



APPENDIX R

2018 Regional Transportation Plan

I-5/99W connector study recommendations

December 6, 2018

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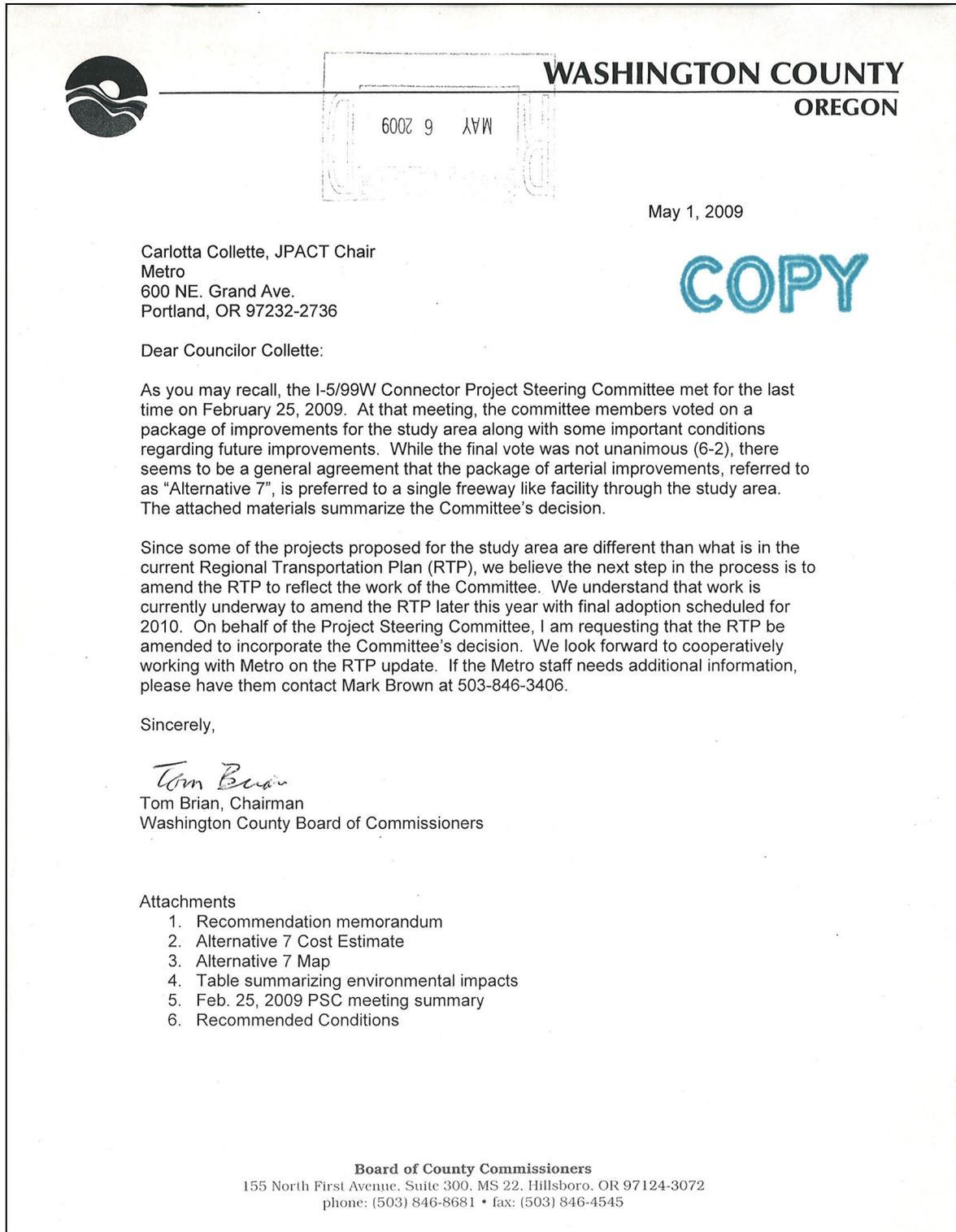
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Regional Transportation Plan website: [**oregonmetro.gov/rtp**](http://oregonmetro.gov/rtp)

