

# Mount Hood Multimodal Transportation Plan

## PROJECT LEADERSHIP GROUP

### Meeting #2

## AGENDA

ODOT Region 1 HQ, 123 NW Flanders St., Portland, OR  
July 19th, 2:00 PM to 4:00 PM



**Purpose of the Meeting:** Review Public Input, Review Project Management Team Project Recommendations (No decisions)

- |                    |   |                              |
|--------------------|---|------------------------------|
| <b>2:00-2:15</b>   | <b>Welcome (Informative)</b> <ul style="list-style-type: none"><li>• Introductions</li><li>• Project status (update on accomplishments and where we are)</li><li>• Review Project Schedule and intentions for Phase 1 and Phase 2</li></ul>   | <i>Elizabeth Mros-O'Hara</i> |
| <b>2:15-2:30</b>   | <b>Summary of Public Outreach (Informative)</b> <ul style="list-style-type: none"><li>• Outreach, interviews and surveys, trends and comments</li><li>• Core and secondary values</li></ul>   | <i>KC Cooper</i>             |
| <b>2:30-3:30</b>   | <b>PMT-Recommended Narrowed List of Projects (Discussion)</b> <ul style="list-style-type: none"><li>• Phase 1 versus Phase 2 decision-making</li><li>• Project Evaluation Methodology – Core Values + Implementation</li><li>• PMT Project Recommendations</li></ul>                                | <i>Elizabeth Mros-O'Hara</i> |
| <b>3:30-3:45</b>   | <b>Next Steps (Discussion)</b> <ul style="list-style-type: none"><li>• Public input on project list</li><li>• PMT Meeting: Respond to PLG Comments, Finalize recommendations</li><li>• Next PLG Meeting #3<ul style="list-style-type: none"><li>○ Decide on PMT Recommendations</li></ul></li></ul> | <i>KC Cooper</i>             |
| <b>3:45 – 4:00</b> | <b>Public Comment Period</b>  |                              |

# PHASE 1 PMT PRELIMINARY PROJECT RECOMMENDATIONS



<b>CORE VALUES</b>	<ol style="list-style-type: none"> <li>1. Improve highway safety for all users,</li> <li>2. Expand travel options year round to reduce peak travel demand and enhance mobility and access to recreation and rural communities,</li> <li>3. Projects are financially feasible and sustainable,</li> <li>4. Projects can be implemented in 15 years.</li> </ol>
--------------------	---

PROJECT ID/ PROJECT TYPE	PROJECT	EFFECTIVE TIME FRAME	LEAD AGENCY/ ENTITY	COMMENTS	<b>PRELIMINARY PMT RECOMMENDATION</b>
<b>ITS-1 (Intelligent Transportation Systems)</b>	Traveler Webpage Clearinghouse: links to weather and incidents, carpool sites, transit sites, parking.	SHORT TERM (0-3 years)	- Individual champion(s) - Business partners/members - Community groups/advocates - Agency/jurisdiction partners	TripCheck could cover some of this.	<b>PROJECT GROUP A</b>
<b>ITS-2 (Intelligent Transportation Systems)</b>	Study-Integrated Management Plan (Concept of Operations): through Traveler Information for Speed Limits, Parking, Transit, and TDM website (Real-Time Parking Guidance, Transit Management and Information, Expanded Real-Time Traveler Information – On Mountain and En-Route, Mt. Hood Mobile Traveler Information/Multimodal Travel Options Website. Plans, Upgrade electronic reader board Mt. Hood Meadows access road/OR 35 (MP 64.08)).	SHORT TERM (0-3 years)	- Public-Private Partnership, ODOT, Clackamas County, Hood River County, Forest Service	There are already some plans for Variable Speed Limits, Upgrade of electronic reader board Mt. Hood Meadows access road/OR 35 (MP 64.08)). Variable speed limits are already being implemented along corridor.	
<b>PubT-2 (Public Transit)</b>	Bus: Mountain Express extension of service to the ski areas from Sandy.	SHORT TERM (0-3 years)	- Mountain Express - Clackamas County - Ski Areas - Forest Service	Not to Mt Hood Meadows, which could be served by Columbia Area Transit, or an extension in the future. Potential public-private opportunity to have shuttle on the mountain.	
<b>Park-2 (Parking)</b>	Sno-Park Management/Enforcement - Teacup, Pocket Creek (Forest Service is owner; ODOT does maintenance).	SHORT TERM (0-3 years)	- Forest Service, Oregon State Police, ODOT, County Sheriffs		
<b>Park-3 (Parking)</b>	Education related to parking areas and parking safety.	SHORT TERM (0-3 years)	-TMA, ODOT, Forest Service, Counties, private	Could add information to TripCheck. Coordinate with the information technology projects, let people know parking conditions.	
<b>Org-2 (Organizations, Programs &amp; Legislation )</b>	Explore legislation for Sno-Park permits to allow variation in fees.	SHORT TERM (0-3 years)	Champion to bring change to legislature. Legislators would need to get it approved.	Sno-Park legislation is controversial and was difficult to maintain politically as it is already.	
<b>Safe-17 (Safety &amp; Road Improvements)</b>	OR 35/US 26 Timberline to Nottingham Road Safety Audit Implementation (MP 54.2-70.2). Project elements could include sign for ramp connecting to OR 35 Northbound to help drivers follow correct alignment; striping for sharp curves at MP 64-65; removing dangerous trees; minor widening and paving to reduce elevations at MP 59-64; larger curve signs at Mt Hood Meadows; durable striping where it's not present; and general sign improvements. At the US 26/OR 35 split, a diagrammatic sign with graphic showing that the right side exit is for northbound Hood River and the left side exit is for southbound Madras would be installed. This would alleviate driver confusion for the existing counterintuitive exits.	SHORT TERM (0-3 years)	- ODOT	RSA Audit for Hood River Safe of Corridor showed this would help eliminate crossover accidents.	
<b>PB-8 (Pedestrian &amp; Bicycle)</b>	Bike intersection improvements at OR 35 and Historic Columbia River Highway (HCRH) (E. State St.) in Hood River -- This intersection lacks striping for bicyclists headed east on HCRH to OR 35 north (or across the highway to the HCRH multi-use path). The project would stripe a bike lane through the intersection to improve safety for bicyclists using this intersection.	SHORT TERM (0-3 years)	- ODOT		
<b>PB-9 (Pedestrian &amp; Bicycle)</b>	Bike intersection improvements at OR 35 and OR 282 intersection -- The bike shoulders on southbound OR 35 end through this intersection, so bicyclists have to merge into high-speed traffic at this location. In addition, there are not bike lanes striped on OR 282 as it nears OR 35, so bicyclists have to enter the lane at the intersection. This project would stripe a bike lane on OR 282 and would widen OR 35 to allow for space to build a bike lane through the intersection.	SHORT TERM (0-3 years)	- ODOT		

PROJECT ID/ PROJECT TYPE	PROJECT	EFFECTIVE TIME FRAME	LEAD AGENCY/ ENTITY	COMMENTS	PRELIMINARY PMT RECOMMENDATION
<b>Safe-2 (Safety &amp; Road Improvements)</b>	US 26 Roadway Departure safety improvements -- US 26 between MP 47.2 and 48.9 has been identified as an area lacking rumble strips. This project would improve safety by installing center rumble strips and, if there is room on the shoulder, edge rumble strips as well, to decrease the chance of vehicles leaving the roadway.	SHORT TERM (0-3 years)	- ODOT	Edge rumble strips on shoulder would impact bike operations if there is not a wide enough shoulder remaining after installing the rumble strips. This is true of all projects with rumble strips. Also, there are noise concerns when rumble strips are installed near residences.	PROJECT GROUP A
<b>Safe-3 (Safety &amp; Road Improvements)</b>	US 26 Roadway Departure safety improvements -- US 26 between MP 44.9 and 46.6 has been identified as an area lacking rumble strips. This project would improve safety by installing center rumble strips and, if there is room on the shoulder, edge rumble strips, to decrease the chance of vehicles leaving the roadway. See Comment to Safe-2.	SHORT TERM (0-3 years)	- ODOT	see Safe-2	
<b>Safe-4 (Safety &amp; Road Improvements)</b>	US 26 Roadway Departure safety improvements -- US 26 between MP 36.9 and 42.6-43.2 has been identified as an area lacking rumble strips. This project would improve safety by installing center rumble strips and, if there is room on the shoulder, edge rumble strips, to decrease the chance of vehicles leaving the roadway. See Comment to Safe-2.	SHORT TERM (0-3 years)	- ODOT	see Safe-2	
<b>Safe-5 (Safety &amp; Road Improvements)</b>	OR 35 Roadway Departure safety: Safety improvements have been identified for OR 35 at several segments between MP 60 and 93.75. This project would install rumble strips and curve warning signing from MP 60-63; install rumble strips from MP 65.9-68.2; install rumble strips and signage from MP 73.9-84.1; and install rumble strips and signage from MP 92-93.75.	SHORT TERM (0-3 years)	- ODOT	see Safe-2	
<b>Safe-6 (Safety &amp; Road Improvements)</b>	OR 35 intersection improvement: Two locations on OR 35 have been identified for safety improvements due to a higher than normal crash rate -- MP 95.2 (Davis Dr./OR 282) and MP 97.6 (Dethman Ridge Dr.). At Davis Drive, pavement markings and signing were recently installed. Further safety improvements would require realigning the intersection, which is very costly. Safety improvements at Dethman Ridge Dr. include new lane line marking and advance intersection warning signs.	MID TERM (3-7 years)	- ODOT		
<b>PB-3 (Pedestrian &amp; Bicycle)</b>	Mirror Lake Project: Over-parking, poor sight distance, U-turns, left turns contribute to safety issues. The lot is closed in winter, but people park at Ski Bowl and walk down the shoulder on top of the snow bank to the trail. Access to the trail needs safety improvements. Includes relocating trailhead and adding parking.	MID TERM (3-7 years)	- ODOT or Forest Service	ODOT may remove pedestrian bridge to help prevent people from being able to get to existing trail head in winter when they are walking on the snow bank to the bridge and then using the bridge to get to the trailhead. It is likely that this will just result in people using the snow bank to get all the way to the trailhead, which is even less safe then the unsafe path people are taking now. The trail bridge is on the south side of US 26. The parking lot at Mirror Lake is closed in winter.	
<b>PB-7 (Pedestrian &amp; Bicycle)</b>	Bike/pedestrian info along Mt. Hood Highway with maps to mountain biking, alternate routes to US 26/OR 35, hiking trails, etc. Wayfinding would be a key element.	MID TERM (3-7 years)	- Not ODOT, Clackamas County		
<b>Safe-10 (Safety &amp; Road Improvements)</b>	Government Camp Loop (W.)/US 26 intersection: Government Camp Loop Road West intersects US 26 at a skewed angle. Motorists must look back over their shoulder to safely merge onto US 26. This project would improve safety, operation and access to Government Camp Loop Road West by realigning the intersection with US 26. One possible solution would be to combine a project here with Ski Bowl West access, which is offset to Government Camp Loop Road West.	LONG TERM (7-10 years)	- ODOT		
<b>Safe-11 (Safety &amp; Road Improvements)</b>	Government Camp Loop (E.)/US 26 intersection: This busy intersection's westbound US 26 right-turn lane is not visible for approaching motorists until they are traveling over the hill (vertical crest curve). In addition, the Government Camp Loop Road East intersection is very wide. This creates confusion with the entrance to the rest area, also in the intersection area. This project would improve safety, operations and access to Government Camp Loop Road East from US 26 and reduce the traffic impacts of the existing rest area by extending the westbound US 26 right-turn lane over the vertical crest curve to provide more deceleration distance. In addition, the project should look at more clearly defining the Government Camp East Loop intersection. A more extensive project would realign the intersection further to the west away from the rest area.	LONG TERM (7-10 years)	- ODOT		

