

HIGHWAY PERFORMANCE AND THE 1999 MOBILITY STANDARDS

APPLYING THE MOBILITY STANDARDS TO MINIMIZE CONGESTION

1. Introduction. The 1999 Oregon Highway Plan changed the performance standards for mobility on state highways. The highway mobility standards are applicable to all highway decisions made after adoption of the 1999 Oregon Highway Plan. The subsequent adoption of Oregon Administrative Rules (OAR) Chapter 734, Division 51 on highway approaches, access control, spacing standards and medians (access management rules) incorporated the new mobility standards as one of the criteria in managing access to State highways.

Adoption of the highway mobility standards resolved questions about how to assess the performance of intersections and driveways. This was accomplished by using an objective standard of the volume to capacity of an intersection, rather than delay to drivers. However, questions have emerged about how to apply the new standards.¹ The purpose of this paper is to:

- Discuss how the revised mobility standards impact ODOT's review of local land use and development applications and permitting approaches to the state system;
- Address questions of how to apply the highway mobility standards and the access management rules when affected intersections are already exceeding the V/C ratios or are projected to do so within the horizon study year; and
- Discuss the policy and access management rule provisions for avoiding further degradation of performance where the mobility standards are exceeded and improvements are not possible.

The conclusions of the paper are two-fold:

- **“Don't make it worse.”** In reviewing local government development review applications, where the affected intersections are already exceeding the V/C ratios or are projected to do so within the horizon study year, ODOT should request the local jurisdiction to require developers to mitigate their impacts so the intersection does not become worse than it would be without the development. This should be viewed as a general guideline since there will likely be situations where it will not be practical to require mitigation and there will also be situations where a 'don't make it worse' approach is not appropriate due to existing safety problems or other issues. If no mitigation is possible to even meet this “don't make it worse” standard, then ODOT should recommend that the local jurisdiction deny the application.
- **Approval, denial, mitigation under the access management rules.** When an approach permit is requested under OAR 734, Division 51, subject to the limitations listed in Section 3.A below, the mobility standards can be used to approve or deny an application or to require mitigation.

2. Revised Mobility Standards in the 1999 Oregon Highway Plan - Change in Performance Standards from Level of Service to Volume-to-Capacity.

The 1999 Highway Plan mobility standards identify the performance standards for State highways.² The 1999 Highway Plan highway mobility policy adopted volume-to-capacity ratios (V/C) rather than Level of Service (LOS) letter grades to measure highway performance. Volume to capacity (V/C) is a more precise and consistent measure and avoids the interpretation and consistency problems experienced with the 1991 Highway Plan policy. The highway mobility standards are expressed in V/C ratios, which are defined as “the peak hour traffic volume (vehicles/hour) on a highway section divided by the maximum volume that the highway section can handle.” The closer the V/C ratio is to 1.0, the more congested traffic is. In *ODOT v. City of Warrenton*, LUBA No. 99-153, the Land Use Board of Appeals upheld the V/C ratios as the relevant performance standard for state highways.

3. Use of mobility standards in development review. Development review applications are the land use connection between local governments and ODOT. The applications are notices to ODOT of development proposals that are generally, although not always, accompanied by a land use change (comprehensive plan amendment, zone change or a conditional use permit or variance.) Often there is no approach permit associated with the development proposal.

Where there is a land use change or change of regulation, the Transportation Planning Rule, OAR 660-012-0060, can be used to allege that there is a significant affect on the transportation facility. Where there is not a land use change then ODOT has no direct permit authority to deny or require mitigation but must instead rely on the local government to deny the application or require appropriate mitigation if the state highway is negatively affected. There are generally five types of actions available to ODOT:

- Respond to the local jurisdiction that the agency has no adverse comments since the land use would not cause the mobility standards to be exceeded and no mitigation is needed;
- Recommend that the local jurisdiction require mitigation to ensure the highway mobility standards will be met for the affected facility;
- Recommend that the local jurisdiction require mitigation that will keep the intersection at a condition no worse than it would be without the added traffic from the proposed development;
- Recommend that the local jurisdiction deny the application due to inadequate public facilities as based on the adopted transportation system plan or local approval criteria;
- In limited situations, the local government may propose to the Oregon Transportation Commission that it adopt alternate mobility standards that reduce mobility standards and support integrated land use and transportation plans for promoting compact development. Adoption of alternate mobility standards is an option only available in a few narrowly prescribed situations that require major alternative planning efforts.³

There are situations where each of these actions may be appropriate. However, if the agency is to be successful in its efforts to influence the effects of growth and development along the state highways, then the actions must be judicious and supportable. For example, recommendations to a local government to deny an

application must make a strong showing of negative impacts to the highway and must be tied to a local jurisdiction's ordinances.

