Reliable data equals better decisions

Asset Management efforts continue to improve ODOT performance

The Bicycle and Pedestrian Program's experience in reporting its outcomes provides a good illustration of ODOT's ongoing challenges to meet program expectations *without* having reliable data on-hand. Fortunately, those experiences are over. The program's staff recently built upon lessons from the Asset Management pilot and compiled up-to-date, reliable statewide information about Oregon's bicycle and pedestrian facilities.

The old attempt to inventory

Since 1971, an Oregon statute has required that a minimum of one percent of the Highway Fund be spent on bicycle and pedestrian facilities. At that time, the needs were such that there were no "wrong" places to add these facilities to state highways. Every decision was a good one in spending the funds!

In the 90s, performance measures for the program were developed, but the lack of available data was a continual issue — until 1995, when program staff made a first attempt to collect statewide information about bicycle and pedestrian facilities. They tried to find out how much had been gained since 1971 and where gaps remained. The information was stored in a Bicycle/Pedestrian data table in the Integrated Transportation Information System (ITIS). Staff worked to keep the inventory current by routinely obtaining project plans and making updates based on construction projects. It seemed like a good way to track information until it came time to report performance to the Legislature — and that's when staff realized the data was inadequate for an accurate reporting.

Attention turned again to the performance measure in 2003. There was some dissatisfaction with the measure in place so the process to change it began. But when it came time again to make a report, ODOT was still unable to provide satisfactory information. The measure still didn't adequately represent program efforts and the data was still a limiting factor – just how much of limitation would soon be revealed.

New learning from asset management

In 2006, program staff eagerly signed on to participate in the Asset Management Pilot in Region 2. This provided an opportunity to simultaneously consider:

- the data required for program decisions;
- how it could be efficiently acquired;
- how it could be stored and reported; and
- how it could fit into a meaningful performance measure.

The concept of "Basic Inventory with First Level Condition" proved that basics such as type, size and location, combined with a simplified condition assessment, provided a good beginning for informed decisions. Knowing quantity and quality of assets can help to triage repairs or replacements as well as identify where needs exist in order to safely accommodate pedestrians and/or bicyclists — quite a change from the old approach where little or no data was available.

Staff defined Basic Inventory for bicycle and pedestrian facilities and began the process, first by using the Digital Video Log to collect the feature data, and then by verifying the information in the field. The DVL's new side view camera, which is also helping in the data collection for other roadside assets, allowed an improved view of the roadside features that greatly added to the database.

Bicycle/Pedestrian staff then compared the newly gathered data with the old information from data tables populated over the last ten years. What they found illustrated the magnitude of the issues that stemmed from the inadequacies of the process to obtain data from construction projects. The quantities of the facilities actually in place were significantly different than the numbers shown in reports. The lack of a consistent process to obtain data and the inability to keep it current and reliable had created a table full of nearly useless data.

Making it all work

Statewide data collection for Bicycle and Pedestrian facilities finished up in July and took only 13 months. With college students hired as temporary staff, gathering the data proved cost-effective. The information is now being loaded into ITIS and reports will be available listing current inventories of sidewalks and bike facilities, as well as pinpointing the remaining needs.

The AM Pilot came at an opportune time for the Bicycle and Pedestrian Program. Staff had just developed new Performance Measures for the legislature and they needed accurate data. They weeded out the old data and soon will be using the most up-to-date information for reports, decision-making, identifying needs and more.

It became clear during the Pilot that in order for Asset Management to provide all the benefits it offers, ODOT must establish a process to maintain corporate data and keep it reliable. An effort is currently underway to develop procedures to maintain asset information as part of project development and construction; next up will be maintenance, since these activities also make changes to state highway facilities. Proposed maintenance procedures would also include work done along state highways by developers and local government. For more information on this effort, contact Laura Wipper, Performance Management Consultant in Audit Services at (503) 986-4092.

For more information on the inventory of sidewalks and bicycle facilities, contact Sheila Lyons, Bicycle and Pedestrian Program Manager in Technical Services at (503) 986-3555 or Steve Lindland in Roadway Engineering at (503) 986-3557.

4,000 tons of concrete salvaged from detour bridge

ODOT recently added a new "R "— restock — to the traditional three "Rs" of reduce, reuse and recycle. The agency salvaged 64 precast, prestressed concrete box beams from the Interstate 5 McKenzie River detour bridge north of Eugene and stockpiled them on an ODOT storage lot on the other side of the city, ready for use on future projects.

The June 2-5 transport schedule had to meet tight time constraints. To achieve environmental stewardship goals of avoiding work in the McKenzie River during salmon migration and spawning season, ODOT needed to move the beams as soon as it could divert both northbound and southbound I-5 traffic onto the new southbound bridge, which is large enough to accommodate four lanes of traffic. In addition, the agency took into account two local events that might create congestion for area motorists: the 2008 U.S. Olympic Track and Field Trials, taking place June 27-July 6, and a city of Eugene improvement project scheduled for one of the streets on the haul route.

Each of the beams measured between 75 feet and 115 feet long, so moving them required logistical foresight. In addition to using pilot cars, the crew installed planking to allow the rear dual wheels of the trucks to negotiate gutters and the tight corners along the city street portion of the haul route. Close collaboration with Eugene's traffic engineer secured approval for the route, which involved a two-and-a-half-hour round trip between the bridge work zone and the ODOT storage lot.

With each beam weighing in at 70 tons, 64 preserved beams mean that more than 4,000 tons of concrete will not go into a landfill.

"Not only does it make sense for the environment, but it's also a good use of taxpayers' money," said Joe Harwood, Region 2 public information officer. "The state will save an estimated $1 million off the contracts in which the beams are reused."

As the cost of quarrying and casting concrete continues to rise, it makes solid fiscal sense to preserve the beams for future use, especially with five years of bridge program construction ahead.

Crews clean one of 64 concrete beams ODOT salvaged from the I-5 McKenzie River project.

And given that the price of concrete products has risen 120 percent in five years, ODOT did well in buying the beams at the 2004 price rather than the price they are today.

"It's always good to invest in assets that appreciate," Harwood said. "No one predicted how drastically materials costs would escalate over the past several years, but we're glad to have the beams already built and ready to reuse."