CLACKAMAS COUNTY TRANSPORTATION SYSTEM PLAN Update

Clackamas County TSP
Public Advisory Committee (PAC) Meeting #3B
March 6, 2012/ 6 – 8 pm *Note Shorter Time Period*
Development Services Building, Room 115
150 Beavercreek Road
Agenda

Primary Meeting Purpose(s): Collect final PAC comments on draft evaluation measures.

Desired Outcomes: Understanding of PAC members' questions and suggestions regarding the draft evaluation measures; next steps in the TSP process.

Time	Subject	Purpose	Lead Presenter
6:00 – 6:10	Call to order Meeting purpose and outcomes Project update Agenda review *Reference documents: agenda, storyboard timeline*	Information	Chips Janger Karen Buehrig Kirstin Greene
6:10-6:15	Public comment	Information	Chips/ Kirstin Public
6:15-7:15	Wrapping up discussion of draft evaluation criteria *Reference document: Revised Measures and Evaluation Criteria memo (February 28, 2012)*	Comments for PMT	Marc Butorac PAC Members
7:15-7:30	PAC Process	Information/ Discussion	Karen Marc PAC Members
7:30-7:50	Upcoming schedule and PAC role	Information	Karen
7:50-7:55	Public comment	Information	Chips/ Kirstin Public
7:55-8:00	PAC response and adjourn		PAC Chips

Note: Agenda timing is indicated to help participants stay focused and move through all the topics. Except for start and ending times, timing may be modified at the meeting as needed for discussion.

MEASURES AND EVALUATION CRITERIA

Date: February 28, 2012 Project #: 11732

To: Project Management Team

Cc: Technical Advisory Committee, Public Advisory Committee

From: Susan L. Wright, P.E.; Marc A. Butorac, P.E., P.T.O.E.; Kelly M. Laustsen; and Erin M. Ferguson, P.E.

Project: Clackamas County Transportation System Plan Update

Subject: Revised Measures and Evaluation Criteria

The project team read, reviewed and discussed the comments Public Advisory Committee members provided at and after the February 7, 2012 meeting regarding the draft measures and evaluation criteria. Public Advisory Committee comments fell into three basic categories:

1. Comments or questions that will be addressed and answered in upcoming work within the Transportation System Plan update;
2. Suggestions that are outside the scope of the Transportation System Plan update; and
3. Suggestions and edits the project team incorporated into the measures and evaluation criteria.

The following sections this memorandum present the revised measures and evaluation criteria, discuss the comments and questions to be addressed in upcoming work, and the suggestions outside the scope of the Transportation System Plan.

Comments and Questions to be addressed in Upcoming Work

Public Advisory Committee members brought up a number of topics, ideas, and questions that will be addressed by upcoming activities within the Transportation System Plan update. Examples of such topics, ideas, and questions are below.

- **Risk Analysis** – Risk analysis will be captured in the multiple future analysis scenarios that explore things like the degree to which roadway projects can be funded.
- **Change in Population and Demographics** – Changing population and demographics of the County will be captured in the future analysis scenarios. Two of these scenarios will be discussed at the Public Advisory Committee meeting in late spring/early summer.

- **Inclusion of Equestrians** – Consideration for equestrians will be included within the Transportation System Plan. The project team will be establishing a work group of interested Public Advisory Committee members to identify existing equestrian facilities and identify how connections to those facilities could be improved through potential Transportation System Plan related policies.
- **Suggestions for Funding Sources** – Several comments suggested specific funding sources such as user fees or fuel tax. Upcoming Transportation System Plan update activities will identify specific potential funding sources; it is not appropriate to specify those sources within the measures and evaluation criteria.

Suggestions Outside the Scope of the Transportation System Plan

Public Advisory Committee members suggested a number of innovative ideas for measures and evaluation criteria that are beyond the scope of Transportation System Plan update. These suggestions are beyond the scope of the Transportation System Plan update due to data limitations and/or the analysis required to implement the suggested measures or evaluation criteria is too detailed. Examples of such comments received are below.