PROJECT ID/ PROJECT TYPE	PROJECT	EFFECTIVE TIME FRAME	LEAD AGENCY/ ENTITY	COMMENTS	<b>PRELIMINARY</b> PMT RECOMMENDATION
<b>ITS-3 (Intelligent Transportation Systems)</b>	Chain-up Area Education and Management: Recreation providers and local businesses can provide copies of OSP's Winter Driving Guide, ODOT's Winter Driving Guide and additional signage.	SHORT TERM (0-3 years)	- ODOT, OSP, TMA	Chain-up area education could be paired with parking education - signs and parking.	<b>PROJECT GROUP B</b>
<b>PubT-3 (Public Transit)</b>	Mass Transit: Transfer hub down the mountain; develop a portal staging concept supported by mass transit. Once charter bus service and shuttle service is in place, the Forest Service could work with its partners and other stakeholders, including all relevant transit agencies, to establish true mass transit service from Portland to MHNF (Sandy and/or Hood River as a portal served by mass transit).	SHORT TERM (0-3 years)	- Clackamas County - Hood River County	Could be used by existing services. Could be used by new service. Potential Welches transit hub.	
<b>Safe-15 (Safety &amp; Road Improvements)</b>	US 26: MP 26.0 – 42.0 Roadway Safety Audit study (exact study boundaries to be determined). This project would be similar to the two existing Road Safety Audits done on US 26 and OR 35, though for different highway segments. Safety along the corridor would be analyzed and specific safety improvements identified.	SHORT TERM (0-3 years)	- ODOT	Revisit after Hot Spot Analysis.	
<b>Safe-16 (Safety &amp; Road Improvements)</b>	OR 35: MP 93.0 – 102.0 Roadway Safety Audit Study (exact study boundaries to be determined). This project would be similar to the two existing Road Safety Audits done on US 26 and OR 35, though for different highway segments. Safety along the corridor would be analyzed and specific safety improvements identified.	SHORT TERM (0-3 years)	- ODOT	Revisit after Hot Spot Analysis.	
<b>PB-6 (Pedestrian &amp; Bicycle)</b>	Government Camp - Develop trailhead at Forest Service Compound (Proposed or Expanded Parking).	SHORT TERM (0-3 years)	- Forest Service		
<b>ITS-4 (Intelligent Transportation Systems)</b>	Increased Cell Phone Coverage: Provide service in existing coverage "dead zones."	SHORT TERM (0-3 years)	- Private entity	Can help with emergency services and information technology.	
<b>Safe-1 (Safety &amp; Road Improvements)</b>	OR 35 intersection improvement: signage at Central Vale Dr./Booth Hill Rd. (MP 93.5). This intersection needs updated sign placement. Westbound on Booth Hill Rd. approaching OR 35 - relocate obscured Stop sign and trim trees/shrubs to improve visibility. Eastbound on Central Vale Dr. - install Advance Stop Warning sign.	MID TERM (3-7 years)	- ODOT		
<b>PB-4 (Pedestrian &amp; Bicycle)</b>	Government Camp - Add new pedestrian bridge or crossing over US 26 by Ski Bowl and Mirror Lake.	MID TERM (3-7 years)	- Forest Service and ODOT	Forest Service is actively pursuing.	
<b>Safe-9 (Safety &amp; Road Improvements)</b>	US 26: Timberline Highway (MP 54.3) - The intersection of Timberline Highway and US 26 lacks clear definition. Motorists headed south on Timberline Highway often use the shoulder to make a right turn onto US 26. Because the intersection is not clearly marked and aligned, motorists mistakenly think the wide shoulder on US 26 is an add lane. This creates weaving and merge safety concerns. This project would improve the intersection by clearly defining this intersection, especially slowing the southbound right-turn movement. In addition, the Timberline Highway alignment with US 26 would be rebuilt.	MID TERM (3-7 years)	- ODOT		
<b>PubT-1 (Public Transit)</b>	Bus: Columbia Area Transit extension of service to the ski areas.	MID TERM (3-7 years)	- CAT - Hood River County - Could add potential partners (Mt Hood Meadows)	Would plan future service in response to successes of Mountain Express operation expansions starting in 2013.	
<b>PriT-1 (Private Transit)</b>	Bus Intra-Forest: Improve intra-forest transit service on Mt. Hood w/transit hub on mountain - During winter months, the parking/transit hub would be a focal point for an on-mountain shuttle transit system that serves each ski area.	MID TERM (3-7 years)	- Private entity	Public-private opportunity. Should be looked at as public-private partnership that could include the intramountain shuttle, with some partnership.	

PROJECT ID/ PROJECT TYPE	PROJECT	EFFECTIVE TIME FRAME	LEAD AGENCY/ ENTITY	COMMENTS	<b>PRELIMINARY PMT RECOMMENDATION</b>
<b>Safe-12 (Safety &amp; Road Improvements)</b>	US 26: Ski Bowl West Access (MP 52.5) – This intersection has a skewed angle of less than 40 degrees; there is no westbound US 26 left-turn lane into Ski Bowl at this location; and sight distance is impaired. This project would reconfigure the intersection to provide improved intersection angles and intersection spacing.	LONG TERM (7-10 years)	- ODOT		<b>PROJECT GROUP B</b>
<b>Safe-13 (Safety &amp; Road Improvements)</b>	US 26: Ski Bowl East Access (MP 52.85) – This intersection with US 26 has a very skewed angle and poor deceleration opportunities. The storage length for vehicles turning left off US 26 westbound is low. This project would reconfigure the intersection to provide improved intersection angles and intersection spacing.	LONG TERM (7-10 years)	- ODOT		
<b>Safe-14 (Safety &amp; Road Improvements)</b>	Firwood Road/US 26 intersection - This intersection has been identified in the past for safety improvements for vehicles turning left from Firwood Road onto westbound US 26. The turn movement is on a curve with high speed vehicles traveling in both directions. Earlier this year (2013), ODOT made striping improvements to allow for a two-stage left turn onto US 26 west. In addition, access management changes were made to restrict some turning movements in the intersection area. If more improvements are needed following monitoring and evaluation of the recent round of improvements, they likely would involve re-routing traffic away from this intersection to a different access point to US 26.	LONG TERM (7-10 years)	- ODOT and Clackamas County		
<b>PubT-3b (Public Transit)</b>	Potential new project: Government Camp Intermodal Hub for automobiles and alternative transportation connections.	MID TERM (3-7 years)	- Clackamas County - TMA		<b>PROJECT GROUP C</b>
<b>PriT-2 (Private Transit)</b>	Aerial transportation link (ATL) project between Ski Bowl, Government Camp, and Timberline.	LONG TERM (7-10 years)	-Private entity	- Private entities would welcome government partnership. - TMA could be helpful. - Resolution on land swap and EIS needed.	
<b>PubT-4 (Public Transit)</b>	Expansion and development of park-and-rides: expand use of existing and new park-and-rides (potential new park-n-rides in Welches, Laurel Hill, Parkdale). Ideally, adding information component.	SHORT TERM (0-3 years)	- Counties and transit agencies	Opportunities with existing parking lots and rights-of-way.	<b>FURTHER STUDY</b>
<b>Org-1 (Organizations, Programs &amp; Legislation )</b>	Transportation Management Association: organization to coordinate transit and Transportation Demand Management (TDM) programs.	SHORT TERM (0-3 years)	- Informal Work Group (Mt. Hood Transportation Alliance) - Mountain Express / CAT	Current legislation does not allow any variation in fees. This is a common practice by peers to encourage carpooling and transit use.	
<b>Safe-7 (Safety &amp; Road Improvements)</b>	US 26 Hot Spot Safety Study. This project would examine areas outside the existing Road Safety Audits to determine whether cable barrier or other safety improvements would decrease crashes. Suggested locations for this Hot Spot Safety Study on US 26 include: MP 28-30, 32-35, and 45-47. These locations have a high number of cross-over or severe category crashes.	SHORT TERM (0-3 years)	- ODOT, City of Sandy	ODOT maintenance concerned that there is limited right-of-way to add any safety features at MP 45-47.	
<b>Safe-8 (Safety &amp; Road Improvements)</b>	OR 35 Hot Spot Safety Study. This project would examine areas outside the existing Road Safety Audits to determine whether cable barrier or other safety improvements would decrease crashes. Suggested locations for this Hot Spot Safety Study on OR 35 include: MP 93-94, 95-96, 98-99, 101-102). These locations have a high number of cross-over or other severe category crashes.	SHORT TERM (0-3 years)	- ODOT	Add landmark location to all mile points so non-ODOT folks can tell where the projects are. May need graphic if there is no nearby landmarks.	

PROJECT ID/ PROJECT TYPE	PROJECT	EFFECTIVE TIME FRAME	LEAD AGENCY/ ENTITY	COMMENTS	<b>PRELIMINARY PMT RECOMMENDATION</b>
<b>PB-1 (Pedestrian &amp; Bicycle)</b>	Mt. Hood Highway bike/pedestrian intersection improvements -- depending on where transit stops are located for enhanced transit service on US 26 and OR 35, there may be a lack of pedestrian or bike crossing facilities at those locations. This project would, in coordination with the community and the Oregon Department of Transportation, design safe and convenient pedestrian and bicycle crossings across US 26. The project would encourage the development of enhanced pedestrian traffic control (example could be crosswalks or signals) to facilitate movement across US 26 (Rhododendron has been identified as one likely place for an enhanced crossing).	SHORT TERM (0-3 years)	- Mountain Express, CAT (depends on where the locations are), ODOT	Need to do the transit planning first to determine the stop locations. ODOT maintenance indicated that pedestrian use seems very random and it may be hard to identify any specific origin-destination patterns or get pedestrians to actually use a limited number of marked pedestrian crossings.	<b>FURTHER STUDY</b>
<b>PB-5 (Pedestrian &amp; Bicycle)</b>	Mt. Hood Highway shoulder widening for bicyclist use -- There are many stretches of US 26 and OR 35 where shoulders are very narrow or nonexistent. Bicyclists rely on shoulders for travel through this area. This project would widen shoulders in areas on US 26 and OR 35 where there are no or substandard shoulders. Shoulder widening would be targeted to areas based on need.	SHORT TERM (0-3 years)	- ODOT		
<b>Project Recommendation</b>	<b>Definition of Project Categories</b>				
<b>Project Group A</b>	First priority for implementation in the MHMTP. Strong core values. Ideally, no major impediments to implementation and 0- to 3-year implementation time frame. Could also include a project that is hard to implement, but such a project would be likely to make substantial improvements in safety and/or travel options. Could also include projects that are very easy to implement, but are only moderately effective in meeting core values.				
<b>Project Group B</b>	Second priority for implementation in the MHMTP. Strong or good core values. Likely have longer-term implementation (longer than 3 years and up to 15 years), with important implementation considerations based on the eight criteria, such as high cost and needing other projects to be in place first. If very strong core values, then project is difficult to implement. If moderate core values, then project is easy to implement. Most projects will have more than a 3-year implementation time frame and could be longer.				
<b>Project Group C</b>	Third priority to implementation in the MHMTP. Moderate to low core values. Longest term to implement in the 15-year time frame. Also, could lack a project champion and have other major implementation issues. Projects may have significant merit, but are may be not be key to improving safety and travel options in the corridor within the plan's time frame. (These projects may be better implemented through other planning efforts such as local Transportation System Plans.)				



## MEMORANDUM

**DATE:** July 8, 2013  
**TO:** Project Management Team  
**FROM:** KC Cooper  
**SUBJECT:** Mount Hood Multimodal Transportation Plan Spring Survey Results  
**PROJECT:** Mount Hood Multimodal Transportation Plan

### INTRODUCTION

Project partners posted an online survey on the Mt. Hood Multimodal Transportation Plan website between May 1 and May 31, 2013. The purpose of the survey was to gauge visitor travel habits, familiarity with travel options and information sources, perceptions of safety, and preferences for travel option projects to improve the corridor. Although this was not a scientific survey, it does provide valuable information on the opinions of people who travel the corridor.

Requests were made to the project partners and approximately 20 stakeholder organizations to either: (1) post a link to the survey on their websites or (2) send emails that included a link to the survey to their constituencies. In addition, 300 postcards with survey information were given to 10 organizations (the partners, ski resorts, mountain businesses) for distribution. The survey had 851 respondents, 227 of whom requested to receive project update emails.

The survey was a combination of single choice and multiple choice questions, rating scale (1 to 10 levels of support for statements, with 1 being “no support” and 10 being “complete support”), and open-ended questions. Not all respondents answered every question. In the following tables, the number of respondents for each question is shown in parentheses in the column headers.

### SUMMARY OF FINDINGS

The majority of respondents (77%) reside in the Portland Metropolitan Area (PMA); 10.6% live in the Villages; and 4% live in Hood River or the east side of Mt. Hood. Sixty-seven respondents work for employers on the mountain. Table 1 below indicates their travel demographics.