Requesting that the local government require mitigation is, in many cases, the most reasonable course of action to pursue. Mitigation to ensure the Highway Plan's mobility standards are met and/or maintained is consistent with the department's policies on access management and system operations. In situations where mobility standards are exceeded and the deficiencies are correctable, but the necessary improvements are not planned, mitigation is also consistent with the Highway Plan. In these latter circumstances, ODOT's objective is to improve highway performance as much as possible and avoid further degradation of performance where improvements are not possible.⁴

3.A Mobility standards and local approval criteria. The highway mobility standards give a clear and objective standard of review that can be used to form the basis of recommendations to local governments. In the development review process, ODOT can request local governments to require mitigation based on the highway mobility standards. In many cases ODOT can also use the approval criteria of local governments as a vehicle for referencing the mobility standards. The salient point is that the mobility standards provide ODOT the ability to buttress its position that local governments should require mitigation.

Local governments vary in the precise wording of their zoning ordinances, but in general have some language about the need for adequate public infrastructure to support development. For example, Deschutes County has the following in Section 19.76.070 of their Site Plan Approval Criteria in their development code: 19.76.070(D) "...location and number of access points to the site...shall be designed to promote safety and avoid congestion on adjacent streets" and 19.76.070(G) "[T]he proposed use shall not be an undue burden on public facilities, such as the street, sewer, or water system." The City of Bend in their General Conditional User Permit Criteria in 10.10.29(3)(a) requires consideration of "...alteration of traffic patterns and the capacity of surrounding streets..." and Site Plan Criteria 10.10.23(8)(g) states the intended use "shall not be an undue burden on public facilities, such as the street, sewer, or water system." A determination or finding about the sufficiency of infrastructure must be done as part of the local government's staff report on the land use application. In these situations ODOT can reference the language from the local ordinance to incorporate the mobility standards (volume-to-capacity ratio) during development review.

3.B Don't make it worse - Recommended actions where V/C ratios are already exceeded. There are two important situations where the mobility standards can be used to ensure the safety and convenience of the traveling public through the development review process. These situations arise when:

- V/C ratios are already exceeded and a land use allowed under existing zoning would **contribute additional traffic** to a failing intersection, and when

- A land use application would route its traffic to an *already failing intersection* or one that will fail within the designated horizon year even without the proposed development.

These situations often arise where the comprehensive plan allowed for commercial zoning along the highway and development has occurred consistent with those designations. Typically, this is more of a problem in urban areas, particularly where the state highway doubles as a major city arterial.

In instances where the affected intersections are already exceeding the V/C ratios or are projected to do so within the horizon study year, ODOT should request that the local jurisdiction require developers to mitigate their impacts so the intersection does not become worse than it would be without the development. Thus if the OHP V/C standard for an intersection is 0.70 and it's already functioning at 0.85 before the development, it should be at 0.85 after the development. However, this should be viewed as a general guideline since there will likely be situations where it will not be practical to require mitigation and there will also be situations where a 'don't make it worse' approach is not appropriate due to existing safety problems or other issues. If no mitigation is possible to even meet this "don't make it worse" standard, then ODOT should recommend that the local jurisdiction deny the application.⁵

4. Oregon Administrative Rules Chapter 734, Division 51, Highway Approaches, Access Control, Spacing Standards and Medians (access management rules). The mobility standards from the 1999 Oregon Highway Plan were adopted in OAR Chapter 734, Division 51. The access management rules list the 1999 OHP mobility standards as approval criteria for both private and public approaches. Approval of an application for an approach and a subsequent construction permit are required to construct an approach to the state highway for either new connections or a change in use of an existing connection. This means that when an approach permit is requested, subject to the limitations listed below, the mobility standards can be used to approve or deny an application or to require mitigation.