- **Include Prevailing Winds in Analysis** – Estimating prevailing winds for roadway corridors within the County is beyond the scope of the Transportation System Plan update. The Transportation System Plan could suggest a policy that encourages roadway improvement project studies to consider prevailing winds and the corresponding impacts on community member's exposure to vehicle emissions.
- **Quantify the Number of Alternative Fuel and Fuel Efficient Vehicles** – Data is not available that quantifies the number of alternative fuel and fuel efficient vehicles within the County. That information is available at a statewide level, but not at a County level.
- **Identify Specific Fuel Efficient and Alternative Fuel Vehicles** – It is outside the scope of the Transportation System Plan to identify specific alternative fuel and fuel efficient vehicle types. The Transportation System Plan can establish a program to identify the preferred alternative fuel and fuel efficient vehicles and then that program can encourage the use of those specific vehicles.

Use of CMFs – CMFs are crash modification factors. These factors are developed from statistical analysis. They are used to consider the potential safety tradeoffs when designing roadway improvements. The analysis for the Transportation System Plan update will not get to this level of

detailed analysis. The Transportation System Plan update will identify locations for safety corridor studies to evaluate potential improvements that integrate engineering, education, enforcement, and emergency services solutions.

Revisions to Draft Measures

The project team revised the content in the tables below to reflect initial comments from the Public Advisory Committee regarding the measures and evaluation criteria for the Clackamas County Transportation System Plan Update. The tables below originally appeared on pages 6 through 12 of *Technical Memorandum 6.1 Measures, Evaluation Criteria and Methodology for Implementation*. The track changes reflect revisions based on Public Advisory Committee comments.

BIKE/PEDEDESTRIAN

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
3.2, 3.5, 5.6	**Access to Schools**	Identify gaps in facilities for walkers and bicycle-riders on local ~~streets~~ roads that provide access to schools.	Provide comfortable, safe multi-modal options for school-age children, and improve the livability of neighborhoods.
1.1.1, 1.4, 2.1, 2.3, 3.1, 3.5, 4.3, 4.6, 5.1, 5.4, 5.6	**Bike and Pedestrian Facilities**	Quantify miles of bicycle and pedestrian facilities, such as sidewalks, bicycle lanes, multi-use paths, and sufficiently wide shoulders. ~~and bike paths.~~	Assess progress towards increasing the miles of facilities for non-motorized travel. Assess the impact of projects, programs and policies on that mileage. The project team will consider setting a target mileage or percentage increase for miles of non-motorized travel.
4.6	**Bike and Pedestrian Network on Low Volume ~~Streets~~Roads**	Identify the percentage of bike and pedestrian facilities on low-volume	Reduce the exposure of bicyclists and pedestrians to

		streets (collectors and local streets) compared to all such facilities in the County.	transportation-related air emissions and increase safety.
1.1.1, 1.4, 2.1, 2.3, 3.1, 3.5, 4.3, 4.6, 5.1, 5.4, 5.6	**Gaps in Non-Motorized Network**	Determine the percent of networks, e.g., bicycle network, with facility gaps.	Determine which projects, programs and policies help fill the gaps.

FUNDING

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
1.5, 6.3	**Budget Allocations**	Near-term ~~F~~financial resources available for transportation-related projects, programs and processes.	Identify stable, diverse, long-term funding for capital projects, transportation operations and maintenance, and the allocation of funds to these major categories.
1.5, 6.3	**Funding**	Longer-term ~~Amount and~~ potential, viable sources of money for future transportation projects.	Develop a list of financially feasible projects with stable, diverse and long-term funding sources
6.4	**Public Right-of-Way**	Identify land needed to be reserved for public use, such as a roads, trails or utilities.	Ensure sufficient land is available in needed locations for future projects. Help avoid or reduce right-of-way costs.
6.1, 1.7	**Transportation Maintenance**	Identify the percent of the transportation network that needs maintenance based on the quality of the facilities.	Help determine the level of maintenance needs as compared to needs for expanded or new facilities.

