

Oregon Highway Plan Mobility Standards Discussion Paper

Introduction

A major component of Transportation Planning Rule (TPR) implementation related to the state highway system is directed by the Oregon Highway Plan (OHP) and OHP mobility standards. This discussion paper provides general information on the OHP and OHP mobility standards, mobility standard applications for management of the state highway system, challenges in use of the standards, existing flexibility through alternate mobility standards, and potential next steps to further address related issues.

1999 Oregon Highway Plan (As Amended)

The 1999 OHP is the statewide modal plan that directs how the Oregon Department of Transportation (ODOT or Agency) plans, manages and funds state highway facilities. The plan is a key component of the statewide transportation system plan under the policy umbrella of the Oregon Transportation Plan (OTP). The OHP provides direction for the state highway system in a number of different areas including system definition and facility classification, system management objectives, travel alternatives, environmental considerations and objectives, and investment decisions. The Oregon Transportation Commission (OTC) adopted the full OHP in March 1999. However, the OHP has since been amended a number of times to refine policy direction and update details for system management.

OHP Mobility Standard Policy

Several OHP policies establish general mobility objectives and approaches for maintaining mobility on the state highway system. Examples of these policies include:

- Policy 1A, State Highway Classification System, describing the general functions and objectives for various categories of state highways.
- Policy 1B, Land Use and Transportation, promoting coordination of land use and transportation to maintain mobility and efficiency of the highway system.
- Policy 1C, State Highway Freight System, including the objective of maintaining efficient through travel on major truck freight routes.
- Policy 1G, Major Improvements, guiding ODOT investments with an emphasis on maintaining and enhancing the current system before making significant capacity enhancements.

While these policies address many of the primary mobility objectives in the OHP, they do not specifically identify what levels of mobility are acceptable for meeting and balancing various goals. OHP Policy 1F, Highway Mobility Standards, identifies the state highway mobility performance expectations for Agency applications. Policy 1F states:

It is the policy of the State of Oregon to use highway mobility standards to maintain acceptable and reliable levels of mobility on the state highway system. These standards shall be used for:

- *Identifying state highway mobility performance expectations for planning and plan implementation;*
- *Evaluating the impacts on state highways of amendments to transportation plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-0060); and*
- *Guiding operations decisions such as managing access and traffic control systems to maintain acceptable highway performance.*

Mobility standards vary by type of area, allowing for more congestion in established and highly developed urban areas, in Special Transportation Areas (STAs),¹ and on highways that are less critical for long-distance through travel. Conversely, the OHP protects higher levels of mobility on interstates, statewide highways and freight routes through more stringent mobility standards.

OHP mobility standards play an important role in many different Agency applications as described in Policy 1F and are in the forefront of many Agency decisions. Mobility standards serve as a “trigger point” for identifying transportation needs and issues and allow ODOT and the OTC to get involved in discussions to remedy transportation issues identified by the standard. Mobility standards are used for the identification of transportation needs in long range planning activities as part of the development or update of Transportation System Plans (TSPs), transportation elements of comprehensive plans, and transportation facility plans. They are used to assess transportation system adequacy in consideration of plan amendments through Section 660-012-0060 of the TPR. They are also used for system management and development review applications outside of the TPR, such as for access management decisions.

Local governments have separate performance measures for their own facilities as required under the TPR. These similar measures play a role in local system planning, local plan amendments and development decisions that impact local facilities.

¹ STAs are designated districts of compact development located on a state highway within an urban growth boundary in which the need for appropriate local access outweighs the considerations of highway mobility except on designated OHP Freight Routes where through highway mobility has greater importance.

Table 1: Primary Applicability of OHP Policy 1F Actions

OHP Action	Primary Applicability
Action 1F.1	Establishes the mobility standards in OHP Table 6 and Table 7 and supplements the tables by establishing mobility standard requirements specific to individual types of facilities including free-flow segments, unsignalized and signalized intersections, and interchanges.
Action 1F.2	Establishes the planning horizon for applying mobility standards when developing plans and for evaluating amendments to plans or land use regulations. This Action further establishes the inclusion of forecasted background traffic growth rates and impacts of “full development” according to applicable plans when determining the effect of proposed amendments.
Action 1F.3	Establishes the general considerations and processes for developing and adopting alternate mobility standards.
Action 1F.4	Impacts planning in the Portland metropolitan area by directing the development of corridor plans for key routes to consider adequate standards for mobility.
Action 1F.5	Applies to the preparation of planning documents such as corridor plans and transportation system plans where the volume to capacity (v/c) ratio exceeds the current mobility standard and improvements are not planned to bring the facility up to standard during the planning horizon due to severe environmental, land use or financial constraints.
Action 1F.6	Applies to the evaluation of amendments to plans, pursuant to TPR Section 660-012-0060, where the v/c ratio exceeds the current mobility standard and improvements are not planned to bring the facility up to standard during the planning horizon.

