



## MEMO

TO: Technical Working Group  
FROM: Abbot Flatt, Associate Transportation Planner  
RE: Performance Measures Recommendation  
DATE: December 30, 2015

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County staff has reviewed Technical Memo 4.1.2, Implementation Recommendation, and Technical Memo 4.2, Transportation System Performance Measures. Below is the staff performance measure recommendation to be used as a starting place for discussion at the Technical Working Group meeting on January 6, 2016. This memo summarizes the key findings to-date and proposes a refined suite of performance measures to be used to measure the impact on the transportation system during long-range transportation system planning, comprehensive plan and zone changes and development review.

### BACKGROUND

To help promote mobility, travel options and economic development, Clackamas County has been reviewing alternative transportation performance standards to measure the impact of development and zoning or plan changes within the *CRC Connections* project study area, as well as the entire county. An initial set of more than 60 performance measures was assembled and prioritized in Technical Memo 4.1.2. The prioritization found 10 high ranking measures. Additionally, Technical Memo 4.2 identified an implementation recommendation for safety performance measures.

### MEMO AND MEETING SUMMARIES

1. **Tech Memo 4.1.2: Implementation Recommendation:** The Technical Working Group (TWG) and Stakeholder Working Group (SWG) each reviewed Technical Memo 4.1.2 in their last meetings. The key outcomes from their discussions were:
  - a. Both groups support using performance measures for the auto, bike, pedestrian and transit systems.
  - b. The public open house comments support multi-modal performance measures including safety measures.
  - c. Prioritization of performance measures has also been a concern. The Project Management Team (PMT) heard comments for prioritizing bike, pedestrian and transit measures and for prioritizing projects that support the majority of system users.
  - d. Overall, the concept of measures to support multiple modes is accepted by the working groups and the public.
2. **Tech Memo 4.2: Safety Performance Measure:** This memo was submitted by the consultant team in early December and has not been reviewed yet by the TWG or the SWG.

The memo recommends an approach that applies a layered portfolio of critical crash rate, excess

proportion of specific crash types and Highway Safety Manual (HSM) Predictive. The County can do this by establishing a County-specific safety baseline, apply a critical crash rate methodology and identify suitable countermeasures to address impacts. County staff agrees with this approach.

3. **ODOT Coordination:** The County and consultant team met with representatives from the Oregon Department of Transportation (ODOT) to discuss the requirements for the Multimodal Mixed-use Area (MMA). Both the County and ODOT agree that the queuing performance measure is key for I-205 and the related interchanges. A project was added to the list of *Additional Needed Infrastructure* to install “dump loops” on I-205 off-ramps to help the County and ODOT keep queues from forming on I-205 mainline.
4. **County Staff Discussion:** County staff met December 21 to discuss the 10 high ranking performance measures and assess the feasibility of the performance measures recommended in Technical Memo 4.1.2. Staff agreed that multimodal performance measures align with current goals and policies. Slight adjustments are recommended for the measures proposed in Technical Memo 4.1.2 (see below), but the concept of mobility and safety for all modes is critical to meeting the goals established through the County’s recent Transportation System Plan Update. Additionally, staff discussed the appropriateness of the measures specifically within the MMA area related to long-range planning, the Comprehensive Plan and zone changes, and development review.

## RECOMMENDATION

Overall, staff agrees with the consultant’s proposed performance measures, with the following changes.

1. Creating a combined measure for the pedestrian system, including components of Modified Pedestrian LOS, Pedestrian System Completeness and Pedestrian Crossing Index, as well as a review for connection to transit.
2. Creating a combined measure for the bicycle system, including Bicycle Level of Traffic Stress and Bicycle System Completeness.
3. Continuing to use Volume-to-Capacity Ratio and adding Motor Vehicle Queuing, except for in the MMA area during Comprehensive Plan and zone changes.
4. Adding the safety measures recommended in Technical Memo 4.2 with consideration for frequency of crashes in addition to the critical crash rate.
5. Not moving forward with Duration of Congestion and Destination Travel Time because of the complexity and difficulty to integrate these measures. Additionally, the Volume-to-Capacity Ratio and Motor Vehicle Queuing performance measures address vehicle performance.
6. With respect to transit, staff will continue to support transit infrastructure by requiring improvements, as required by the Zoning and Development Ordinance that allow for shelters at bus stops and targeted improvements near transit facilities during development review.

Table 1: County Staff Draft Performance Measures revises Table 4 from Technical Memo 4.1.2: Alternative Performance Measures and indicates the appropriate application of these measures

**Table 1: County Staff Draft Performance Measure Recommendations**

Performance Measure	Desired Outcome	Evaluation Considerations	System Planning	Zone – Comp Plan Change	Dev. Review
<b>Pedestrian Level of Stress / with Crossing Review and Accessibility to Transit</b>	Street frontage improved to LOS B or higher; adjoining system connected. Nearby crossings adequate. Increase accessibility to transit stops	Evaluate for frontage of all developments; evaluate nearest collector or higher for larger trip generators; nearest crossing evaluated. If none within 265 feet, evaluate need for crossing; evaluate connection to nearest frequent service transit stop	Yes	Yes	Yes
<b>Bicycle Level of Traffic Stress w/ Completeness Review</b>	Street frontage improved to LTS 2 or better; adjoining system connected	Evaluate for frontage of all developments; nearest collector or higher may be evaluated for larger trip generators	Yes	Yes	Yes
<b>Volume-to-Capacity Ratio</b>	Provide appropriate vehicular capacity at intersections; V/C measures in Comp Plan	Requires vehicle trip generation; study intersections to be identified in coordination with County staff	Yes	No -in MMA area Yes - outside of MMA area	Yes
<b>Motor Vehicle Queuing</b>	Intersection improvements to provide appropriate queuing conditions	Requires vehicle trip generation; study intersections to be identified in coordination with County staff	No	No- in MMA area, except inter-sections with I-205) Yes – outside of MMA	Yes
<b>Safety</b>	Improved safety	Establish County-specific baseline; apply critical crash rate methodology; identify suitable countermeasures to address impacts	No	Yes	Yes

**NEXT STEPS**

The TWG and SWG will discuss this proposal and the Project Management Team will integrate their comments into this process, and continue to refine and create concrete examples of how these performance measures will function if adopted.