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I-5/99W Connector Study Recommendations and Conditions



MEMORANDUM



DATE: February 17, 2009
TO: Project Steering Committee (PSC)
FROM: Executive Management Team (EMT)
SUBJECT: I-5 to 99W Connector, Recommended Alternative for RTP Amendment

Alternative 7 Recommendation for RTP Amendment

The majority of the EMT recommends that on February 25, 2009 the PSC select Alternative 7, the Three Arterial Corridors Alternative, as the Portland metropolitan region's southwest quadrant transportation solution-concept for Metro's consideration and adoption into the Regional Transportation Plan (RTP). A conceptual representation of Alternative 7 is shown in Figure 1 and the project's elements are described in Table 1.

This recommendation is based on the following advantages of Alternative 7:

1. Alternative 7 would address the project's purpose by providing an enhanced transportation network of multi-modal improvements that can effectively serve regional and intrastate access to the area's highways while also enhancing local access and circulation in the southwest quadrant of the Metro region.
2. Alternative 7 draws from the best elements of the build alternatives studied in the Alternatives Analysis (AA) and incorporates additional actions to enhance mobility. In general, Alternative 7's performance would be most similar to Alternative 6 and generally better than Alternatives 3, 4, and 5 while having fewer adverse effects on the human and natural environment and lower overall cost than Alternatives 3, 4, 5, and 6.
3. A significant advantage of Alternative 7 over the connector Alternatives 4, 5, and 6, is it could be more easily implemented in phases over time. This would provide jurisdictions flexibility to strategically adapt to funding availability, and to protect livability and economic viability of communities as increased system capacity commensurate with development in this part of the Metro region is warranted. Smaller, more affordable individual projects may be advanced with independent utility under the integrated multi-modal framework of Alternative 7. Strategic measures to protect the affordability of right-of-way for future construction elements of Alternative 7 could also occur.

Conditions of Recommendation

As with any large-scale system of transportation improvements, a number of issues will need to be dealt with in the course of advancing a planning level transportation concept to construction projects and other implementation actions. While the corridor level alternative selected on February 25th is the final decision milestone for the PSC, additional work will continue in collaboration with stakeholder entities in advancing Alternative 7. The conditions listed below serve as a roadmap for this work.

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For Alternative 7, the EMT recommends the following conditions accompany the RTP recommendation of Alternative 7:

