

TV Highway Corridor Refinement Plan

Arterial v. Throughway Issue Paper

ISSUE

The Project Management Team (PMT) is seeking input from the Policy Group on whether Tualatin Valley Highway (“TV Hwy”) should be designated as an arterial or throughway.

BACKGROUND

The Oregon Department of Transportation, City of Hillsboro, and Washington County are developing the Tualatin Valley Corridor Plan (TVCP) for the 8.5 mile section of TV Highway between downtown Beaverton and downtown Hillsboro, and the broader area served by this transportation corridor.

The purpose of the TVCP is to define the regional functional classification for all modes, design classification and typical cross section for TV Hwy and identify a package of transportation solutions to address transportation system deficiencies for all modes in the project area.

TV Hwy is currently designated as a principal arterial between Murray Boulevard and Brookwood Avenue and as an arterial from Brookwood Avenue west through Hillsboro and from Murray Boulevard east to Highway 217. The County Transportation System Plan (TSP) shows TV Hwy as a principal arterial from Brookwood to roughly Cedar Hills Boulevard.

Technology, known as Intelligent Transportation Systems, will likely play a large role in any solutions package. As stated in Metro’s report – *Mobility the Smart Way: The State of ITS in the Portland Metropolitan Region* – “**more than half of all congestion is caused by incidents and other sources that can be addressed using system management and operational strategies**” (p. 4). Accordingly, one of Oregon Transportation Plan’s key initiatives is to “**optimize system capacity and safety through information technology and other methods.**”

Consistent with these initiatives, the PMT is seeking an early determination from the Policy Group on whether TV Hwy should be classified as an Arterial or Throughway Principal or Major Arterial throughout the entire corridor.

CONSIDERATIONS

1. Should TV Hwy Primarily Serve Longer Distance Travel or Travel within the Corridor?

In answering the question of whether TV Hwy should be an arterial or throughway, it is helpful to look at the functions of each of these roadways in comparison to how TV Hwy currently is used and to how it is envisioned to be used in the future.

THROUGHWAY	ARTERIAL
Serves longer distance travel within the region and state	For travel within the region to major destination areas and to throughways
Carries between 50,000 and 100,000 vehicles per day	Carries between 10,000 and 40,000 vehicles per day
Access to adjacent properties is highly limited	Access to adjacent properties is moderately limited
6 travel lanes, high speeds and a mix of at-grade and grade separated intersections/interchanges	4 travel lanes with turn lanes, moderate speeds and at at-grade intersections
Design emphasis for travel by car and freight truck	Designed to accommodate bicycle, pedestrian, truck and transit travel
Throughway examples in the region: I-5, I-405, I-205, I-84, Highway 30, Highway 26, Highway 99, Highway 217	Arterial examples in the region: TV Highway from Brookwood Avenue west to Forest Grove and from Murray Boulevard east to Highway 217; Canyon Road from Highway 217 to I-5, Cornelius Pass Road between TV Highway and Highway 26; Cornell Road, SE Powell Blvd and NW/NE Broadway.

Important facts about TV Hwy today:

- The majority of trips are local, beginning and/or ending within the TVCP Project Area.
- Current configuration has multiple access points on north (limited on south due to railroad).
- There is high transit ridership, even with impediments to access to transit stops.
- Speed limit ranges from 35 to 45 mph.
- Current traffic volumes between are 25,000 and 40,000 vehicles per day.¹
- Average daily trips (ADT) in the 1980s was 38,000 trips per day and it was predicted that ADT would be 60,000 by 2010²

Factors to consider regarding how TV Hwy may function in the future:

- The TVCP is to come up with solutions for all modes of transportation – including walking, transit and cycling, as well as automobiles, truck freight and rail.
- **Impacts to the Built Environment and Businesses:** Adding capacity would require acquiring right of way on the north side, as the south side is encumbered by the railroad. There would be significant impacts at intersections if grade separation were required. [NOTE: Maps are being developed to illustrate impacts.]