OHP Mobility Standard Challenges

One of the most prominent applications of OHP mobility standards is their role in local decisions regarding comprehensive plan amendments and zone changes. For evaluation of local plan amendments and zone changes, TPR Section 660-12-0060 requires that needed improvements either have committed funding, are in a financially constrained Metropolitan Planning Organization (MPO) transportation plan, or are “reasonably likely” to be provided by the end of the planning period in order for the capacity provided by the improvement to be considered “available” to meet the needs resulting from the proposed amendment. For state facilities, a written statement from ODOT is required to document that improvements are “reasonably likely” to be provided.² OHP mobility standards are used to determine a significant affect on the state highway from the

² “Reasonably Likely” determinations and requirements are a component of the 2005 TPR amendments initiated in part to respond to an Oregon Court of Appeals decision.

proposed amendment, making mobility standards prominent in local development decisions.

Several factors have increased pressure on OHP mobility standard applications over recent years, especially for TPR Section 660-012-0060 applications. Some examples of these challenges include:

- Growing congestion. Many segments of the state highway system, located primarily in urban areas, do not now meet ODOT's standards for mobility due to growing levels of congestion. Many more segments are forecast to fail to meet the mobility standards in the future.
- Limited funding and increasing project costs. The OHP mobility standards define whether the transportation system is "adequate" to serve state needs and consistent with the adopted element of the state TSP, (e.g. the OHP). A lack of revenue for planned improvements on the state system is causing more projects to be deemed "not-reasonably likely" to be built, and therefore the capacity is "unavailable" within the planning period. This issue can manifest itself in different ways. For example, a proposed plan amendment and development request may be able to contribute their proportional share of mitigation. However, the overall transportation solution may be a costly project which the state (or perhaps local government) does not have the funds to contribute to remaining portions of the overall project cost, making it unlikely to be constructed.
- Economic development pressures. OHP mobility standards are seen by some as an obstacle to economic development through their role in measuring compliance with the TPR. However, the standards play an important role in protecting and facilitating regional and state economic vitality by considering the economic costs associated with congestion in transportation and planning decisions. The challenge lies in balancing local development needs, which provide jobs and boost business in a local area, while providing for the infrastructure needed to support development and the economy of the state as a whole.
- Technical considerations. The v/c ratio, which represents the ratio of peak hour traffic volume to capacity, was selected as the ODOT highway mobility performance measure after an extensive analysis of potential measures prior to adoption of the 1999 OHP.³ Earlier versions of the OHP used a Level of Service (LOS) standard; however, each letter grade assigned to a LOS category actually represented a range of traffic conditions, which made the policy difficult to implement. V/C ratio-based standards were chosen as part of the 1999 OHP for reasons of application consistency, manageable data requirements, reasonable forecasting accuracy, ease of application in different situations, and the capability of being averaged or aggregated into area-wide measures. In addition, due to

³ Eleven measures were evaluated during 1999 OHP development: LOS, v/c ratios, person throughput, vehicle travel time, person travel time, delay, modal split, average vehicle occupancy, vehicle miles traveled, vehicle hours traveled and accessibility.

responsiveness to changes in demand (volume) as well as capacity, the measure reflects the results of demand management, land use changes and multimodal policies.

- Need for flexibility. As the circumstances and challenges around the use of mobility standards evolve, there is a greater need for flexibility in their application. Additional flexibility also provides opportunities to better balance various objectives in transportation and planning decisions.

Alternate Mobility Standards through OHP Action 1F.3

OHP policy allows for the adoption of alternate mobility standards where practical difficulties make conformance with existing OHP mobility standards infeasible and efforts are taken to effectively manage the transportation system in the area.

There are two general categories of alternate mobility standards defined by their relative objectives. One category is for areas where the v/c ratio, or other potential measure, is made more restrictive to further protect capacity and mobility in an area. More restrictive standards have typically been considered as part of a transportation facility plan and can be an effective tool where it is desirable to further protect the investment in capacity. The other category is where the v/c ratio, or other potential measure, is made less restrictive to allow for more congestion in a particular area where it is infeasible or impractical to meet previously adopted standards due to identified constraints. The consideration of alternate mobility standards to allow for additional congestion on the state highway system is of most interest for providing additional flexibility in economic and community development applications. Provisions and processes for developing alternate mobility standards are summarized below.

