Regional Mobility Policy Update

Examples of Current Approaches | Overview

Metro

OREGON DEPARTMENT OF TRANSPORTATION

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April 2021

Introduction

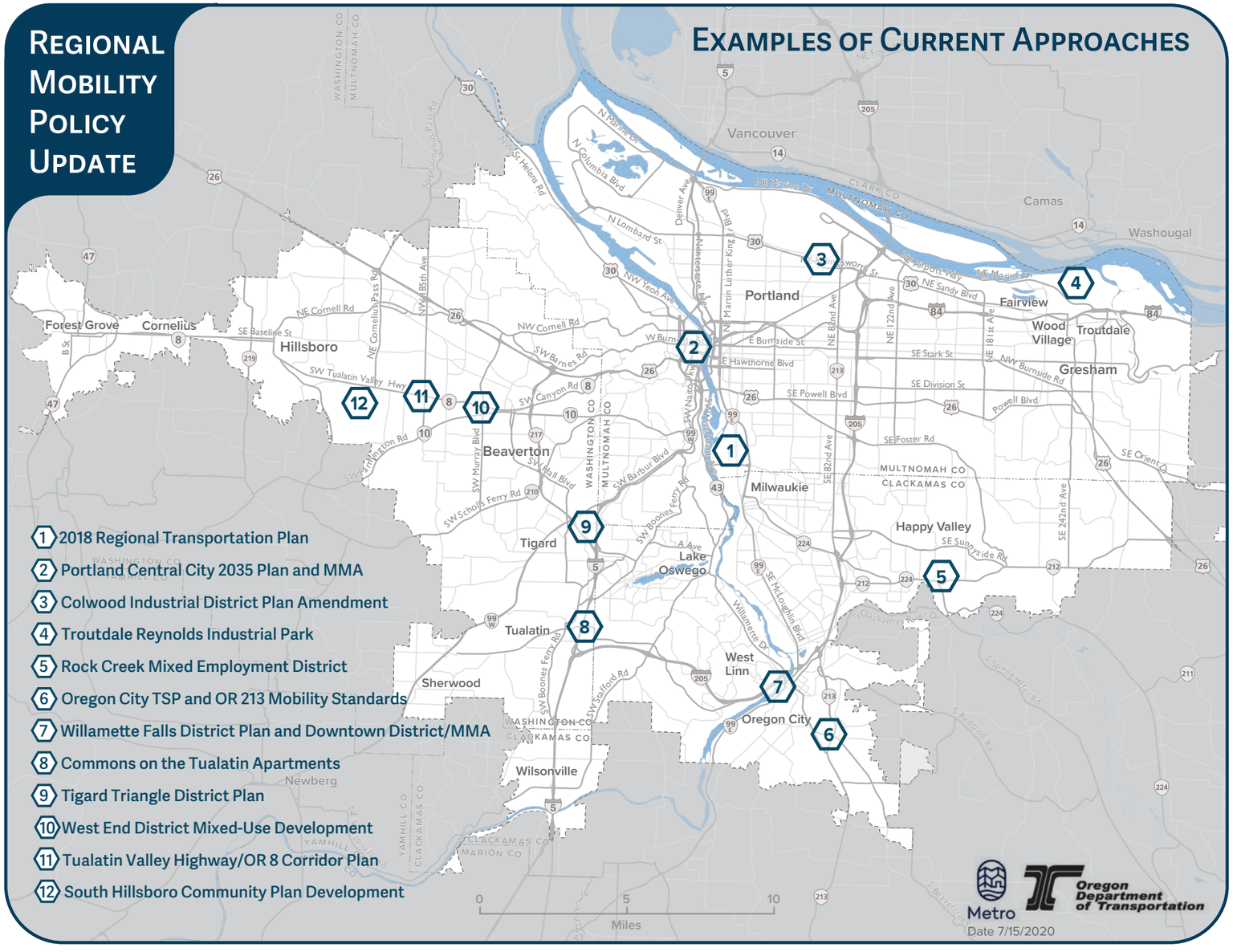
Metro and the Oregon Department of Transportation (ODOT) are working together to update the policy on how mobility is defined and measured in the Portland area in the Regional Transportation Plan (RTP), local transportation system plans (TSPs), and when evaluating the traffic impacts of local comprehensive plan amendments.

The current regional mobility policy (RMP) is contained in both the RTP and the Oregon Highway Plan (OHP) Highway Mobility Policy 1F.

The current policy is vehicle-focused and measures congestion levels using the ratio of the number of vehicles on a roadway (known as volume) during the typical commute time to its vehicle capacity. The measure is known as the volume-to-capacity ratio (v/c).

Since the 1990s, the current regional mobility policy has guided how streets and highways are planned for and managed in communities in the greater Portland area. Policy 1F of the OHP supports and offers flexibility for the region to develop a more comprehensive approach to defining and measuring mobility—that is the focus of this effort.

This overview and the factsheets that follow summarize current practices related to how the mobility policy in the RTP and the OHP are used in different planning applications and identify opportunities for improvement in an updated policy. The factsheets were developed through document review and interviews conducted with agency staff on 12 examples of recent system plans, plan amendments, and development proposals.



System Planning

Under Oregon's land use program, system planning results in a land use decision that integrates land use and transportation to provide long-range direction on the development of transportation facilities and services for all modes to serve adopted land use plans. System planning includes regional and local TSPs, corridor plans, ODOT facility plans, and other area plans.

Current Practice

- The RTP RMP and Table 7 of the OHP Policy 1F v/c measure and thresholds are used as targets in conjunction with other multimodal policies, measures, and targets to define acceptable levels of traffic performance, identify transportation needs where those performance levels are not met, and prioritize transportation investments to meet those needs.

- The RTP and OHP do not provide clear guidance for how to balance multiple policies and needs. Oregon's Transportation Planning Rule (TPR) requires consideration of a number of criteria when developing TSPs, including reducing reliance on any one transportation mode and reducing vehicle miles traveled, but does not set expectations for how to prioritize projects to address needs.

- Other policy objectives and considerations besides meeting adopted v/c targets are taken into account during system planning as well as during project prioritization and when developing the financially-constrained RTP project list.

- The financially-constrained RTP project list developed during system planning serves as the basis for making subsequent plan amendment decisions under the TPR (Section -0060).

- Metro applies the RTP RMP v/c targets on arterial roadway links during development of the RTP, while local governments and ODOT apply the RTP and OHP v/c targets at both the roadway link and intersection levels. The OHP v/c targets are applied to state transportation facilities.

- While projects on ODOT facilities or financed with State or federal money are reflected in the financially-constrained RTP project list, they are not consistently reflected in local TSPs.

- Unlike the RTP, local TSPs are not required to include a financially-constrained project list, though some jurisdictions choose to do so.

Key Takeaways

- V/c is one of many measures being used in system planning and in balance with other policies and measures. However, there is broad support for the updated mobility policy to include a more complete definition of mobility and multimodal measures by which to evaluate whether system plans are achieving desired mobility outcomes.
- Using v/c as the only measure of mobility is not consistent with the current view of mobility being about people and goods, not just motor vehicles. The updated mobility policy and measures need to reflect the many aspects of mobility, including all users' ability to get to the places they want or need to go by a range of modes. Flexibility is needed to apply different approaches in different areas based on land use and transportation contexts and multimodal, functions of transportation facilities.
- The current policy does not uniformly reflect the fiscal capacity of ODOT, Metro and local governments to construct transportation projects necessary to meet the mobility policy targets.
- The updated policy should result in consideration of both policy tools—such as parking management, road pricing, and TDM programs—and multimodal investments as means to achieve the updated policy.
- Establishing mobility measures and targets that can reasonably be achieved in system plans will reduce frustrations with the policy as it is applied to plan amendments.
- The implementation plan for the updated policy should provide guidance for:
  - how to balance and integrate the updated mobility policy with other policies and desired outcomes in TSP and RTP decision-making
  - consistency in how the updated policy is measured
  - consistency in how local jurisdictions include projects on ODOT facilities in their TSPs and what level of funding they should assume in their financially constrained TSP

Examples of Current Approaches (see the pages that follow for details)

01
Regional Transportation Plan (2018)

06
Oregon City TSP and OR 213 Alternative

11
Tualatin Valley Highway Corridor Plan

Plan Amendments

Under Oregon's land use program, plan amendments are city or county land use decisions that change a comprehensive plan or zoning text or map within their boundary. Plan amendments must comply with the TPR (Section -0060). This means a jurisdiction must determine if there are significant impacts to planned transportation facilities, and if so, mitigate those impacts.

Current Practice

- Per TPR 0060, adopted standards of an affected transportation facility or service apply to the evaluation of plan amendments.
- The OHP Policy 1F Table 7 mobility policy v/c thresholds are applied as standards to determine whether the plan amendment has a significant effect on State transportation facilities. The v/c measure is the only adopted measure in ODOTs various modal and topic plans and therefore the only standard that can legally be applied to plan amendments.
- Local governments are required by the OHP and the TPR 0060 to provide notice and coordinate with ODOT on land use changes that have a potential "significant effect" on state transportation facilities. This ensures ODOT is able to participate in decision-making.
- There are a variety of mitigation options available (provided in TPR 0060 and the OHP) to help meet the mobility policy when the OHP Table 7 v/c standard cannot be met on State transportation facilities. However, the process of agreeing on methods and assumptions in pursuing these options can be time consuming and costly.
- The v/c target used during system planning is often not met in many locations within financially-constrained TSPs. This makes it difficult for subsequent plan amendments to meet the adopted mobility standard .

Key Takeaways

- In effect, the OHP v/c standard is more important in plan amendments than during system planning.
- There is consistent agency support for a broader set of mobility measures that can be applied to the determination of significant effects and potential mitigation measures for plan amendments.
- Different measures, targets or methods may be needed for plan amendments versus transportation system plans. The system plan establishes the planned multimodal transportation performance for an area, and a plan amendment should look at consistency with that system plan, not just consistency with the mobility policy, as the primary evaluation method.
- While plan amendments rely upon the local, regional, and state projects adopted in the RTP financially-constrained project list for the traffic analysis, these projects may not be constructed at the time of development. This can be a barrier to development when assumed projects have not been constructed.
- A mechanism for plan amendment applicants to make contributions towards adopted TSP projects is needed, not only on city or county streets but also on State highways.
- Clear guidance on methodologies and assumptions to be used in transportation impact analyses is needed. The updated policy and associated measures and methods should allow consideration and evaluation of the entire range of mitigation strategies listed in TPR 0060 and the OHP, including safety improvements, multimodal improvements, and transportation system and demand management actions. This may require changing local development codes and the ODOT Analysis Procedures Manual.

Examples of Current Approaches (see the pages that follow for details)

02 **Portland Central City 2035 and MMA**

03 **Colwood Industrial District Plan Amendment**

05 **Rock Creek Mixed Employment District**

07 **Willamette Falls District Plan** & Downtown District/ Multimodal Mixed-Use Area

09 **Tigard Triangle District Plan**

12 **South Hillsboro Community Plan Development**

Development Review

Under Oregon's land use program, development review is a city or county process to evaluate development proposals for compliance with the jurisdiction's adopted development code. The process determines if the proposed development is permitted and consistent with those regulations. The complexity of the process varies depending on the size and complexity of the proposed new development being considered, including potential transportation impacts. The development review process and standards for determining compliance vary across jurisdictions.

Current Practice

- While ODOT does not have jurisdiction over development decisions for permitted land uses that do not require a plan amendment, coordination with ODOT is required when direct access to the State transportation system is requested. Many jurisdictions coordinate with ODOT when a development is expected to generate significant traffic on a State highway.
- ODOT applies OHP Policy 1F Table 7 as standards to development review when ODOT has permitting authority for site access and when providing comments to local jurisdictions during public review of the proposed development.
- When development proposals may affect state transportation facilities, ODOT participates in the public review of a development application and may make recommendations about how a land use approval may be conditioned to protect the function and performance of affected State transportation facilities.
- ODOT's comments are frequently based on whether or not the development can meet the v/c mobility targets in the OHP, and may include consideration of impacts to safety, operations and bike, pedestrian, transit and other transportation facilities. The comments on needed improvements are handled differently by each jurisdiction.
- Some local jurisdictions apply OHP Table 7 v/c thresholds as standards for state facilities, but they are not required to. Some jurisdictions apply the v/c thresholds as development requirements whether or not specified in their development code.
- Transportation projects identified in the financially-constrained RTP project list and local TSP are not always funded or in place at time of development.

Key Takeaways

- The implementation plan for the updated policy should clarify local application of OHP Table 7 to development review.
- Local jurisdictions should establish multimodal targets and standards in their plans and implement regulations consistent with the updated RMP, OHP Table 7, and their transportation system plans. The updated RMP and OHP Table 7 could serve as a model for them, with some flexibility to set their own standards for development review.
- There is consistent agency support for a broader set of measures that can be applied to development review.
- Local jurisdictions would like to apply updated multimodal measures and their associated targets and standards to support a proportionality evaluation to help obtain off-site multimodal improvements from developers consistent with their TSPs.

Examples of Current Approaches (see the pages that follow for details)

04 **Troutdale Reynolds Industrial Park**

08 **Commons on the Tualatin**

10 **Beaverton West End District Mixed-Use Development**

Regional Mobility Policy Update

Examples of Current Approaches | Transportation System Plan

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Example

01

Regional Transportation Plan (2018)
Portland Metropolitan Area, OR

April 2021

Overview

The 2018 Regional Transportation Plan (RTP) is a long-range blueprint that guides local and regional planning and investments for all forms of travel throughout the Portland metropolitan area—motor vehicle, transit, bicycle, walking, and goods and freight movement.

The RTP is outcomes-based. It defines goals, objectives, performance targets, policies and investment priorities to implement the following strategies:

- Climate Smart Strategy
- Transportation System Management and Operations Strategy
- Regional Transit Strategy
- Regional Freight Strategy
- Regional Active Transportation Plan
- Regional Travel Options Strategy
- Regional Transportation Safety Strategy
- Regional Emerging Technology Strategy

The RTP defines what a complete transportation system should look like and how it should be designed, managed and maintained.