4.A The authority to implement the mobility standards for approach permits is tempered in two situations:

4.A.1. **Future year analysis.** The highway mobility standards from the future year analysis *cannot be used as the basis for denial* of the requested approach(es). Only when the mobility standards are exceeded at the time of the development can the permit be denied. Where the mobility standards will be exceeded at some point in the future, the permit cannot be denied, although mitigation can be required.⁶ In other words, an application for an approach permit to the highway near a failing intersection could be the grounds for either denial or mitigation requirements. An application for an approach permit to the highway near an intersection that will fail up to 15 years in the future cannot form the ground for denying an application, but could form the basis for requiring mitigation. Mitigation measures, including access management plans, are discussed in OAR 734-051-0210.

4.A.2. Reasonable Access. Under what circumstances an application for an approach permit can be approved, denied, or mitigated varies depending upon a number of factors, including whether the applicant has a reasonable access to the subject property.

4.A.2.a Where the applicant *does not have reasonable access* to its property, considerations in granting a permit are limited to considerations of safety of the traveling public and consistency with the highway classification and highway segment designations of the facility.⁷ In these situations, the mobility standards are not a factor in granting the permit. While mitigation can be required, the permit cannot be denied outright without constituting a taking. Where mitigation cannot make the approach safe enough, the permit may be denied but ODOT would then be in the position of having to compensate the owner on the basis of a “taking” of the property.

4.A.2.b Where the applicant *does have reasonable access* to its property, the applicant has to meet the highway mobility standards, as well as other requirements, to obtain an approach permit.⁸ Where mitigation requirements, that may include an access management plan, can be met, the permit can be allowed. However, where the mobility standards or other requirements cannot be met, the permit can be denied.

4.B. Avoiding further degradation of performance under the Access Management Rules.

Both the Highway Plan and Division 51 contain objectives for avoiding further degradation of the highway where mobility standards are exceeded. The methodology for achieving the objectives is different between the policy and the rules. The “don’t make it worse” strategy discussed above is the recommended approach for development review functions. For approach permits, Division 51 has similar goals where the goal is to not worsen current approach spacing. The provisions for approach permits are governed by specific language in the rules. For example, OAR 734-051-0190(2)(c) defines in-fill development situations where it may not be possible to meet the appropriate access management spacing standards, and states that:

“When in-fill development occurs, the goal is to meet the appropriate access management spacing standards. This may not be possible and at the very least the goal is to improve the current conditions by moving in the direction of the access management spacing standards. Thus, in-fill development should not worsen current approach spacing. This may involve appropriate mitigation, such as joint access...”

In another provision of the rules discussing the future year analysis for zone changes and plan amendments for Traffic Impact Studies, “...the highway mobility standard for the highway segment for future year analysis shall be used to evaluate performance, to improve performance as much as feasible and to avoid further degradation of performance where no performance improvements are feasible.”⁹ The language of Division 51 will determine under what circumstances the goal will be to not worsen current spacing standards rather than meet the spacing standards requirement.

5. Conclusion. As the State highway system becomes more congested, the mobility standards in the Highway Plan and the access management rules will be useful tools to maintain acceptable highway performance. These tools also recognize that there will be instances where the mobility standards are or will be exceeded and there are no planned transportation improvements. In these instances, both policy and rules establish the objective of improving highway performance as much as possible and avoiding further degradation of highways.

Questions and input from agency personnel involved in implementing Division 51 and the Highway Plan are vital for the successful implementation of these policies and rules. If you have further questions, suggestions or comments, please direct them to Craig Greenleaf, Transportation Development Deputy Director, or to a Region Access Management Engineer or Region Planning Manager.

¹ This paper is not an attempt to answer all questions arising from adoption of the Highway Mobility Standards and the Access Management Rules. For example, the relationship between mobility standards and the Transportation Planning Rules, OAR Chapter 660, Division 12, will be discussed in a separate paper. Other questions will be addressed in the future as the agency develops further clarity on implementation of the policies and rules in the Highway Plan and the administrative rules.

² Tables 6 and 7 of the 1999 Oregon Highway Plan, pages 80 and 81.

³ OHP Action 1F.3, p. 77.

⁴ OHP p. 74.

⁵ The “don’t make it worse” strategy was endorsed by the Planning Business Line Team at their May 2000 meeting.

⁶ OAR 734-051-0080(1)(b)(E) and 734-051-0080(2)(F).

⁷ OAR 734-051-0180(4)(b)(C) and 734-051-0180(4)(c).

⁸ OAR 734-051-0080(1)(a)(A),(B).

⁹ OAR 734.051-0080(1)(b)(A)-(I) and 734-051-0800(2).