July 20, 2011

Mr. Anthony Boesen
FHWA Operations Engineer
530 Center Street Northeast
Salem, OR 97301

Re: Tillamook US 101/OR 6 Project – Revised Build Alternative Design
Project Key #14313 – Federal Aid #S009(354)

Dear Mr. Boesen;

This memorandum provides a description of the single build alternative for the Tillamook US 101/OR 6 Project that the Oregon Department of Transportation (ODOT) has selected to advance into the project’s Environmental Assessment (EA). It also describes the redesign process that ODOT used to select the single build alternative. This memorandum supplements the description of the alternatives provided to the Federal Highway Administration (FHWA) by ODOT in the July 2010 Project Initiation Letter.

1. Description of the Build Alternative

Figure 1 illustrates the Build Alternative to be studied further in the EA. The design of the Build Alternative recently selected by ODOT is similar to what was termed Alternative 2 – Extend Pacific Avenue in the Project Initiation Letter.

In summary, the Build Alternative would replace the existing US 101 bridge over Hoquarten Slough in Tillamook, Oregon, with a new structure that would accommodate four general-purpose traffic lanes (two lanes in each direction), a bicycle lane and a sidewalk in each direction. The Build Alternative would also extend Pacific Avenue north of 1st Street and would modify the geometry of intersections on 1st Street at Main and Pacific Avenues. The Build Alternative would modify the lane configurations and striping on various streets in downtown Tillamook, implement miscellaneous pedestrian and bicycle improvements, and reconfigure on-street parking. Specifically, the proposed project would widen the travel lanes on the US 101 couplet (Main and Pacific avenues) between 1st Street and 4th Street from 10 feet to 12 feet by narrowing the sidewalks from 12 to 10 feet.

In general, the purpose of the recent redesign effort was to avoid or minimize adverse effects and to further improve traffic operations and roadway design. Following is a description of the key differences between the current design of the Build Alternative and the design of Alternative 2 – Extend Pacific Avenue.

- Under the Build Alternative, the existing US 101 bridge over Hoquarten Slough would be removed and replaced with a new four-lane bridge (two lanes in each direction). Alternative 2
would have retained the existing bridge and converted it to two lanes in the southbound direction and would have constructed a new bridge for two northbound lanes.

- Compared to Alternative 2, the Build Alternative would have an eastbound to northbound left-turn lane on 1st Street at Pacific Avenue and would have a southbound to westbound right-turn lane on Main Avenue at 1st Street. The additional turn lanes and other related modifications would improve traffic operations at those intersections (i.e., improved volume-to-capacity ratios [v/c]).
The design of the proposed bridge evolved from a clear span across the Hoquarten Slough under Alternative 2 to a two-span bridge with a single set of piers in the slough under the Build Alternative. With the design change, the depth the bridge deck was reduced from approximately seven feet to approximately three feet, which would lower the elevation of the top of the bridge deck by approximately three feet. With a lower bridge deck elevation the northern terminus of the project would be reduced by approximately 290 feet (see Figure 2) and the extent and height of new retaining walls adjacent to US 101 north and south of the slough would be reduced.

Under the Build Alternative, the width of the proposed right-of-way for US 101 at Hoquarten Interpretive Trail Park would be reduced by approximately 10 feet (by eliminating the need for clearance between the existing and new bridge spans under Alternative 2). As a result, the Build Alternative would use slightly less of park property for roadway right-of-way, compared to Alternative 2.

2. Build Alternative Redesign Process

The project team initiated a process to re-evaluate the design of the project’s build alternatives in July 2010 in response to questions from the public concerning the federal, state and local requirements that were used to determine the design of the proposed bridge, in particular the height of the bridge and its elevation in relationship to the regulatory elevations of flood events.
The purpose of the design refinement process was to avoid or minimize adverse effects of the project’s two build alternatives, while meeting various design standards, guidelines and objectives.

As the refined designs were developed, the two proposed build alternatives became substantially similar, with relatively minor differences in design and effects remaining. With the revisions, the common design elements included the proposed new four-lane bridge over the Hoquarten Slough and the same roadway design generally south of 1st Street, east of Pacific Avenue, west of Main Avenue and north of Hoquarten Slough. Through the process, the project team concluded that the new bridge could be designed to meet ODOT’s bridge and hydraulic guidelines, while reducing access changes to properties south and north of the Hoquarten Slough and minimizing adverse effects on adjacent parks. The team also confirmed that the revised bridge design would not increase the 100-year flood elevation, a key permitting requirement. The design that would extend Pacific Avenue north was also modified to operate better than the No-Build Alternative at the intersections of 1st Street at Main and Pacific Avenues through the addition of dedicated turn lanes.

Because the two resulting Build Alternative designs were substantially similar following the design refinement process, ODOT, in consultation with the local jurisdictions, decided in February 2011 to advance into the EA only one design for the Build Alternative. The design would extend Pacific Avenue north of 1st Street, thereby eliminating from further consideration the design that would continue to have Pacific Avenue terminate at 1st Street.

ODOT selected the proposed design that would extend Pacific Avenue north because it would meet the project’s Purpose and Need better than the design that would retain the current configuration of Pacific Avenue. The proposed design would: (1) include a one-block extension (approximately) of the existing Main/Pacific couplet, providing a more intuitive local traffic pattern; (2) result in a larger net addition to Hoquarten Slough Trail Interpretive Park; (3) provide for three additional crosswalks in downtown Tillamook (i.e. on the north side of 1st Street across Main Avenue, on the east side of Main Avenue across 1st Avenue and on the east side of Main Street across 1st Avenue); (4) allow for better traffic operations at 1st Street and Main Avenue (v/c 0.94 compared to 1.00); and (5) avoid the full purchase of the service station property at the northeast corner of 1st Street and Main Avenue.

In selecting the preferred Build Alternative design, ODOT also considered comments made by representatives of local jurisdictions and members of the public at various project events, including a Project Management Team (PMT) meeting on January 12, 2011, a Stakeholders Advisory Committee (SAC) meeting on January 25, 2011, and an Open House held on February 2, 2011. At each of these events ODOT presented the revised Build Alternative designs and its recommendation to carry forward into the EA only the proposed design of the Build Alternative that would extend Pacific Avenue north. The PMT and the SAC unanimously endorsed the redesigns and ODOT’s recommendation to carry forward into the EA only the proposed design of the Build Alternative that would extend Pacific Avenue north. ODOT staff briefed the Tillamook County Commissioners on the design changes at their meeting on February 23, 2011. ODOT staff also briefed the Tillamook City Council and Planning Commission on March 7. Neither the County nor the City expressed any concerns with ODOT’s recommendation to carry forward into the EA the proposed design of the Build Alternative that would extend Pacific Avenue north.
Avenue north. Additional meetings of the PMT (September 27 and November 18, 2010) and SAC (September 27, 2010) and an Open House (October 5, 2010) were held approximately midway through the redesign process.

The redesign effort and its results will be summarized within Chapter 2 (Alternatives Considered) of the project’s EA and documented within the project’s Alternatives Previously Considered technical memorandum.

Please let us know if you have any questions concerning the description of the Build Alternative to be studied further in the Tillamook US 101/OR 6 Project EA or the project’s recent redesign process.

Sincerely,

Larry McKinley
ODOT Region 2
Area 1 Manager

Molly Cary
ODOT Region 2
Environmental Manager