Location:
Portland Metropolitan Area

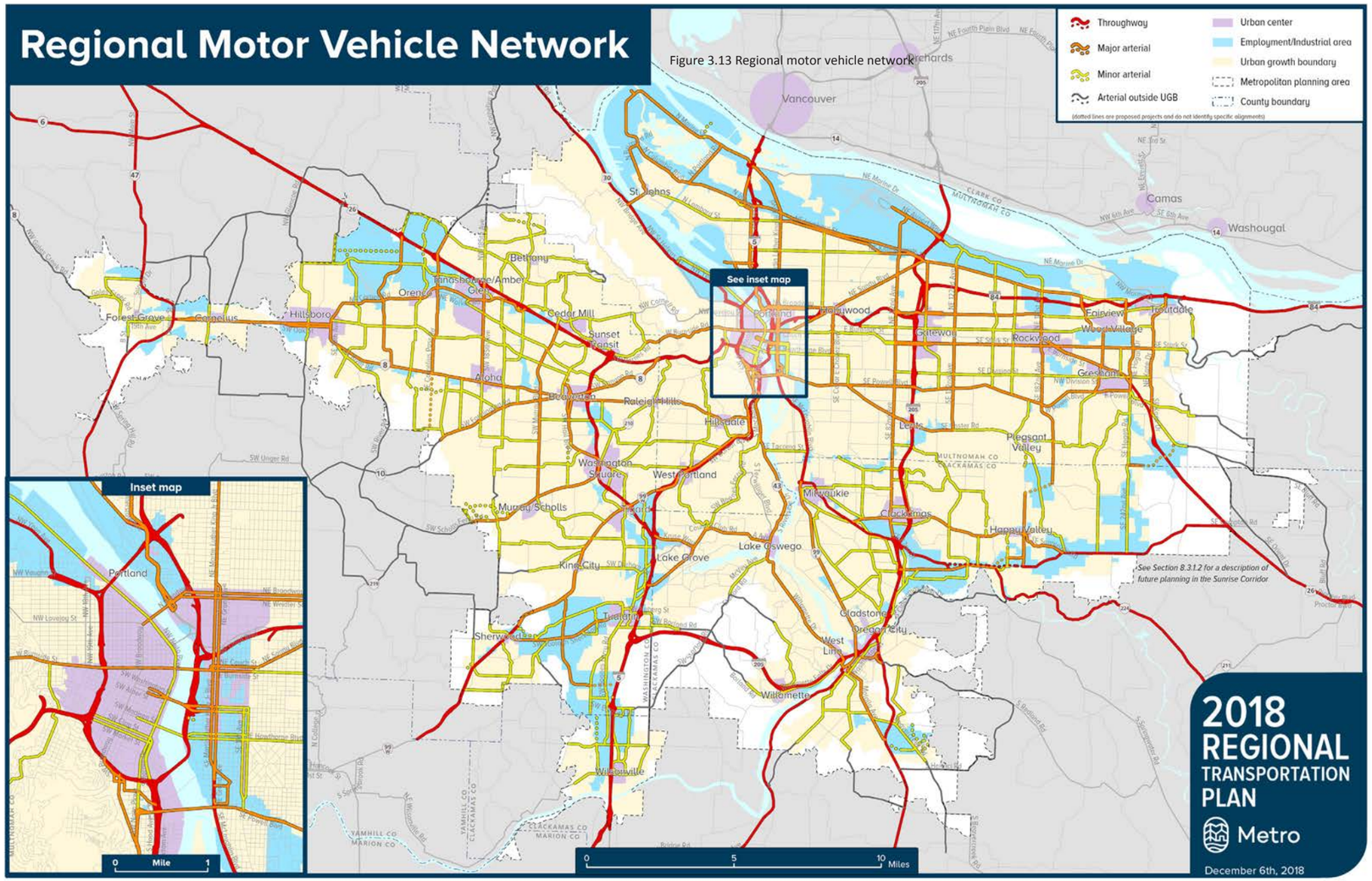
Plan Type:
Regional Transportation System Plan for the Portland metropolitan area

Each of the strategies is accompanied by a map showing the functional classifications or designations of the facilities and services that comprise the regional system relevant to the given mode or topic.

The RTP also establishes the region's federally-required congestion management process and related policies.

Current and future transportation needs and the investments required to meet them are identified in the plan.

The plan also identifies funds the region expects to have available during a 20-year time horizon to build priority investments as well as maintain and operate the transportation system.



NOTE: Throughways are designated in the 2018 Regional Transportation Plan and generally correspond to Expressways designated in the Oregon Highway Plan.

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Overview (cont'd)

In addition to meeting federal requirements, the plan serves as the regional transportation system plan (TSP), consistent with Statewide Planning Goals, the Oregon Transportation Planning Rule (TPR), the Metropolitan Greenhouse Gas Reduction Targets Rule, and the Oregon Transportation Plan and its modal and topical plans.

The plan also addresses a broad range of State and regional objectives, including implementing the following:

- **2040 Growth Concept.** The region's adopted land use plan under State law.
- **Climate Smart Strategy.** The region's adopted strategy for reducing greenhouse gas emissions from cars and small trucks under State law.

The last RTP update was adopted in 2018.

How was the current mobility policy a factor?

The RTP defines mobility as "the ability to move people and goods to destinations efficiently and reliably."

Chapter 2 of the RTP lays out 11 goals and more than 40 objectives that guide the region's transportation planning and decision-making.

The plan includes 16 performance measures that are used to evaluate performance of the overall system.

Goal 4 (Reliability and Efficiency) states "The transportation system is managed and optimized to ease congestion, and people and businesses are able to safely, reliably and efficiently reach their destinations by a variety of travel options."

Objective 4.1 (Regional Mobility) states, "Maintain reasonable person-trip and freight mobility and reliable travel times for all modes in the region's mobility corridors, consistent with the designated modal functions of each facility and planned transit service within the corridor."

The RMP v/c target is one of five key performance measures used to evaluate system performance and progress toward achieving Goal 4 for throughways, arterials, and the regional freight network. Other measures are: freight delay, transit productivity, multimodal travel, and multimodal travel times.

The RMP v/c measure is included in the 2018 RTP in Section 3.5.4 Regional Mobility Policy. The v/c listed in Table 3.6 are used to evaluate roadway congestion. While they can apply to any part or all of the roadway system within the region, they are especially applicable to all State of Oregon-owned facilities. This is because they reproduce Policy 1F of the Oregon Highway Plan, which lists performance targets for statewide operations in Table 6, and for the Portland metropolitan area in Table 7.

The RMP is centered solely on measuring vehicle congestion (v/c). It does not include measures of mobility for transit, biking, or walking.

Outcome

The 2018 RTP found that the region cannot achieve the v/c targets in many locations listed in Table 3.6 within current funding levels or with the mix of investments included in the plan.

Other parts of the RTP and other regional planning policy, including the congestion management process (CMP), define strategies for local governments that wish to move closer to the RMP v/c target. These prioritized strategies aimed at efficient operations, land use, active transportation, managing demand, and other strategies.

The RTP includes a broad set of measures that are not specifically listed in the RMP, many of which address mobility-related performance outcomes.

The RTP also includes a diverse set of policies that help manage current and future travel demand in the system.

Methodologies and Measures

- The 2018 RTP relies on multiple system performance measures and targets to support the region's transportation planning and decision-making.

  Performance measures identify gaps and deficiencies. Performance targets are for tracking progress.

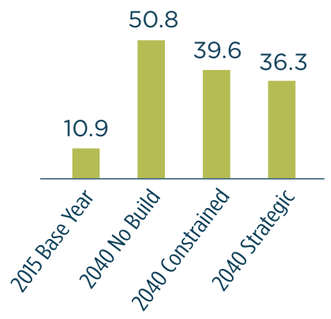
  Chapter 2 of the RTP identifies key system performance measures. These are listed in the table on the next page.
- The RMP sets minimum motor vehicle performance targets (v/c). These targets help planners evaluate the extent of motor vehicle congestion on throughways and arterials at different times of day and determine if there are adequate facilities to meet the region's needs and planned land uses.

  These targets were amended in the Oregon Highway Plan in 2000 and indicate a performance level "deemed acceptable at the time of... adoption."
- The RMP language also states that "the system analysis described in Chapter 7 finds that the region cannot achieve the mobility policy listed in Table 3.6 within current funding levels or with the mix of investments included in the analysis."

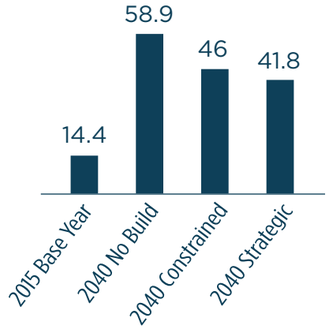
  In practice, the RMP targets listed in Table 3.6 are used to diagnose areas with significant congestion to inform strategies to improve system performance.
- Other parts of the RTP offer potential strategies for moving closer to the RMP v/c targets when the system is built out, or to better manage congestion.

  The Congestion Management Process defined in the RTP motor vehicle policies provides a wide range of strategies focused on community design, incentives, system management/ operations, congestion pricing, active transportation, transit, and street/throughway capacity.

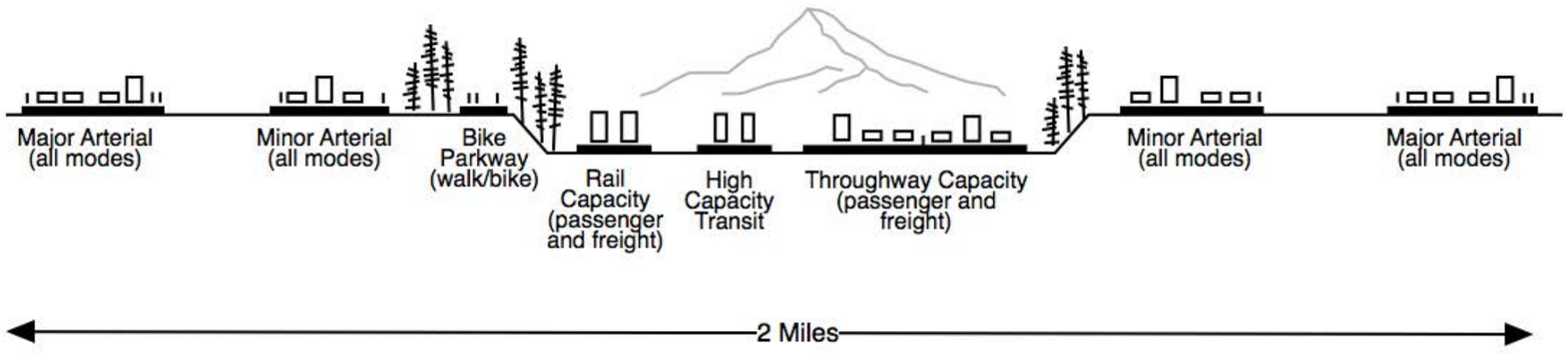
Throughway Network Miles Not Meeting the RMP between 4:00-6:00 PM



Arterial network miles not meeting the RMP between 4:00-6:00 PM



Regional Mobility Corridor Concept



Strengths & Weaknesses of Current Policy/ Approach

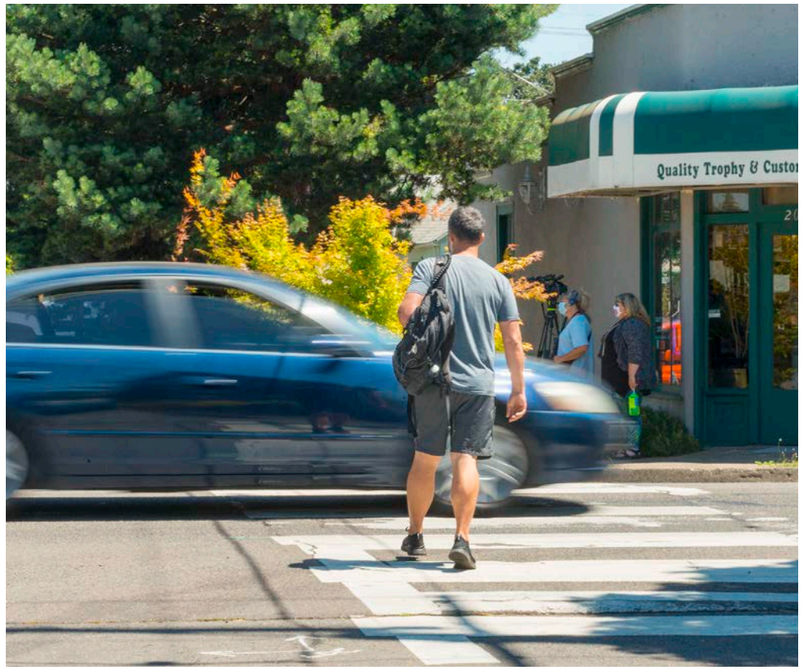
- The RTP is not limited to measuring vehicle congestion or bound to achieve the v/c targets listed in the policy. Because of that, the RTP is not constrained to evaluating the motor vehicle system.
- The current v/c target does not measure mobility for people using transit, biking, or walking. However, the RTP does measure other aspects of mobility, such as system completeness for active transportation; non-single-occupant-vehicle mode share; vehicle miles traveled per capita; transit ridership; and access to jobs, community places, and ports/industry.
- The 2018 RTP failed to show that the roadway system can meet can meet the v/c targets the RMP and Oregon Highway Plan Table 7 within the 20-year planning period.
- The current policy does not reflect the fiscal capacity of ODOT, Metro, and local governments to construct transportation projects needed to meet the mobility policy.

  This is especially true in planned growth areas including urban growth boundary expansion areas.

  Projects built to the current mobility policy may not be consistent with State and regional climate, equity, safety, vehicle miles traveled (VMT), and air quality goals, among others.
- V/c values where volume is greater than capacity are not logical measurements. This condition reflects unmet demand.
- RTP performance targets are tied directly to outcomes-based goals across nine categories, ensuring both the region and local jurisdictions have policy guidance for holistically and equitably improving transportation system performance. These provide more guidance for RTP and TSP development than for the RMP.

Opportunities for Improvement

- The definition of mobility and the measures by which the region evaluates it should be addressed in an updated policy.
- The narrow focus of the v/c measure of "mobility" in the RMP does not adequately reflect the broader mobility corridor concept policy in the RTP.
- The RTP reports findings on how well it performs across many outcomes-based goals and objectives relative to the plan's performance targets.



Source: ODOT

These outcomes-based goals and objectives (and associated measures) can be used to help design an updated RMP that holistically addresses more mobility elements beyond just vehicle congestion.

Source: ODOT

Source: ODOT

Key System Performance Measures

1 VIBRANT COMMUNITIES
- Access to transit
- Access to community places

2 SHARED PROSPERITY
- Access to jobs
- Access to industry and freight facilities
- Multimodal travel
- Affordability
- Access to bicycle and pedestrian parkways

3 TRANSPORTATION CHOICES
- Mode share
- System completeness
- Access to transit
- Access to bicycle and pedestrian parkways

4 RELIABILITY & EFFICIENCY
- Multimodal travel
- Multimodal travel times
- Congestion
- Freight delay
- Transit productivity

5 SAFETY & SECURITY
- Crashes (fatal and severe injury)

6 HEALTHY ENVIRONMENT
- Potential habitat impact
- Potential historical resources impact
- Potential tribal lands impact

7 HEALTHY PEOPLE
- Public health
- Clean air

8 CLIMATE LEADERSHIP
- Greenhouse gas emissions
- Vehicle miles traveled
- Climate smart implementation

9 EQUITABLE TRANSPORTATION
- Access to transit
- Access to jobs
- Access to community places
- System completion
- Affordability

10 FISCAL STEWARDSHIP
- Infrastructure condition
- Sustainable funding

11 TRANSPARENCY AND ACCOUNTABILITY
- Meaningful engagement
- Performance-based planning

The Regional Mobility Policy Update is a joint effort between Metro and ODOT. Additional information is available at **oregonmetro.gov/mobility**.

Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Legislative Plan Amendment

Metro

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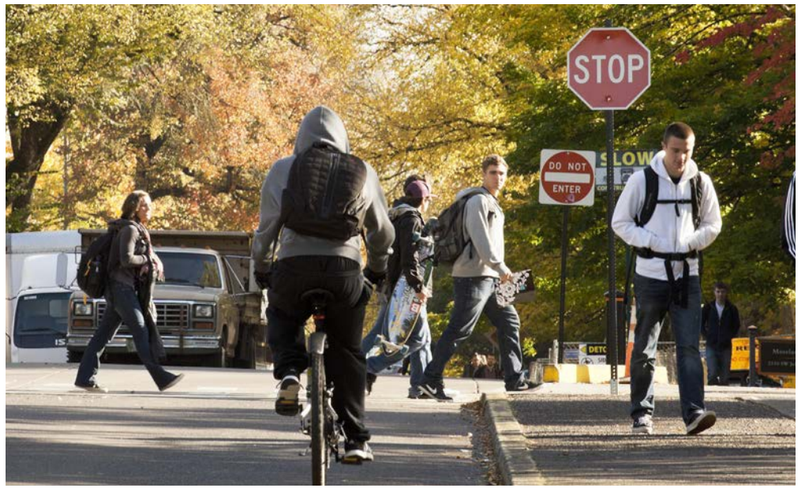
Example

02 Central City 2035 and MMA Portland, OR

April 2021



Source: ODOT

Location:
Portland, OR
Multnomah County

Plan Type:
Legislative Plan Amendment

Overview

In 2016, the City of Portland adopted an update to its comprehensive plan. Central City 2035 (CC35) was developed as the first amendment to the comprehensive plan. In adopting CC35 as an amendment, the City also designated the Central City as a Multimodal Mixed-Use Area (MMA), a designation provided for in the TPR.

Within a designated MMA, local governments are no longer required to consider traffic congestion as a performance measure when evaluating plan amendments. Evaluation of traffic safety and operations remains a requirement.

By designating the Central City as an MMA, the City was able to shift evaluation of its transportation system's performance away from focusing purely on congestion for motor vehicle travel to consider, measures for safety, climate change, access to destinations and equity.

The MMA designation was adopted with ODOT concurrence. ODOT was a partner in the evaluations and assessments leading to the designation, including a substantial role in technical analysis.

The written concurrence between Portland and ODOT included specific transportation investments needed to address identified safety deficiencies, as well as procedures for review and adoption of future plan amendments.

The TPR requires the following characteristics for MMA designation:

- High-quality connectivity to and within the area by modes of transportation other than the automobile
- A denser level of development of a greater variety of residential, office, retail, restaurants, public, open space, civic and cultural uses than in surrounding areas
- A plan and implementing measures to encourage and maintain these multimodal mixed-use characteristics through development standards
- An understanding that increased automobile congestion within and around the MMA is acceptable as a potential trade-off for achieving these multimodal mixed-use characteristics

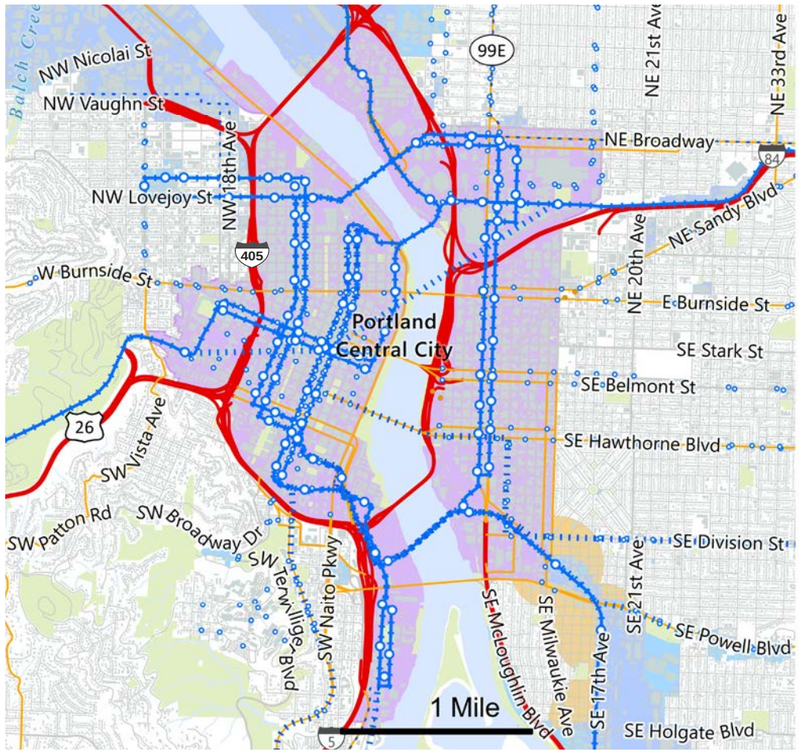
Outcome

CC35 was adopted as a legislative amendment with ODOT concurrence, enabling the City to pursue more dense development in the Central City, served by a robust network of multimodal transportation options.

A written agreement between ODOT and the City of Portland affirms the City's understanding that the MMA designation is an acknowledgment that increased congestion will no longer be evaluated in determining "significant effect," for plan amendments but that safety considerations still apply.

The agreement identifies specific projects to be added to the City's transportation system plan. The roadway projects were identified to address potential queuing at ramp interchanges, which can be a safety deficiency if queues spill back onto the freeway travel lanes.

Portland Central City



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Source: Oregon Department of Transportation

Outcome (cont'd)

These projects include:

- **SE Yamhill at SE Water Avenue Traffic Improvements**, to install a signal at the intersection to reduce queue length and provide advanced warning sign of queues at exit ramp
- **SW Broadway Traffic Improvements**, which would improve SW Broadway and other surface streets to reduce vehicle queue on the I-405 SB Exit Ramp that connects to SW Broadway
- **I-405/NW Glisan Traffic Improvements**, which would reduce queues on the exit ramp
- **I-405 Safety Study**, in the transportation system plan studies list, which involves developing conceptual designs for I-405 ramps to improve safety and reduce weaving conflicts
- A number of bicycle and pedestrian safety improvements were also added

The MMA substantially removes many of the traditional traffic analyses required for plan amendments. The written agreement between ODOT and the City lays out a new 10-step process for evaluating plan amendments.

Some notable steps include specific trip generation thresholds for determining significant effect and guidance on procedures for conducting queuing analysis. The agreement also makes a distinction between legislative (where the local government is the applicant) and quasi-judicial (where a development interest is the applicant) for plan amendments that require mitigation:

- **Legislative:** Provide ODOT approved mitigation or do not proceed with legislative change. Mitigation could include, but may not be limited to, physical improvements with implementation agreement, City agreement to operational changes, use or floor area ratio restrictions, addition of projects to the transportation system plan; project list and/or Regional Transportation Plan project list.
- **Quasi-judicial:** Provide ODOT approved mitigation or deny quasi-judicial change. Mitigation could include, but may not be limited to, physical improvements, operational changes, or approval conditions.

How was the current mobility policy a factor?

The Oregon TPR, Section -0060 requires local governments to take coordinated measures if an amendment to an acknowledged comprehensive plan would significantly affect an existing or planned transportation facility. The OHP Policy 1F identifies the mobility targets (v/c) for congestion on state facilities. Nine state roadways fall within the proposed Central City MMA:

- Interstate 5
- SE McLoughlin Boulevard (OR 99E)
- Interstate 84
- SW Naito Parkway/SW Barbur Boulevard (OR 99W)
- Interstate 405
- SW Macadam Avenue (OR 43)
- Sunset Highway (US 26)
- Lower Columbia River Highway (US 30)
- SE Powell Boulevard (US 26)

Under the 2012 amendments to the TPR, this amendment was pursued to be in compliance with the MMA designation, effectively waiving or bypassing the OHP mobility standards. The process and analysis, including coordination with ODOT and obtaining ODOT concurrence, was consistent with the TPR and OHP policy and requirements.

The regional mobility policy is not a factor in plan amendments.

Source: ODOT

Source: ODOT

Source: ODOT

Methodologies & Measures

The evaluation of potential traffic and mobility under the MMA designation focused on traffic safety, multimodal access, and travel demand characteristics for the proposed study area.

Travel demand analysis was conducted for the base and forecast years.

Travel demand was estimated using the Metro RTP demand model (financially constrained) to estimate land use characteristics, trip demand, mode split, and vehicle miles traveled (VMT) per capita in the MMA area.

A summary of the daily VMT estimates is shown in the table below. The table compares base year (2010) and future (2035) VMT for the MMA area for citywide and regional VMT.

The table shows that overall VMT is expected to decline substantially in the Central City, while it shows a modest reduction citywide and virtually no change regionally. This reflects a greater efficiency of central city growth with respect to daily travel needs.

Daily VMT Per Capita

	2010	2035
MMA area (Central City)	7.5	5.4
Citywide	12	11.4
Regional	15	15

Safety analysis

The assessment of safety risk factors on these highways focused on five potential contributing factors:

- Speed differential
- Weaving distance
- Merging distance
- Driver expectation
- Gap acceptance

ODOT and Portland Bureau of Transportation (PBOT) also conducted a comprehensive inventory of access at key portals of the City, including bicycle and pedestrian connections as well as a crash analysis.

Strengths & Weaknesses of Current Policy/ Approach

- The MMA designation allows the City to plan for growth and development with a focus on local goals of climate, equity, safety, and access to destinations.
- A collaborative approach with ODOT gave both state and local agencies an opportunity to consider priority issues. The written agreement gives ODOT some assurance that safety-related projects will be addressed in transportation planning and future plan amendments.
- With nine state highways going through and around this area, ODOT worked closely with PBOT to support the analysis. ODOT conducted much of the analysis, including the queuing at the off-ramps, and funded the City's multimodal and land use analysis through a Transportation Growth Management grant.
- ODOT's perspective was that the MMA was new and if it was going to work anywhere, the Central City should be an example. But they were very careful and comprehensive in their analysis, and have a clear, written agreement of understanding.
- A possible weakness of this approach is the need for comprehensive analysis and coordination. This is probably appropriate for a large, dense area with multiple freeway interchanges, but likely the approach could be right-sized for smaller cities.

Opportunities for Improvement

- No specific opportunities were identified; however, it was noted that a more streamlined process may help with application of this approach for smaller areas and jurisdictions.

Source: ODOT

Local Partner

Working together to help update how the region defines mobility and measures success in the greater Portland region.

The Regional Mobility Policy Update is a joint effort between Metro and ODOT. Additional information is available at **oregonmetro.gov/mobility**.

Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Quasi-Judicial Plan Amendment

oregonmetro.gov/mobility

Example 03

Colwood Industrial District Plan Amendment
Portland, OR

April 2021

Source: Portland Parks and Recreation

Location:
Portland, OR
Multnomah County

Plan Type:
Quasi-Judicial Plan Amendment

Overview

This 2013 quasi-judicial plan amendment to the City of Portland Comprehensive Plan rezoned a 48-acre portion of the Colwood National Golf Course site near Portland International Airport. The Open Space designation and zoning was changed to Industrial Sanctuary designation and General Industrial zone. Under the proposed amendment, approximately 90 acres of the golf course site would retain the Open Space designation and zoning.

This site was annexed from Multnomah County in 1986, which initiated a string of land use actions, including a 2008 amendment proposal that would have allowed industrial development. The 2008 amendment was denied by Portland City Council after a determination that the approval criteria for a Comprehensive Plan amendment were not met.

The 2013 amendment was seen as a "redo" of the 2008 submittal with a new proposal for a park, improved habitat and other environmental mitigations, and an increase in Open Space. This resulted in considerably lower expected trip generation than in the initial proposal.

Outcome

The amendment was conditionally approved by the City of Portland with ODOT support. In addition to the City's required frontage improvements and systems development charges paid at the time of permitting, the applicant was required to complete three intersection projects aimed at improving traffic operations:

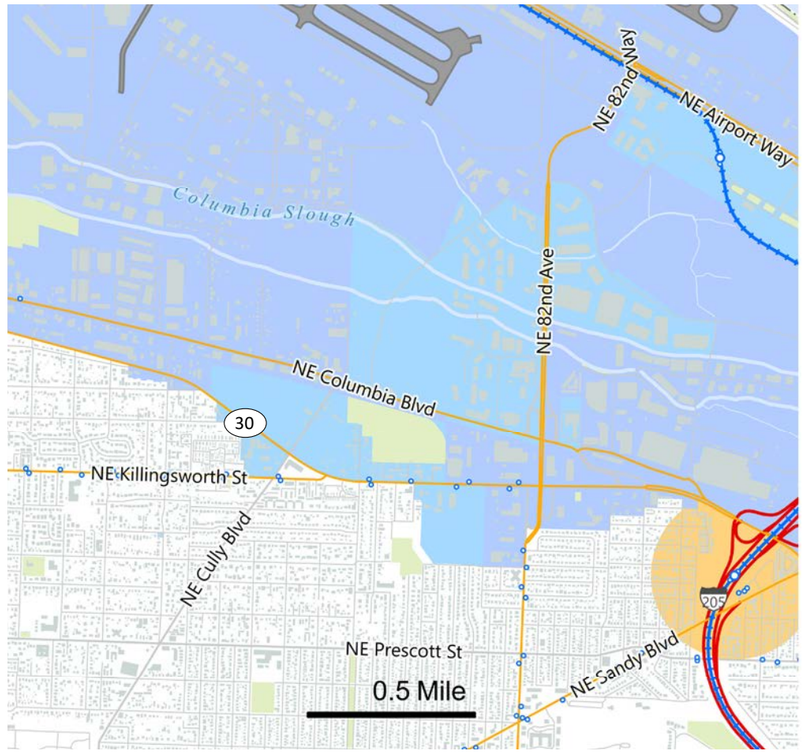
- **NE Alderwood Road/ NE Cornfoot Road:** Add a separate northbound left-tum lane.
- **NE Alderwood Road/NE 82nd Avenue:** Convert the existing eastbound right-tum lane into a shared through/right lane and modify traffic signal to accommodate the conversion.
- **NE Killingsworth Street/ Interstate 205 Southbound Ramps:** Provide a free-flowing eastbound right-tum movement onto the I-205 southbound on-ramp.