ENVIRONMENT

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
1.1.4, 4.7	**Alternative Energy Programs**	Identify and determine the current effectiveness~~s~~ of existing programs and activities encouraging the	Identify current activities that are successful and identify improvements to

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
		use of alternative-fuel and fuel-efficient vehicles.	unsuccessful activities.
		Quantify the number of new programs / actions taken to encourage use of alternative-fuel and other fuel-efficient vehicles.	Track the effectiveness of programs/actions designed to encourage use of alternative-fuel and other fuel-efficient vehicles.
4.6	**Construction Emissions / Best Management Practices**	Building or working on transportation facilities can result in releases of substances that are harmful to humans and the environment.	Encourage use of best management practices during construction to reduce emissions that could be harmful to the environment or humans.
1.3	**Green Street Design Elements**	Landscaped areas sized and shaped to collect rainwater and treat it naturally, e.g., bio-swales, bio-retention ponds; an alternative to conventional street drainage systems.	Improve the health of the watershed by supporting the balance between urban development and natural hydrological processes.
1.3	**Sensitive Habitat**	Conservation areas, animal habitat, river corridors and wilderness areas	Minimize negative impact from transportation system
4.6	**Sensitive Uses Near Major Roadways and Freight Routes**	The health of people schools, parks and senior living centers within 1/4 mile of high traffic roadways and freight routes are negatively impacted by transportation-related emissions.	Reduce exposure of children and senior citizens to transportation-related emissions.
1.2, 4.5	**Transportation Emissions (in tons)**	Carbon dioxide, carbon monoxide, volatile organic compounds, nitrogen oxide and other air toxins are produced from transportation-related activities.	~~Be aware of~~Measure the impact of transportation-related emissions on air toxins and work to reduce those emissions.
1.1.4, 4.7	**Vehicle Energy Efficiency**	Assess the number of ~~fuel-efficient and alternative fuel~~	Improve air quality, thereby improving the

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
		~~vehicles~~programs and activities as well as ~~, and~~ the infrastructure available to accommodate those vehicles.	health of the environment and of community residents.

CAPACITY FOR MOTORIZED VEHICLES ~~AND ROADWAYS~~

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
2.2	**Level of Service**	Level of service for motorized vehicles is a letter grade assigned to intersections based on the average amount of delay during the peak commute periods a motorist experiences at that intersection. The letters assigned are A through F with A representing minimal delay and F representing the highest amount of delay.	Determine the impact a project has on the amount of delay a motorist experiences at an intersection during peak periods.
2.2	**Volume-to-Capacity Ratio**	Ratio representing the amount of capacity being used at an intersection during the peak period. A ratio of 0.75 means 75% of the intersection's capacity is being used. A ratio greater than 1.00 means the intersection does not have enough capacity to serve all of the motorists that want to travel through it.	Determine the impact a project has on amount of capacity available to serve motorists.
2.2	**Average Travel Time**	Average length of time it takes to make a certain trip at a certain time of day; indicates general traffic conditions	Determine the impact of projects on travel time.
2.2, 2.6, 6.5	**Travel Time Reliability**	Consistency / dependability in vehicular travel time, e.g., few delays.	Increase travel reliability for all transportation modes.

1.1.3, 1.2, 4.5, 5.3	**Vehicle Miles Traveled (total and per capita)**	Measure vehicle miles traveled in general and on a per capita basis to account for population growth and assess how driving habits are changing.	Reduce vehicles miles traveled per capita.

~~PUBLIC~~ SAFETY OF THE TRAVELING PUBLIC

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
4.1	**Safety Culture**	Activities and programs that support expanding a safety culture through coordination between transportation engineering, law enforcement, medical services, and education.	Increase the prevalence of safety considerations across multiple county departments. Increase the prevalence of safety considerations for county residents in their day to day travel. Encouraging everyone to make safe choices. Reduce the potential of future crashes.
4.2	**Emergency Vehicle Response Time**	How long it takes for a fire truck, ambulance, sheriff's deputy or other emergency vehicle to get to the site of an emergency. Includes considering alternative routes available particularly within rural areas.	Support systems that that decrease response time for emergency vehicles.
3.2	**Safe Routes to School Plans**	Identify the number of schools with Safe Routes to School~~s~~ plans. Provide support to schools in developing and implementing Safe Routes to School plans.	Facilitate projects, education programs and other activities that enable school-age children to safely walk and bicycle to school.
4.2	**Space for Incident Management and Emergency Vehicles**	Adequate space is needed to clear vehicles and allow for emergency vehicle to maneuver for incidents such as crashes and disabled vehicles.	Support systems that increase space needed to quickly and efficiently respond to incidents.
4.1	**Vehicle Crashes**	Evaluate and analyze the	Identify locations that