**Table 1: Respondent Demographics**

Survey Respondent Demographics	All Respondents (833)	PMA (641)	Village Residents (89)	Hood River Area Residents (33)
Visit Mt. Hood Attractions	63%	67%	28%	51.5%
Cross Mt. Hood to other destinations	48%	52%	24.7%	48.5%
Work for an Employer on Mt. Hood	8%	2.65%	43.8%	12%

## RESPONDENTS' TRAVEL HABITS

The majority of respondents use a single occupancy vehicle (SOV) or carpool to access the corridor; the PMA residents are most likely to carpool (63.4%). A very low percentage of respondents use transit to or across Mt. Hood. However, Village residents' use of transit was nearly 6%.

**Table 2: Travel Mode To and/or Across Mt. Hood**

Primary Mode To and/or Across Mt. Hood	All Respondents	PMA	Village Residents	Hood River Area Residents
Travel by SOV	38.7%	32%	69%	54.5%
Carpool (2 or more people)	56.4%	63.4%	23%	42.2%
Transit	1.5%	.78%	5.75%	0%
Bicycle	2.7%	2.8%	2.3%	3%
Freight Trucks	<.5%	.78%	0%	0%

Once they are up on the mountain, to travel between mountain destinations, 89% of respondents use private vehicles, 4.9% use transit, 11.5% use a bicycle, and 29.2% walk. Of the PMA respondents, once they are on the mountain, to travel between mountain destinations, 67% travel by private vehicle, 8.4% travel by bicycle, 22% walk, and 2.8% use transit.

## FAMILIARITY WITH TRANSPORTATION OPTIONS

All respondents were asked about their familiarity with transportation alternatives or programs that serve Mt. Hood. Most respondents were unfamiliar with the alternative transportation services and programs available for access to the mountain, with the exception of familiarity with ODOT Trip check (92%), the Sno-Park program (88%), and SAM (Sandy area transit service) (42%). However, respondents who work on the mountain were much more familiar with transportation alternatives than other respondents, as shown in Table 3.

The lack of familiarity with these services shows that many people might not be using the services because they are unaware of them. Marketing of existing services and any newly developed services is essential for increasing alternative transportation mode share, particularly for people that are not commuting (employees).

**Table 3: Respondents’ Familiarity with Alternative Transportation Services**

Familiarity with Alternative Transportation Services	All Respondents (842)	PMA (634)	Employees – All (67)	Employees – From PMA (17)
Mt. Hood Express	39.2%	30.3%	93.8%	88.24%
ODOT Trip Check	92%	92.3%	92.4%	100%
Central Oregon Breeze	33%	27.9%	64%	60%
Fusion Bus	26.8%	20.2%	85.2%	73.3%
Porch to Powder shuttle	8%	5%	30.2%	16.7%
Sea to Summit shuttle	24.6%	21.42%	66.1%	41.7%
CAT (Hood River service)	10.2%	5.2%	17.6%	0%
SAM (Sandy area service)	42.4%	35%	92.2%	81.3%
Ski area employee shuttles	24.2%	14.8%	73.3%	61.5%
Sno-Park Program	87.6%	86.7%	92%	100%
Drive Less Connect (carpooling)	21.2%	19.5%	39.2%	41.7%
Private Charter Services	28%	26.2%	54.2%	6%

Note: Blue indicates that more than 50% of respondents indicated familiarity with a program/service.

### RESPONDENTS’ OPINIONS ABOUT SAFETY WHILE TRAVELING ON THE MOUNTAIN

Respondents felt that safety was inadequate for pedestrians and bicyclists along the Mt. Hood Corridor. In indicating support on a scale of 1–10 (1 being no support and 10 being complete support), respondents averaged 3.4 when asked if pedestrian safety is adequate along the Mt. Hood Corridor, and 3.2 when asked about bicycle safety. Respondents rated pull-out areas as 5.3 in adequacy, and signing as 6.4. The difference in ratings between all respondents and just those of the largest segment (PMA) was statistically insignificant.

Respondents were highly supportive of intersection improvements at key intersections to improve safety. Respondents averaged a 7.1 rating of support for improvements to the US26 and OR 35 intersection. Other intersections that were most often suggested for improvement were at the following locations:

- The entrance to Government Camp
- The intersection of Timberline Road and US26
- Entrances to all the major ski resorts
- Bicycle and pedestrian improvements, especially clearly marked pedestrian crossings (e.g., across US26).

### RESPONDENTS’ OPINIONS ABOUT USING TRANSIT AND SHUTTLES

All respondents were asked if they would consider using other transportation options to and around Mt. Hood. Table 4 shows the high and low ratings for each option—those ranking 8 and higher, and 3 or lower. The far ends of the scale (10 = would always use the option and 1 = would never use the option) are shown for each alternative. The average isn’t as telling for this type of question, because there will always be markets that are willing (8–10) and never willing (1–3) to use alternative transportation. Therefore, the size and demographics of

the willing group are important to understand who should be targeted for services and marketing of those services.

**Table 4: Likelihood of Using Transit and Other Travel Options**

<b>Transit/Parking Options Ratings for All Respondents</b>	<b>Total Number of Respondents (842)</b>	<b>Percentage Ranking 8 or Higher (rated 10)</b>	<b>Percentage Ranking 3 or Lower (rated 1)</b>	<b>Average Rating of All Respondents</b>
<b>Would carpool if more/better carpool parking available</b>	(782)	20.2% (8.3%)	36.2% (16.1%)	4.88
<b>Would use transit if reliable/ensured seat</b>	(793)	46% (22%)	22.6% (12.5%)	6.41
<b>Would use a circulator bus between villages and Government Camp</b>	(790)	21.1% (9.5%)	46.5% (22.3%)	4.45
<b>Would park and ride from Portland/Hood River and shuttle to designations at Government Camp</b>	(786)	35.2% (15.6%)	29.3% (15.6%)	5.71
<b>Would park and ride from villages and shuttle to Mt. Hood destinations</b>	(781)	24.9% (8.2%)	40% (19.2%)	4.85
<b>Would take a circulator within Government Camp</b>	(777)	23% (9.5%)	41.7% (19.4%)	4.74

We can filter this question further to determine the ratings by respondents based on where they reside, or if they are an employee on Mt. Hood. As shown in Table 5, there was good support for transit from the valleys, with employees most likely of all categories to use transit and other travel options and Hood River residents showing the least proclivity to use travel options overall, except for transit to the mountain.

Portland residents would consider transit and using park and rides from the valley to the mountain, but are less likely to care about improved carpool parking, or park and rides and circulators on Mt. Hood. Not surprisingly, Village residents would be inclined to use circulators on the mountain. A significant portion of Village residents (23%) gave a “1” rating to using transit between the valleys and the mountain.

Employees are a major travel market for transit. Of the 59 respondents who are employees of mountain businesses, when asked if they would use a shuttle that coincided with their work shift, 86% rated this travel alternative 8 and higher.

**Table 5: Likelihood of Using Travel Options by Origin**

<b>Transit/Parking Options by Where Respondents Reside/Work</b>	<b>PMA (641 resp.) (8 or higher) &lt;3 or lower&gt;</b>	<b>Villages (89 resp.) (8 or higher) &lt;3 or lower&gt;</b>	<b>Hood River (33 resp.) (8 or higher) &lt;3 or lower&gt;</b>	<b>Mountain Employee (67 resp.) (8 or higher) &lt;3 or lower&gt;</b>
<b>Would carpool if more/better carpool parking available</b>	(20.5%) <34%>	(28.8%) <39%>	(12.5%) <46.9%>	(28.6%) <30.2%>
<b>Would use transit if reliable/ensured seat</b>	(46.6%) <21.3%>	(49.4%) <27.2%>	(40.6%) <15.6%>	(66.1%) <9.67%>
<b>Would use a circulator bus between villages and Government Camp</b>	(17%) <28%>	(57.1%) <22.6%>	(6.45%) <58%>	(59.4%) <20.3%>
<b>Would park and ride from Portland/Hood River and shuttle to designations at Government Camp</b>	(36.62%) <27.8%>	(24.4%) <44.9%>	(28.8%) <34.4%>	(40%) <26.7%>
<b>Would park and ride from villages and shuttle to Mt. Hood destinations</b>	(20.3%) <43.5%>	(59.5%) <21.4%>	(10%) <40%>	(59.4%) <15.6%>
<b>Would take a circulator within Government Camp</b>	(16.8%) <43.6%>	(51.2%) <26.8%>	(3.2%) <45.2%>	(50%) <21.9%>

In the general comments section, at least 36 of the 231 comments were focused on improving transit to and on the mountain. Comments focused on the affordability of transit options (so as to be competitive with driving) and the frequency of buses. Some of the most common suggestions were:

- Transit from the Portland area to the Mountain, especially in the morning and later in the evening to make day trips worthwhile.
- Bus service from Government Camp up to Timberline.
- Need shuttles that go all the way to Mt. Hood Meadows, SkiBowl, or Timberline, not just to Government Camp.
- Need a frequent shuttle between Government Camp, Ski Bowl, Timberline, and Meadows during ski season. The Fusion Pass shuttle fills up fast, is infrequent, and only runs on weekends for a couple months. The parking lot at Meadows fills fast, and you run the very real risk of accidents shutting down Highway 35 between Meadows and Government Camp.
- Transit options equipped with bicycle and ski/snowboard racks.
- The reality of transit is that it doesn't get to trailheads or off-highway sites. For very popular locations, a bus service that accesses off-highway sites could be useful but needs to be convenient and reliable.
- Employee shuttle from Sandy to the mountain.

Where the transit options connect in Portland is a key issue for respondents. For low car or car-free households, a pickup point within reasonable biking distance could make transit to Mt. Hood more feasible and attractive. One commenter mentioned the Hollywood MAX station as a location for pickup that is fairly central to the inner east side of Portland.

## WALKING AND BIKING

The average of the level of support from all respondents, regardless of where they live, for improving pedestrian facilities along the corridor was high, averaging 7.5 for pedestrian improvements and 7.3 for bike improvements. The average rating for supporting more parking at trailheads was 7.3. A notable 41% of Village residents rated walking improvements a 10, and 37.3% rated bike improvements a 10.

While some cyclists would be happy with well-maintained bike lanes on US26 and Highway 35, there were a significant number of comments that suggested a separate bicycle and pedestrian mixed-use path instead.

Typical comments include the following:

- Bicycle access on US26 and Highway 35 is inadequate and dangerous. Mt. Hood is a desirable recreational destination, and improvements to cycling infrastructure would be heavily used.
- Better bike access and regular maintenance of the bike lanes would rank in my top three priorities.
- No rumble strips as they're unsafe for cyclists.

Pedestrian safety was also of high concern to survey respondents. Crossing US26, crossing at the west end of Government Camp to SkiBowl, and accessing Mirror Lake Trailhead were mentioned multiple times.

## INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND WEBSITE

There is a great familiarity with the ODOT website. Support of phone/computer applications that provided information about weather conditions, parking, traffic, etc. received a high rating of 8.3. All respondents, regardless of where they reside, would like to see more cell phone coverage on the mountain. More information kiosks and more information at existing kiosks were rated 6.28 and 6.34, respectively.

Many comments focused on better signage on the mountain and cellphone applications to improve the travel experience. Comments are summarized below.

## DESIRED SIGNAGE AND STRIPING

- Informational signs alerting people to the various ski areas as they approach the mountain, similar to the large signs south of the I-5 and I-205 junction for northbound travelers entering the Portland area, would be helpful for visitors to the mountain. For example, "If you're driving through on US26, you don't know about Cooper Spur, and if you're coming from OR 35, you don't necessarily know that Timberline or Ski Bowl are ahead."
- More road signs indicating the number of lanes, and uphill/downhill traffic flow for when lane stripes are covered in snow. Many people drive in the middle, blocking the passing lane, leading to unsafe passing by crossing into oncoming traffic.
- More accurate signage that tells you to carry traction tires when the weather is poor.
- There needs to be more focus on putting down reflective striping and maintaining it. When lane lines disappear in poor weather when it's dark, that decreases the safety of the roadway.
- Better marking of the lanes in the winter and signs indicating that vehicles with chains must stay to the right.