How was the current mobility policy a factor?

Transportation Planning Rule Section -0060 (TPR 0060) requires that proposed plan and land use regulation amendments be consistent with the identified function and capacity of existing and planned transportation facilities.

TPR 0060 includes criteria for identifying significant effects of plan or land use regulation amendments on transportation facilities. Because the site is near two ODOT facilities (NE Killingsworth Street and I-205), the plan amendment was subject to the mobility policy v/c standards in Table 7 of Policy 1F of the Oregon Highway Plan (OHP).

Middle Columbia Corridor Area



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Source: Prosper Portland

Current Mobility Policy (cont'd)

For interchanges, the OHP has a more restrictive standard (i.e., a lower v/c) than for other roads. The OHP, page 76, states the following:

- *Although an interchange serves both the mainline and the crossroad to which it connects…(t)he main objective is to avoid the formation of traffic queues on off-ramps which back up into the portions of the ramps needed for safe deceleration from mainline speeds or onto the mainline itself. This is a significant traffic safety concern. The primary cause of traffic queuing at off-ramps is inadequate capacity at the intersections of the ramps with the crossroad….Therefore, the better indication is a maximum volume-to-capacity ratio for the ramp terminals of interchange ramps that is the more restrictive volume to capacity ratio of either the crossroad, or 0.85.*
- *At an interchange within an urban area the mobility target used may be increased to as much as 0.90 v/c, but no higher than the target for the crossroad, if:*
  - *It can be determined, with a probability equal to or greater than 95 percent, that vehicle queues would not extend onto the mainline or into the portion of the ramp needed to safely accommodate deceleration; and*
  - *An adopted Interchange Area Management Plan (IAMP) is present, or through an IAMP adoption process, which must be approved by the Oregon Transportation Commission.*

Amendments to the TPR in 2012 added Section 2e, allowing local governments to consider a "balancing test," whereby they may approve a plan amendment even when the performance standard might not be met.

If a local government determines that the performance standard cannot be met, it can approve a plan amendment on the condition that alternative improvements be made, such as projects at a different location or for a different mode, provided there is benefit to the system as a whole.

Methodologies & Measures

The traffic impact analysis for this proposed plan amendment included traditional metrics, including trip generation estimates, intersection operations and queuing analyses. Intersection capacity projects were required at two locations:

- **NE Alderwood Road/ NE Cornfoot Road:** Add a separate northbound left-tum lane.
- **NE Alderwood Road/NE 82nd Avenue:** Convert the existing eastbound right-tum lane into a shared through/right lane and modify traffic signal to accommodate the conversion.

The City of Portland review also included comprehensive plan policies to improve conditions on arterials and local streets for pedestrians, bicyclists and transit riders. The review found that the planned frontage improvements and a planned off-street trail met those policy objectives.

For the state roadways, findings were made using TPR 0060-2e. The traffic impact analysis found that the NE Killingsworth/ Southbound I-205 ramp intersection would not meet mobility standards in the Oregon Highway Plan. However, under TPR 0600-2e, a planned safety improvement at the intersection was found to have sufficient systemwide benefit.

Specifically, construction of a third on-ramp meter lane to southbound I-5 from NE Killingsworth was found to improve automobile and freight movement for industrial and commercial uses throughout the Columbia Corridor. These benefits were anticipated to balance the significant effect, even though improvements would not result in meeting OHP performance standards.

Strengths & Weaknesses of Current Policy/ Approach

- A benefit of the overall approach was that the traffic impact analysis, traditional mobility standards and other policies were used to require roadway capacity projects at two local street intersections, along with multimodal improvements to the system.

  On the State system, the application of TPR 0060-2e provided flexibility for the City to work with ODOT to identify a project that could meet ODOT's safety goals and gain their support for the proposal, even though the OHP mobility standard would not be met.
- The flexibility provided by the TPR enabled officials to prioritize broader community goals, such as safe operations and economic development, when considering transportation impacts from development activity that ordinarily would not be acceptable.

Opportunities for Improvement

- The ongoing revision of the City's mobility standards should better align them with the City's multimodal policies.
- The updated mobility policy and measures should provide more clarity on how to make findings that shift focus from traditional "traffic" impacts to "transportation" impacts, focusing first on safety and operational impacts and impacts to other modes, including freight, to meet broader goals.

Local Partner

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Updated April 14, 2021.

Regional Mobility Policy Update

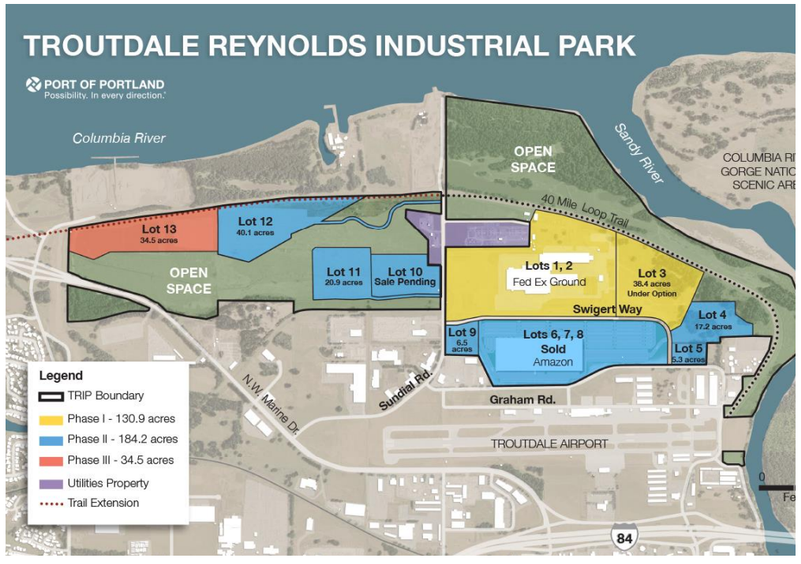
Examples of Current Approaches | Development Review

oregonmetro.gov/mobility

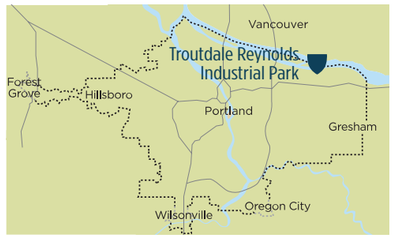
Example

04 Troutdale Reynolds Industrial Park Troutdale, OR

April 2021



Source: Port of Portland



Location:
Troutdale, OR
Multnomah County

Plan Type:
Development Review

Overview

The Troutdale Reynolds Industrial Park (TRIP) is a 700-acre brownfield redevelopment site with a mix of industrial and natural resource areas. Approximately 350 acres are available for industrial uses. The site was designated by the U.S. Environmental Protection Agency as a Superfund site in 1994.

The property has direct access to Interstate 84 and is near Interstate 205 and the Portland International Airport.

The Port of Portland purchased the property in 2007 for redevelopment. The Port worked with the City of Troutdale and ODOT to gain approval of a three-phase development master plan, with traffic impact studies conducted in 2007 and 2012. Individual development projects have also provided their own traffic impact studies. Meanwhile, ODOT developed an Interchange Area Management Plan (IAMP) with the City. The IAMP was finalized in 2011.

Outcome

Most of the projects identified in the IAMP have been completed. This has supported the roadway capacity needed for site development and improved freight access. While there is still room for additional development, all three phases of the TRIP master plan have had substantial development.

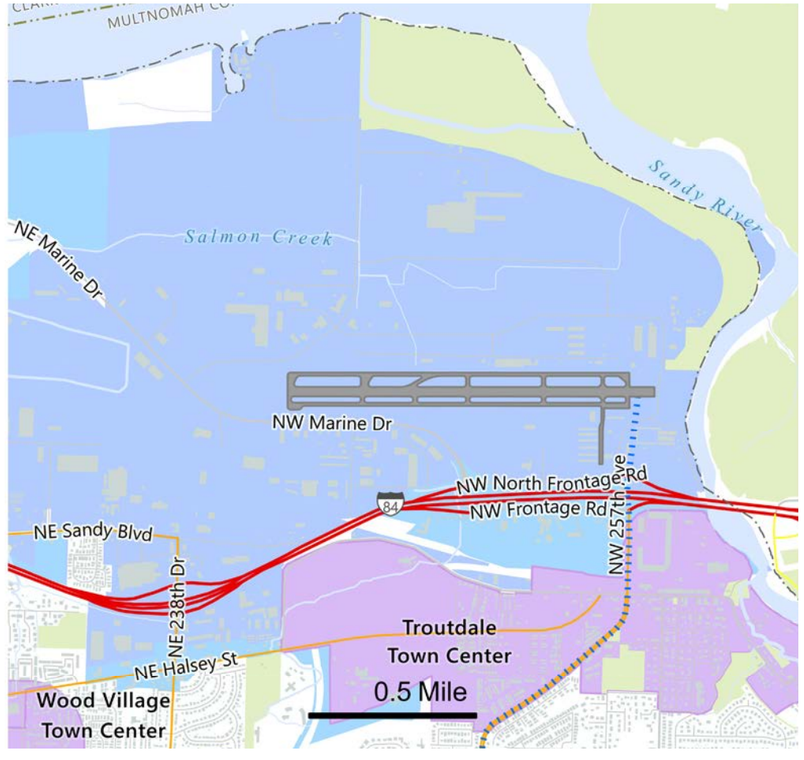
How was the current mobility policy a factor?

The RMP does not apply to development review. However, ODOT reviewed the development master plan and applied the mobility targets in Policy 1F of the Oregon Highway Plan because ODOT has permitting authority for site access. ODOT also provided comments to local jurisdictions on an individual proposed development.

As noted above, traffic analyses were completed in 2007 (Phase 1) and 2012 (Phases I and II). The studies evaluated intersection operations using the Oregon Highway Plan volume-to-capacity (v/c)-based standards for existing conditions (year 2006 or 2010 were used) and future conditions (year 2015).

For intersections with planned improvements (Interstate 84 interchange ramps), ODOT utilized standards from the Oregon Highway Design Manual. These standards apply to the design of capital projects and are more rigid than the mobility standards in the OHP.

Troutdale Reynolds Industrial Park Vicinity



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Source: Metro

Methods and Methodologies

The 2012 Transportation Impact Analysis (TIA) described evaluation of 10 intersections, including four at the I-84/ Marine Drive and I-84/Graham Road interchanges. These ramp intersections were evaluated according to the v/c standard documented in Policy 1F of the Oregon Highway Plan.

The TIA evaluated weekday morning and evening peak hour traffic conditions, including v/c and level of service (LOS), which corresponds to average delay. These analyses are consistent with the methodologies outlined in the *Highway Capacity Manual*.

ODOT was developing improvements for three of the four interchange ramp intersections as part of an IAMP.

Funding for these improvements was programmed in the STIP; therefore, the analysis assumed that these improvements would be in place before Phase 2 was constructed.

The analysis also assumed the improvements would meet standards established in the Oregon Highway Design Manual (HDM). Because of the planned capital investments at the three intersections, the HDM's 0.75 v/c design standard was applied. For the remaining ramp intersection, the Oregon Highway Plan (OHP) 0.85 v/c standard was applied.

Strengths & Weaknesses of Current Policy/ Approach

- The costs and complexity of the interchange improvements necessitated construction of the needed facilities at the outset rather than via incremental improvements. Accordingly, project designers applied the more rigid HDM v/c standard to ensure that the new facilities could facilitate short and long-term freight mobility.
- The transportation impact analyses did not include evaluation or recommendations for safety, transportation demand management, transit or active transportation modes. While, freight mobility is a priority, the industrial area is also a significant employee destination and there is a desire to improve employee access with safe active transportation options and transit investments.

Opportunities for Improvement

- Consider expanding analysis of traffic impacts to address safety and employee access to jobs, transit, and active transportation options.
- Provide guidance on how agencies can implement transportation demand management activities while growing transportation infrastructure and services.

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THE CITY OF TROUTDALE OREGON EST. 1907

PORT OF PORTLAND

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Regional Mobility Policy Update

Examples of Current Approaches | Legislative Plan Amendment

Metro

OREGON DEPARTMENT OF TRANSPORTATION

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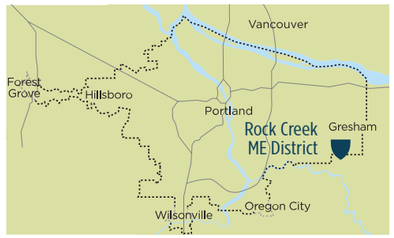
Example

05 Rock Creek Mixed Employment District
Happy Valley, OR

April 2021

Source: Wikimedia Commons, by Esprqii



Location:
Happy Valley, OR
Clackamas County

Plan Type:
Legislative Plan Amendment

Overview

The City of Happy Valley amended its comprehensive plan in 2008, creating the Rock Creek Mixed Employment (RC-ME) development district on land brought into the urban growth boundary in 2002. In 2011, the City conducted an Economic Opportunity Analysis (EOA) to adjust strategies for possible land uses in the area and modified the land use designation from Industrial Campus to Mixed Use Employment and Institutional and Public Use through a public planning process.

The City conducted a traffic analysis in 2012 that concluded the surrounding transportation system could accommodate the land use changes. As was customary, they assumed in their analysis of future traffic (2035) conditions, construction of projects listed in the Regional Transportation Plan (RTP) Strategic project list, including Sunrise Phase II, a major highway project.

The analysis revealed that traffic at the intersection of 172nd Avenue withOR 212 would exceed mobility standards in the 2035 horizon year based on both existing and proposed zoning. Notably, the proposed changes to zoning would not further degrade performance as measured by v/c. Therefore, no additional transportation analysis or mitigation was required.

However, Section -0060 of the Oregon Transportation Planning Rule (TPR) had recently been amended to require that for planned projects in a metropolitan area to be assumed in a traffic impact analysis, the project must be in the RTP Financially Constrained project list. At the time of the plan amendment, the construction phase of the Sunrise Phase II project was not in the RTP Financially Constrained project list and therefore could not be included in the analysis. ODOT requested the City conduct additional analysis without the Sunrise Phase II project.