1. **Future phasing plans for implementing Alternative 7 projects must take into consideration the transportation, environmental, and economic impacts of advancing some improvements sooner than others.** The sequencing of affordable improvements should be done in a manner that does not create new transportation problems or liabilities for the vitality of affected jurisdictions.
2. **The timing and priority of an I-5 corridor study must be considered in the RTP adoption process for Alternative 7.** The connector project development process emphasized the need for a corridor study along I-5 from Portland to the Willamette River. The results of this study may affect the timing and designs of some improvements within Alternative 7.
3. **Access between I-5 and the southern arterial must be resolved.** The alternatives development and analysis process determined the general corridor location for the new southern arterial. However, additional preliminary engineering work is needed to determine the optimal access option and configuration for connecting the southern arterial to I-5. Construction of the southern arterial should be conditioned on defining the I-5 improvements needed to accommodate it. Options to be explored include modifying the I-5/North Wilsonville Interchange into a tight split-diamond interchange, or extending a new arterial over I-5 and connecting to Elligsen Road on the east side of I-5.
4. **Completion and construction of major project elements is subject to compliance with the National Environmental Policy Act (NEPA) and design refinement.** The Alternative 7 concept provides only the general locations and functional characteristics of new transportation facilities. A fully collaborative public/agency involvement and environmental analysis process must be conducted in developing the design details of any major construction element of Alternative 7. Subsequent project development work will need to define the actual alignments and designs of each of these facilities within the framework of these general parameters. On-going coordination with the Tualatin River National Wildlife Refuge must also occur to ensure optimum compatibility of Alternative 7 elements with refuge objectives.
5. **Land Use Concept Planning will have to be completed by local governments to conform to the Alternative 7 decision.** Local governments need to complete concept plans that incorporate Alternative 7 elements for lands that are: a) within the Metro UGB, and b) within the project area and are not incorporated, and c) in areas where concept planning has not yet commenced.
6. **The design of the southern arterial; must incorporate any conditions that may come out of land use goal exceptions processes (if required) by Metro, Washington County, and Clackamas County.** Portions of Alternative 7 may require exceptions under state land use goals in order to be adopted in the RTP and to achieve needed federal and jurisdictional approvals. The extent of this issue may be affected by Metro's coming decisions on rural/urban land use reserves. Portions of proposed new transportation facilities are outside Metro's jurisdictional boundaries and will require coordination of actions between Metro and other affected jurisdictions. Possible design requirements may include forms of access management and land use control measures.
7. **State highway system routing and ODOT mobility standards must be key considerations in the design and future ownership of improvements within Alternative 7.** Current RTP assumptions are that a new limited-access connector would be built between I-5 and 99W, and that this roadway would become the new state route, possibly replacing OR 99W through Tigard. Alternative 7 does not result in a limited-access connector, which may result in OR 99W remaining the designated state highway route through Sherwood, King City and Tigard.

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8. **Strategic protection of right-of-way should be considered by agencies for the Alternative 7 elements within the UGB and along potential alignments where land development could conflict with the future implementation of corridor improvements.** Protective measures could include property setbacks, dedication of right-of-way, specific acquisition(s), and/or right-of-way purchases consistent with NEPA process.

The Development of Alternative 7

The June 2008 I-5 to 99W Connector Project Alternatives Analysis (AA) evaluated a range of six alternatives including a No-Build. A series of public hearings were held following the AA document's release. Based on consideration of input from the public hearings and subsequent direction from the PSC, a seventh alternative was identified for study. This alternative (Alternative 7) is a combination of key features represented in the original five build alternatives.

The PSC direction to the project team was, in a broad sense, to look for a hybrid solution drawing from elements of the Build Alternatives considered in the AA but creating a transportation network rather than relying on a single expressway corridor to address the project purpose and need. The PSC was also concerned about the magnitude and cost of collector/distributor improvements along I-5 to support an expressway connection. The project team's response to this direction led to a strategy of creating three arterial-level corridors that would disperse regional travel between I-5 and OR 99W rather than concentrating it in one connector corridor. The distribution of traffic between these east-west arterial corridors was further enhanced by adding a new north-south arterial (124th Extension). By dispersing the east-west traffic to the three existing interchanges on I-5, the need for an extensive collector/distributor system on I-5 is no longer essential to the performance of this project.

Alternative 7 draws from the five build alternatives studied in the AA and incorporates many projects already identified in the RTP and local Transportation System Plans (TSPs). All of the Transportation Demand Management/Transportation System Management (TDM/TSM) measures contained in Alternative 2 are incorporated in Alternative 7. Many of the roadway improvements as well as the commuter rail extension between Tualatin and Sherwood in Alternative 3 and in adopted plans are also included. Although the expressway-type approaches of Alternatives 4, 5, and 6 were not included, the respective alignments of these facilities and some of their functional characteristics were adapted for use in Alternative 7.

Analysis of Alternative 7

At the direction of the PSC, Alternative 7 was analyzed to compare its transportation performance and effects on the natural and built environments with the other build alternatives studied in the AA. The results of these evaluations are summarized in the attached matrix (Table 2).

