.standerfer@kniferiver.com	208-941-8935

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Project Overview:

In 2019, two neighboring bridge construction projects occurred on US-20 that were quite unique. Previous to these projects, no bridges were in place on this section of the highway. The original roadway utilized large multi-plate metal culverts with massive through fills in the construction of the highway; which prohibited fish spawning and wildlife mitigation. Furthermore, the multi-plate culverts at Willow Creek and Rock Creek had reached the end of their useful life, and were showing signs of compromise in the flowline, which required an action of repair or replacement.

The decision to construct new bridge structures to replace the culverts over Willow Creek and Rock Creek addressed multiple needs. The new bridges remedied the failing multi-plate culverts. This had less of an impact on the environment than replacing the existing multi-plate culverts would have imposed. In addition, new bridges can aid in restored the habitat to allow for unrestricted migration of wildlife and flow of the waterways. The bridges removed the steep roadway slope section areas which imposed possible erosion and maintenance issues.

The Willow Creek and Rock Creek bridge construction projects were set up as two separate contracts with one contractor. Both projects were very similar in terms of necessary work involved, and were located about 10 miles apart on US-20. Occasionally, it became difficult to manage the work separately with two separate contracts. The team was required to separate topics by contract using different versions of the ITD standard specification which was often difficult causing confusion. Regardless, excellent communication between the project teams helped resolve communication barriers. Economy of scale provided savings to the projects by using the same team on both bridges.

The contracts for the combined projects were established to utilize a dispute review board (DRB); which was formed per the specification. The team held two DRB meetings to keep team members informed of the proposed procedures. A DRB member observed and commented on how well the project team exchanged solutions and worked together to solve complications. Obstacles were swiftly resolved by the team through continued and effective communication.

Both of the bridge plans required a combined 80,000 cubic yards of material that needed to be excavated. This was done in two phases: the roadway excavation to allow clearance for girder erection, and the establishment of the stream channel under the new bridge structure. One of the goals for both projects was to restore the relevant streams for habitat in an effort to encourage safe fish passage under the highway. Allowing wildlife passage under the highway would also reduce the risk of possible accidents involving wildlife and motorists on the roadway.

Public safety and the safety of project personnel were placed as the highest priority by the team. These projects implemented and monitored a rigorous traffic control plan throughout construction. The roadway was reduced to one lane of travel within the work-zone to allow for the safe construction of the bridges. Portable stop lights were used to control traffic, and portable concrete barriers to separate motorists from the active work-zone. Construction warning signs aided in the team's safety, and no incidents or accidents between the construction and motorists occurred.

The project team's attention to detail provided valuable expenditure of taxpayer funding. Frequently, contractors or subcontractors would address and resolve discrepancies demonstrating a high level of attention for a superior result.

Periodically, site conditions required the team to in order for the team to determine an appropriate resolution. Effective team collaboration was maintained throughout construction. This effective team attribute contributed to the construction schedule and the quality of the final product.

After a few months post-construction, there were fish discovered swimming upstream to spawn, and multiple deer were seen traveling along the channels under the bridges.

Project Team: ITD District 4, Horrocks Construction Inspection Staff, Knife River (Prime), Idaho Materials Construction, Snake River Reclamation, Inland Crane, Harris Rebar, Railco, Idaho Traffic Safety, Sawtooth Land Surveying, Forterra Structural Precast.