## REAL-TIME INFORMATION

- During winter, the chain-up reader board, flip-up signs, and website often do not match and need to be more reliable.
- Some kind of real-time social networking site allowing people to connect about adventure carpooling—when the next group of people are heading to the mountain for skiing, biking, etc.
- A parking application to alert drivers of how much parking is available at certain trailheads.
- Repairing the webcams, because they indicate road conditions, weather conditions, and traffic. One commenter uses weather.com for a forecast, uses ODOT and resort information before leaving home, and uses an app called ROAD CAM that is very helpful.
- Ongoing advertisement of services as well as easy-to-find resources for trip planning.
- Good roadway information coupled with good shuttle and transit information to help riders know of the arrival time of the next bus.

## PREFERENCES FOR TYPES OF PROJECTS

Respondents were asked to select their top three choices for project types. The 793 respondents selected these top six project areas. Table 6 below shows the percentage of support by specific residential areas. Transit to Mt. Hood was the most the top project area for people from the PMA. This was the second most important project area for Village and Hood River area residents, with better cell coverage being first. In addition, Hood River and Portland metropolitan area residents rated roadway safety features very high.

**Table 6: Top Rated Project Types by Respondent Origin**

Top Rated Project Types by Respondent Class	All Respondents (793)	PMA (601)	Village Residents (81)	Hood River Area Residents (33)
Transit to Mt. Hood	42%	42.4%	37%	36.4%
Better cell phone coverage	36%	35.8%	40.7%	48.5%
More roadway safety features	35%	34%	24.7%	36.4%
Improved bike facilities	33%	35%	30.9%	24.2%
More parking options at trailheads	31%	33%	18.5%	24.2%
Intersection improvements	24%	25%	21%	21.2%

## SUMMARY

Many regular travelers to or across Mt. Hood are not familiar with alternative transportation modes. Greater marketing of existing services may help increase that mode share. There is an interest in transit, but frequency and reliability are issues. Mountain Village residents and Mt. Hood business employees are much more apt to take a shuttle or transit around the mountain. (An employee shuttle had an extremely high level of support.)

Roadway improvements also ranked high among most groups, including improvements to intersections along the corridor. Cyclists, in their comments, listed concerns about more rumble strips, which can be a hazard for bikes. Bike improvements were fairly evenly supported by the different residential origins.

DRAFT Mount Hood Multimodal Transportation Plan Spring Survey Results

July 8, 2013

Page 8

Cell phone coverage was a recurring theme in the comments. It would be needed to support any phone/computer applications for those on the mountain. This is an improvement that would need to be led by private industry.

Attachments/Enclosures: n/a

Initials: exm

File Name: P:\O\ODOT00000782\0300COM\Interviews & surveys\Final\_MHMTP\_SurveySummary\_070813\_exm.docx



DAVID EVANS  
AND ASSOCIATES INC.

---

## MEMORANDUM

**DATE:** July 17, 2013  
**TO:** Project Management Team  
**FROM:** Elizabeth Mros-O'Hara, AICP  
**SUBJECT:** Project Evaluation, Categories, and Plan  
**PROJECT:** Mount Hood Multimodal Transportation Plan  
**COPIES:** file

---

This memorandum summarizes the Mount Hood Multimodal Transportation Plan (MHMTP) process for screening projects, the categories of the projects screened in Phase 1, the Phase 2 tasks and screening, and how the MHMTP will be implemented by the Project Partners.

### **Background**

The MHMTP project builds on many years of planning for the Mt. Hood Highway (US 26/OR 35) corridor. The current planning effort is focused on moving from planning to implementation of projects by evaluating the numerous projects identified through earlier planning efforts and input from stakeholders. The goal of the planning process is to develop a prioritized package and agreement for implementation of *achievable projects* that are supported by the project's diverse stakeholders and the Project Partners. Projects moving forward into Phase 2 must meet the project's core values.

The MHMTP core values are based on the project charge that was finalized by the Project Leadership Group (PLG) in March 2012. The PLG is the decision-making body for the MHMTP and is made up of representatives from the Oregon Department of Transportation, U.S. Forest Service, Clackamas County, and Hood River County.

*The project core values as defined by the Project Management Team (PMT) based on the project charge include:*

- 1. Improve highway safety for all users,*
- 2. Expand travel options year round to reduce peak travel demand and enhance mobility and access to recreation and rural communities,*
- 3. Projects are financially feasible and sustainable, and*
- 4. Projects can be implemented in 15 years*

### **Project Evaluation**

Phase 1 major tasks include establishing and confirming baseline conditions, and screening the many solutions identified in past plans and from stakeholders in order to understand where the implementation plan should focus. Potential projects identified were taken from multiple plans and studies including:

- The 2012 Alternative Transit Opportunities and Transportation Demand Management within the Mt. Hood National Forest Pilot Program;
- The 2009 FHWA Transportation Solutions;
- Mt. Hood National Forest (Interagency Transportation Assistance Group) Plan;
- ODOT Roadway Safety Audits;
- The Mt. Hood Scenic Byway Corridor Management Plan, Roadway Improvements (2005);
- The Clackamas County Comprehensive Plan/20-Year Capital Improvement Plan;
- The Hood River County Transportation System Plan; and
- The Government Camp Trails Master Plan (Adopted by Clackamas County, March 2003).

The MHMTP planning work is broken into two phases to efficiently prioritize projects and focus consultant work on projects that are likely to be implemented in the near term. The Phase 1 major tasks are to establish and confirm baseline conditions, and to screen the many solutions identified. Phase 1 defines a list of projects to be forwarded to Phase 2. Some of these projects may need further analysis to understand the components of implementation.

In Phase 2, the consultant team will further explore the projects identified by PLG that need more analysis prior to implementation, and will develop an implementation plan for these projects and other priority projects in consultation with the Project Partners.

#### *Project Evaluation and Phase 1*

As part of the Phase 1 screening process, the projects identified were reviewed for how well they meet the project core values and how easy or difficult they will be to implement. The PMT, which includes representatives from each of the Project Partners, has evaluated projects based their ability to meet the core values. The Technical Working Group (TWG), PMT, and consultants have reviewed projects for their ease of implementation based on eight categories:

- Funding potential,
- Permitting/regulatory compliance,
- Administrative/organizational needs,
- Capital cost,
- Ongoing costs,
- Effective time frame,
- Dependency on other projects, and
- Who would lead/champion.

In addition, each member of the PLG and many stakeholders have been interviewed to understand their values for the projects. Combining each project's ability to meet values and its ease of implementation, the consultant team is recommending projects be moved forward in three priority levels, as described in the table below.

Project Recommendation	Definition
Project Group A	<p>First priority for implementation in the MHMTP.</p> <p>Strong core values. Ideally, no major impediments to implementation and 0- to 3-year implementation time frame. Could also include a project that is hard to implement, but such a project would be likely to make substantial improvements in safety and/or travel options. Could also include projects that are very easy to implement, but are only moderately effective in meeting core values.</p>
Project Group B	<p>Second priority for implementation in the MHMTP.</p> <p>Strong or good core values. Likely have longer-term implementation (longer than 3 years and up to 15 years), with important implementation considerations based on the eight criteria, such as high cost and needing other projects to be in place first. If very strong core values, then project is difficult to implement. If moderate core values, then project is easy to implement. Most projects will have more than a 3-year implementation time frame and could be longer.</p>
Project Group C	<p>Third priority for implementation in the MHMTP.</p> <p>Moderate to low core values. Longest term to implement in the 15-year time frame. Also, could lack a project champion and have other major implementation issues. Projects may have significant merit, but are <b>may be not</b> be key to improving safety and travel options in the corridor within the plan's time frame. (These projects may be better implemented through other planning efforts such as local Transportation System Plans.)</p>

Some projects meet the core values but are not well-defined. Before these projects can be assigned a priority for implementation in MHMTP, they will require further study either in Phase 2 of this study or as part of the ongoing MHMTP. The analysis would clarify implementation issues and their level of impact on safety and/or travel options in the corridor. This type of project is described below. The PLG will decide which of these to analyze in Phase 2 and which of these to recommend for future study outside the scope of this planning effort.

Future Study	<p>High core values, but there is not enough information to understand implementation issues in Phase 1. These projects would need to be analyzed either in Phase 2 of this study or in the future outside of the scope of this planning effort. The projects identified for study in Phase 2 would need to fit within the budget for this planning study.</p>
--------------	--

The consultant team will recommend projects based on these classifications. The PMT will take the consultant team's recommendations into consideration, and make their recommendations on the projects to the PLG. The recommendations will also include removing some projects from consideration as part of the MHMTP. There will be a public comment period before PLG final adoption of the recommendations.

Phase 1 results will be:

1. A draft list of projects, prioritized for the plan.
2. A recommendation regarding which plan elements to:
  - a) analyze during Phase 2 of this study
  - b) analyze beyond Phase 2 for potential inclusion in the MHMTP
  - c) include in the implementation plan.

### *Project Evaluation and Phase 2*

Phase 2 will focus on developing the three components of the Mt. Hood Multimodal Plan: the implementation plan, a list of recommended prioritized projects, and recommendations for future study. The attached MHMTP Project Flowchart shows the plan components and what comprises each of the components.

The consultant team will create an implementation plan that includes identification of the project lead agency, funding, programmatic and operations strategies, and follow-up work as necessary to develop consensus among Project Partners and commitment on implementation of the preferred solutions package. The implementation plan may also include identification of and assistance with any regulatory amendments required to implement solutions; an action plan for implementation of options requiring ongoing coordination by Project Partners and periodic evaluation; and a recommendation for elements to include in a Memorandum of Understanding (MOU) or an Intergovernmental Agreement (IGA) between Project Partners that clarifies roles and commitments.

### **The Rolling Plan**

The MHMTP is intended to be a living plan that will have the flexibility to change project priorities over time as circumstances change. The plan is a 15-year plan that can be extended as necessary. It will include short-term and long-term solutions to be implemented in different time frames.

***This will be a "rolling plan"*** whereby projects that are ripe for implementation will be listed as short-term and will be implemented first. However, because funding, regulatory, and other circumstances change over time, other projects in the MHMTP will be re-evaluated periodically to see whether they have become ready for implementation. (For example, a project may not be ripe for implementation until it has been through a traffic study, or through environmental permitting, or until there are identified sources of funding. If these circumstances change, a longer-term project may move up the list to become a short-term, High Priority Project.) At these times, new projects could also be added to the plan.

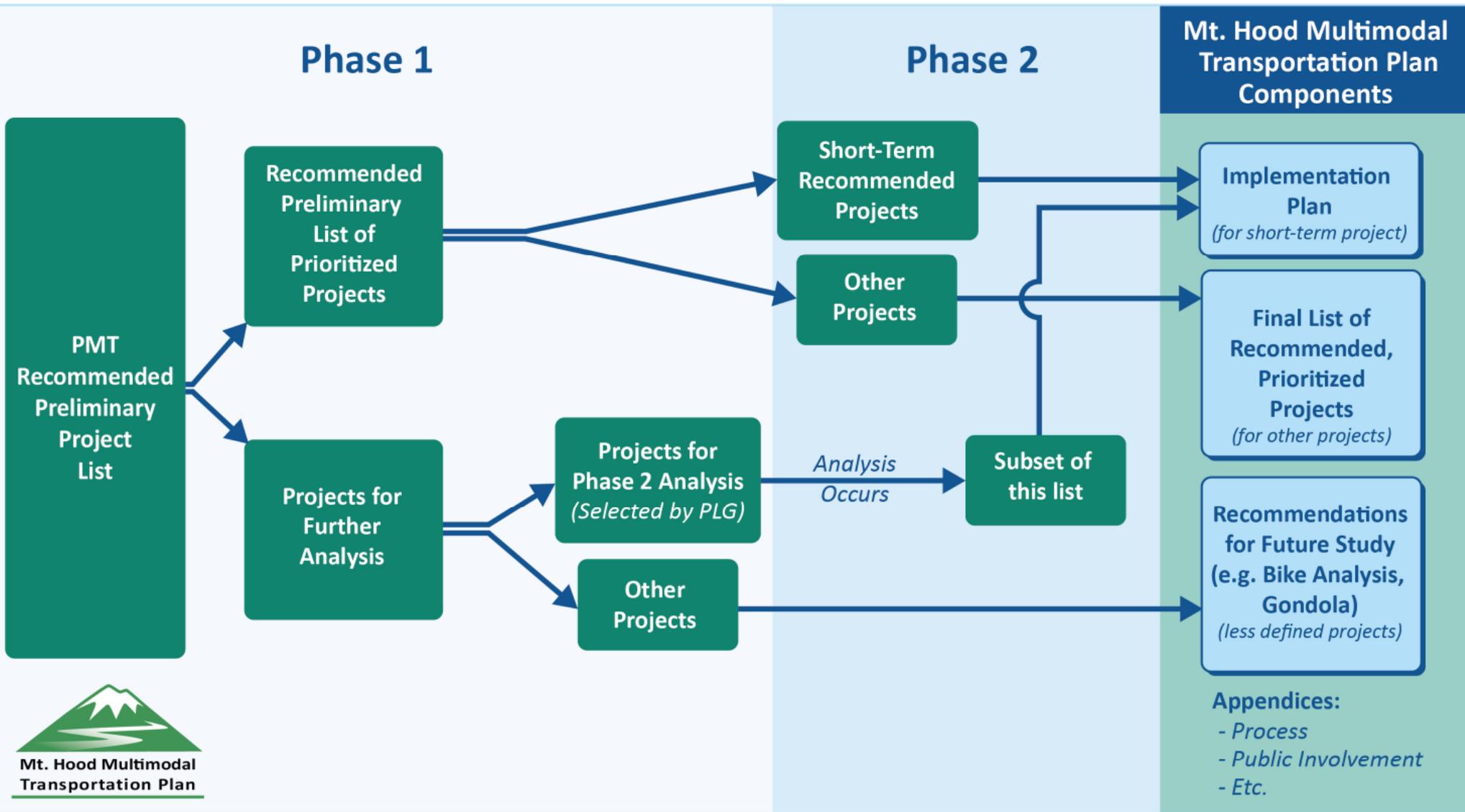
For the plan to be successful, the Project Partners will need to remain engaged for the life of the plan. The Project Partners should meet annually to discuss progress on implementation and any immediate concerns and