Alternatives 1 (No Build) and 2 (TDM/TSM) would not effectively address the project purpose. In general, Alternative 7 addresses the project's purpose as well or better than Alternatives 3, 4, 5, and 6 while having less adverse effects on the human and natural environment. The reduced environmental effects are generally attributed to Alternative 7's smaller area of potential impact (API) or spatial footprint. The main reasons for the reduced footprint are:

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- Additional roadways and structures along I-5 would be minimized compared to Alternatives 4, 5, and 6 (the connector alternatives). Alternative 7 would include auxiliary lanes, built within the existing ODOT right-of-way (as modeled for Alternative 3). In contrast, the connector alternatives included an extensive collector-distributor system along I-5 as well as improvements to existing interchanges.
- The southern arterial modeled for Alternative 7 was developed under the assumption that there would be signalized, surface intersections rather than more spatially-intensive grade-separated interchanges.
- The connector alternatives were modeled under the assumption that they would be compatible with expressway design requirements. By changing to an arterial, narrower design widths may be possible.
- Alternative 7 would have a smaller total footprint than Alternative 3, which may seem counter-intuitive since it includes a southern arterial alignment. However, a majority of the 15 road extension and/or widening projects assumed for Alternative 3 are not included in Alternative 7 (e.g., Avery Street, Adams Street, Sagert Street, and OR 99W improvements) and the collective impact area of these elements would exceed that of the southern arterial.

Attachments (3)

Table 1. Alternative 7 Project Elements with Planning-Level Cost Estimates

Road	Location and General Description of Action	Conceptual Costs in \$ millions (2008 dollars)
Northern Arterial Project Elements		
Tualatin Road/Lower Boones Ferry Road	Extend Tualatin Rd. as 5-lane arterial east across the Tualatin River from Herman Rd. to Lower Boones Ferry Rd. (LBFR). Widen LBFR to 5 lanes from extension to 72nd Ave.	\$95
SW Herman Road	Construct 3-lane extension of Herman Rd. between Tualatin Rd. and OR 99W	\$30
SW Bradbury Court	Construct new east-west connection across I-5 to 72nd Ave. on Bradbury Ct. alignment	\$20
Central Arterial Project Elements		
Tualatin-Sherwood and Roy Rogers Road	• Widen Tualatin-Sherwood Rd. (TSR) to 5 lanes from OR 99W to SW 124th Ave.	\$25
	• Widen Roy Rogers Rd. between Borchers Rd. and OR 99W to 5-lanes	\$5
Tualatin-Sherwood Road	Widen TSR to 5 lanes from SW 124th Ave. to Teton Ave.	\$20
Southern Arterial		
Southern Arterial/Interstate 5 interface	Complete either a tight split diamond N. Wilsonville Interchange or a new I-5 over-crossing with 2-lane road connecting southern arterial to Elligsen Rd. east of I-5 and associated connection improvements	\$50
Boones Ferry Road	• Widen Boones Ferry Rd. to 5-lanes between new southern arterial and Day Rd.	\$5
Southern Arterial	• Purchase ROW for 5-lane arterial (OR 99W to I-5)	\$100
	• Construct a new 2-3 lane arterial (OR 99W to I-5)	\$120
	• Widen arterial to 5-lanes (OR 99W to I-5)	\$70
	• Improve Commerce Circle/95th Ave. and Boones Ferry Rd. intersection	\$5
Other Alternative 7 Elements		
TSM / TDM	Regional Trail System, Bike Lanes, Sidewalks & Bus Stops	\$30
Commuter Rail	Commuter rail extension to Sherwood	\$40
Interstate 5	Add auxiliary lanes to I-5 between I-205 and Elligsen Interchange (assumes Norwood over-crossing replacement)	\$30
SW 124th Avenue	• Purchase ROW for 5-lane arterial (TSR to southern arterial)	\$5
	• Extend 124th Avenue as a 2-3 lane roadway between TSR and Tonquin Road	\$45
	• Widen and extend 124th Avenue as a 4-5 lane roadway between TSR and the southern arterial	\$20
Total Costs		\$715