- Where it would be infeasible to meet the standards established in the OHP, consider adopting alternate highway mobility standards for metropolitan areas or portions thereof, in STAs, or in areas of severe environmental or land use constraints. Additionally, OHP Action 1F.5 links financial constraints to the consideration and development of alternate mobility standards in the preparation of planning documents, such as corridor plans and TSPs.
- Action 1F.3 conveys that alternate standards shall use a v/c ratio or be v/c-related.⁴ The Action also notes that the standards be adopted as part of a regional and/or local TSP. However, the OHP Mobility Standard Guidelines (discussed in a later section of this report) have clarified this direction in that local or regional jurisdictions should adopt any applicable local or regional implementing actions as part of the proposed alternate mobility standard rather than adopt the new standard itself, which is solely an OTC authority.

⁴ OAR 731-017 in response to House Bill 3379 provides the opportunity to use a performance standard that is not v/c based for certain applications.

The plan for which the alternate standard applications are incorporated shall demonstrate that it would be infeasible to meet the existing mobility standards in the OHP and include all feasible actions for:

- Providing a local street network to relieve traffic demand on state highways and to provide convenient pedestrian and bicycle connections;
- Managing access and traffic operations to make the most efficient use of highway capacity;
- Managing traffic demand, where feasible, to manage peak hour traffic loads on state highways;
- Providing alternative modes of transportation; and
- Managing land use to limit vehicular demand on state highways consistent with OHP Policy 1B, Land Use and Transportation.

The plan shall also include a financially feasible implementation program and demonstrate strong public and private commitment to implement the actions.

Alternate Mobility Standard Processes

As established in OHP Action 1F.3, alternate mobility standards are enabled after conducting a system planning process to maximize the efficiency of transportation in the area through a number of system management and planning activities. This system approach provides that changes to mobility standards and the resulting congestion do not adversely impact the performance of other parts of the state highway system within the jurisdiction without weighing the impacts and tradeoffs as part of the decision making process.

Alternate mobility standards may be considered through Regional Transportation System Plans (RTSPs) in MPO areas, through development, update or refinement to local TSPs, and through ODOT facility plans. Other options for developing alternate mobility standards may be available for planning work that meets the overall intent of OHP Action 1F.3 but is outside of more traditional system planning efforts. Alternate mobility standards become effective after the OTC has adopted them as an amendment to the OHP. Consideration of alternate mobility standards through various processes is discussed in more detail in the OHP Mobility Standard Guidelines.

The alternate mobility standard process established in OHP Action 1F.3 ensures that decisions on changes to mobility expectations, including impacts to community livability and economic vitality, are jointly owned by both the local jurisdiction and the state. However, it takes time to work through this type of system planning process and can require extensive analysis that can result in spending additional planning funds. The process is also not as responsive to immediate opportunities, including those for economic development, as may sometimes be desired.

Situations Where Alternate Mobility Standards through OHP Action 1F.3 Are Not Warranted

While the opportunity to pursue alternate mobility standards is available for many different areas, their development is not intended to be a stand alone solution or a first step when dealing with mobility standard issues. Areas where potential transportation improvements and potential mitigation measures to address mobility issues have not adequately been considered and/or addressed do not warrant alternate mobility standards through OHP Action 1F.3 processes. Alternate standards are meant to be part of a potential planning solution when faced with constraints or objectives that make meeting current OHP mobility standards infeasible.

Additionally, alternate mobility standards through OHP Action 1F.3 were not designed for implementation through direct development review applications and proposals that trigger TPR Section 660-012-0060. These activities are designed to protect the safety of travelers and the function of, and the public investment in, transportation infrastructure by working with local governments to mitigate the impacts of the development.⁵ Development review activities are not system-level analyses or public policy-level discussions where mobility standard tradeoffs can be adequately addressed for the broader system. Mobility standard issues encountered in development review and TPR Section 660-012-0060 applications, including many legislative plan amendments, may prompt local jurisdictions to work with ODOT on system planning processes (e.g. TSP updates, refinement plans or facility plans) to further evaluate mobility standards, including potential alternate standard development. Some legislative plan amendments that adequately address the eligibility criteria and activities in OHP Action 1F.3 may be eligible for alternate standards based on their own planning work, but those are typically only for large scale proposals.

A new Oregon Administrative Rule (OAR 731-017) implementing House Bill (HB) 3379 from the 2009 legislative session provides new options for considering alternate mobility standards when local governments are unable to meet the requirements of TPR Section 660-012-0060 related to state highways. This process, and these applications, is outside of the policy framework provided in OHP Action 1F.3. Additional detail on OAR 731-017 is provided in a later section of this discussion paper.