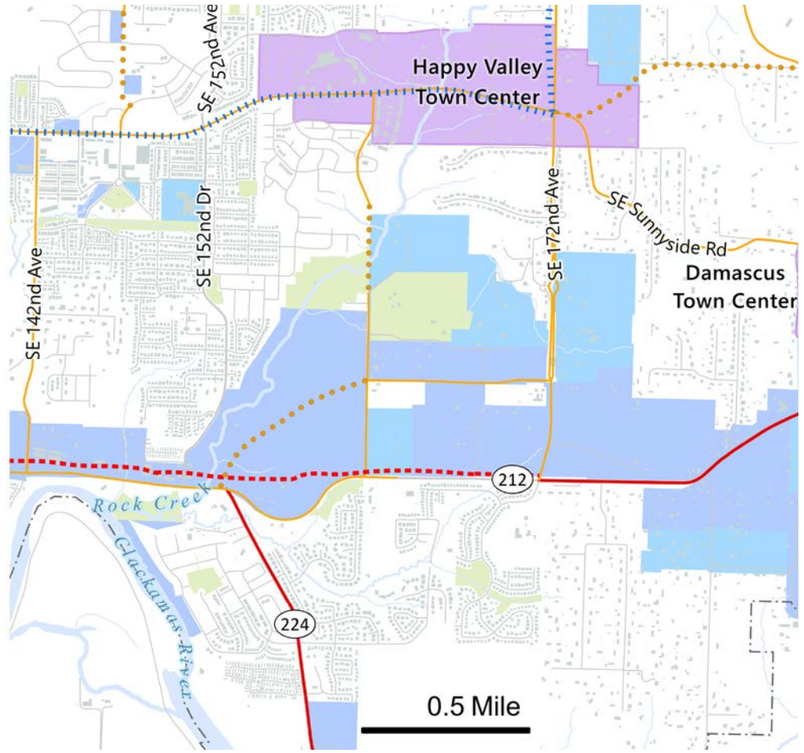
The updated traffic analysis without the Sunrise Phase II concluded that the TPR adequacy standard could not be met and therefore the area could not be fully developed in the short term without substantial additional investment in transportation infrastructure. ODOT agreed to deferring future traffic impact analyses to when a master plan for the area was developed. Since then, an interim four-lane Sunrise Phase II construction project has been adopted in the RTP Financially Constrained project list. Now the development of this area as well as any future plan amendments in the vicinity can assume construction of the interim Sunrise Phase II project in its analysis.

Outcome

The City adopted the RC-ME development district in 2008 and the comprehensive plan/ zone map amendment was approved in 2012.

The traffic analysis supporting the action concluded that the RC-ME district could not be developed to its full potential in the short term, that substantial additional investment in transportation infrastructure was needed to provide adequate capacity, and that deferring future detailed traffic impact analyses to a master plan process was acceptable.

Rock Creek Mixed Employment District



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Source: Wikimedia Commons, by Adam Luchini

Outcome (cont'd)

The City adopted the RC-ME zone change with a vehicle trip cap agreement to optimize the urban development potential of the land in the area; no commitments or specific plans were made to address identified mobility issues on OR 212.

How was the current mobility policy a factor?

The 2008 and 2012 actions were plan amendments, requiring traffic impact analyses related to Oregon TPR Section -0060 requirements.

The original traffic analyses assumed the planned Sunrise Corridor project would be completed.

In 2008, the City included the Sunrise Phase II within the future background conditions, and determined there was no significant effect and the transportation system was adequate. On this basis, the action would have required no additional transportation analysis or mitigations.

However, consistent with 2012 amendments to the TPR, the subsequent analysis of future conditions without the planned Sunrise Corridor project showed that the transportation system would not have adequate capacity to meet the standards identified in the Oregon Highway Plan (OHP) mobility policy, Policy 1F. The City worked with ODOT to identify a vehicle trip cap that established a limit on development in order to meet the OHP mobility standard. When a vehicle trip cap is agreed upon as a mitigation measure for a plan amendment, development can only occur up to that vehicle trip cap level of traffic.

Methodologies and Measures

The Metro travel demand model created the basis upon which future traffic volumes were estimated. Trip generation was estimated for the anticipated reasonable worst case development for the site, which is consistent with TPR practices.

The analysis evaluated transportation performance relative to the mobility standards in Policy 1F and associated Table 7 of the OHP, which utilizes v/c as the performance standard when evaluating plan amendments.

The mobility standard for the 172nd Avenue/OR 212 intersection is a maximum v/c of 0.99. The analysis was conducted according to ODOT's Analysis Procedures Manual. No substantial analysis or metrics to evaluate multimodal mobility were identified through planning document review or interviews with agency staff.

Strengths & Weaknesses of Current Policy/ Approach

- The TPR requires planned transportation systems to be adequate to meet the needs, of planned land uses. Adequacy is defined by local, regional and state performance standards, depending on who owns the facility or service. When a comprehensive plan amendment is proposed, adopted adequacy standard(s) apply. Because most comprehensive plan and zoning designations allow a wide range of land uses, especially in commercial and mixed use zones, a practice has emerged of doing the TPR -0060 traffic analysis based on "reasonable worst case" land uses regardless of what development subsequently occurs.
- Where the transportation forecast showed the system would not meet mobility standards for OR 212, a vehicle trip cap was used to limit development to ensure compliance with the mobility standard in the OHP. In this example, the RC-ME district could not be developed to its full potential in the short term. Development projects have been stalled or abandoned because developers cannot meet the trip caps imposed on the parcels in this area.
- The original traffic analysis in 2008 was able to assume the planned Sunrise project, which the City considered regional in scale and beyond the funding capacity of local government and developers. TPR amendments in 2012 in effect changed what could be assumed in the traffic analysis. Prior to 2012, TSPs and subsequent comprehensive plan amendments and zoning changes could assume projects on the RTP Strategic list to demonstrate consistency with the TPR -0060.
- Shifting from a vehicle-focused volume/capacity measure to multimodal mobility measures may not make a difference at an intersection like 172nd Avenue/OR 212 because the area is currently auto dependent with limited street connectivity and transit and active transportation options.

Opportunities for Improvement

- Analysis methods and practices for evaluating transportation impacts of plan amendments should be broadened to include consideration of vehicle trip reduction strategies, transportation system, and demand management strategies, transit and active transportation.
- Adequate funding mechanisms are necessary to build multimodal investments that are needed to adequately serve planned land uses in the urban area.
- A mechanism to require plan amendment applicants to make contributions towards adopted TSP projects is needed, not only on city or county streets but also on State highways.

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HAPPY VALLEY, OR EST. 1965

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Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Transportation System Plan

Metro

OREGON DEPARTMENT OF TRANSPORTATION

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Example

06 Oregon City TSP and OR 213 Alternative Mobility Target Oregon City, OR

April 2021

Source: Wikimedia Commons, by Akampfer

Location:
Oregon City, OR
Clackamas County

Plan Type:
Transportation System Plan and subsequent amendment (alternative mobility target)

Overview

In 2013, Oregon City updated its Transportation System Plan (TSP). The previous TSP had been adopted in 2001.

Among the changes between the 2001 TSP and the 2013 TSP was the inclusion of the Thimble Creek (Beavercreek Road) Concept Plan area that had been include within the City's urban growth boundary in 2002 and 2004. The 2013 TSP incorporated and expanded upon the 2008 Thimble Creek Concept Plan that identified various transportation improvements including a more robust network of collector and local streets to serve this area.

The 2013 TSP established a long-term vision for Oregon City's overall transportation system and identified projects to address existing and future transportation needs. Its emphasis is on smaller projects with a realistic expectation of being funded.

The 2001 TSP included a grade-separated interchange at OR 213/Beavercreek Road. The project was removed from the 2013 TSP at ODOT's direction because it was deemed financially unrealistic.

The 2013 TSP identified several local improvements, such as extending turn lane length and improving local circulation. It also determined the need to develop alternative mobility targets for the segment of OR 213 between Beavercreek Road and Redmond Road, because the Oregon Highway Plan (OHP)/ Regional Transportation Plan mobility targets would not be met.

Following adoption of the 2013 TSP, the City began a planning process to identify alternative mobility targets for OR 213.

Outcome

The Oregon City TSP update was adopted in 2013 and amended in 2018 with the adoption of the OR 213 Alternative Mobility Target by the City and the Oregon Transportation Commission.

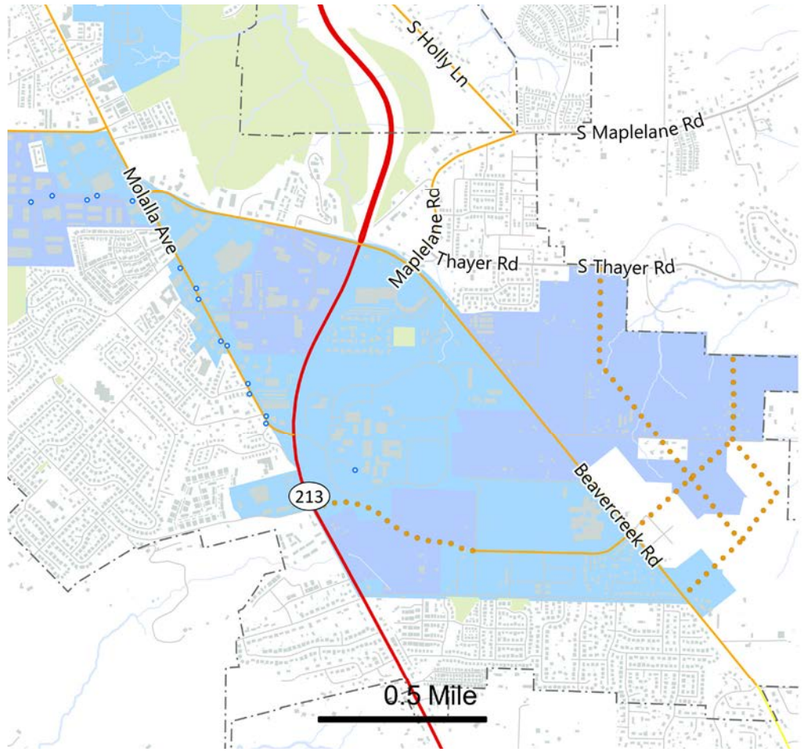
The alternative mobility target amended the 2013 TSP with a new target for the OR 213/ Beavercreek Road intersection. It also added safety and minor capacity improvement projects to the financially constrained TSP project list. This allowed the City to adopt zoning changes consistent with the Beavercreek Concept Plan area while meeting the requirements of the Transportation Planning Rule (Section -0060).

How was the current mobility policy a factor?

For transportation system plans, both the RTP, RMP, and OHP Policy 1F identify v/c mobility targets for state highways and their intersections. The TSP update process used the mobility targets in the RTP and OHP to identify deficiencies in the roadway network.

These amendments were necessary to allow zone changes as the OHP mobility targets are applied as standards to zone changes and plan amendments.

Oregon City



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Source: Wikimedia Commons, by Oregoncitywiki

Methodologies & Measures

The 2013 TSP Update included analysis of gaps and deficiencies in the existing and future transportation systems. This was done by reviewing modal networks individually as well as reviewing multimodal connectivity between those networks.

The targets are set by ODOT, Clackamas County, or Oregon City based on the jurisdictional ownership of the intersecting roadways. Targets for local arterials and state highways relate back to the RTP RMP and OHP Policy 1F, respectively.

Considering projects to address identified gaps and deficiencies involved further evaluation and analysis for each of the modal networks. The analysis tasks completed during the TSP update are listed below, organized by modal network.

For walking, bicycling, transit, and auto systems, the evaluation included a review of system completeness (including basic facilities, crossings, and amenities); access to activity generators; and a review of crash history. For vehicle traffic mobility, the analysis also included:

- Peak seasonal intersection performance
- Evening peak period motor vehicle speeds
- Street connectivity and spacing

The Oregon City TSP highlights seven targets for system performance related to safety, congestion, freight reliability, walking/biking/transit/non-single-occupancy vehicle travel, and climate change, and evaluated how the system would perform through 2035.

The alternative mobility target planning process explored a variety of types of performance measures addressing traffic operations and safety. The following measures were considered:

Mobility Measures

- v/c
- Intersection delay
- Intersection level of service
- Critical movement delay
- Average travel time
- Travel time reliability (buffer index and planning time index)
- Average speed
- Congestion duration
- Intersection completeness

Safety Measures

- Crash rate
- Crash frequency
- Excess proportions of specific crash types

Despite exploring alternative approaches to measuring performance, the City chose to continue using v/c, consistent with the current OHP and RMP approaches. This decision was based on ease of application for future development review and consistency with previous Oregon Transportation Commission decisions.

The v/c standard in the OHP was adjusted to allow slightly more congestion (from v/c of 0.99 to 1.00). Also, the alternative standard was to be applied over the peak three-hour period rather than the two-hour period, thus accepting congested conditions for a longer period on a typical weekday.

Strengths & Weaknesses of Current Policy/ Approach

- The current approach has been valuable to the City because it provides a way to meet the requirements of TPR Section -0060, by enabling an alternative mobility standard and allowing development as planned for the Thimble Creek (Beavercreek Road) Concept Area.
- A weakness of the approach is that it focused on motor vehicle intersection performance in establishing the adopted alternative mobility standard, and did not account for the broader system performance that was documented in the analysis.
- The process required significant resources in staff time, advisory committee engagement, public meetings, and consultant support. Having taken 14 months in a planning process, the OR 213 Mobility Standards project was adopted five years after the TSP update.
- The community was frustrated with a sense that the majority of traffic at the intersections is not local, and they didn't want to accept more congestion but had no options.

Opportunities for Improvement

- The alternative mobility target process could be made more effective through streamlining—perhaps by allowing its adoption as part of the TSP, rather than a separate amendment process, as is typically required to meet the TSP schedule.
- Account for other modes of travel and when developing alternative mobility standards (and associated measures).

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Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Quasi-Judicial Plan Amendment

Metro

OREGON DEPARTMENT OF TRANSPORTATION

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Example

07 Willamette Falls District Plan & Downtown District/Multimodal Mixed-Use Area Oregon City, OR

April 2021

Location:
Oregon City
Clackamas County, OR

Plan Type:
Plan Amendment
Quasi-judicial

Overview

The City of Oregon City enacted the Willamette Falls Legacy Project (WFLP) by adopting the Willamette Falls Riverwalk Master Plan in 2014. The Riverwalk will occupy the 22-acre former Blue Heron Paper Mill site. It will bring visitors close to North America's second most powerful waterfall, long obscured by industrial buildings. The site is an important Oregon historical and cultural treasure that for centuries has been a significant cultural, fishing, and gathering place for Native American Tribes.

The result of a collaborative partnership between Oregon City, Clackamas County, Metro and the Governor's Regional Solutions Team and a robust public process, adoption of the Willamette Falls Riverwalk Master Plan included a zone change and comprehensive plan map and text amendments for the site.

The City's action included designating the site a Multimodal Mixed-Use Area (MMA) to allow more intensive uses consistent with the master plan. The MMA covers downtown Oregon City on either side of Main Street, south from 11th Street through downtown and into the proposed Willamette Falls Downtown District.

The MMA supports planned growth in downtown Oregon City and is consistent with the Special Transportation Area (STA) designation adopted in 2004 by the Oregon Transportation Commission for McLoughlin Boulevard between the railroad underpass and 14th Street.

How was the current mobility policy a factor?