At their meeting on February 25, 2009, the PSC agreed on the following conditions as amended from those presented to them in the Alternative 7 Recommendation Memorandum dated February 17, 2009 to accompany the RTP recommendation of Alternative 7:

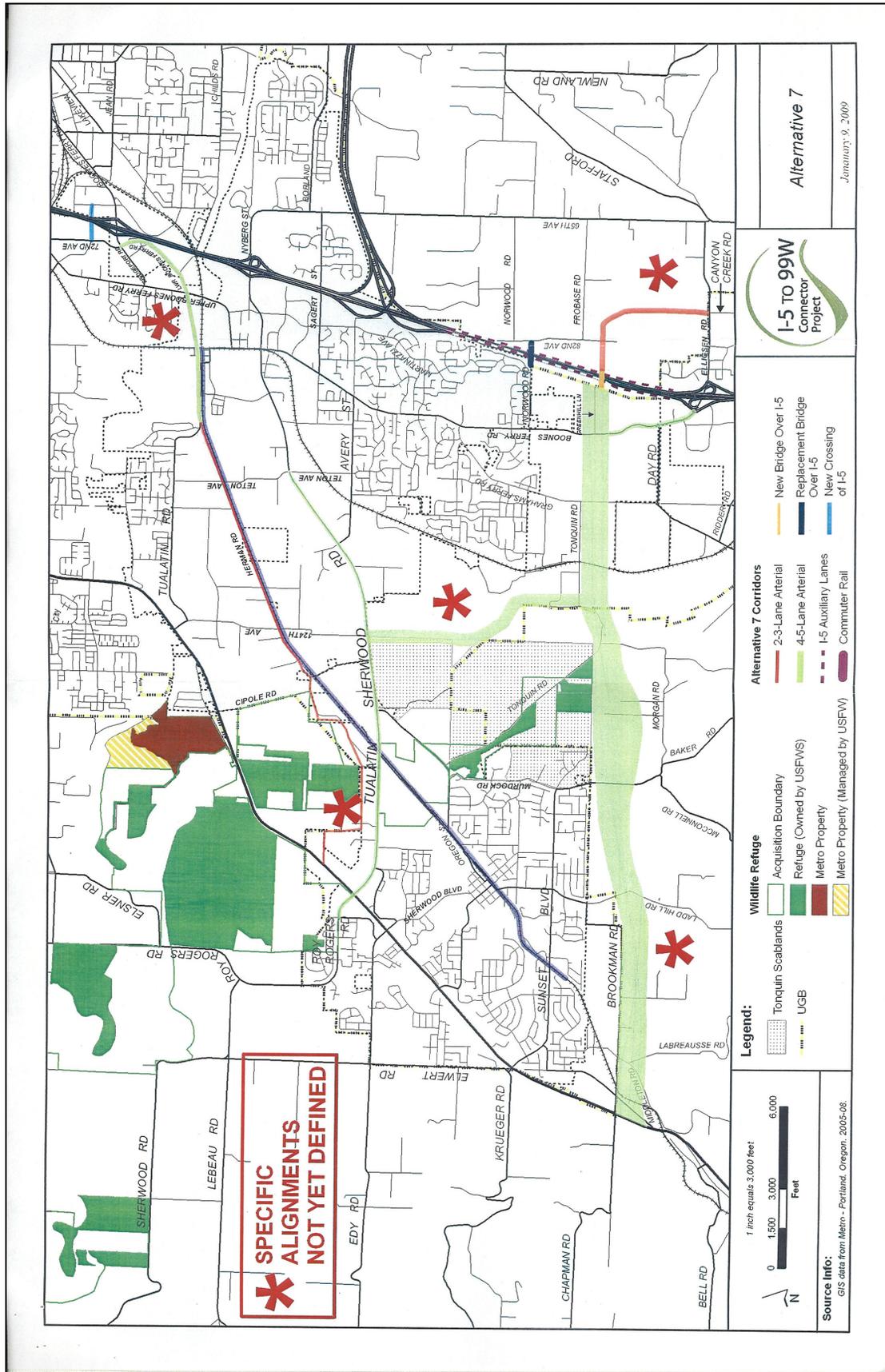
1. **Future phasing plans for implementing Alternative 7 projects must take into consideration the transportation, environmental, and economic impacts of advancing some improvements sooner than others.** The sequencing of affordable improvements should be done in a manner that does not create new transportation problems or liabilities for the vitality of affected jurisdictions.
2. **The timing and priority of an I-5 corridor study must be considered in the RTP adoption process for Alternative 7.** The connector project development process emphasized the need for a corridor study along I-5 from Portland to the Willamette River. The results of this study may affect the timing and designs of some improvements within Alternative 7.
3. **Access between I-5 and the southern arterial must be resolved.** Additional study is required to fully understand the impacts and trade offs between transportation solutions and land use, economic and environmental consequences of a new southern arterial. The impacts on rural lands are of particular importance and must be further evaluated before pursuing an exceptions process. The study area may need to be expanded to include connections to Stafford Road and additional areas along the OR 99W corridor that were not included in the alternatives analysis. The alternatives analysis process determined the general corridor location for the new southern arterial. However, additional preliminary engineering and planning work is needed to determine the optimal access option and configuration for connecting the southern arterial to I-5, OR 99W, and other arterials in the expanded study area. Construction of the southern arterial should be conditioned on defining the I-5 improvements needed to accommodate it and ensuring no negative impacts to I-5 and I-205 occur beyond the forecast No-Build condition as a result of Alternative 7. Options to be explored include modifying the I-5/North Wilsonville Interchange into a tight split-diamond interchange, or extending a new arterial connection crossing over I-5 and connecting to Stafford Road and/or Elligsen Road on the east side of I-5 for regional traffic benefits.