opportunities to accomplish more. Every three years, a more comprehensive update to the MHMTP should be undertaken to understand the current conditions, add new projects, and reprioritize projects based on changes in circumstances that affect funding, political conditions, other major considerations, and adherence to the core values and goals of the MHMTP.

Attachments/Enclosures: MHMTP Plan Project Flowchart.

Initials: exm

File Name: FinalProjectEvaluationMemo\_062813.docx





DAVID EVANS  
AND ASSOCIATES INC.

---

## MEMORANDUM

**DATE:** July 17, 2013  
**TO:** Project Management Team  
**FROM:** Elizabeth Mros-O'Hara, AICP  
**SUBJECT:** Implementation Framework Memorandum  
**PROJECT:** Mount Hood Multimodal Transportation Plan  
**COPIES:** file

---

The memorandum summarizes the process and criteria used to assess a range of projects that would fulfill the MHMTP values. The projects were assessed based on their consistency with the project core values and by their ease of implementation as described below. The attached implementation matrix presents the narrowed project list and evaluation by each implementation criterion.

The MHMTP values are based on the project charge that was finalized by the Project Leadership Group (PLG) in March 2012. The PLG is the decision-making body for the MHMTP and is made up of representatives from the Oregon Department of Transportation, U.S. Forest Service, Clackamas County, and Hood River County.

The project core values as defined by the PMT, based on the project charge, are:

- 1. Improve highway safety for all users,*
- 2. Expand travel options year round to reduce peak travel demand and enhance mobility and access to recreation and rural communities,*
- 3. Projects are financially feasible and sustainable, and*
- 4. Projects can be implemented in 15 years.*

The implementation framework matrix (attached) identifies the implementation criteria and needs as well as includes an assessment of the degree of difficulty to meet the criteria for each project. This information provides a basis of comparison for implementation needs for the projects. Additionally, this memorandum reviews the process that was used for developing the project list, the implementation requirements and the process for assessing the projects, and next steps for project and plan advancement.

## **Project Screening Process**

As part of the Phase 1 screening process, the projects identified are being reviewed for how well they meet the project core values and how easy or difficult they will be to implement. The PMT, which includes representatives from each of the Project Partners, has evaluated projects based their ability to meet the core values. The Technical Working Group (TWG), PMT, and consultants have reviewed projects for their ease of implementation based on eight categories:

- Funding potential,
- Permitting/regulatory compliance,
- Administrative/organizational needs,
- Capital cost,
- Ongoing costs,
- Effective time frame,
- Dependency on other projects, and
- Who would lead/champion.

In addition, each member of the PLG and many stakeholders have been interviewed to understand their values for the projects.

## **Projects**

Because the MHMTP project builds on many years of planning for the Mt. Hood Highway (US 26/OR 35) corridor, an initial list of projects was taken from past plans. Projects assessed in the matrix were gathered as part of the Existing Baseline Conditions task and taken from multiple plans and studies in which the projects had been vetted through the public process, including: the 2012 Alternative Transit Opportunities and Transportation Demand Management within the Mt. Hood National Forest Pilot Program, the 2009 FHWA Transportation Solutions Mt. Hood National Forest (Interagency Transportation Assistance Group) plan, ODOT Roadway Safety Audits, the Mt. Hood Scenic Byway Corridor Management Plan Roadway Improvements (2005), the Clackamas County Comprehensive Plan/Mount Hood Community Plan/20-Year Capital Improvement Plan, the Hood River County Transportation System Plan, and the Government Camp Trails Master Plan (Adopted by Clackamas County, March 2003). Additional projects were included based on input from the PMT and stakeholders.

To begin with, all projects identified in the plans that are located within the Mt. Hood Highway Corridor were included in the project list. The list was initially extensive, including almost 80 projects. The PMT reviewed and narrowed the project list to a smaller list that meets the MHMTP project's core values. The PMT then provided a feasible list of projects to be vetted in the Technical Working Group (TWG). This project list was then used for the implementation matrix. The projects were then reviewed to understand how easy or difficult they would be to implement based on eight criteria described below.

## Implementation Criteria

The implementation matrix attached identifies criteria for successful implementation of travel options and highway safety improvements. The matrix was developed with input from stakeholders, the TWG, and the PMT. For each project, the matrix provides an assessment of the parameters necessary for its successful implementation, based on the criteria. The implementation matrix includes the major conditions that must be in place for successful implementation of travel options, based on the characteristics of each option.

The criteria are:

**Funding Potential.** This criterion identifies any potential funding sources (e.g., grants, ODOT Planning funds, tourism).

**Permitting/Regulatory Compliance.** This criterion identifies potential environmental documentation necessary, such as NEPA documentation or legal and legislative approvals.

**Administrative/Organizational.** This criterion identifies what organizational structure and coordination would be necessary (e.g., non-profit, multi-agency) or if project organizational support is necessary.

**Capital Cost.** This criterion provides or gauges the capital costs necessary for the project.

**Ongoing Costs (Operating Costs, Marketing, etc).** This criterion identifies day-to-day costs, such as office space, marketing, and maintenance.

**Effective Time Frame.** This criterion provides the estimated time frame in which a project could be implemented.

**Dependent on Other Projects.** This criterion identifies whether the project can be implemented as a stand-alone project or if it requires coordination with other projects.

**Who.** This criterion identifies who is ultimately responsible for implementation.

The matrix demonstrates the complexity of implementing each project and provides a basis for comparison. Each criterion for each project was assigned an overall rating for the complexity of implementation based on the following symbols:

### Summary Matrix

Key to Implementation Criteria

- No Additional Effort Required
- ⊖ Low Level of Effort Required
- ⊙ Medium Level of Effort Required
- High Level of Effort Required

### **Next Steps**

There will be an opportunity for the public to comment on project recommendations for Phase 2 analysis prior to PLG adoption. In Phase 2, the consultant team will take the priority projects identified in Phase 1 and more fully assess the requirements needed to bring each priority project to fruition, including alternative scenarios. Projects not identified as a priority for analysis in Phase 1 may still be recommend for future study in the MHTMP.

Phase 1 results will be:

1. A draft list of projects, prioritized for the plan.
2. A recommendation regarding which plan elements to:
  - a) analyze during Phase 2 of this study
  - b) analyze beyond Phase 2 for potential inclusion in the MHMTMP
  - c) include in the implementation plan.

Phase 2 will focus on developing the three components of the Mt. Hood Multimodal Plan: the implementation plan, a list of recommended prioritized projects, and recommendations for future study.

Attachments/Enclosures: Implementation Matrix

Initials: exm

File Name: P:\O\ODOT00000782\0600INFO\0670Reports\Implementation\_Memo\IFM\_Memo\Draft\_ImplementationFramework\_Memo\_071113.docx

**Mount Hood Multimodal Transportation Plan**

**Project Implementation Matrix**

July 2013

Mode/ Topic	Project ID	Project Description	Implementation Requirements							Who?
			Funding Potential	Permitting/ Regulatory Compliance	Administrative/ Organizational	Capital Cost	Ongoing (Operating Costs, Marketing, etc.)	Effective Time frame	Dependent Upon Other Projects	
Highway Transportation System Management and Intelligent Transportation Systems (ITS)	ITS-1	Traveler Webpage Clearinghouse: links to weather and incidents, carpool sites, transit sites, parking.	<ul style="list-style-type: none"> <li>- CMAC funds</li> <li>- Grants</li> <li>- Membership dues/fees</li> <li>- Fundraising</li> <li>- Individual contributions</li> <li>● - County Tourism development grants</li> </ul>	<ul style="list-style-type: none"> <li>○ - Legal paperwork</li> </ul>	<ul style="list-style-type: none"> <li>- Non-profit structure (e.g. 501c(6), 501c(3))</li> <li>⊖ - Establish bylaws, officers, board of directors</li> <li>- Define mission</li> <li>- Requires champions</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Office supplies (e.g., computers, desks)</li> </ul>	<ul style="list-style-type: none"> <li>- Day-to-day staff duties</li> <li>● - Office space</li> <li>- Marketing materials</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - TMA should be active and implementing programs within 1-2 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - Dependent on a TMA if it is really comprehensive</li> </ul>	<ul style="list-style-type: none"> <li>- Individual champion(s)</li> <li>- Business partners/members</li> <li>- Community groups/advocates</li> <li>- Agency/jurisdiction partners</li> </ul>
	ITS-2	Study-Integrated Management Plan (Concept of Operations): through Traveler Information for Speed Limits, Parking, Transit, and TDM website (Real-Time Parking Guidance, Transit Management and Information, Expanded Real-Time Traveler Information – On Mountain and En-Route, Mt. Hood Mobile Traveler Information/Multimodal Travel Options Website. Plans, Upgrade electronic reader board Mt. Hood Meadows access road/OR 35 (MP 64.08)).	<ul style="list-style-type: none"> <li>⊖ - Public-Private Partnership, ODOT Planning funds</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Discover through plan</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - High; TMA could use help with.</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - This is a plan only; moderate \$100,000 to \$200,000</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - 1-3 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- Public-Private Partnership, ODOT Planning funds, ALL</li> </ul>
	ITS-3	Chain-up Area Education and Management: Recreation providers and local businesses can provide copies of OSP's Winter Driving Guide, ODOT's Winter Driving Guide and additional signage.	<ul style="list-style-type: none"> <li>⊖ - OSP and ODOT, No identified funding</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>● - Medium; work with OSP and ODOT</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Low</li> </ul>	<ul style="list-style-type: none"> <li>○ - day to day, ongoing marketing</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - 1-3 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- ODOT, OSP, TMA</li> </ul>
	ITS-4	Increased Cell Phone Coverage: Provide service in existing coverage "dead zones."	<ul style="list-style-type: none"> <li>● - Private carriers</li> </ul>	<ul style="list-style-type: none"> <li>● - Cell tower can be difficult - Forest Service can permit</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>○ - Private</li> </ul>	<ul style="list-style-type: none"> <li>○ - Private</li> </ul>	<ul style="list-style-type: none"> <li>○ - 0-3 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- Private entity</li> </ul>
Public Transit	PubT-1	Bus: Columbia Area Transit extension of service to the ski areas from Sandy.	<ul style="list-style-type: none"> <li>- Limited operations and capital budget</li> <li>● - Trends towards use of less federal money</li> <li>- Grants? FLAP Program</li> </ul>	<ul style="list-style-type: none"> <li>○ - No environmental or jurisdictional approvals needed</li> </ul>	<ul style="list-style-type: none"> <li>○ - Would operate within current organization</li> </ul>	<ul style="list-style-type: none"> <li>● - New buses and equipment, ski specialized equipment</li> </ul>	<ul style="list-style-type: none"> <li>● - Significant increase in operating costs</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Could be implemented w/in 1 year of funding</li> </ul>	<ul style="list-style-type: none"> <li>● - Would need new buses</li> </ul>	<ul style="list-style-type: none"> <li>- Columbia Area Transit</li> <li>- Hood River County</li> <li>- Could add potential partners, Mt Hood Meadows</li> </ul>
	PubT-2	Bus: Mountain Express extension of service to the ski areas from Sandy.	<ul style="list-style-type: none"> <li>- Funded contingent upon award of Sarbanes Grant</li> <li>○ - Timberline/Ski Bowl providing \$40K for operations (annual )</li> </ul>	<ul style="list-style-type: none"> <li>○ - No environmental or jurisdictional approvals needed (assumes no new stop amenities in right-of-way)</li> </ul>	<ul style="list-style-type: none"> <li>○ - Would operate within current organization</li> </ul>	<ul style="list-style-type: none"> <li>○ - New buses and equipment supplied via grant funding</li> <li>- Put in grant for operations</li> </ul>	<ul style="list-style-type: none"> <li>● - Significant increase in operating costs</li> <li>- Put in grant for operations</li> </ul>	<ul style="list-style-type: none"> <li>- Could be implemented w/in 1 year of funding</li> <li>⊖ - Long-term funding needed to maintain service to mountain</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- Mountain Express</li> <li>- Clackamas County</li> <li>- Ski Areas</li> <li>- National Forest Service</li> </ul>
	PubT-3b	Potential new project: Government Camp Hub.	<ul style="list-style-type: none"> <li>- FLAP</li> <li>- Enhance It</li> <li>● - Operations grants</li> <li>- Clackamas County Tourism</li> <li>- Connect Oregon</li> </ul>	<ul style="list-style-type: none"> <li>● - Allowed use or CatX could be more complicated if on National Forest</li> </ul>	<ul style="list-style-type: none"> <li>● - Clackamas County or TMA??</li> </ul>	<ul style="list-style-type: none"> <li>- Depends on site and how much extra would be required. Clackamas County Tourism Pilot project could pay for information kiosks. \$2 million - \$10 million</li> </ul>	<ul style="list-style-type: none"> <li>● - Maintenance of facility (shelter, restrooms would add and need to find funds). Ads?- Snow Removal is expensive</li> </ul>	<ul style="list-style-type: none"> <li>● - w/in 5-10 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- Clackamas County</li> <li>- TMA</li> </ul>