OHP Mobility Standard Guidelines

ODOT developed the OHP Mobility Standard Guidelines to help address issues that arise in the application of the OHP mobility standard policy and to clarify flexibility within the existing policy. The Guidelines explore questions on implementing OHP Policy 1F and its associated actions and provide clarification around specific policy areas. In particular, the document provides focused guidance on the processes and tools to consider in developing alternate mobility standards. The OHP Mobility Standard Guidelines are

⁵ ODOT's Development Review Guidelines provides additional information on Agency development review applications.

available on the OHP website at: <http://www.oregon.gov/ODOT/TD/TP/orhwyplan.shtml> (follow the OHP Mobility Standard Guidelines link).

OAR 731-017 (Implementing House Bill 3379 from the 2009 Legislation Session)

House Bill 3379 was a result of local government concerns that TPR Section 660-012-0060 is an obstacle to economic development, in particular for implementation on state highways. The bill directed the OTC to adopt rules for an application process local governments can use when they are unable to meet the TPR requirements related to state highways. It allows for consideration of time extensions, alternative funding methods and transportation performance measure changes under local government applications. The legislation described consideration of economic development projects in this work and limited the number of applications that can be approved to four per ODOT Region per calendar year. ODOT initiated a stakeholder committee process to help craft the recommended rule language for OTC approval.

While the new OAR covers the full requirements of the 2009 legislation, perhaps the most significant change provided under the rule is the option to consider alternate mobility standards at the plan amendment level in order to approve a viable economic development project that otherwise could not meet TPR requirements. The legislation and the administrative rule also allow for the consideration of measures other than v/c, when an adequate methodology for analysis and implementation can be demonstrated.

Staff is currently working to develop a guidance document that assists ODOT Regions, local governments and other parties implement the administrative rule. Section 731-017-0055 of the rule itself requires an evaluation of successes, barriers and lessons learned through these applications two years following adoption of the rule.

Potential Next Steps

Recognizing the challenges impacting both the TPR and OHP mobility standards, staff has identified a number of potential work areas for consideration in balancing transportation and economic development objectives.

Oregon Highway Plan Policies and Implementation

- Consider ODOT management directives on implementation and interpretation of current policies to enhance consistent application and encourage the use of flexibility within the existing policy. One example may be for interpretation of the use of mobility standards in access management decisions.
- Evaluate and potentially revise the OHP Mobility Standard Guidelines based on lessons learned in Region work on alternate mobility standards and stakeholder input on planning and development issues. One focus area may be to streamline

acceptable processes for considering alternate mobility standards to enable a better response to changing or time sensitive local conditions.

- Evaluate analysis procedures to clarify and/or facilitate policy objectives and avoid barriers or difficulties for implementation. One example is clarifying what level of impact constitutes a “significant effect” on the state highway system.
- Consider the results of the current ODOT Research Project SPR 716: Development and Sensitivity Testing of Alternate Mobility Metrics. Research results should provide more comprehensive background for use of v/c-related measures or alternative measures to v/c in OHP mobility standard applications.
- Consider OHP policy changes to:
 - Promote consistency in application of policy direction,
 - Streamline alternate mobility standard processes and decisions,
 - Provide stronger consideration of economic development and job creation objectives in mobility standard decisions,
 - Promote infill and redevelopment, including growth in centers that promote strong multimodal connections and transit oriented development,
 - Consider additional flexibility for alternate mobility standards at the plan amendment level,
 - Consider a more encompassing policy framework for performance measures and mobility standards other than v/c,
 - Incorporate any changes needed to implement work from Senate Bill 1024 (Access Management Committee) decisions.

Transportation Planning Rule and Implementation

- Enhance Agency guidance for making “Reasonably Likely” determinations under TPR Section 660-012-0060 and provide a framework for funding considerations outside of the Statewide Transportation Improvement Program (STIP) and financially constrained Regional Transportation Plan lists.

Other Work

As discussed earlier, ODOT convened a stakeholder committee to help develop draft rule language to implement HB 3379. The resulting language has been approved and established in OAR 731-017. However, during stakeholder committee meetings, members discussed a number of important items that were outside the scope and authorities for writing the administrative rule. Staff worked with the group to provide an opportunity to discuss these issues following development of the rule language. The accompanying work product was a memo submitted to the ODOT Director providing recommendations on related issues outside of HB 3379 rulemaking that the Agency may wish to consider for future work. These issues will likely help inform potential next steps on the TPR and OHP and is attached for the Subcommittee’s information.