Because of the MMA designation in the Oregon City's Willamette Falls Master Plan, the Oregon Highway Plan mobility standards for 99E/McLoughlin Boulevard did not apply in the project area. However, as required by the Oregon Transportation Planning Rule (TPR Section -0060) for areas designated as MMAs, planning staff evaluated existing and future travel conditions related to safety, walking, biking, driving and transit infrastructure, as well as freight, rail, and water transportation, in lieu of vehicle congestion. They identified a list of projects needed to improve safety and multimodal access to the site.

Outcome

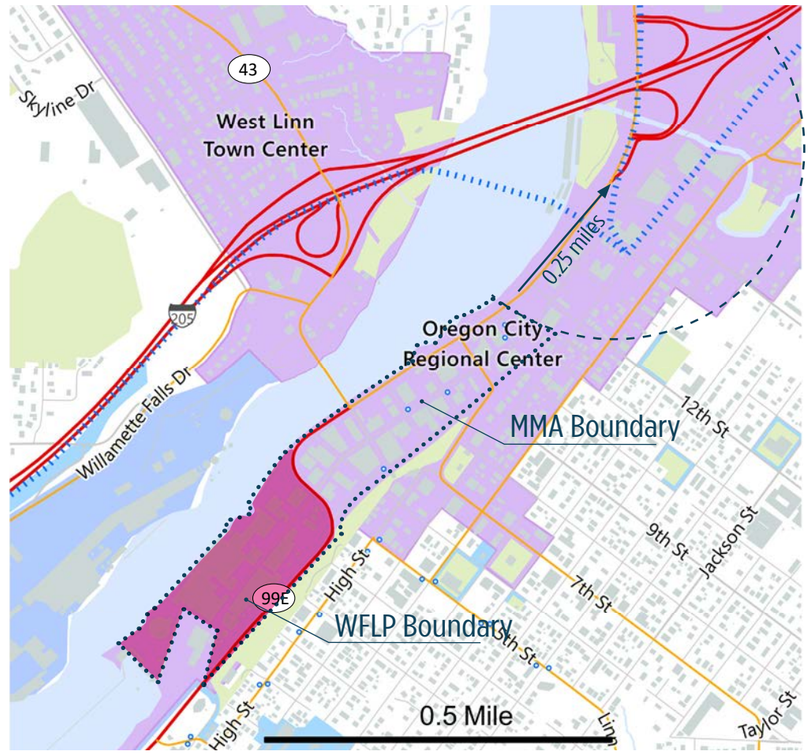
The City of Oregon City adopted the Willamette Falls Riverwalk Master Plan in 2014. The City and Oregon Department of Transportation (ODOT) adopted an intergovernmental agreement consistent with the master plan's conditions of approval.

This effort, combined with Oregon City Transportation System Plan goals, spurred redevelopment in the downtown area and development of the City's transportation demand management plan in 2017.

Methodologies and Measures

- While an evaluation of vehicle congestion is not required within the MMA, ODOT and the City still needed to address other transportation performance standards that applied to their facilities, including those addressing safety, other transportation modes, network connectivity, and freight movement.

Willamette Falls District & Oregon City Downtown District



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Methodologies (continued)

- For this reason, ODOT and the City evaluated the study area's transportation infrastructure using a variety of measures to document deficiencies.
- Information reviewed included roadway and intersection safety and motor vehicle operational performance as well as walking, biking and transit infrastructure.
- The MMA boundary is more than one-quarter mile from any of the interchange ramp terminal intersections in the vicinity. As result, ODOT-written concurrence with the MMA designation was not required.
- The traffic analysis applied the Oregon Highway Plan (OHP) motor vehicle volume-to-capacity standards for streets in the study area, which require that during the highest one-hour period of the day a maximum v/c of 1.10 must be maintained at all intersections.
- Traffic analysis estimated 95th percentile vehicle queues at the study intersections to identify potential mitigations.
- In conditions of approval for the master plan and echoed in the intergovernmental agreement, the City and ODOT agreed on three key transportation improvements along OR 99E/McLoughlin Boulevard to maintain safety and improve site accessibility:
  - » An intelligent transportation system (ITS) for traffic approaching the tunnel on OR 99E/McLoughlin Boulevard.
  - » Prohibiting left turns northbound from OR 99E/McLoughlin Boulevard to Main Street and modification of the right turn geometry from 99E/McLoughlin Boulevard to Railroad Avenue to allow an indirect left turn movement. These changes aim to create a safer condition on 99E/McLoughlin Boulevard along a curve with limited sight distance.
  - » Addition of a raised median at the Water Avenue/OR 99E/McLoughlin Boulevard intersection to prevent unsafe movements and reinforce right-in, right-out access.
  - » A plan for future OR 99E/McLoughlin Boulevard improvements and a safety audit, to be triggered by peak hour trip thresholds.

Strengths & Weaknesses of Current Policy/ Approach

- Adopting the MMA enabled development as envisioned in the master plan by allowing flexible operation of the State-owned facility.
- The MMA met applicant and City objectives, enabling zoning that supports the urban densities envisioned in downtown and at the Willamette Falls site, which in turn support Metro 2040 Growth Concept objectives for regional centers.
- The MMA designation enabled the City to focus on multimodal and safety improvements in the planning area rather than meeting the OHP mobility standard for OR 99E/McLoughlin Boulevard.
- Similar to the 99E/McLoughlin Boulevard Special Transportation Area designation, which enables modifications to roadway design standards, the MMA recognizes that OHP mobility standards are not compatible with the vision and multimodal needs of the downtown regional center.
- Zoning for increased density and including the MMA in the City's comprehensive plan led to development of a transportation demand management plan that aimed to manage congestion, encourage biking, walking, and transit use, improve information on travel options and manage parking efficiently in the area.
- The City's adopted intergovernmental agreement with ODOT identifies needed safety improvements to OR 99E/McLoughlin Boulevard. State and local financial commitments for the needed projects are included in the agreement.
- Vehicular trip demand (thresholds) drive the construction timing of several planned OR 99E/McLoughlin Boulevard safety improvements, ensuring that needed improvements are done at the time of development.
- A trip threshold is the trigger that allows the City and ODOT to require a safety audit as part of development plan review to address issues unforeseen in the long-range planning process.
- The MMA addresses safety on OR 99E/McLoughlin Boulevard, but does not address freeway interchange improvements or impacts on I-205.

Opportunities for Improvement

- The MMA requires local jurisdictions to address safety and pedestrian, bicycle, and transit adequacy but not vehicle congestion. If a new mobility policy considered additional aspects of mobility, such as safety and multimodal mobility, an MMA approach may not be needed.
- ODOT's Blueprint for Urban Design (BUD) will allow for transportation infrastructure (highway) design in urban areas that better aligns with Oregon cities' multiple and unique land use and transportation objectives. A designation of an MMA to achieve the flexible operation of a highway, such as was achieved for OR 99E/McLaughlin Boulevard through Oregon City, may not be necessary if the design options allowed in the BUD can be employed in urban areas.

Local Partner

Working together to help update how the region defines mobility and measures success in the greater Portland region.

The Regional Mobility Policy Update is a joint effort between Metro and ODOT. Additional information is available at **oregonmetro.gov/mobility**.

Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Development Review

oregonmetro.gov/mobility

Example

08 Commons on the Tualatin
Tualatin, OR

April 2021

Location:
Tualatin
Washington County, OR

Plan Type:
Development Review

Overview

The Commons on Tualatin is a five-building, 264-unit apartment complex proposed for development on a former recreational vehicle (RV) park site at 6645 SW Nyberg Lane in Tualatin.

The nearly-11-acre site is four blocks east of the SW Nyberg Street/I-5 Interchange and immediately south of the Tualatin River. It is adjacent to the Tualatin Town Center identified in Metro's 2040 Growth Concept and the Tigard to Wilsonville Mobility Corridor in the Regional Transportation Plan (Mobility Corridor 3).

It is also in an Equity Focus Area identified in Metro's 2018 Regional Transportation Plan.

The project was allowed by right under the site's current zoning designation (High Density Residential [RH]), subject to review by the Tualatin City Engineer and Architectural Review Board.

The developer contracted a transportation impact study in 2018 and included it in the project's development application.

Because the project is close to a freeway interchange, ODOT was given an opportunity to review the transportation impact study's scope of work and analysis and provide comments prior to the project decision.

How was the current mobility policy a factor?

The RMP does not apply to development review. This development was allowed outright based on current zoning, and is accessed by local roads. Though ODOT did not have jurisdiction, the City requested comment from their development review staff.

ODOT's review of the I-5 ramp intersections was based on Oregon Highway Plan 1F mobility targets. These targets are more stringent than those developed by the City of Tualatin and Washington County.

Outcome

This project was approved but has not been constructed. The approval requires the developer to pay Washington County's Transportation Development Tax and make required frontage and access improvements.

Methodologies and Measures

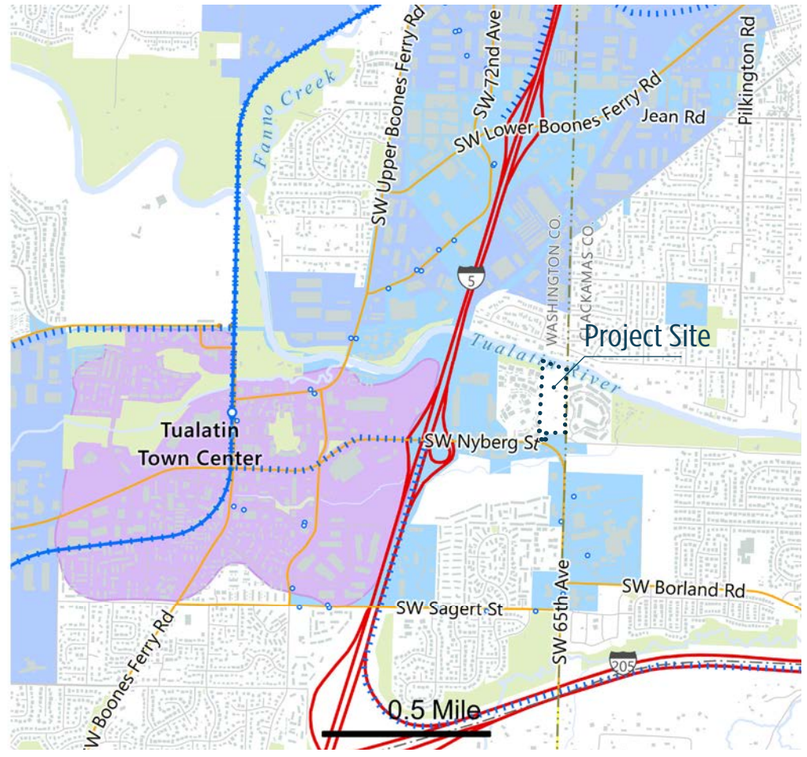
The City identifies level of service (LOS) E as the standard at intersections and Washington County sets the target for volume-to-capacity (v/c) at 0.90.

Oregon Highway Plan Policy 1F sets a target v/c of 0.85 or less at freeway ramp intersections, or 0.90 or less if analysis can demonstrate that queuing does not spill back onto the freeway's main line.

The traffic impact study completed in 2018 applied the following approach:

- Traffic operations, including v/c and LOS, were analyzed for weekday a.m. and p.m. peak hours at five study intersections, including the I-5 ramps and SW Nyberg Street.
- Crash history and sight distance at the site access driveway were evaluated for the safety assessment.

Tualatin Area



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Methodologies (cont'd)

This evaluation found that the Southbound I-5/SW Nyberg Street interchange would operate with a v/c of 0.91, exceeding ODOT's target, with and without the addition of project trips.

ODOT requested that the development contribute to improvements at the interchange, because the project would add trips exceeding the interchange's capacity. However, neither ODOT nor the City's TSP had identified specific improvements and associated costs to add road capacity at this location. Further, the proposed development added relatively few trips to the intersection at the interchange ramp. As a result, the City of Tualatin was not able to calculate the development's fair share contribution to interchange improvements and did not pursue mitigations.

Frontage improvements were required, along with ADA improvements at the nearest interchange. The developer was also required to provide an easement for and construct the portion of the Tualatin River Greenway connecting through the north end of the site. No off-site mitigations were required.

Strengths & Weaknesses of Current Policy/ Approach

- While ODOT staff were invited to review and comment on the development application, there was no mechanism for the development to contribute to improvements at the I-5 Southbound/ Nyberg Street intersection.
- City of Tualatin staff noted they were unable to require any contribution to interchange improvements from the developer, since those improvements had not been defined and costs for them had not been identified.
- Frequently such a project would be included in either the local transportation system plan (TSP) but the city had not included it in their most recent TSP, and ODOT had not conducted an independent plan.

Opportunities for Improvement

- Funding tools and analysis methods that enable agencies to assess developer contributions for off-site mitigation projects that maintain multimodal mobility would be helpful. The tools and methods must demonstrate there is a link between the mitigation project and the development's transportation impact.
- The definition of mobility policy and measures for evaluating transportation impacts of development should be broadened to include other mobility elements such as active transportation, transit and transportation demand management.

Local Partner

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City of Tualatin

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Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Legislative Plan Amendment

Metro

OREGON DEPARTMENT OF TRANSPORTATION

oregonmetro.gov/mobility

Example

09 Tigard Triangle District Plan Tigard, OR

April 2021

Source: Metro

Location:
Tigard, OR
Washington County

Plan Type:
Legislative Plan Amendment

Overview

The Tigard Triangle, in the city's northeast corner, is home to big-box retail stores, large offices, auto sales and services, and several undeveloped parcels, along with some low-density residential uses.

In pursuit of the City of Tigard's vision of a more walkable urban environment, several years of planning have been devoted to the Tigard Triangle. In recent years, the City adopted a Tigard Triangle Strategic Plan and formed an urban renewal district, in the context of planning for the potential Southwest Corridor Light Rail line connecting Tigard to downtown Portland and Bridgeport Village.

In 2017, the City sought to amend current zoning to implement the Tigard Triangle District Plan. The proposed amendment changed zoning of some land within the district from Mixed-Use Employment (MUE) (which permits both commercial and multi-family residential development) and General Commercial (C-G) to a new Triangle Mixed-use Zone.