**Mount Hood Multimodal Transportation Plan  
Project Implementation Matrix  
July 2013**

Mode/ Topic	Project ID	Project Description	Implementation Requirements							
			Funding Potential	Permitting/ Regulatory Compliance	Administrative/ Organizational	Capital Cost	Ongoing (Operating Costs, Marketing, etc.)	Effective Time frame	Dependent Upon Other Projects	Who?
Public Transit	PubT-3	Mass Transit: Transfer hub down the mountain; develop a portal staging concept supported by mass transit. Once charter bus service and shuttle service is in place, the Forest Service could work with its partners and other stakeholders, including all relevant transit agencies, to establish true mass transit service from Portland to MHNH (Sandy and/or Hood River as a portal served by mass transit).	<ul style="list-style-type: none"> <li>- FLAP</li> <li>- Enhance It</li> <li>- Operations grants</li> <li>- Clackamas County Tourism</li> </ul>	<ul style="list-style-type: none"> <li>- Allowed use or CatX</li> </ul>	<ul style="list-style-type: none"> <li>- Clackamas County or TMA</li> </ul>	<ul style="list-style-type: none"> <li>- Depends on site and how much extra would be required: If use Welches site, low cost. Clackamas County Tourism Pilot project could pay for information kiosks.</li> </ul>	<ul style="list-style-type: none"> <li>- Maintenance of facility (shelter, restrooms would add and need to find funds). Ads?</li> </ul>	<ul style="list-style-type: none"> <li>- Existing site w/in 1 year; if new would take longer</li> </ul>	<ul style="list-style-type: none"> <li>- No</li> </ul>	<ul style="list-style-type: none"> <li>- Clackamas County</li> <li>- Hood River County Tourism</li> </ul>
	PubT-4	Expansion and development of park-and-rides: expand use of existing and new park-and-rides (potential new park-n-rides in Welches, Laurel Hill, Parkdale). Ideally, adding information component.	<ul style="list-style-type: none"> <li>- FLAP</li> <li>- Enhance it</li> <li>- Statewide Transportation Operations Funds</li> <li>- Hood River County Funds</li> <li>- Clackamas County Funds</li> </ul>	<ul style="list-style-type: none"> <li>- Allowed use or CatX, depends if in National Forest more difficult</li> </ul>	<ul style="list-style-type: none"> <li>- Counties</li> <li>- Transit agencies</li> <li>- Some of the property is owned by ODOT; some is privately held. Would require additional right-of-way.</li> </ul>	<ul style="list-style-type: none"> <li>- Very low to \$2 million</li> </ul>	<ul style="list-style-type: none"> <li>- Nature of lot; low unless above the snow line</li> </ul>	<ul style="list-style-type: none"> <li>- 0-7 years</li> </ul>	<ul style="list-style-type: none"> <li>- No</li> </ul>	<ul style="list-style-type: none"> <li>- Counties and Transit Agencies</li> </ul>
Private Transit	PriT-1	Bus Intra-Forest: Improve intra-forest transit service on Mt. Hood w/transit hub on mountain - During winter months, the parking/transit hub would be a focal point for an on-mountain shuttle transit system that serves each ski area.	<ul style="list-style-type: none"> <li>- Connect Oregon for Capital?</li> <li>- Private</li> </ul>	<ul style="list-style-type: none"> <li>- PUC</li> <li>- Private land use permit</li> </ul>	<ul style="list-style-type: none"> <li>- Low effort</li> </ul>	<ul style="list-style-type: none"> <li>- Fleet, equipment, parking improvements could be high</li> </ul>	<ul style="list-style-type: none"> <li>- Could be high</li> </ul>	<ul style="list-style-type: none"> <li>- 0-5 years; hub built first, then buses ideally</li> </ul>	<ul style="list-style-type: none"> <li>- Doesn't require precedent project. Ideally hub first, shuttle second.</li> </ul>	<ul style="list-style-type: none"> <li>- Private entity</li> </ul>
	PriT-2	Aerial transportation link (ATL) project between Ski Bowl, Government Camp, and Timberline.	<ul style="list-style-type: none"> <li>- Private funding, public grant options</li> <li>- Federal Grants</li> <li>- FLAP grants require title or maintenance responsibility be vested with State, Co, tribe or local government to qualify for funds.</li> </ul>	<ul style="list-style-type: none"> <li>- NEPA EIS</li> <li>- ODOT access</li> <li>- Special use permit FHWA to cross the Highway</li> </ul>	<ul style="list-style-type: none"> <li>- Private multi-entity</li> </ul>	<ul style="list-style-type: none"> <li>- \$25 million - \$40 million</li> </ul>	<ul style="list-style-type: none"> <li>- Operating and maintenance, also marketing</li> </ul>	<ul style="list-style-type: none"> <li>- 7-10 years</li> </ul>	<ul style="list-style-type: none"> <li>- Land swap. Government Camp/US 26 intersection improvements. EIS needed.</li> </ul>	<ul style="list-style-type: none"> <li>- Private entity</li> </ul>
Parking	Park-2	Sno-Park Management/Enforcement - Teacup, Pocket Creek (Forest Service is owner; ODOT does maintenance)	<ul style="list-style-type: none"> <li>- Tickets, citations</li> <li>- Grants</li> </ul>	<ul style="list-style-type: none"> <li>- No issues</li> <li>- Could increase fines. Issues if changing who is able to issue citations</li> </ul>	<ul style="list-style-type: none"> <li>- Hard if requires changes to who issues citations</li> </ul>	<ul style="list-style-type: none"> <li>- No direct capital cost identified</li> </ul>	<ul style="list-style-type: none"> <li>- High, but could generate money</li> </ul>	<ul style="list-style-type: none"> <li>- 0-3 years</li> </ul>	<ul style="list-style-type: none"> <li>- Identification of funds</li> </ul>	<ul style="list-style-type: none"> <li>- Forest Service, Oregon State Police, ODOT, County Sheriffs</li> </ul>
	Park-3	Education related to parking areas and parking safety.	<ul style="list-style-type: none"> <li>- Grants</li> <li>- Private funding</li> </ul>	<ul style="list-style-type: none"> <li>- No issues</li> </ul>	<ul style="list-style-type: none"> <li>- Easy</li> </ul>	<ul style="list-style-type: none"> <li>- Low. Materials?</li> </ul>	<ul style="list-style-type: none"> <li>- Higher if technology or classes</li> </ul>	<ul style="list-style-type: none"> <li>- 0-3 years</li> </ul>	<ul style="list-style-type: none"> <li>- None</li> </ul>	<ul style="list-style-type: none"> <li>- TMA, ODOT, Forest Service, Counties, Private</li> </ul>
Organizations, Programs & Legislation	Org-1	Transportation Management Association: organization to coordinate transit and Transportation Demand Management (TDM) programs.	<ul style="list-style-type: none"> <li>- TMA 501(c)6 or 501(c)3</li> <li>- Private grants, member dues, parking fees</li> </ul>	<ul style="list-style-type: none"> <li>- Paperwork to be filed</li> </ul>	<ul style="list-style-type: none"> <li>- Hard unless high level of importance and willingness</li> </ul>	<ul style="list-style-type: none"> <li>- Low</li> </ul>	<ul style="list-style-type: none"> <li>- Staff/office for one full-time position</li> </ul>	<ul style="list-style-type: none"> <li>- 0-3 years</li> </ul>	<ul style="list-style-type: none"> <li>- No</li> </ul>	<ul style="list-style-type: none"> <li>- Informal Work Group (Mt. Hood Transportation Alliance)</li> <li>- Mountain Express / Columbia Area Transit</li> </ul>
	Org-2	Explore legislation for Sno-Park permits to allow variation in fees.	<ul style="list-style-type: none"> <li>- Little to no cost, staff costs</li> </ul>	<ul style="list-style-type: none"> <li>- Need to get legislators to rewrite Sno-Park Legislation</li> </ul>	<ul style="list-style-type: none"> <li>- Need political will</li> </ul>	<ul style="list-style-type: none"> <li>- No capital costs for rewriting legislation.</li> </ul>	<ul style="list-style-type: none"> <li>- No operating costs for rewriting legislation.</li> </ul>	<ul style="list-style-type: none"> <li>- 0-2 years</li> </ul>	<ul style="list-style-type: none"> <li>- No</li> </ul>	<ul style="list-style-type: none"> <li>- Champion to bring change to legislature. Legislators would need to get it approved</li> </ul>