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
	• **Inventory** • **Severity**	number and location of crashes on County roadways over the last 3-5 years. Quantify crashes based on result fatality, injury or only property damage.	need safety improvements and evaluate the potential impact on crashes of projects, programs and policies.

SOCIAL/COMMUNITY

Applicable Objectives	Measure/ Evaluation Tool	Description	Purpose
3.7	**Design Elements**	Identify and encourage use of design elements in transportation facilities that improve livability, community cohesiveness and civic amenities.	Improve livability, community cohesiveness and civic amenities.
2.1, 3.6, 5.7	**Employment Area Accessibility**	Increase options for people to reach their place of employment.	Increase options for employees to get to work and thereby increasing the attractiveness of job sites to employeres, employees, customers and business partners.
1.4, 3.8	**Land Use and Transportation Integration**	Transportation system performance depends on land use factors (e.g., zoning, distance between destinations, etc.) that cannot be addressed just with transportation planning.	Be aware of land use factors that impact the transportation system, including requiring a larger system and/or a more auto-oriented system.
1.4, 3.8	**Travel Network Connectivity**	The density of frequency of system links within an area, and how direct the links are between various residential and activity centers (shopping, jobs, etc.)	Increase connectivity to reduce travel distances, improve accessibility, provide flexibility to adapt to changing land uses and increase travel options.
3.10, 4.9, 5.4	**Access to Transportation for Transportation Disadvantaged Populations**	Transportation Disadvantaged Populations are populations who have historically had significant unmet transportation needs or who have experienced disproportionate negative impacts from the	To identify areas with a high proportion of transportation disadvantaged, identify their needs, and determine if proposed

		transportation system. Examples of people that historically have high unmet needs include people who cannot drive (due to age or ability), are experiencing poverty (cannot afford the costs of a car and/or transit), and people with limited mobility. The types of negative impacts they typically experience disproportionately to the rest of the population include increased exposure to air and noise pollution, decreased community connectedness from major transportation investments, increased danger of injuries or death from transportation-related incidents, and living far from areas with amenities due to the high cost of housing.	projects or policies will improve their access to transportation.

TRANSIT

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
1.1.2, 2.4, 3.3, 4.4, 5.2	**Infrastructure**	Includes amenities at transit stops such as park n' ride facilities, covered shelters, benches, waiting rooms, public restrooms, sidewalks connecting to the stop, etc.	Support increased amenities to improve the quality of service for transit riders.
1.1.2, 2.4, 3.3, 4.4, 5.2	**Service Coverage**	Identify populations and destinations reasonably accessible with transit service; areas within 1/2 mile of a transit stop.	Determine the extent to which projects, programs and policies impact access to transit or increase transit options.
1.1.2, 2.4, 3.3, 4.4, 5.2	**Service Frequency**	How often a transit vehicle stops at a specific location.	Increase transit service frequency to improve quality of service for transit riders.
1.1.2, 2.4, 3.3, 4.4, 5.2	**Service Schedule**	The number of hours and time of day transit service is provided.	Increase hours or the feasibility of increasing hours to provide additional transit

Applicable Objectives	Measure/Evaluation Tool	Description	Purpose
			opportunities.
1.1.2, 2.4, 3.3, 4.4, 5.2	**Transit Stops with Access to Pedestrian/Bicycle Facilities**	Identify stops with sidewalks, multi-use paths, bicycle lanes or wide shoulders that connect to essential destinations.	Improve public access to essential destinations.

Next Steps

Public Advisory Committee members will meet on March 6, 2012 to finalize discussion of the measures and evaluation criteria. The following Public Advisory Committee generally planned for late spring/early summer will focus on discussing the results from the existing conditions and future base conditions analysis.