## The Bridge To Nowhere – Hope, Idaho, 1965-1975 From an Email from Larry Adams, Winter 2010

Road building sometimes requires extra care and special design considerations to avoid sensitive properties and treacherous terrain. Larry Adams wrote about his experiences on U.S. Highway Alternate 10, now Idaho 200. While bypassing a steep hillside and dangerous curves, the design also incorporated a bridge over railroad right-of-way that had to arc out over a lake in order to avoid impacts on a school and a cemetery.

Some stretches of road are destined for notoriety, even before they are completed. Although Idaho 200 now carries thousands of vehicles a day across the northern part of the state's panhandle, a portion of the project near Hope, Idaho, caught the attention of the media during its construction.

Two bridges were to be constructed over the railroad, **Larry Adams** recalled, and "the first contract was let to Max Kuney of Spokane, Washington," for the bridges and some minor grading work. It was a two-year project, with "the first bridge near Hope, Idaho, and the second one at Denton, 8 miles toward Montana over the same railroad. **Paul Luckeroth** was the Project Engineer."

**Dave Patterson** and **C. Garland Pendergraph** each worked for a year on the project as part of their Highway Engineer Training program, and "Joe Haynes, Jerry **Bruyer**, and myself were the Surveyors/Inspectors, but not in the same year. This was the first bridge Jerry Bruyer was on and he went on to be Project Engineer on a lot more, including the Ronald Reagan Bridge in California."

The contractor was supposed "to provide the railroad with a one million dollar liability policy" before the work could even begin. "However, the railroad made them provide *each* bridge with the same policy," Larry remembered. This was required, "so the story goes…because an operator on a Spokane Kuney project had hooked the rail with his scraper at a crossing." That incident occurred just before the arrival of the fast freight from Seattle to Chicago, he said, "and it derailed."

Once the project was underway, "the first order of work was to push fill material into the lake so piling could be driven for the abutment 2. The material came from lowering the roadway on the right down to design grade for about a mile west of Hope." Additional fill was also collected during the "drilling and blasting...being done at Denton" along the new alignment. To maintain a safe work environment for both the construction crews and the railroad's operations, "there were railroad flagmen at both sites with radio contact with the train engineers...They would stop traffic crossing over the tracks when a train was due. This was called a "Y" order to the railroad making the trains slow down through the sites."

There were few construction problems at the Denton site: "most of the piers and abutment 2 were founded on bedrock, and at abutment 1 piling were driven." However, the Hope site had enough problems to keep things interesting for quite some time.

Larry explained that the "excavated material was placed and dozed out into the lake to make a platform to drive piling for abutment 2. While this was being done, Garland, Dave, and I were in the process of establishing its centerline point. From the PI (point of intersection) we set the PS (point of spiral); it came before the abutment. I set the point and told Garland to come ahead with the transit, and when he got there, he said 'where's the hub?" Larry said he tried to show him the hub, but it was not there. "The entire embankment had slipped out into the lake." By this point in the operation, the fill material had nearly all been used, and a decision had to be made about how to proceed: "should we get a borrow site and keep filling, or what?" Larry recalled that "**John Mors**, Division Engineer, and others came out to see what was happening. They took soundings with the project boat and found where the material had stopped, about 100 yards from shore.

"Putting in more fill was not the answer, so a change order was written to change the abutment to a pier, requiring a cofferdam to set the pier on bedrock. This allowed this project to be completed in 1967," Larry said, but "then it was back to the drawing board" to re-design the next segment, beyond the new bridge.



It is easy to see why the local media started calling the structure the Bridge To Nowhere. "Looking east down the centerline of the bridge," Larry said, it appeared "as though the road was headed toward Warren Island," and the end of the bridge seemed to align perfectly with a small airstrip that had been cleared through the trees. "The Island was supposedly owned by Lucille Ball and Desi Arnaz."

Photo courtesy Larry Adams.

It would be another two years before construction activity resumed. "To get back to dry land, an extension had to be designed and attached to the existing bridge. It was determined that towers every 100 feet for a length of 900 feet was necessary. This contract was let to Willamette Western Corporation of Portland, Oregon, in 1969." Larry added that "it was completed in 1970.

"The curvature of the extension was spiral, curve, spiral, and then tangent. It was a head scratcher to establish reference points for each tower." **Ray Schadt**, a graduate of the HET program, was the Project Engineer, and Larry said that Ray, "**Ron Agenbroad**, HET, **Ed Berg**, and myself established three parallel base lines along the shore line and calculated the distances to establish reference points. The four 18-inch diameter piling per tower were to be drilled and seated six feet into bedrock. The towers were 32 feet square. The contractor constructed a template to set on temporary piling that could be adjusted for correct alignment.