4. **Completion and construction of major project elements is subject to compliance with the National Environmental Policy Act (NEPA) and design refinement.** The Alternative 7 concept provides only the general locations and functional characteristics of new transportation facilities. A fully collaborative public/agency involvement and environmental analysis process must be conducted in developing the design details of any major construction element of Alternative 7. Subsequent project development work will need to define the actual alignments and designs of each of these facilities within the framework of these general parameters. On-going coordination with the Tualatin River National Wildlife Refuge must also occur to ensure optimum compatibility of Alternative 7 elements with refuge objectives.
5. **Land Use Concept Planning for UGB expansion areas should be coordinated with the refinement of these transportation recommendations.**
6. **The design of the southern arterial; must incorporate any conditions that may come out of land use goal exceptions processes (if required) by Metro, Washington County, and Clackamas County.** Portions of Alternative 7 may require exceptions under state land use goals that have not yet been studied or approved in order to be adopted in the RTP and to achieve needed federal and jurisdictional approvals. The extent of this issue may be affected by Metro's coming decisions on rural/urban land use reserves. Portions of proposed new transportation facilities are outside Metro's jurisdictional boundaries and will require coordination of actions between Metro and other affected jurisdictions. Possible design requirements may include forms of access management and land use control measures.
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8. **Strategic protection of right-of-way should be considered by agencies for the Alternative 7 elements within the UGB and along potential alignments where land development could conflict with the future implementation of corridor improvements.** Protective measures could include property setbacks, dedication of right-of-way, specific acquisition(s), and/or right-of-way purchases within the UGB consistent with NEPA process.

Following agreement on the above conditions, PSC representatives of Washington County, ODOT, Metro, and the cities of Tualatin and Sherwood voted in favor of recommending Alternative 7 with the conditions as amended above. PSC representatives of the City of Wilsonville and Clackamas County voted against this recommendation.



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