**Mount Hood Multimodal Transportation Plan**  
**Project Implementation Matrix**  
 July 2013

Mode/ Topic	Project ID	Project Description	Implementation Requirements							
			Funding Potential	Permitting/ Regulatory Compliance	Administrative/ Organizational	Capital Cost	Ongoing (Operating Costs, Marketing, etc.)	Effective Time frame	Dependent Upon Other Projects	Who?
Pedestrian & Bicycle	PB-1	Mt. Hood Highway bike/pedestrian intersection improvements -- depending on where transit stops are located for enhanced transit service on US 26 and OR 35, there may be a lack of pedestrian or bike crossing facilities at those locations. This project would, in coordination with the community and the Oregon Department of Transportation, design safe and convenient pedestrian and bicycle crossings across US 26. The project would encourage the development of enhanced pedestrian traffic control (example could be crosswalks, signals, etc. ) to facilitate movement across US 26 (Rhododendron has been identified as one likely place for an enhanced crossing).	<ul style="list-style-type: none"> <li>- Enhance it funds</li> <li>- Safety Funds</li> <li>- Fix it</li> <li>- Could include Clackamas County and Hood River transit funds/grants</li> <li>- Could also include private/public partnerships</li> </ul>	<ul style="list-style-type: none"> <li>● - Depends on location; in general, medium difficulty</li> </ul>	<ul style="list-style-type: none"> <li>- MOU with partners.</li> <li>● - Rhododendron agree to sidewalks</li> </ul>	<ul style="list-style-type: none"> <li>- Depends on location</li> <li>● - Pedestrian Traffic Control: \$150,000 to \$300,000</li> </ul>	<ul style="list-style-type: none"> <li>○ - Minimal; Routine maintenance</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - 1-10 years</li> </ul>	<ul style="list-style-type: none"> <li>- Bike improvements not dependent</li> <li>○ - Sidewalks along US 26 in Rhododendron: \$1-\$3 million</li> </ul>	<ul style="list-style-type: none"> <li>- Mountain Express, Columbia Area Transit (depends on where the locations are), ODOT</li> </ul>
	PB-3	Mirror Lake Project: Over-parking, poor sight distance, U-turns, left turns contribute to safety issues. The lot is closed in winter, but people park at Ski Bowl and walk down the shoulder on top of the snow bank to the trail. Access to the trail needs safety improvements. Includes relocating trailhead and adding parking.	<ul style="list-style-type: none"> <li>- ODOT</li> <li>● - Clackamas County Tourism</li> <li>- Forest Service is pursuing a grant for this project</li> </ul>	<ul style="list-style-type: none"> <li>● - NEPA clearance may be high</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - ODOT, Ski Bowl, FS</li> </ul>	<ul style="list-style-type: none"> <li>● - High</li> </ul>	<ul style="list-style-type: none"> <li>● - Medium</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - 2-10 years</li> </ul>	<ul style="list-style-type: none"> <li>● Trail head relocation</li> </ul>	<ul style="list-style-type: none"> <li>- ODOT or Forest Service</li> </ul>
	PB-4	Government Camp - Add new pedestrian bridge or crossing over US 26 by Ski Bowl and Mirror Lake.	<ul style="list-style-type: none"> <li>● - Forest Service Grant to get bridge built for peds/bikes</li> </ul>	<ul style="list-style-type: none"> <li>● - NEPA CatX. Could need environmental permitting biological assessment.</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Forest Service or ODOT. - MOU</li> </ul>	<ul style="list-style-type: none"> <li>● - \$3 million to \$5 million</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Maintenance by ODOT and/or Forest Service</li> </ul>	<ul style="list-style-type: none"> <li>● - 5 to 10 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- Forest Service and ODOT</li> </ul>
	PB-5	Mt Hood Highway shoulder widening for bicyclist use -- There are many stretches of US 26 and OR 35 where shoulders are very narrow or nonexistent. Bicyclists rely on shoulders for travel through this area. This project would widen shoulders in areas on US 26 and OR 35 where there are no or substandard shoulders. Shoulder widening would be targeted to areas based on need.	<ul style="list-style-type: none"> <li>⊖ - Enhance It</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - NEPA CatX. Could need Environmental permitting biological assessment on the mountain.</li> </ul>	<ul style="list-style-type: none"> <li>○ - ODOT</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Depends could do it in increments</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Maintenance by ODOT</li> </ul>	<ul style="list-style-type: none"> <li>● - 5 to 10 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- ODOT</li> </ul>
	PB-6	Government Camp - Develop trailhead at Forest Service Compound (Proposed or Expanded Parking).	<ul style="list-style-type: none"> <li>● - Forest Service Grant</li> <li>- FLAP</li> </ul>	<ul style="list-style-type: none"> <li>● - ODOT would need to do development review. Could be high level of permitting required</li> </ul>	<ul style="list-style-type: none"> <li>● - MOU for maintenance, plowing; medium level</li> </ul>	<ul style="list-style-type: none"> <li>○ - \$20,000</li> </ul>	<ul style="list-style-type: none"> <li>○ - Maintenance, plowing; low level</li> </ul>	<ul style="list-style-type: none"> <li>○ - 1-3 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- Forest Service</li> </ul>
	PB-7	Bike/ped info along Mt Hood Highway with maps to mountain biking, alternate routes to US 26/OR 35, hiking trails etc. Wayfinding would be a key element.	<ul style="list-style-type: none"> <li>⊖ - Clackamas County Hood River? Forest Service?</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - Sign permit. Easy. Needs to be outside of clear zone 30 feet from highway</li> </ul>	<ul style="list-style-type: none"> <li>○ - No new organization</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - 2-5 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	<ul style="list-style-type: none"> <li>- Not ODOT, Clackamas County</li> </ul>

**Mount Hood Multimodal Transportation Plan  
Project Implementation Matrix  
July 2013**

Mode/ Topic	Project ID	Project Description	Implementation Requirements							Who?
			Funding Potential	Permitting/ Regulatory Compliance	Administrative/ Organizational	Capital Cost	Ongoing (Operating Costs, Marketing, etc.)	Effective Time frame	Dependent Upon Other Projects	
Pedestrian & Bicycle	PB-8	Bike intersection improvements at OR 35 and Historic Columbia River Highway (E. State St.) in Hood River -- This intersection lacks striping for bicyclists headed east on HCRH to OR 35 north (or across the highway to the HCRH multi-use path). The project would stripe a bike lane through the intersection to improve safety for bicyclists using this intersection.	⊖ - Enhance or ODOT Maintenance	○ - None	○ - None	○ - \$5,000	○ - Maintenance; minimal	○ - 1-3 years	○ - No	- ODOT
	PB-9	Bike intersection improvements at OR-35 & OR 282 intersection -- The bike shoulders on southbound OR 35 end through this intersection so bicyclists have to merge into high-speed traffic at this location. In addition, there are not bike lanes striped on OR 282 as it nears OR 35 so bicyclists have to enter the lane at the intersection. This project would stripe a bike lane on OR 282 and would widen OR 35 to allow for space to build a bike lane through the intersection.	⊕ - Enhance or ODOT Maintenance	⊖ - NEPA (CatEx). Could be medium level of effort	○ - None	⊕ - \$200,000	○ - Maintenance; minimal	○ - 1-3 years	○ - No	- ODOT
Safety & Road Improvements	Safe-1	OR 35 intersection improvement: signage at Central Vale Dr./Booth Hill Rd. (MP 93.5). This intersection needs updated sign placement. Westbound on Booth Hill Rd approaching OR 35 - relocate obscured Stop sign and trim trees/shrubs to improve visibility. Eastbound on Central Vale Dr. - install Advance Stop Warning sign.	⊖ - Fix It	○ - None	⊖ - ODOT, Hood River County	○ - Low	○ - Low	⊖ - 3-7 years	○ - N/A	- ODOT
	Safe-2	US 26 Roadway Departure safety improvements -- US 26 between MP 47.2 and 48.9 has been identified as an area lacking rumble strips. This project would improve safety by installing center rumble strips and, if there is room on the shoulder, edge rumble strips as well, to decrease the chance of vehicles leaving the roadway.	⊖ - Fix It	○ - None	○ - ODOT	○ - Low	○ - Low	○ - 1-5 years	○ - N/A	- ODOT
	Safe-3	US 26 Roadway Departure safety improvements -- US 26 between MP 44.9 and 46.6 has been identified as an area lacking rumble strips. This project would improve safety by installing center rumble strips and, if there is room on the shoulder, edge rumble strips, to decrease the chance of vehicles leaving the roadway. See Comment to Safe-2.	⊖ - Fix It	○ - None	○ - ODOT	○ - Low	○ - Low	○ - 1-5 years	○ - N/A	- ODOT
	Safe-4	US 26 Roadway Departure safety improvements -- US 26 between MP 36.9 and 42.6-43.2 has been identified as an area lacking rumble strips. This project would improve safety by installing center rumble strips and, if there is room on the shoulder, edge rumble strips, to decrease the chance of vehicles leaving the roadway. See Comment to Safe-2.	⊖ - Fix It	○ - None	○ - ODOT	○ - Low	○ - Low	○ - 1-5 years	○ - N/A	- ODOT

**Mount Hood Multimodal Transportation Plan**  
**Project Implementation Matrix**  
 July 2013

Mode/ Topic	Project ID	Project Description	Implementation Requirements							
			Funding Potential	Permitting/ Regulatory Compliance	Administrative/ Organizational	Capital Cost	Ongoing (Operating Costs, Marketing, etc.)	Effective Time frame	Dependent Upon Other Projects	Who?
Safety & Road Improvements (Cont.)	Safe-5	OR 35 Roadway Departure safety: Safety improvements have been identified for OR 35 at several segments between MP 60 and 93.75. This project would install rumble strips and curve warning signing from MP 60-63; install rumble strips from MP 65.9-68.2; install rumble strips and signage from MP 73.9-84.1; and install rumble strips and signage from MP 92-93.75.	⊖ - Fix It	○ - None	○ - ODOT	○ - Low	○ - Low	○ - 1-5 years	○ - N/A	- ODOT
	Safe-6	OR 35 intersection improvement: Two locations on OR 35 have been identified for safety improvements due to a higher than normal crash rate -- MP 95.2 (Davis Dr/Hwy 282) and MP 97.6 (Dethman Ridge Dr.). At Davis Drive, pavement markings and signing were recently installed. Further safety improvements would require realigning the intersection, which is very costly. Safety improvements at Dethman Rd include new lane line marking and advance intersection warning signs.	⊖ - Fix It	○ - None	⊖ - ODOT, Hood River County	○ - Low	○ - Low	⊖ - 3-7 years	○ - N/A	- ODOT
	Safe-7	US 26 Hot Spot Safety Study. This project would examine areas outside the existing Road Safety Audits to determine whether cable barrier or other safety improvements would decrease crashes. Suggested locations for this Hot Spot Safety Study on US 26 include: MP 28-30, 32-35, and 45-47). These locations have high number of cross-over or severe category crashes.	- ODOT ○ - Quick fix safety funds - Maintenance funds	○ - None	⊖ - Forest Service, local jurisdictions	○ - \$40,000	○ - N/A	○ - 1-3 years	○ - N/A	- ODOT, City of Sandy
	Safe-8	OR 35 Hot Spot Safety Study. This project would examine areas outside the existing Road Safety Audits to determine whether cable barrier or other safety improvements would decrease crashes. Suggested locations for this Hot Spot Safety Study on OR 35 include: MP 93-94; 95-96; 98-99; 101-102). These locations have a high number of cross-over or other severe category crashes.	- ODOT ○ - Quick fix safety funds - Maintenance funds	○ - None	⊖ - Forest Service, local jurisdictions	○ - \$40,000	○ - N/A	○ - 1-3 years	○ - N/A	- ODOT
	Safe-9	US 26: Timberline Highway (MP 54.3) - The intersection of Timberline Highway and US 26 lacks clear definition. Motorists headed south on Timberline Highway often use the shoulder to make a right turn onto US 26. Because the intersection is not clearly marked and aligned, motorists mistakenly think the wide shoulder on US 26 is an add lane. This creates weaving and merge safety concerns. This project would improve the intersection by clearly defining this intersection, especially slowing the southbound right-turn movement. In addition, the Timberline Highway alignment with US 26 would be rebuilt.	- STIP ● - Fix it - Enhance It - Western Federal Lands	● - NEPA clearance may be high if Timberline Highway is not part of existing EIS.	● - ODOT and Forest Service, Clackamas County, Timberline Lodge. If existing EIS covers Timberline Highway than MOUs are needed.	● - High; \$2 million - 5 million	○ - Low	⊕ - 7-20 years	○ - Government Camp - East	- ODOT