"The 18-inch permanent piling were set in the template and driven with an air hammer to what appeared to be bedrock (and) cleaned out with a sand pump. Then drilling began. The drill was the same as the drills used for water wells, only a somewhat larger bit. To be sure they were in bedrock, we washed a sample of material over a number 4 sieve. If it was p-gravel," he recalled, they kept drilling, but if it was fractured rock, they would drill only six more feet. There was more than the usual excitement when the core samples were brought up at tower 5. Larry said "the washed bedrock appeared to have pieces of silver ore." He added his wish for "good luck" to anyone who wants to work that mine. "They'd have to tunnel under the tower."

"After the pile was seated, an 8-inch wide flange with guides was welded to center it in the pile, seated, then seal concrete was pumped in to fill it up. A slope indicator tube was welded on the northeast tower leg to determine if it moved by the slippage of the material above bedrock." He added that "**Daryl Ramey** was transferred to the project around this time."

Larry explained how the towers were erected: "Bracing at tower 1 was set starting with (the) bottom section. First, all the bracing was set and bolted; it was then lowered down and clamped, then the center section was set and bolted. The clamps were loosened and (it was) lowered to its final position. Then the top section was set. This allowed the erection to be done above water. Not all towers have 3 sections, but the bottom sections were done first.

"There are clamps at each corner with 1-inch high-strength bolts holding them together." Because the bolts were under water, they needed a licensed diver to check them. "Guess what? One of our Project Engineers was one, so **John Pugh** got a paid summer vacation on beautiful Pend Oreille Lake to check underwater bolting."

A few unexpected setbacks delayed work on the contract. Larry recalled that the barge the crane was on sunk twice during winter storms. In a couple of other incidents, the boom collapsed while picking up material.

"There were several projects completed on this route, starting at site two back to site one," Larry said. "These projects were assigned to **Gordon Mead** or **Eugene Hendrickson**." He added that "**Henry Gini**, Daryl Ramey, and a lot of others were there. "By the time the final

project was let, the embankment was completed to the abutment at the end of the extension," and traffic was flowing again "on the section from site two to a railroad crossing at East Hope."

Slutten Construction Company of Great Falls, Montana, was selected "to furnish and set the prestressed



In this picture of the extension, Larry said, you can also see beyond it "the cranes on a barge picking up a prestressed beam on the bridge to transfer it to its location....The construction end dump was working on a different contract, constructing a boat launch and boat moorage." Note the bright spot on the bank at the beginning of the extension. This, he noted, "is a wall holding the Chinese Cemetery from sliding off the hill." The people buried there had been brought in to work on the railroad. "There was thought of moving the cemetery," he said, until they considered the virtually impossible task of trying to notify next of kin in China for people who had been "buried there in the early 1900's." Photo courtesy Larry Adams. concrete girders, form the deck, and pour it. They also had to remove the curbs on the first bridge for additional width, and form and pour a parapet wall on both sides." He added that "this was also a two-part bridge deck. After the deck was finished on the extension, a 1-inch Dow latex modified concrete was placed on both bridges to seal the deck" and protect the reinforcing steel from the corrosion that's caused by deicer.

Once the final contract had been completed, it was time to reopen the route. Providing a sweeping view across the lake, the bridge was opened and as Larry noted, the traffic started "across the Bridge to Nowhere, because now it went somewhere."



The prestressed beams were set into place "on a 1- or 2-inch rubber pad. The man is one of the contractor employees," Larry added, "probably an ironworker. I'm not so sure that it isn't **Bill Ayotte's** brother-in-law, **Clinton Meyer**." Photo courtesy Larry Adams.

For **Ray Westby's** memories about the design side of this project, see the story on <u>A Few of</u> <u>BPR's Construction "Firsts</u>." During his interview in the Spring of 2008, Ray also mentioned a project he was on near Concrete, Washington, that he described as another kind of "a 'bridge to nowhere.' I can't remember what year it was," he said, but "we built a bridge up at the end of one of these roads that crossed Bear Lake. It got inundated before they ever used it....They raised the pool up under it on the reservoir." It was one of those projects, he said, that "we don't talk about much – it was money poorly spent."

Retirees who would like to contribute stories about their experiences for this series are invited to email them to me at marili.reilly@dot.gov.