¹ West of Highway 217, traffic volumes of Highway 8 (TV Highway) are close to 50,000 vehicles per day. That section is designated in the RTP as an arterial.

² [Need to list parallel road improvements made since 1980s. Westside Max opened in September 1998; 57 Bus changed to frequent service in 2004. List improvements in TSPs not yet constructed.]

- **Cost:** ODOT preliminary design developed a planning level cost estimate – *not including the right of way costs* – for the widening of TV Highway to 6 lanes, with 3 grade-separated intersections (one at Cedar Hills Boulevard, 185th Avenue and Murray Boulevard) from Murray Boulevard to Brookwood Avenue. The road widening is about \$70-\$90 million and *each* interchange at \$55-\$70 million.
- From stakeholder interviews of the Policy Group and Senior Staff:
 - **Adding Capacity:** Simply adding lanes was not a favored solution. Similarly, several people indicated that grade-separation is not favored. Both added lanes and grade-separated intersections were seen as further reducing the quality of the pedestrian environment and safety, as well as dividing communities. However, with regard to grade-separation, one senior staff member did encourage looking into designs of modern (arterial?) grade-separated intersections.
 - **Mobility:** It is expected that trips in the corridor will shorten. Several people stressed the need to find the balance between creating a better environment along the highway and moving people and freight.
 - **Future Development in the Corridor:** Looking to the future, it is envisioned that nodes of complete communities (consistent with Metro 2040) will develop along the corridor. This increased development is likely to result in TV Hwy being used for more local, as opposed to through traffic, resulting in shorter trips.

2. Transportation Solution Priorities

Under both the Oregon Highway Plan (OHP) and the Regional Transportation Plan, adding capacity is the last option.

Oregon Highway Plan Transportation System Solution Priorities:

1. *Protect existing transportation system*
 - Safety – reduce crashes and injuries
 - Technology – upgrade traffic signals to improve reliability for driving cars and trucks
 - Transit – enhance the quality, safety and reliability of transit and make it easier and safer to get to transit stops
 - Bicycle system – enhance the quality, safety and convenience for bicycling
 - Pedestrian system – enhance the quality, safety and convenience for walking or using a mobility device
2. *Improve efficiency and capacity of existing system*
 - Complete the street network – improve street connectivity and make all streets accessible for all modes
 - Intersection operations – solutions that add left or right turn lanes for vehicles at intersections
3. *Add capacity*
 - Add vehicle lanes on TV Highway – add capacity for motor vehicles

Regional Transportation Plan – Policies for the Arterial and Throughway Network Vision³

The Arterial and Throughway concept

... contains policy and strategy provisions to develop a complete and well-connected roadway system that provides adequate capacity and supports all modes of travel. Rather than relying principally on levels of congestion to direct how and where to address motor vehicle capacity needs, the concept calls for implementing a well-connected network design that is tailored to fit local geography, respect existing communities and future development and protect the natural environment

The RTP sets forth the following three policies as the foundation for the arterial and throughway vision:

1. Build a well-connected network of “complete” streets that prioritize safe and convenient pedestrian and bicycle access.
2. Improve local and collector street connectivity.
3. Maximize system operations by implementing management strategies *prior to building new motor vehicle capacity*, where appropriate (emphasis added).

OPTIONS AVAILABLE

There are two options at this point:

- Give policy direction for designation of the entire lengthy of TV Hwy in the corridor as an arterial. This will allow the study of solutions that maintain existing capacity for through traffic at four lanes (with additional turn lanes, as needed).
- Defer decision until the solution package is developed and include the possibility as adding capacity as a solution.

IMPLICATIONS AND SUGGESTIONS

Making a determination of whether TV Hwy should be an arterial or throughway more clearly defines the target for the long-term design and, correspondingly, the range of tools/options to prioritize investment in the corridor. It also will provide more clarity to the public and stakeholders to help us get to a solutions package and set expectations.

³ RTP Section 2.5.2.