**Mount Hood Multimodal Transportation Plan  
Project Implementation Matrix  
July 2013**

Mode/ Topic	Project ID	Project Description	Implementation Requirements							
			Funding Potential	Permitting/ Regulatory Compliance	Administrative/ Organizational	Capital Cost	Ongoing (Operating Costs, Marketing, etc.)	Effective Time frame	Dependent Upon Other Projects	Who?
Safety & Road Improvements (Cont.)	Safe-10	Government Camp Loop (W.)/US 26 intersection: Government Camp Loop Road West intersects US 26 at a skewed angle. Motorists must look back over their shoulder to safely merge onto US 26. This project would Improve safety, operation and access to Government Camp Loop Road West by realigning the intersection with US 26. One possible solution would be to combine a project here with Ski Bowl West access, which is offset to Govt Camp Loop Road West.	<ul style="list-style-type: none"> <li>- STIP</li> <li>● - Fix It</li> <li>- Enhance It</li> <li>- Western Federal Lands</li> </ul>	<ul style="list-style-type: none"> <li>● - NEPA clearance high; not part of existing EIS</li> </ul>	<ul style="list-style-type: none"> <li>○ - ODOT and Forest Service. If existing EIS covers Timberline Highway, than MOUs are needed.</li> </ul>	<ul style="list-style-type: none"> <li>● - High; \$2 million - 4 million</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>◎ - 7-20 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - Ski Bowl East</li> </ul>	- ODOT
	Safe-11	Govt. Camp Loop (E.)/US 26 intersection. This busy intersection's westbound US 26 right-turn lane is not visible for approaching motorists until they are traveling over the hill (vertical crest curve). In addition, the Govt. Camp Loop Road East intersection is very wide. This creates confusion with the entrance to the rest area also in the intersection area. This project would improve safety, operations and access to Government Camp Loop Road East from US 26 and reduce the traffic impacts of the existing rest area by extending the westbound US 26 right-turn lane over the vertical crest curve to provide more deceleration distance. In addition, the project should look at more clearly defining the Govt Camp East Loop intersection. A more extensive project would realign the intersection further to the west away from the rest area.	<ul style="list-style-type: none"> <li>- STIP</li> <li>● - Fix it</li> <li>- Enhance It</li> <li>- Western Federal Lands</li> </ul>	<ul style="list-style-type: none"> <li>● - NEPA clearance high; not part of existing EIS</li> </ul>	<ul style="list-style-type: none"> <li>○ - ODOT and Forest Service. If existing EIS covers Timberline Highway, than MOUs are needed.</li> </ul>	<ul style="list-style-type: none"> <li>- \$3 million - 7 million</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>◎ - 7-20 years</li> </ul>	<ul style="list-style-type: none"> <li>Ski Bowl East, Government Camp West</li> </ul>	- ODOT
	Safe-12	US 26: Ski Bowl West Access (MP 52.5) – This intersection has a skewed angle of less than 40 degrees, there is no westbound US 26 left-turn lane into Ski Bowl at this location and sight distance is impaired. This project would reconfigure the intersection to provide improved intersection angles and intersection spacing.	<ul style="list-style-type: none"> <li>- STIP</li> <li>● - Fix It</li> <li>- Enhance It</li> <li>- Western Federal Lands</li> </ul>	<ul style="list-style-type: none"> <li>● - NEPA clearance high; not part of existing EIS</li> </ul>	<ul style="list-style-type: none"> <li>- ODOT and Forest Service. If existing EIS covers Timberline Highway, than MOUs are needed.</li> </ul>	<ul style="list-style-type: none"> <li>● - High \$2 million - 4 million</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>◎ - 7-20 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	- ODOT
	Safe-13	US 26: Ski Bowl East Access (MP 52.85) – This intersection with US 26 has a very skewed angle and poor deceleration opportunities. The storage length for vehicles turning left off US 26 westbound is low. This project would reconfigure the intersection to provide improved intersection angles and intersection spacing.	<ul style="list-style-type: none"> <li>- STIP</li> <li>● - Fix It</li> <li>- Enhance It</li> <li>- Western Federal Lands</li> </ul>	<ul style="list-style-type: none"> <li>● - NEPA clearance high not part of existing EIS</li> </ul>	<ul style="list-style-type: none"> <li>- ODOT and Forest Service. If existing EIS covers Timberline Highway, than MOUs are needed.</li> </ul>	<ul style="list-style-type: none"> <li>● - High \$2 million - 4 million</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>◎ - 7-20 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	- ODOT

**Mount Hood Multimodal Transportation Plan**

**Project Implementation Matrix**

July 2013

Mode/ Topic	Project ID	Project Description	Implementation Requirements							
			Funding Potential	Permitting/ Regulatory Compliance	Administrative/ Organizational	Capital Cost	Ongoing (Operating Costs, Marketing, etc.)	Effective Time frame	Dependent Upon Other Projects	Who?
Safety & Road Improvements (Cont.)	Safe-14	Firwood Road/US 26 intersection - This intersection has been identified in the past for safety improvements for vehicles turning left from Firwood Road onto westbound US 26. The turn movement is on a curve with high speed vehicles traveling in both directions. Earlier this year (2013), ODOT made striping improvements to allow for a two-stage left turn onto US 26 west. In addition, access management changes were made to restrict some turning movements in the intersection area. If more improvements are needed following monitoring and evaluation of the recent round of improvements, they likely would involve re-routing traffic away from this intersection to a different access point to US 26.	<ul style="list-style-type: none"> <li>- STIP</li> <li>⊖ - Fix It</li> <li>- Enhance It</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - CatX; not in Mount Hood National Forest</li> </ul>	<ul style="list-style-type: none"> <li>⊙ Coordinate with Clackamas County, City of Sandy</li> </ul>	<ul style="list-style-type: none"> <li>● - \$1 million -3 Million</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>⊙ - 7-20 years</li> </ul>	<ul style="list-style-type: none"> <li>⊙ Possibly Gateway Plan or Dubako Intersection Improvements</li> </ul>	- ODOT and Clackamas County
	Safe-15	US 26: MP 26.0 – 42.0 Roadway Safety Audit study (exact study boundaries to be determined). This project would be similar to the two existing Road Safety Audits done on US 26 and OR 35, though for different highway segments. Safety along the corridor would be analyzed and specific safety improvements identified.	<ul style="list-style-type: none"> <li>⊖ - ODOT Maintenance, Planning</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - \$70,000</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>○ - 1-3 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	- ODOT
	Safe-16	OR 35: MP 93.0 – 102.0 Roadway Safety Audit Study (exact study boundaries to be determined). This project would be similar to the two existing RSAs done on US 26 and OR 35, though for different highway segments. Safety along the corridor would be analyzed with specific safety improvements identified.	<ul style="list-style-type: none"> <li>⊖ - ODOT Maintenance, Planning</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>⊖ - \$70,000</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>○ - 1-3 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	- ODOT
	Safe-17	OR 35/US 26 Timberline to Nottingham Road Safety Audit Implementation (MP 54.2-70.2). Project elements could include sign for ramp connecting to OR 35 Northbound to help drivers follow correct alignment; striping for sharp curves at MP 64-65; removing dangerous trees; minor widening and paving to reduce elevations at MP 59-64; larger curve signs at Mt Hood Meadows; durable striping where it's not present; and general sign improvements. At the US 26/OR 35 split, a diagrammatic sign with a graphic showing that the right side exit is for northbound Hood River and the left side exit is for southbound Madras would be installed. This would alleviate driver confusion for the existing counterintuitive exits.	<ul style="list-style-type: none"> <li>⊖ - Fix It</li> </ul>	<ul style="list-style-type: none"> <li>○ - None</li> </ul>	<ul style="list-style-type: none"> <li>○ - ODOT</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>○ - Low</li> </ul>	<ul style="list-style-type: none"> <li>○ - 1-5 years</li> </ul>	<ul style="list-style-type: none"> <li>○ - No</li> </ul>	- ODOT

**KEY FOR PROJECT IMPLEMENTATION MATRIX**

**Summary Matrix**

- 'Implementation Requirements' Key
- No Additional Effort Required
  - ⊖ Low Level of Effort Required
  - ⊙ Medium Level of Effort Required
  - High Level of Effort Required

## MEETINGS, OUTCOMES, AND MILESTONES\* 7/13/13

	Meeting and Approx Date	Purpose and Outcomes of Meeting	Major Deliverables
Task 3 Establish and Confirm Baseline Conditions	<p><b>PMT #2</b> Review and confirm baseline conditions, identify specific range of alternatives (options) <b>March 19<sup>th</sup>, 2013</b></p>	<ul style="list-style-type: none"> <li>• Clear Understanding of Decision Making</li> <li>• Baseline Conditions Confirmed (What was changed based on comments- Safety)</li> <li>• List of Projects Determined (or at least narrowed)</li> <li>• Values from Interviews Shared               <ul style="list-style-type: none"> <li>○ Primary and Secondary</li> </ul> </li> </ul>	<p><b>March</b></p> <ul style="list-style-type: none"> <li>• Powerpoint on Decision making and Values</li> <li>• Draft Baseline Conditions Memo</li> </ul>
	<p><b>PMT #3</b> Review, develop, refine matrix rankings of values/priorities and measures and prepare for PLG Meeting #2 <b>April 18<sup>th</sup>, 2013</b></p>	<ul style="list-style-type: none"> <li>• Review of Results of PMT Survey</li> <li>• Trim the list of Projects approved to carry forward and review by TWG/PLG (take projects off the list)</li> </ul>	<p><b>April</b></p> <ul style="list-style-type: none"> <li>• Values Matrix</li> <li>• Final Baseline Conditions Memo</li> </ul>
Task 4 Screen Alternatives for Phase Two Analysis	<p><b>TWG #2</b> Combined Groups – review of Implementation Framework Memorandum/Recommended list of projects. Discussion of technical aspects and needs for PMT and PLG meetings. <b>May 23<sup>rd</sup>, 2013 (Part 1)</b> <b>June 5<sup>th</sup>, 2013 (Part 2)</b></p>	<ul style="list-style-type: none"> <li>• Implementation Framework Matrix Reviewed for narrowed projects</li> <li>• Confirm attributes of projects</li> <li>• Technical aspects of projects discussed</li> <li>• Values from Interviews Shared               <ul style="list-style-type: none"> <li>○ Primary and Secondary</li> </ul> </li> </ul>	<p><b>May/June</b></p> <ul style="list-style-type: none"> <li>• Begin Draft Implementation Framework Memo</li> </ul>
	<p><b>PMT #4</b> Review Implementation Framework Memo, and needs for PLG, Prepare for PLG#2 <b>June 13<sup>th</sup>, 2013 (Part 1)</b> <b>June 20<sup>th</sup>, 2013 (Part 2)</b></p>	<ul style="list-style-type: none"> <li>• Review results of Implementation Framework Memo.               <ul style="list-style-type: none"> <li>○ Implementation issues, Project Timing (0-5, 6-10, and 10-15 years).</li> <li>○ Ranks narrowed projects confirms attributes of projects.</li> </ul> </li> <li>• Review public survey results.</li> <li>• Develop recommendation for PLG.</li> </ul>	
	<p><b>PLG #2</b> Project update, review of Baseline Conditions, discuss and rank values and measures related to options <b>July 19<sup>th</sup>, 2013</b></p>	<ul style="list-style-type: none"> <li>• Clear Understanding of Decision Making Process.</li> <li>• Present PMT recommendation Information, but no decisions here.</li> <li>• Background materials on projects.</li> <li>• Review the PMT Recommendation for a Narrowed List of projects.               <ul style="list-style-type: none"> <li>○ Based on project goals, input from public, and IFM Matrix Constraints.</li> </ul> </li> <li>• Review Values from Interviews and Public Survey.               <ul style="list-style-type: none"> <li>○ Primary and Secondary Values.</li> </ul> </li> </ul>	<p><b>July/August/September</b></p> <ul style="list-style-type: none"> <li>• Draft Implementation Framework Memo <b>7/12</b></li> <li>• Final Implementation Framework Memo <b>7/17</b></li> <li>• Draft and Final Prioritization of Options Memo <b>FOLLOWS PLG#4</b></li> <li>• Phase 2 Scoping <b>9/15</b></li> </ul>
	<p><b>PMT #5</b> Discuss outcomes from PLG Meeting #2 and needs for PLG #3 <b>TBD</b></p>	<ul style="list-style-type: none"> <li>• Consultant given direction to help finalize decisions.</li> <li>• Finalize prior list of projects for Analysis in Phase 2 and finalize list of those that won't move forward.</li> </ul>	
	<p><b>PLG # 3</b> review Implementation Framework Memo/Matrix combined with priorities/values. Screen out options for Phase Two analysis. <b>3 HOURS</b> <b>TBD</b></p>	<ul style="list-style-type: none"> <li>• Purpose of meeting: Act on PMT recommendation.</li> <li>• Review results of Implementation Framework Memo and PMT recommendation.</li> <li>• Group to review projects for Phase 2.</li> </ul>	
	<p>IF NEEDED <b>PLG # 4</b> prioritize remaining options to determine which options to focus on in Phase Two. <b>TBD</b></p>	<p><b>IF NEEDED</b> <b>Approve Projects for Phase 2</b></p>	

\*Note: Ongoing communication with Agency will occur throughout the project. Additional meetings may be required and are accounted for as contingent tasks. Meeting dates are estimated, and are subject to change.