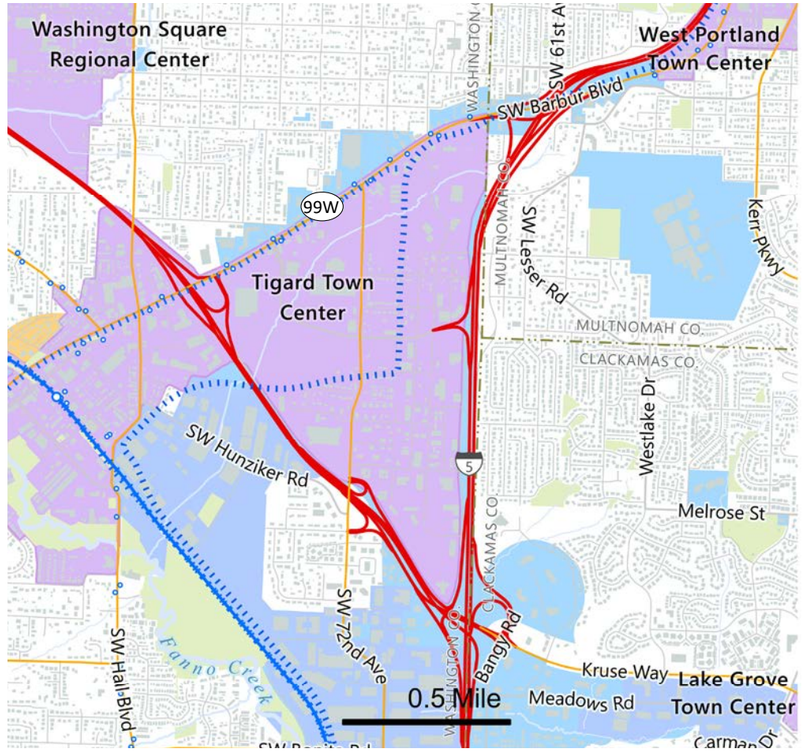
As required by the Transportation Planning Rule, the City conducted a traffic impact analysis. The analysis helped to determine whether the proposed zone changes would have a significant effect on traffic operations and identify, where needed, appropriate mitigations to support the zone change.

Outcome

The City coordinated with ODOT to conduct a traffic impact analysis to estimate traffic impacts of the zone changes and identify intersection mitigations needed to meet the mobility standards contained in Policy 1F of the Oregon Highway Plan (OHP). The City Council adopted the proposed zone changes in conjunction with amendments to the Tigard Transportation System Plan (TSP). The TSP amendments included selected mitigation projects to provide capacity at interchange ramps to address safety issues identified during the traffic impact analysis. The mitigation projects include:

- **OR 217 Northbound Ramps at SW 72nd Avenue:** Modifies a current TSP project with the potential addition of a second northbound right-turn lane as part of the potential interchange improvement.
- **Interstate 5 Southbound Exit Ramp at Barbur Boulevard/ OR 99W:** Modifies a current TSP project with the potential removal of the northbound left-turn lane or other capacity improvement as part of planned 99W access management improvements. This project is outside Tigard city limits and requires coordination and support from City of Portland and ODOT for inclusion in the Regional Transportation Plan.
- **I-5 Northbound Ramps/SW 65th Avenue at SW Haines Street:** Adds a new TSP project. Signalization of this intersection is an identified mitigation for the TriMet Southwest Corridor Light Rail Project.
- **I-5 Southbound Ramps at SW 68th Ave:** Modifies current TSP project to show the potential addition of a second westbound through lane and dedicated westbound left-turn lane to the intersection.

Tigard Triangle Area



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Source: Metro

Outcome (cont'd)

- **Parking Management Plan:** The City agreed to develop a parking management plan for the Triangle to manage parking supply and enhance the environment for walking, biking, and transit.

Methodologies and Measures

The City conducted a traffic impact analysis for this study to meet TPR Section -0060 requirements for a zone change. The steps for addressing those requirements are outlined below.

Trip Generation

The trip generation estimate was developed using Institute of Transportation Engineers (ITE) Trip Generation Manual procedures. It considered gross trip generation, internal trip reduction, pass-by trip reduction, and net new trip generation.

The following steps were taken to determine whether the proposed zone change would have a significant effect:

1. Compare reasonable worst case trip generation under current zoning to reasonable worst case trip generation under proposed zoning.
2. If proposed zoning generates the same or fewer vehicle trips than the current zoning, there is no significant effect.
3. If proposed zoning generates more trips than current zoning, evaluate impacts relative to mobility standards.

Mobility Standards

For this plan amendment, the following mobility standards contained in Table 7 of the OHP Policy 1F applied:

- ODOT freeway ramp intersections have a peak hour volume-to-capacity (v/c) standard of 0.85.
- A peak hour v/c standard of 0.99 was applied to one intersection on OR 99W/ Barbur Boulevard in Portland.
- ODOT did not require v/c analysis at OR 99W intersections because the previously-completed corridor plan had capped OR 99W at four through lanes plus turn lanes, consistent with the RTP Street Design Policy for major arterials.

If an amendment is expected to either cause an intersection to be deficient, or to cause an already deficient intersection to worsen, mitigation is required.

Queuing

While the OHP v/c standard for OR 99W was used to evaluate mobility, queuing was used to evaluate safety. Safety impacts were assessed based on the proposed zoning to meet the following criteria:

- Safe stopping sight distance on exit ramps with proposed zoning.
- Maintain current zoning queue length on exit ramps, if current zoning is beyond safe stopping sight distance.

How was the current mobility policy a factor?

The traffic analysis was conducted to meet TPR requirements for a zone/ comprehensive plan amendment, based on the mobility standards in the OHP Policy 1F. The RMP does not apply for plan amendments.

ODOT requested analysis of the intersections with freeway ramps with an emphasis on potential safety issues resulting from capacity and queuing. While some capacity and operating issues were identified, the City and ODOT were able to agree on specific project list amendments in the Tigard TSP to meet the OHP Policy 1F mobility standards.

Strengths & Weaknesses of Current Policy/ Approach

- A collaborative approach between the City and ODOT enabled the City's proposed amendment to focus on local goals and priorities while supporting the OHP policy of prioritizing interchange operations and safety.
- Though the mobility policy was not a significant barrier to gaining approval of the plan amendment, Tigard staff noted that it was less effective for addressing transportation-related issues of higher importance to the City, like walkability and improvements needed on local streets.
- In collaboration with ODOT, the City agreed amend the TSP to add eleven intersection capacity projects, designate the Tigard Triangle as a town center and develop and implement a parking management plan. These actions are meant to encourage a more pedestrian-oriented development pattern, improve walking and biking options, and manage the parking supply in the area in support of reducing the need to drive and meeting mode share targets in the newly designated town center.
- Estimating trip generation for mixed-use zoning for legislative plan amendments is complex. When a variety of land uses is allowed over multiple parcels, there has to be agreement on what constitutes a reasonable worst case. Moreover, the ITE Trip Generation Manual does not address mixed-use, transit-supportive development patterns very well.

Opportunities for Improvement

- For large legislative plan amendments, improve/ clarify the scoping process and reduce the need for iterative discussions.
- Develop measures and methods based on estimated person trips rather than vehicle trips.
- Develop methods to better estimate reasonable worst case vehicle trip generation of mixed-use, transit-supportive urban centers.

Local Partner

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TIGARD

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Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Development Review

oregonmetro.gov/mobility

April 2021

Example 10

West End District Mixed-Use Development
Beaverton, OR

Location:
Beaverton, OR
Washington County

Plan Type:
Development Review

Overview

This project initiated development review for the proposed mixed-use redevelopment of a former K-Mart site in Beaverton. The site is zoned general commercial (GC).

The new development would replace the site's existing commercial buildings and gas station with approximately 424 apartments, 22,076 square feet of ground-floor retail, and 10,000 square feet of restaurant space.

The project site is at the corner of Tualatin Valley Highway and SW Murray Blvd, which are under ODOT and Washington County jurisdiction, respectively.

The analysis determined that the redeveloped site would generate less traffic than it did when it supported a K-Mart and other activities. As such, the traffic impact analysis (TIA) requirements were limited to site access and circulation.

Outcome

This project was approved and is under construction.

While the anticipated reduction in overall traffic meant the developer was not required to study off-site traffic impacts, their TIA included analysis of the Tualatin Valley Highway/SW Murray Blvd intersection as it related to overall site access and circulation.

The intersection was found to exceed the maximum v/c in future conditions, with or without the proposed project. Because the project was not the cause of the intersection operations issue, there was no expectation that the developer provide mitigation.

The TIA also included a quantitative safety assessment and qualitative review of overall access for other modes.

In addition to frontage improvements, the TIA identified the following needed improvements:

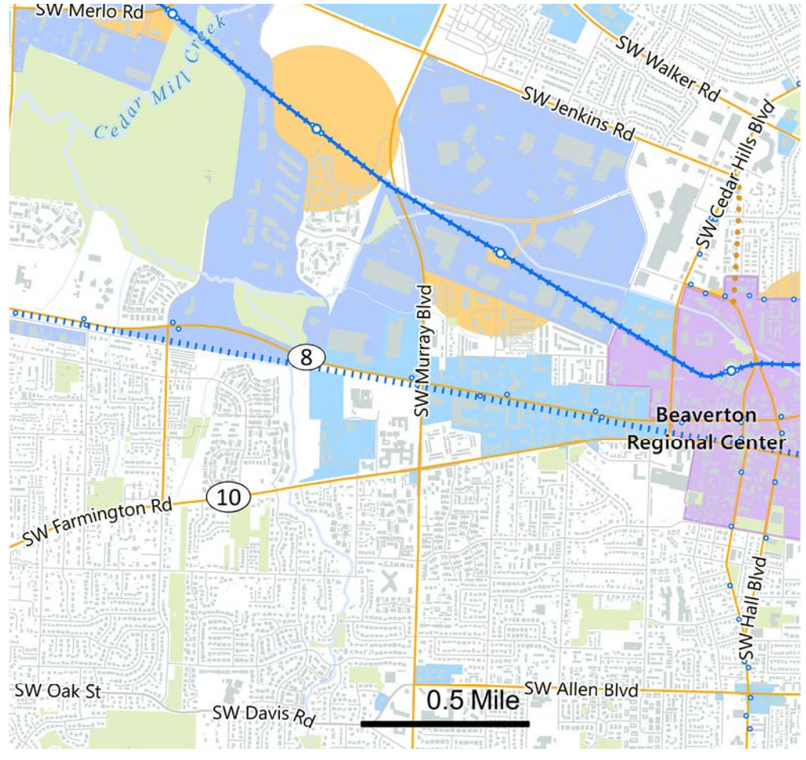
- Prohibition of left turns into the driveway from Tualatin Valley Highway due to safety concerns for vehicles turning left across multiple lanes. This was required as part of final approval.
- A bus pull-out was recommended by ODOT, in coordination with TriMet. The pull-out was required with final approval for the project.

How was the current mobility policy a factor?

While ODOT does not issue permits for land development, it has authority to grant access onto State of Oregon highways. Tualatin Valley Highway is under State jurisdiction, giving ODOT permitting authority.

ODOT applies the mobility standards in the Oregon Highway Plan mobility policy in its traffic analysis for permitting access onto Tualatin Valley Highway. The RMP is not a factor in development review.

West Beaverton Area



- Throughway
- Arterial
- Proposed arterial
- Rail transit station
- Bus stop
- High capacity transit
- Proposed high capacity transit
- Employment area
- Industrial area
- Station communities
- Urban centers
- Parks and natural areas

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Methodologies and Measures

Based on direction from the City of Beaverton, the TIA included analysis of access operations and safety at two driveways on SW Murray Boulevard and one driveway on Tualatin Valley Highway.

The intersection of Tualatin Valley Highway/SW Murray Boulevard was included to clarify the impacts on site accesses, but was not in the City's scoping requirements.

Intersection v/c standards were identified for each of the agencies and applied depending on the roadway jurisdiction.

- **The City of Beaverton** requires that the v/c for each lane group not exceed 0.98. The City also has standards based on average vehicle delay.
- **Washington County** sets operating standards for both signalized and unsignalized intersections with a v/c no greater than 0.99 over a 60-minute period.
- **ODOT** requires all signalized and unsignalized intersections within urban areas on Statewide Highway facilities to operate at or below a v/c of 0.99, per Policy 1F of the Oregon Highway Plan.

The scope and methodology was determined to meet the requirements of each of the agencies.

- Analysis was completed using methodologies outlined in ODOT's Analysis Procedures Manual.

- The TIA made specific recommendations addressing site access, including removing two driveways on Tualatin Valley Highway and one on SW Murray Boulevard, and prohibiting left turns from Tualatin Valley Highway. The requirement to reinforce this left turn restriction with a physical traffic separator introduced requirements and process under the Oregon Highway Design Manual, and potentially the Design Exception Process.
- The development provided frontage improvements consistent with ODOT standards on Tualatin Valley Highway and consistent with County standards on SW Murray Boulevard. These improvements included upgrades to existing pedestrian and bicycle facilities.
- Washington County Transportation Development Taxes (TDTs) were collected from the development to fund countywide capacity improvements. No local fees were assessed for citywide transportation improvements.

Strengths & Weaknesses of Current Policy/ Approach

- The Oregon Highway Plan v/c did not pose a barrier to developing a mixed-use project with lower overall trip generation than the existing use.
- In general, the practice of relying on v/c standards reinforces a narrow, motor vehicle-focused view of mobility. Further, mitigation measures too frequently rely on adding physical capacity to the roadway. The City of Beaverton has identified safety issues and conditions for pedestrians as high priorities for its upcoming Transportation System Plan update.
- The City, County, and ODOT all use v/c as their operating standard, but with slight differences in the way they are applied. While not a barrier for this specific project, that could result in confusion or inconsistency with planning and desired development outcomes for the system.

Opportunities for Improvement

- The TIA noted that adding a lane at the intersection of Tualatin Valley Highway and SW Murray Boulevard would be cost prohibitive due to surrounding constraints. This is a common issue in developed areas throughout the region.
- Lower-cost strategies such as signal timing changes or other system management could be more practical, especially for smaller traffic increases.
- Measures that improve non-auto access were provided, such as the bus pullout and pedestrian improvements. However, these were not evaluated for their effect on overall vehicle demand. If v/c ratios are maintained as the mobility standard, the process would benefit from additional guidance on how to quantify the impacts of changed conditions for people walking, biking and taking transit.

Local Partner

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Beaverton OREGON

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Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | System Planning

oregonmetro.gov/mobility

Example 11

Tualatin Valley Highway Corridor Plan
Washington County, OR

April 2021

Source: Wikimedia Commons, by Visitor7

Location:
Washington County, OR

Plan Type:
System Planning

Overview

The Tualatin Valley Highway (TV) Corridor Plan evaluated TV Highway (OR 8) along the approximately 8.5 miles between the Hillsboro and Beaverton regional centers. The final plan was adopted in 2013.

Development of the Corridor Plan was funded by a Transportation Growth Management grant from ODOT to Washington County, which conducted the work in partnership with ODOT, Metro, and the City of Hillsboro and the City of Beaverton.

The effort was coordinated through technical and community advisory committees, as well as a Policy Group of agency leaders.

The introduction describes "an overarching goal… to reflect community needs and desires for the corridor to evolve into a thriving, welcoming place that connects this vibrant, growing community now and for future generations."

Where TV Highway had been shown in previous plans as a seven-lane facility, the final plan reduced the cross section for motor vehicle capacity to two through travel lanes in each direction, consistent with the direction of the Policy Group leading the effort. This maintained the design and function of TV Highway as an urban arterial with a five-lane cross section.

In addition to changing the roadway cross section serving automobiles, the Corridor Plan also identified specific improvements to bicycle, pedestrian, and transit facilities to enhance safety, connectivity, and accessibility.

Outcome

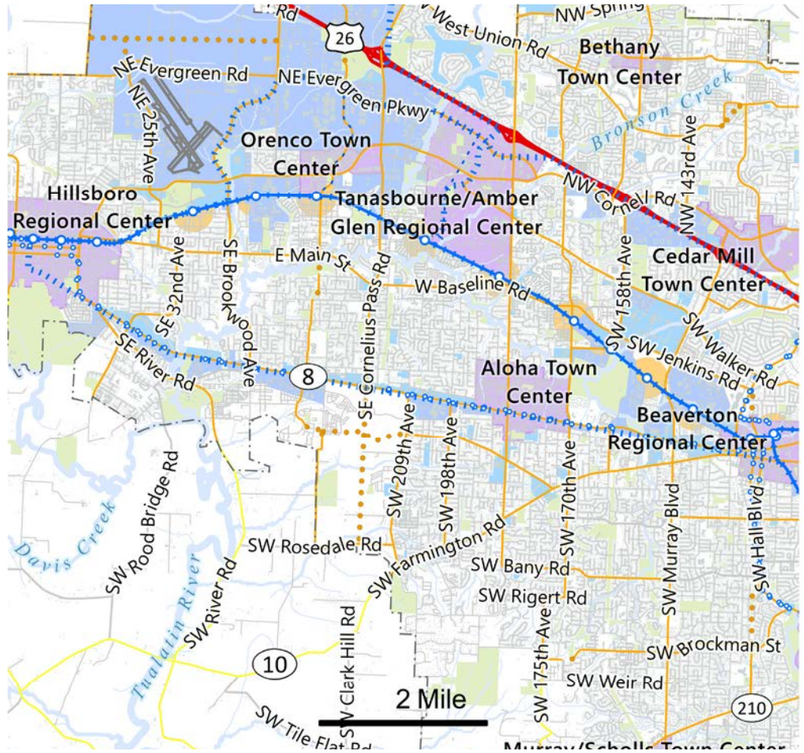
The Corridor Plan led to an amendment of the motor vehicle classification of TV Highway in the RTP. The plan was acknowledged by the Washington County Board of Commissioners in 2014. The TV Highway Corridor Plan informed the Washington County Transportation System Plan update as well as the South Hillsboro Community Plan, and led to construction of capital projects in the corridor.

The Corridor Plan also influenced two additional planning efforts aimed to refining future improvements:

- Completed in 2019, the 2019 Transportation Growth Management-funded Moving Forward TV Highway corridor refinement plan evaluated transit and safety design alternatives between SW Cornelius Pass road and SW 160th Avenue.
- The 2020 Basis of Estimate and Design Report (project development) prioritized a package of safety, connectivity, and transit priority projects and included cost and design information.

Also identified in the TV Highway Corridor Plan are a set of performance measures for monitoring and for evaluating future land use plan amendments.

Tualatin Valley Highway Corridor



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Source: Wikimedia Commons, by M.O Stevens

Outcome (cont'd)

These measures are intended to address mobility, reliability, and safety for active transportation and transit operations, and motor vehicles, and would consist of:

- Vehicle miles traveled per capita
- Duration of congestion
- Hours of delay
- P.M. peak travel time for automobiles and transit
- Transit ridership
- Travel time reliability
- Bicycle and pedestrian system completeness

The measures listed above are consistent with RTP system performance measures and were considered as part of Moving Forward TV Highway and the 2020 Basis of Estimate and Design Report findings and recommendations.

How was the current mobility policy a factor?

Both the Oregon Highway Plan (OHP) mobility policy (Policy 1F) and the RTP Regional Mobility Policy (RMP) are applied in system planning efforts, including corridor refinement plans.

The OHP mobility policy includes Table 7, which lists the volume-to-capacity (v/c) targets to be used to evaluate state highway performance. The OHP also acknowledges that additional methodologies and targets may be needed to balance regional and local performance expectations.

The RMP replicates the list of v/c ratios from OHP Table 7, and states that the measures are used to diagnose the extent of auto congestion. The RMP notes that the evaluation is intended to help identify roadway deficiencies and inform a strategic approach that recognizes limited transportation funding and potential environmental and community impacts.

Methodologies & Measures

The TV Highway Corridor Plan included analysis of v/c using targets identified in Table 7 of the OHP. These targets were used to identify areas where roadways are not expected to meet ODOT performance targets listed in the OHP mobility policy and the RMP.

The analysis included base year and 2035 conditions and was completed based on the procedures described in the ODOT Analysis Procedures Manual. Growth anticipated to occur by 2035 was based on forecasts from Metro's 2035 travel demand model.

In addition to intersection v/c analysis, the corridor plan included qualitative and quantitative evaluation of other modes: crash rates at intersections for autos, pedestrians and bicyclists, connectivity gaps for bicyclists and pedestrians, access for pedestrians and transit, transit frequency and facilities.

Strengths & Weaknesses of Current Policy/ Approach

- The current approach was effective for the intended purpose, in that the v/c targets were used to identify roadway deficiencies and inform a multimodal strategy to achieve broad community goals.
- A major outcome was the decision to adopt a five-lane cross section for TV Highway, a change from the seven-lane cross section identified in planning documents at the beginning of the TV Highway Corridor Plan.
- Most technical analysis and improvements identified for TV Highway focused on improving safety and supporting land use, active transportation and transit goals, including development of a Town Center in Aloha, and designation of TV Highway as a 2040 Corridor and high-capacity transit corridor.
- A strength is that this corridor planning process was able to focus on multimodal, safety and other goals. A weakness is that the current mobility policy does not include multimodal and safety measures

Opportunities for Improvement

- A more holistic definition of the mobility and multimodal measures by which the plan is evaluated should be developed. This corridor refinement plan is an example of a case where v/c alone does not advance (and sometimes are in conflict with) other local and regional goals for the corridor.
- As part of the TV Highway Corridor Plan process, a set of measures was developed for potential ongoing monitoring of the corridor's performance. These measures could be considered for a more multimodal approach in this RMP Update.
- Better data and analysis tools are needed to effectively evaluate the performance of proposed actions (e.g., adding active transportation enhancements) within the time period that they are recommended.

Source: Wikimedia Commons, by Steve Morgan

Source: Wikimedia Commons, by Steve Morgan

Local Partner

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WASHINGTON COUNTY
OREGON

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Updated April 14, 2021.

Regional Mobility Policy Update

Examples of Current Approaches | Legislative Plan Amendment

Metro

OREGON DEPARTMENT OF TRANSPORTATION

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Example 12

South Hillsboro Community Plan
Hillsboro, OR

April 2021

Source: Wikimedia Commons, by M.O. Stevens

Location:
Hillsboro, OR
Washington County

Plan Type:
Plan Amendment, Legislative; Development Review; Project Design

The plan area is expected to develop over 20 years.

Overview

The City of Hillsboro developed the South Hillsboro Community Plan in 2015 as an appendix to its comprehensive plan. This action was based in part on the outcomes of the Tualatin Valley Highway Corridor Plan, which was adopted in 2013 after a collaborative planning effort that included ODOT, Washington County, and other regional partners.

The Tualatin Valley Corridor Plan reclassified Tualatin Valley (TV) Highway from Regional Arterial to Arterial. The Transportation Planning Rule (TPR) considers such a change in classification to constitute a "significant effect."

Despite the reclassification limiting capacity to serve east-west travel demand, analysis supporting the change concluded that mobility would be preserved through the addition of intersection lane improvements and the addition of capacity on north-south roadways.

The plan area covers approximately 1,400 acres of developed and undeveloped land. Portions of South Hillsboro were brought into the urban growth boundary in 2002. Metro brought the remainder of South Hillsboro into the urban growth boundary in 2011.

Outcome

The Community Plan was adopted along with the South Hillsboro Transportation Financing Plan to ensure that needed roadway capacity improvements were funded and in place prior to urban development.

A trip cap mechanism limited net new trips the area could generate, with identified transportation improvements in four phases needed to mitigate the effect of the estimated 8,100 peak hour trips associated with the development of the plan area.

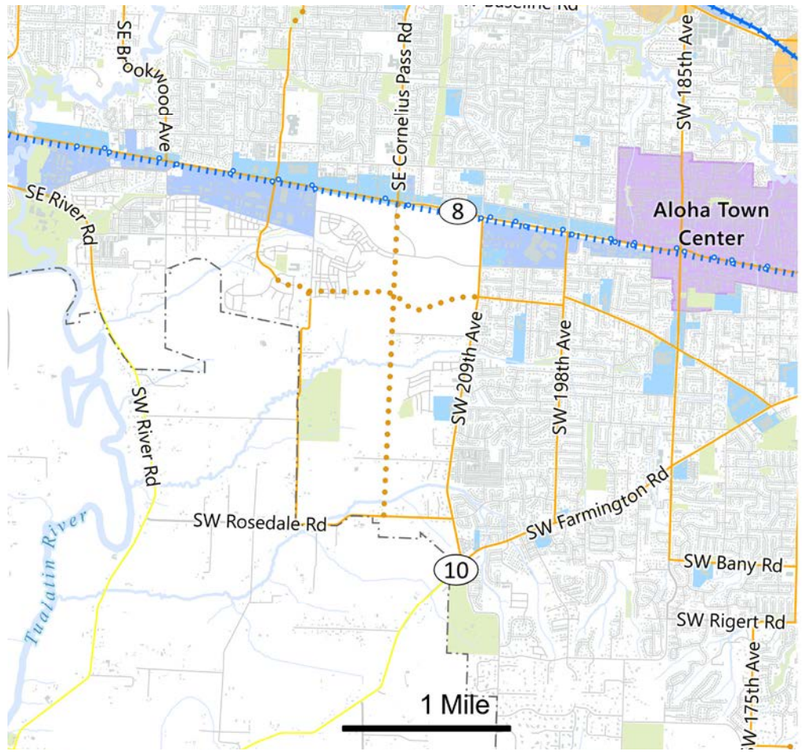
Key transportation issues included the need to extend Cornelius Pass Road and Blanton/Alexander Road before development could occur in South Hillsboro. Safety issues were identified related to Cornelius Pass Road and it was necessary to ensure traffic could safely cross the railroad tracks south of TV Highway without affecting rail traffic or causing major delays in this area.

The City, County, and ODOT entered into two rail order agreements to ensure the improvements would be developed according to key milestones within the planning period.

How was the current mobility policy a factor?

TPR 0060 requires local governments to take coordinated strategies if an amendment to an acknowledged comprehensive plan would significantly affect an existing or planned transportation facility.

South Hillsboro Area



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Source: Wikimedia Commons, by M.O Stevens

Mobility Policy (cont'd)

When the City of Hillsboro amended the comprehensive plan and the local TSP to change the classification of Tualatin Valley Highway from a Regional Arterial to an Arterial, this constituted a significant effect. As such, the OHP mobility policy applied to the analysis of Tualatin Valley Highway.

The RTP Mobility Policy does not apply to plan amendments.

Methodologies & Measures

The plan amendment was developed using mostly traditional steps for traffic impact analyses, including trip generation and intersection operations analyses.

Queuing analysis was also conducted, with an emphasis on potential interactions at the P&W railroad. The plan developed guidelines for supplemental traffic impact analyses to facilitate phased development and to implement the financing plan.

The net new weekday p.m. peak hour trips are defined as total vehicle trips less pass-by diverted link, mode split, and internal capture trips. The peak hour is defined as the highest sixty (60) consecutive minutes of traffic demand between 4:00 P.M. and 6:00 P.M.

The traffic impact analysis used OHP v/c standards for Tualatin Valley Highway. All subsequent traffic impact analyses must be developed in accordance with City standards and the County, and ODOT standards depending on facility ownership.

The pace of South Hillsboro development must match the timing of capacity improvement delivery along Tualatin Valley Highway and the completion of the new roadways within and adjacent to South Hillsboro pursuant to the TSP. This can be achieved by applying development conditions of approval. The supplemental traffic impact analyses submitted as part of development applications ensure that the number of actual trips expected from development do not exceed the trip cap, evaluates the local road system not previously analyzed, and determines any additional mitigations within the local improvement district.

The Community Plan does not include actions to lower mobility standards or trip generation rates within the planning area. The plan amendment was developed to allow for facility planning and financing that meets the needs of new developments and local priorities.

The City contends that facilities otherwise would have been undersized for expected growth. Roadway improvement projects are based on the mitigations identified in the annexation agreement traffic impact analyses for the arterial, collector and neighborhood route system.

Strengths & Weaknesses of Current Policy/ Approach

- The current OHP v/c standards were generally consistent with the City of Hillsboro's vision for future investments and growth. The City applied the OHP v/c standards to support transportation capacity projects.

  As noted above, development conditions of approval need to be applied to ensure the pace of South Hillsboro development doesn't outpace the delivery of Tualatin Valley Highway capacity improvements or the completion of new roadways identified in the TSP for the area. This includes needed capacity expansion at intersections and rail crossings.

  Supplemental traffic impact analyses address local road networks that are not included in the comprehensive planning process, and include the timing of adding traffic control devices, adding parking demand, scale of local streets, intersections of collectors/arterials and local streets. The OHP standard only applies to Tualatin Valley Highway intersections.

- As a weakness, staff noted that there is disconnect between the standards applied for facility design and needed improvements identified in the long-range planning documents and current planning needs.

  Currently in project development, ODOT is requesting that designs comply with the Highway Design Manual performance standard, which has a more rigid (lower) v/c standard.

  Requesting a design exception to ODOT's Highway Design Manual v/c standard instead of using the previous agreed upon v/c from the land use process has resulted in additional cost to the city and risk of delaying projects.

Opportunities for Improvement

Local agency staff identified the following specific recommendations for consideration:

- Prioritize preserving right of way; for example, design facilities to allow for bus loading, signal preemption, bus stop shelters and other amenities.
- Performance measures should recognize the difference between cities within the region; a one-size-fits-all approach won't work.
- V/c is a key tool but it is not a valid measurement for congested roadways. Delay and queuing using simulation tools are more appropriate measures for congested roadways, rail crossings, and unique intersection configurations.

Local Partner

Working together to help update how the region defines mobility and measures success in the greater Portland region.

Hillsboro OREGON

The Regional Mobility Policy Update is a joint effort between Metro and ODOT. Additional information is available at **oregonmetro.gov/mobility**.

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